

Data File : VL036146.D
Acq On : 11 Dec 2020 2:47
Operator : SY/AP
Sample : L4948-12
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SS-1B

Quant Time: Dec 11 04:38:38 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL120720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1240754	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.16	114	2466778	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.07	117	2231264	10.00	ppbv	-0.04

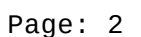
System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.40 95 1999458 11.29 ppbv -0.04
Spiked Amount 10.000 Range 65 - 135 Recovery = 112.90%

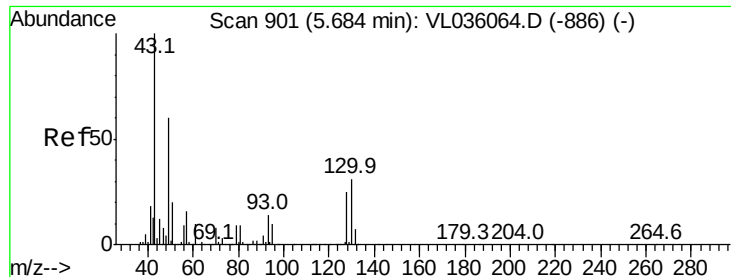
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	37365	0.258	ppbv	97
3) Chlorodifluoromethane	2.97	51	30605	0.216	ppbv	95
4) Chloromethane	3.12	50	6069	0.087	ppbv	99
9) Propene	3.00	41	35262	0.497	ppbv	92
10) Heptane	8.09	43	7001	0.039	ppbv #	29
11) Trichlorofluoromethane	3.93	101	24256	0.143	ppbv	96
13) Ethanol	3.59	45	1741939	178.184	ppbv	87
15) Acetone	3.83	43	1149847	7.711	ppbv	99
16) 1,3-Butadiene	3.34	39	13162	0.175	ppbv #	11
17) tert-Butyl alcohol	4.29	59	6274	0.043	ppbv #	71
19) Isopropyl Alcohol	3.96	45	63024	0.691	ppbv #	100
20) Methylene Chloride	4.33	84	40361	0.660	ppbv	90
23) Vinyl Acetate	5.05	43	28298	0.143	ppbv #	74
25) Ethyl Acetate	5.67	43	65791	0.221	ppbv #	91
26) Hexane	5.67	57	41415	0.309	ppbv #	50
29) Chloroform	5.73	83	84221	0.478	ppbv	98
32) 1,1,1-Trichloroethane	6.50	97	6031	0.033	ppbv #	1
34) 2-Butanone	5.23	43	435431	2.661	ppbv	97
35) Carbon Tetrachloride	7.00	117	5591	0.039	ppbv #	66
36) Benzene	6.87	78	2177890	10.418	ppbv	96
38) Trichloroethene	7.81	130	4499	0.058	ppbv #	50
39) 1,2-Dichloropropane	7.16	63	788403	9.550	ppbv #	24
41) Tetrahydrofuran	6.04	42	6600	0.068	ppbv #	40
43) Methyl Methacrylate	7.99	69	6726	0.075	ppbv #	1
52) Tetrachloroethene	11.20	164	47167	0.623	ppbv	91
53) Toluene	9.79	91	142011	0.605	ppbv	95
57) Chlorobenzene	12.13	112	6205	0.040	ppbv #	70
60) o-Xylene	13.68	91	19946	0.082	ppbv #	33
62) Isopropylbenzene	14.65	105	808368	2.247	ppbv #	55
74) 1,2,4-Trimethylbenzene	16.74	105	23290	0.092	ppbv #	59

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

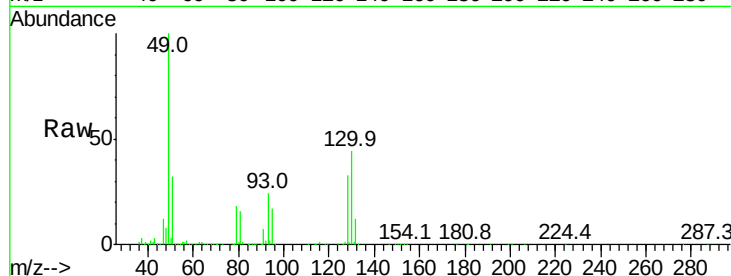
Tgt Ion: 49 Resp: 1240754

Ion Ratio Lower Upper

49 100

128 35.4 21.1 63.1

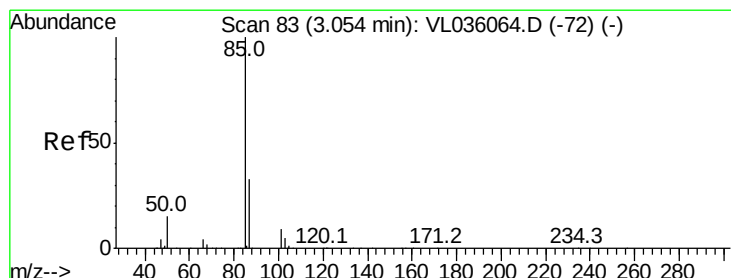
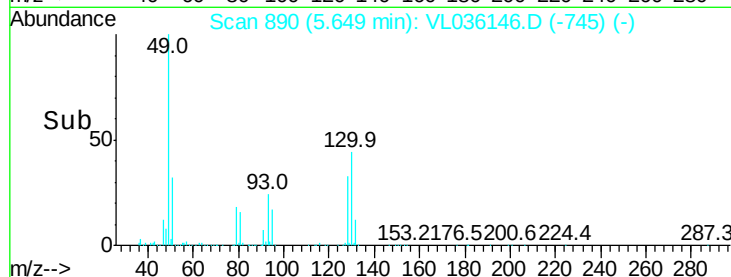
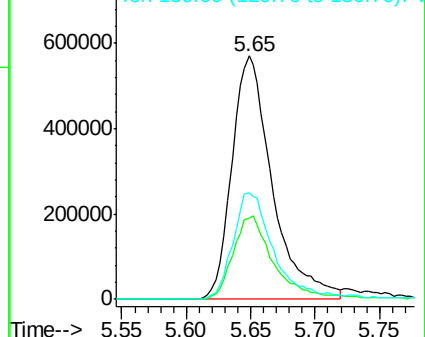
130 45.5 27.1 81.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.258 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.02 min

Lab File: VL036146.D

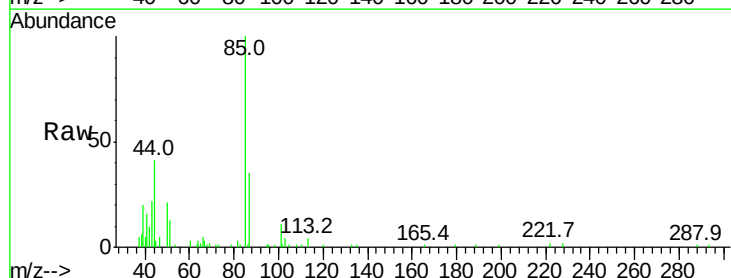
Acq: 11 Dec 2020 2:47

Tgt Ion: 85 Resp: 37365

Ion Ratio Lower Upper

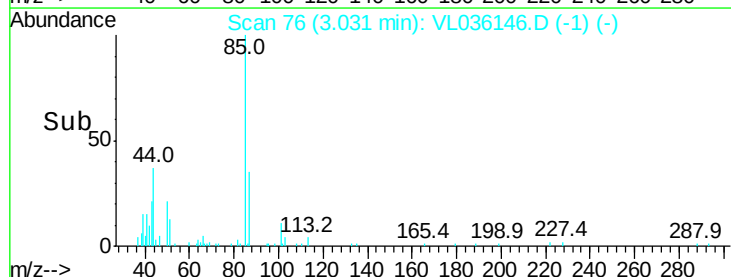
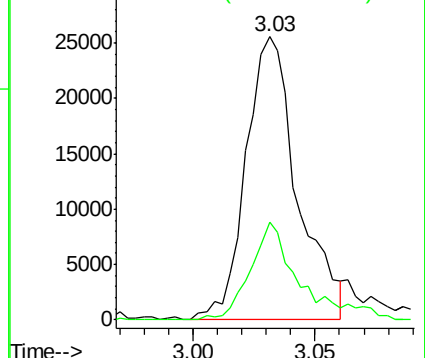
85 100

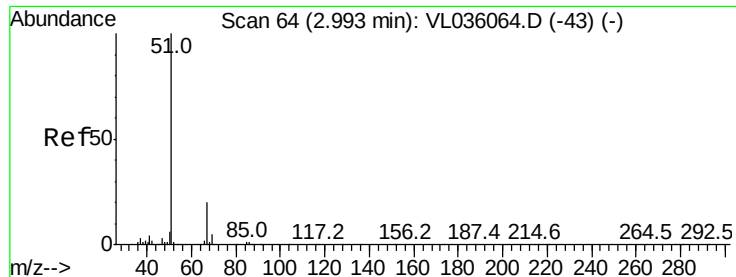
87 34.6 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.216 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

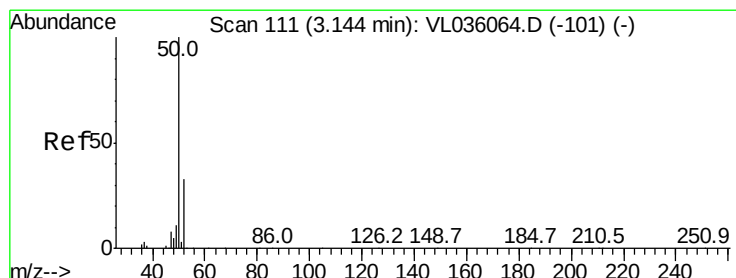
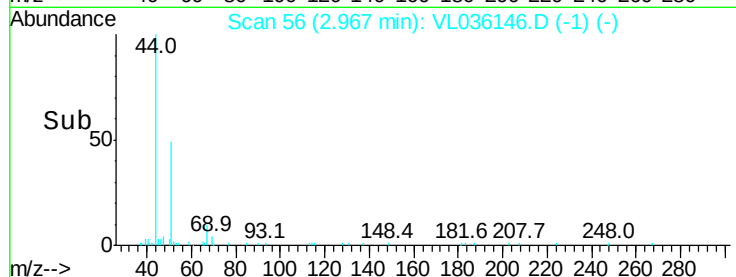
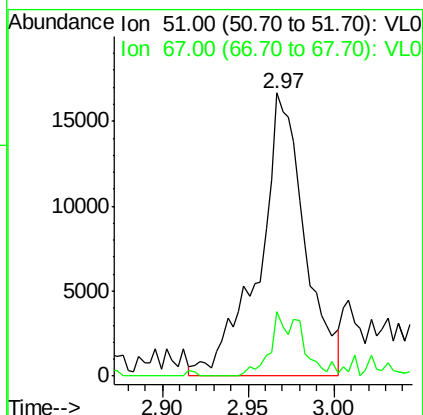
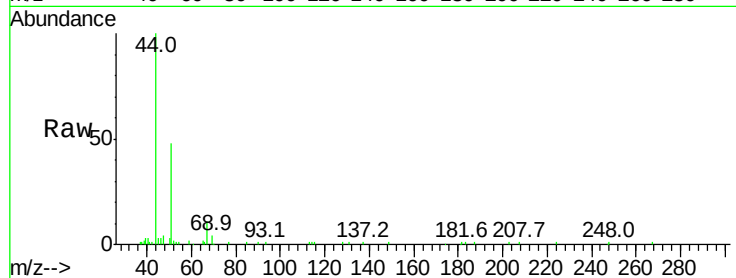
SS-1B

Tgt Ion: 51 Resp: 30605

Ion Ratio Lower Upper

51 100

67 15.9 14.3 21.5



#4

Chloromethane

Concen: 0.087 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.02 min

Lab File: VL036146.D

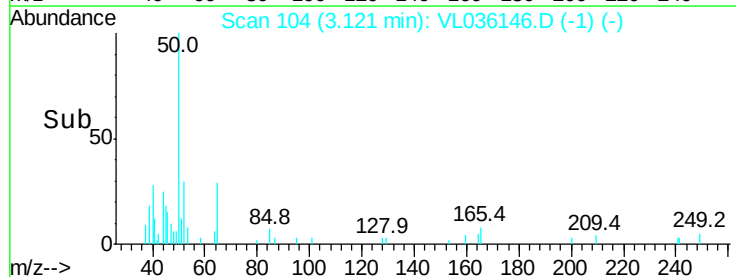
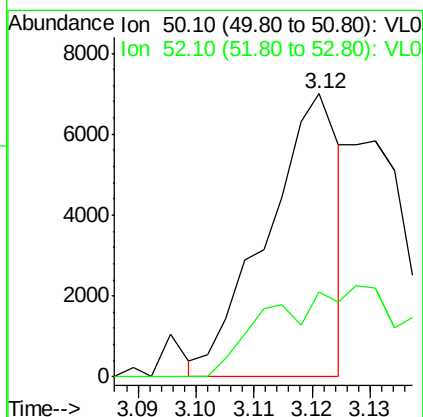
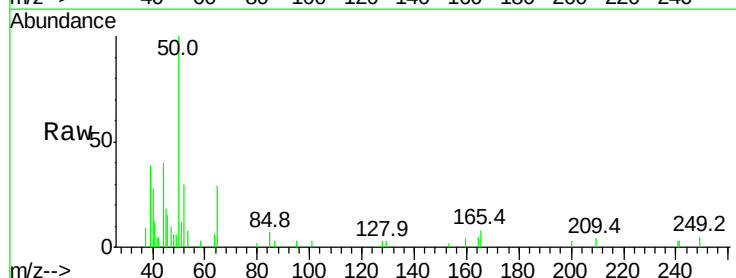
Acq: 11 Dec 2020 2:47

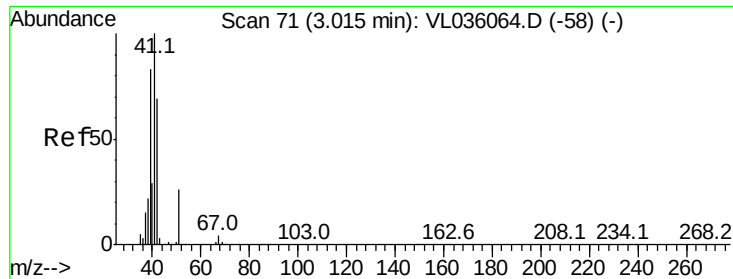
Tgt Ion: 50 Resp: 6069

Ion Ratio Lower Upper

50 100

52 31.8 26.1 39.1





#9

Propene

Concen: 0.497 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.02 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

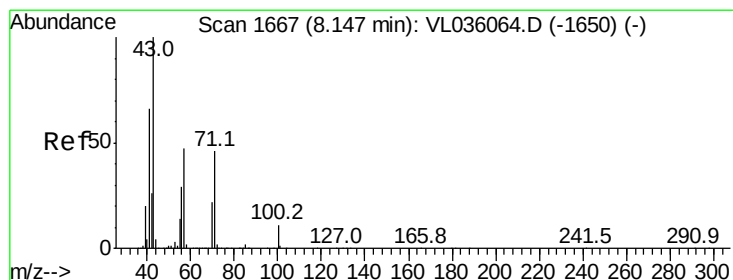
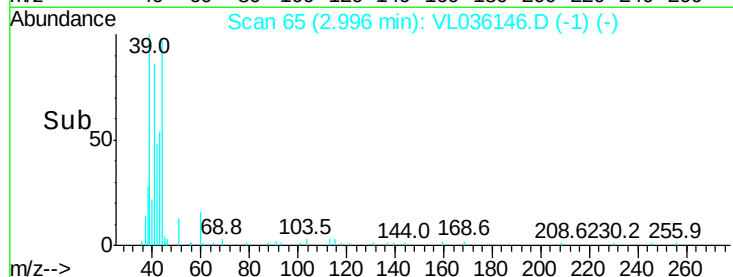
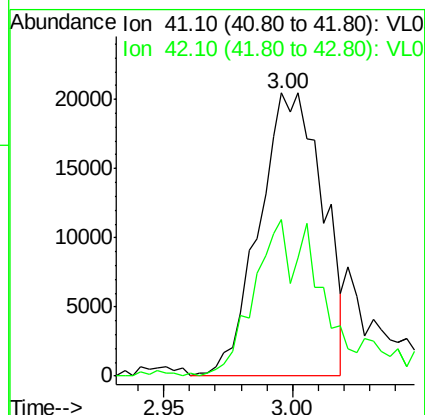
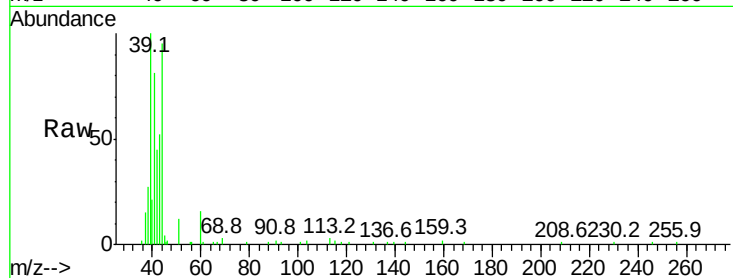
SS-1B

Tgt Ion: 41 Resp: 35262

Ion Ratio Lower Upper

41 100

42 64.4 57.0 85.6



#10

Heptane

Concen: 0.039 ppbv

RT: 8.09 min Scan# 1649

Delta R.T. -0.06 min

Lab File: VL036146.D

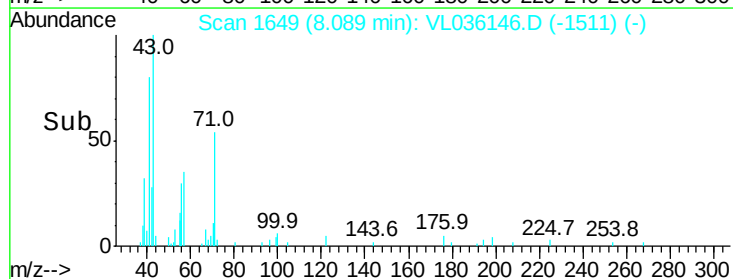
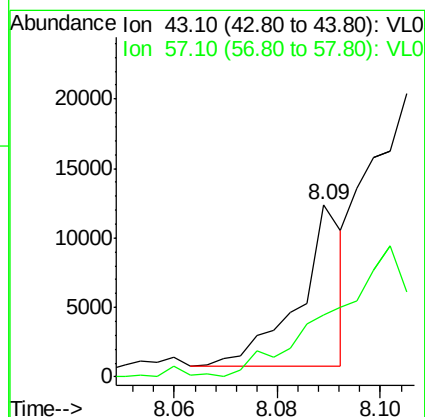
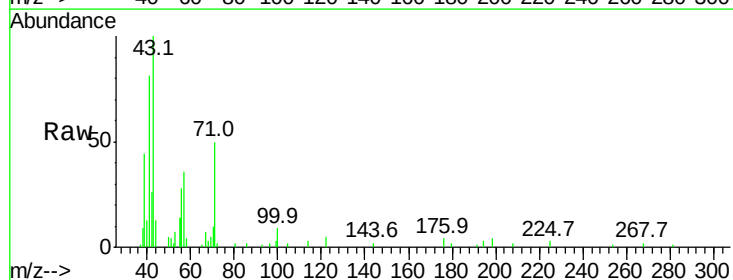
Acq: 11 Dec 2020 2:47

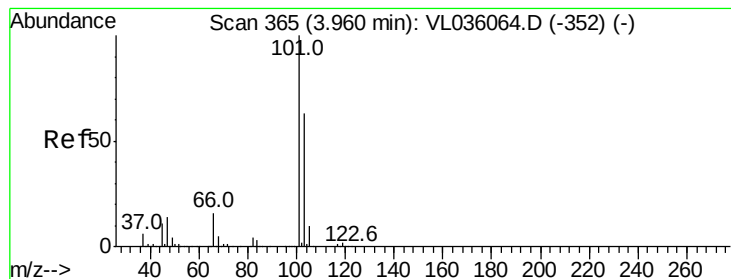
Tgt Ion: 43 Resp: 7001

Ion Ratio Lower Upper

43 100

57 0.0 37.9 56.9#





#11

Trichlorofluoromethane

Concen: 0.143 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

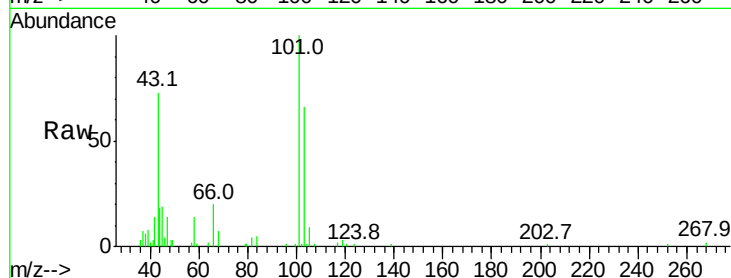
SS-1B

Tgt Ion:101 Resp: 24256

Ion Ratio Lower Upper

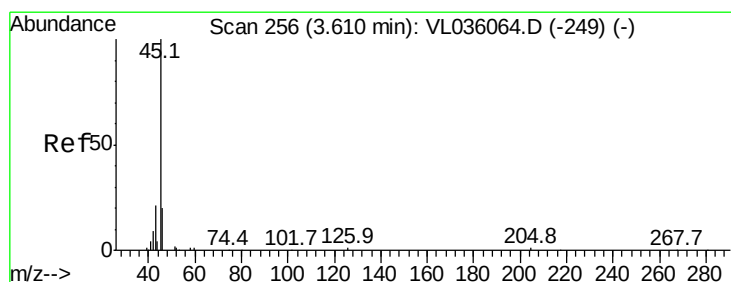
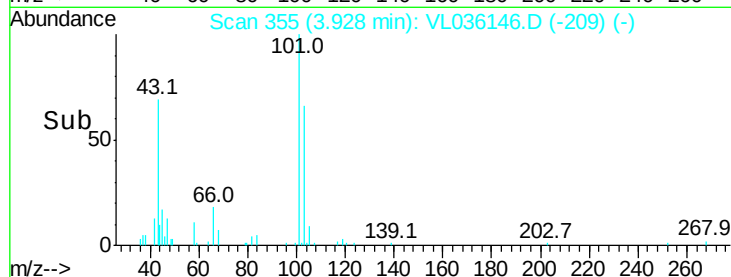
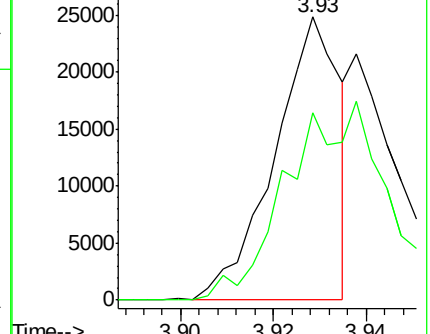
101 100

103 66.3 50.3 75.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 178.184 ppbv

RT: 3.59 min Scan# 249

Delta R.T. -0.02 min

Lab File: VL036146.D

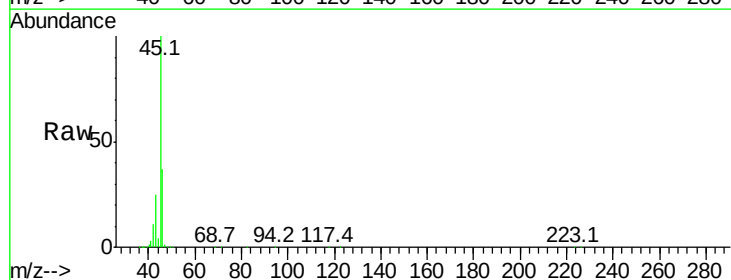
Acq: 11 Dec 2020 2:47

Tgt Ion: 45 Resp: 1741939

Ion Ratio Lower Upper

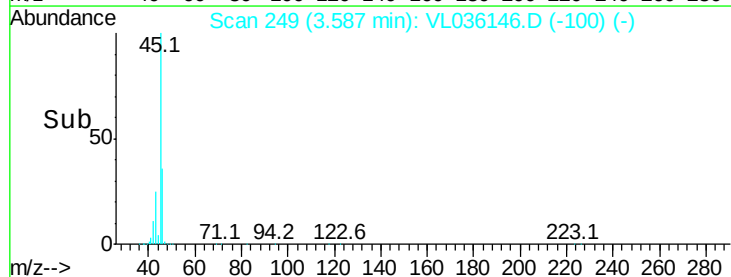
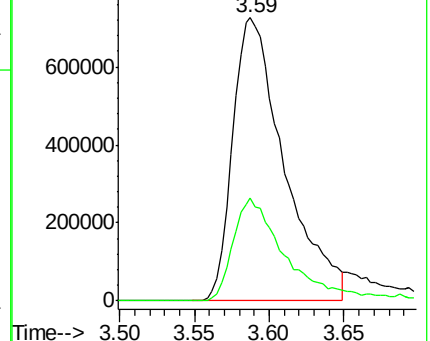
45 100

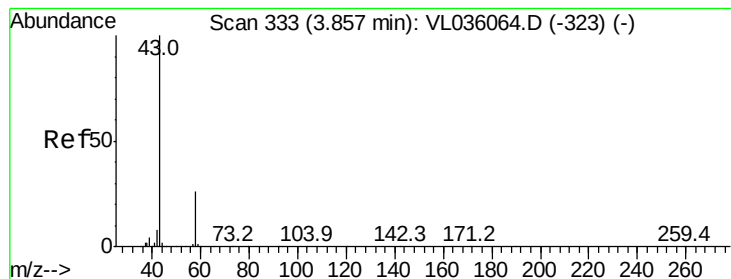
46 39.0 19.0 75.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 7.711 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

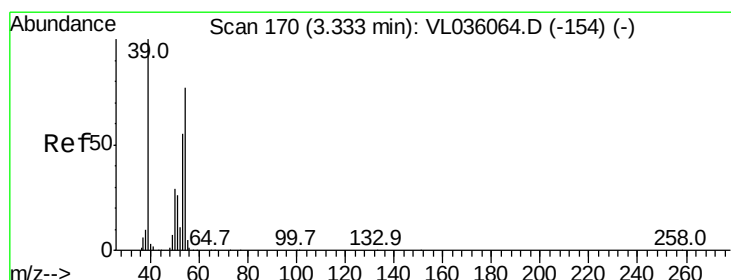
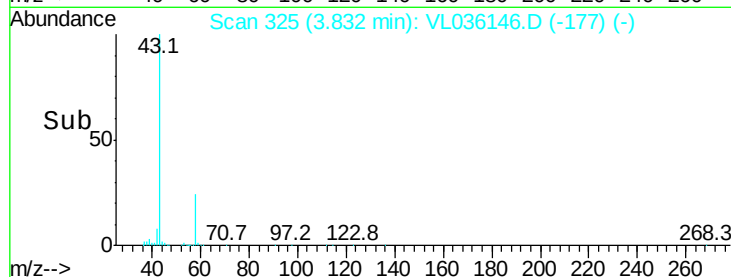
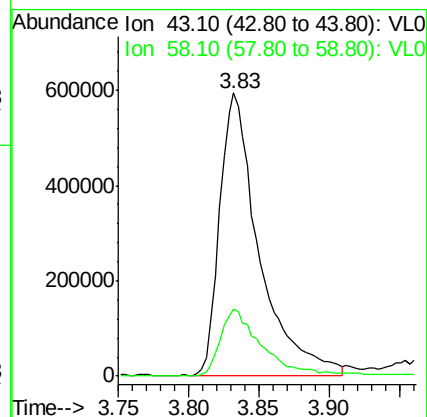
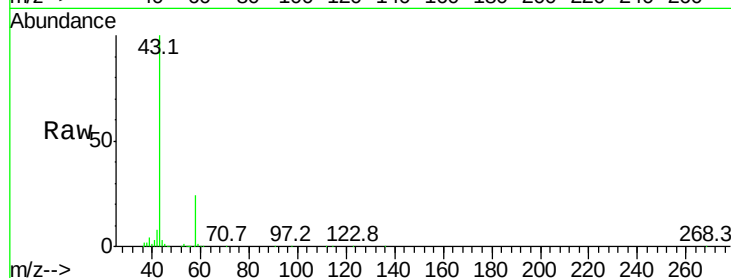
SS-1B

Tgt Ion: 43 Resp: 1149847

Ion Ratio Lower Upper

43 100

58 25.6 20.9 31.3



#16

1,3-Butadiene

Concen: 0.175 ppbv

RT: 3.34 min Scan# 171

Delta R.T. 0.00 min

Lab File: VL036146.D

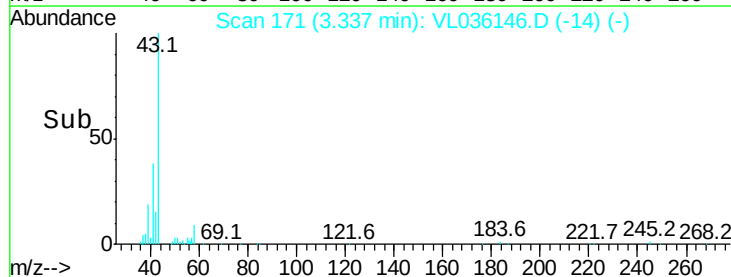
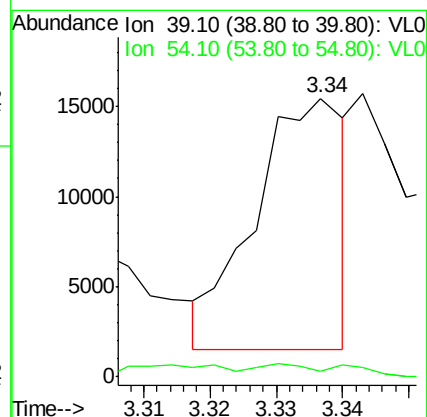
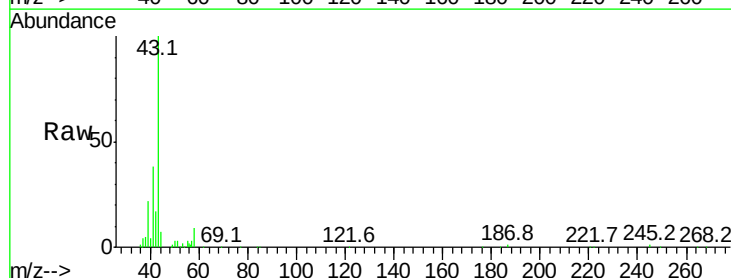
Acq: 11 Dec 2020 2:47

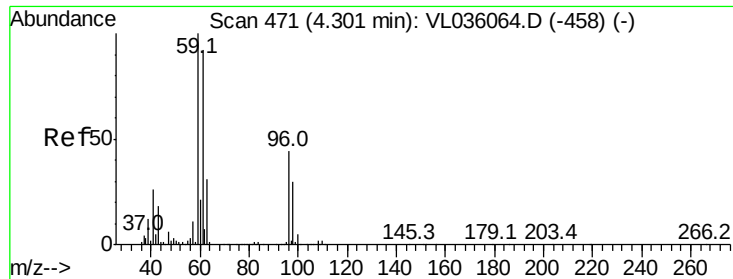
Tgt Ion: 39 Resp: 13162

Ion Ratio Lower Upper

39 100

54 0.0 62.1 93.1#





#17

tert-Butyl alcohol

Concen: 0.043 ppbv

RT: 4.29 min Scan# 466

Delta R.T. -0.02 min

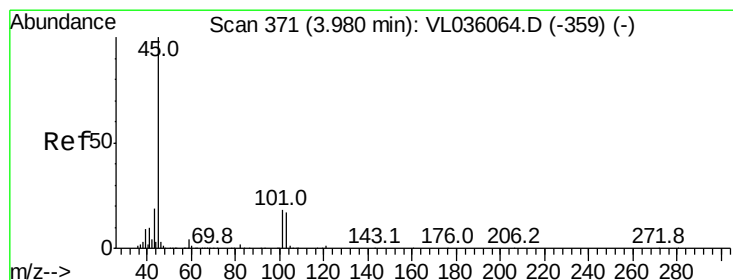
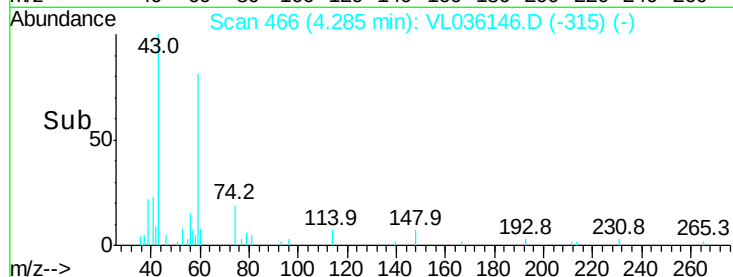
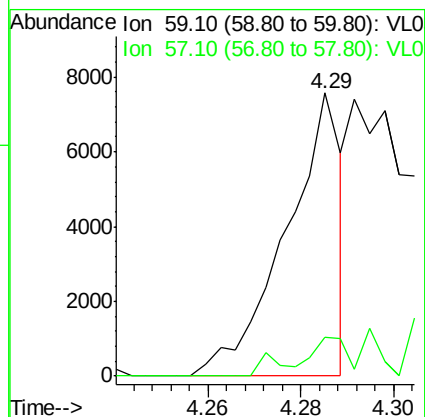
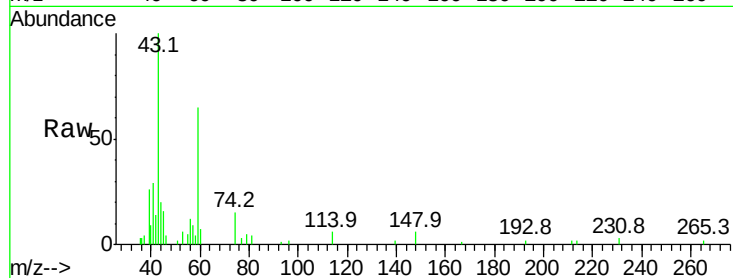
Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :
MSVOA_L
ClientSampleId :
SS-1B

Tgt Ion: 59 Resp: 6274

Ion	Ratio	Lower	Upper
59	100		
57	0.0	8.7	13.1#



#19

Isopropyl Alcohol

Concen: 0.691 ppbv

RT: 3.96 min Scan# 366

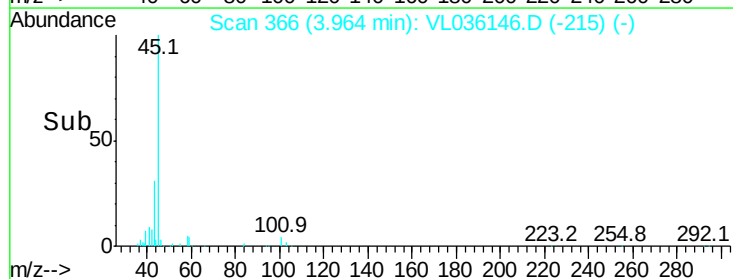
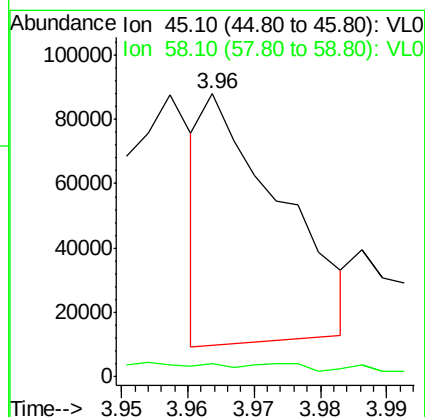
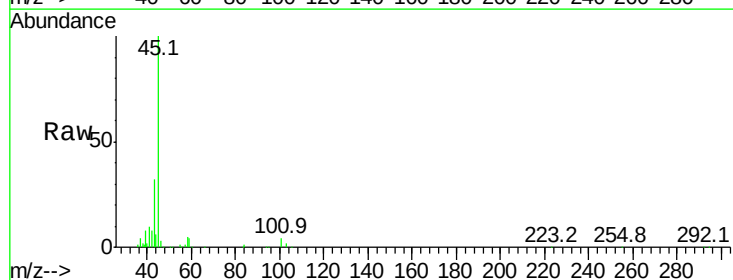
Delta R.T. -0.02 min

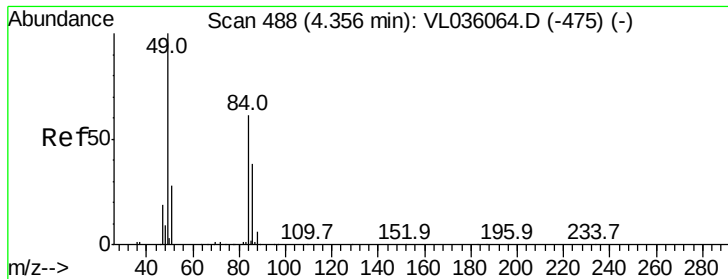
Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Tgt Ion: 45 Resp: 63024

Ion	Ratio	Lower	Upper
45	100		
58	0.0	0.0	0.0

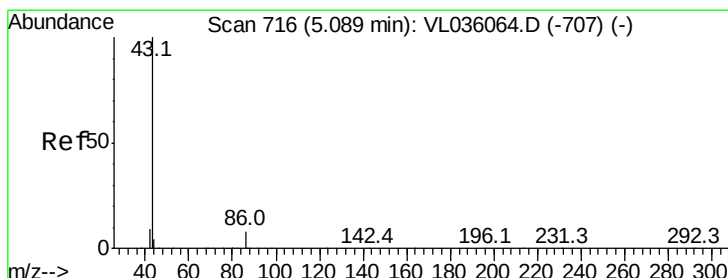
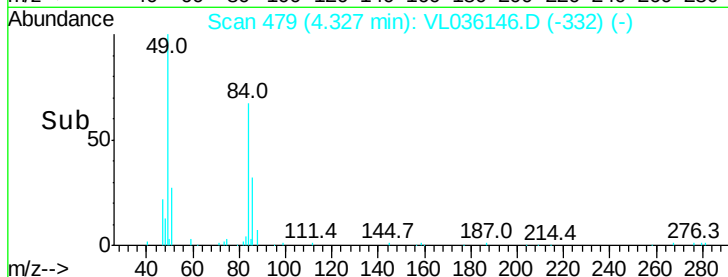
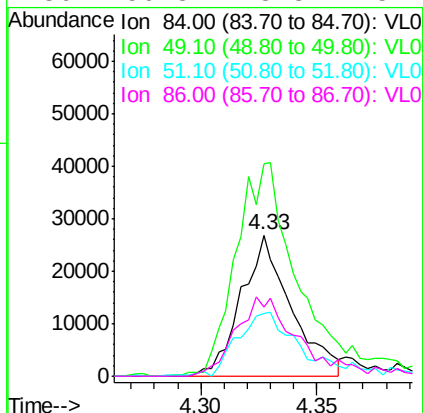
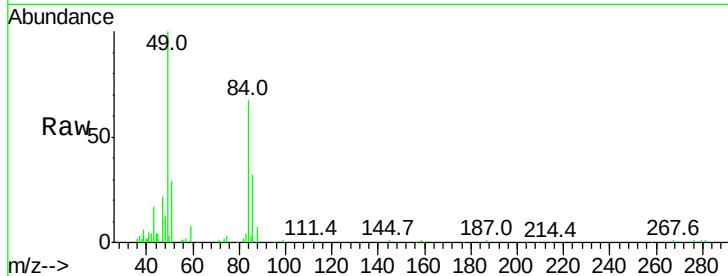




#20
Methylene Chloride
Concen: 0.660 ppbv
RT: 4.33 min Scan# 479
Delta R.T. -0.03 min
Lab File: VL036146.D
Acq: 11 Dec 2020 2:47

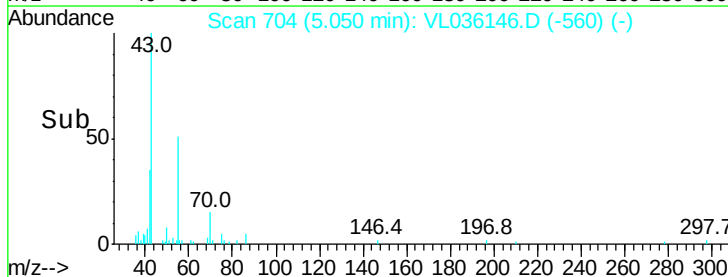
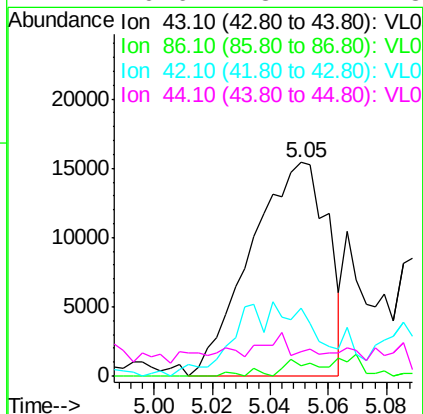
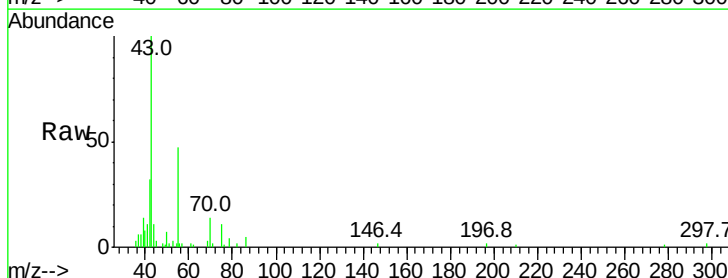
Instrument :
MSVOA_L
ClientSampleId :
SS-1B

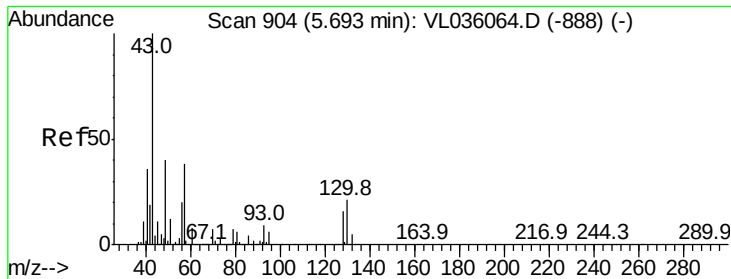
Tgt Ion:	84	Resp:	40361
Ion	Ratio	Lower	Upper
84	100		
49	152.5	133.0	199.4
51	44.5	38.9	58.3
86	50.3	48.8	73.2



#23
Vinyl Acetate
Concen: 0.143 ppbv
RT: 5.05 min Scan# 704
Delta R.T. -0.04 min
Lab File: VL036146.D
Acq: 11 Dec 2020 2:47

Tgt Ion:	43	Resp:	28298
Ion	Ratio	Lower	Upper
43	100		
86	4.8	5.0	7.4#
42	26.6	7.8	11.6#
44	0.6	3.2	4.8#





#25

Ethyl Acetate

Concen: 0.221 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

Tgt Ion: 43 Resp: 65791

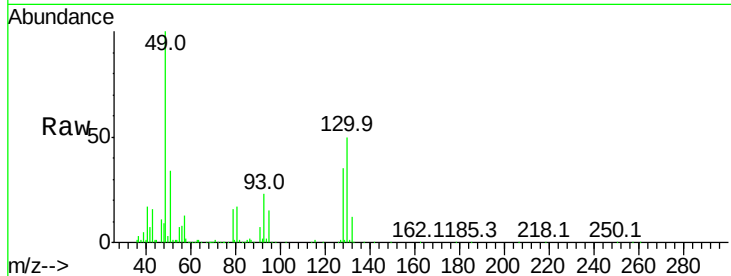
Ion Ratio Lower Upper

43 100

45 8.0 8.2 12.4#

61 4.1 7.4 11.2#

70 5.2 5.4 8.0#

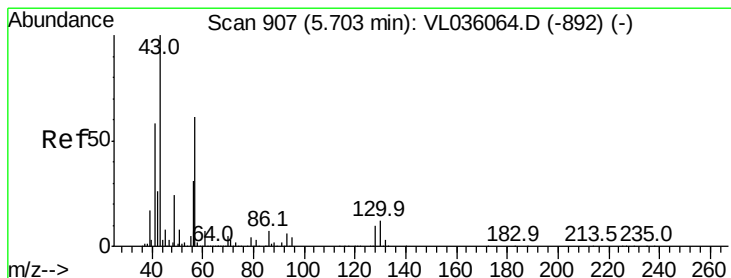
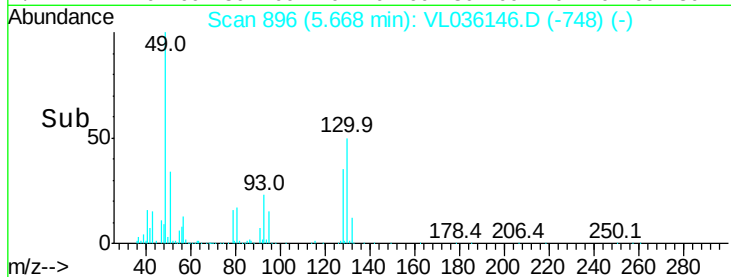
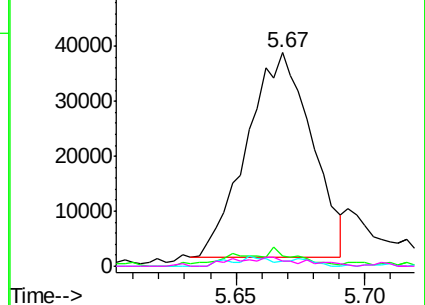


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.309 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Tgt Ion: 57 Resp: 41415

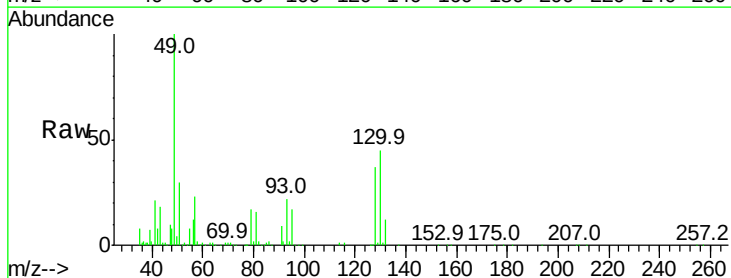
Ion Ratio Lower Upper

57 100

41 196.8 82.9 124.3#

43 200.9 199.9 299.9

56 105.9 43.1 64.7#

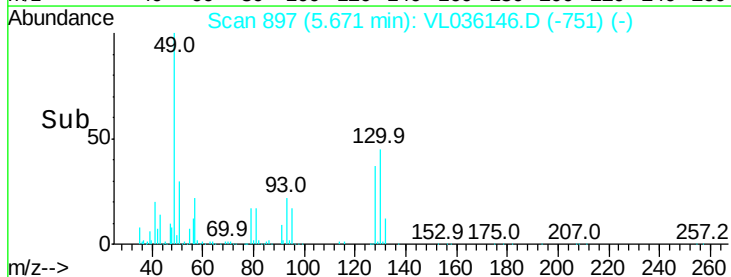
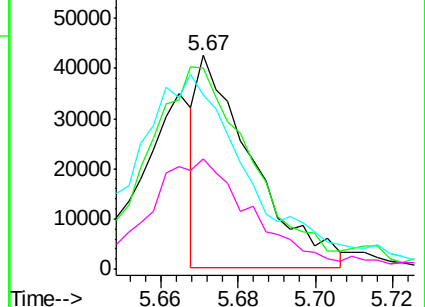


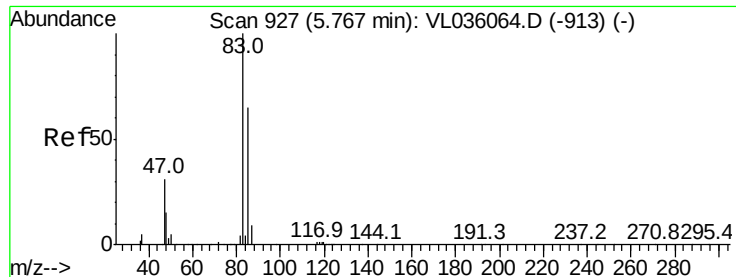
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#29

Chloroform

Concen: 0.478 ppbv

RT: 5.73 min Scan# 916

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampled :

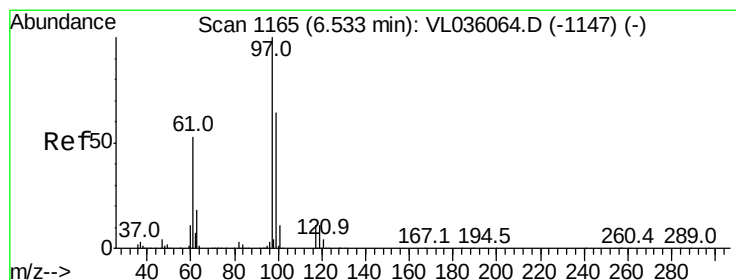
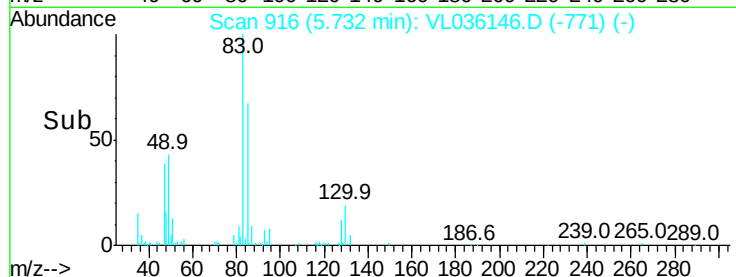
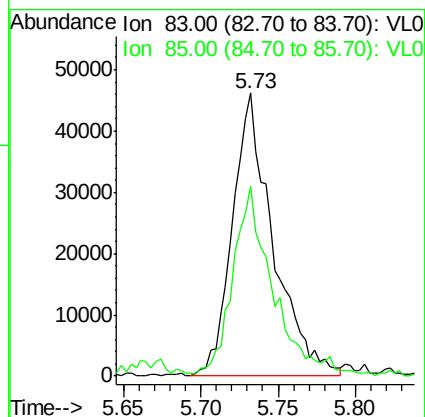
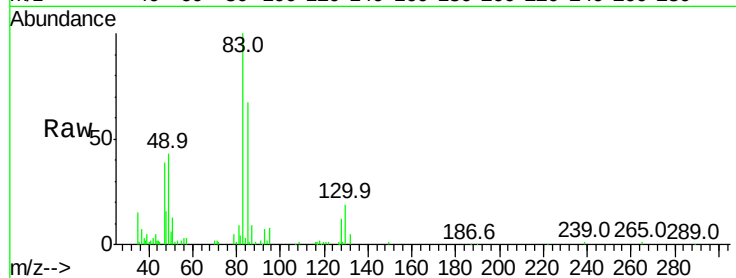
SS-1B

Tgt Ion: 83 Resp: 84221

Ion Ratio Lower Upper

83 100

85 65.9 51.8 77.6



#32

1,1,1-Trichloroethane

Concen: 0.033 ppbv

RT: 6.50 min Scan# 1154

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

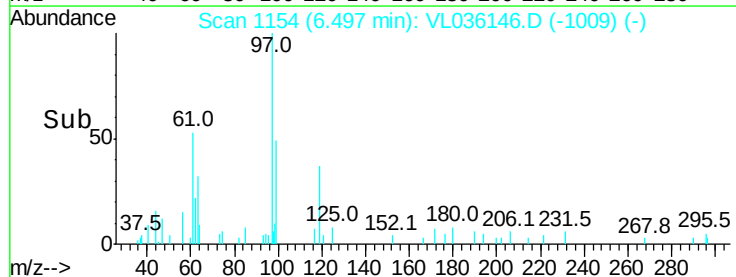
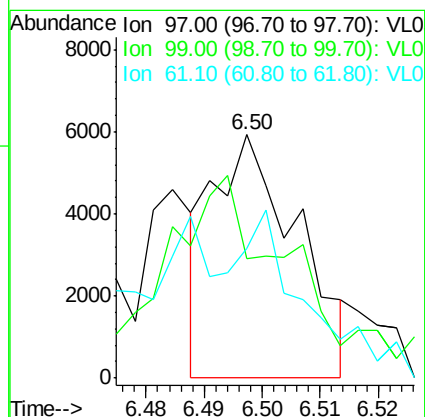
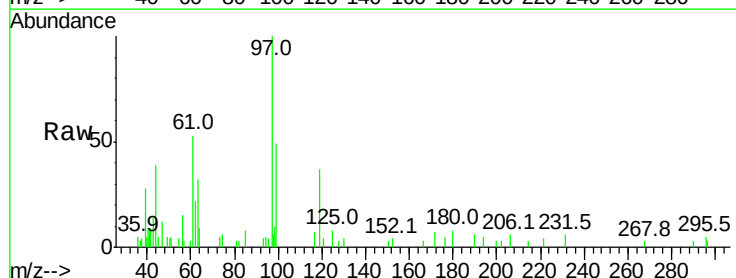
Tgt Ion: 97 Resp: 6031

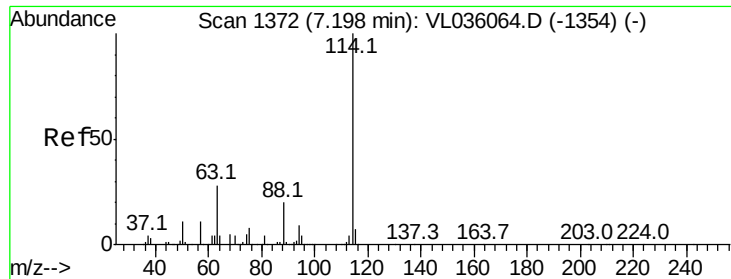
Ion Ratio Lower Upper

97 100

99 151.4 52.4 78.6#

61 126.9 43.4 65.0#

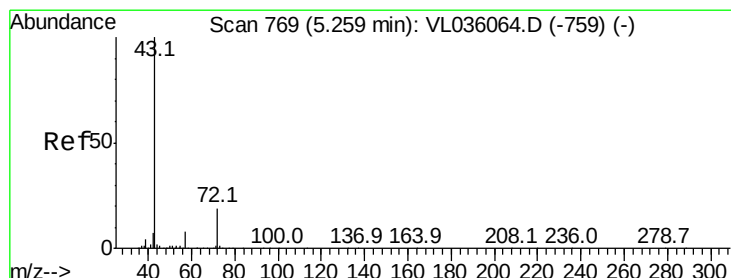
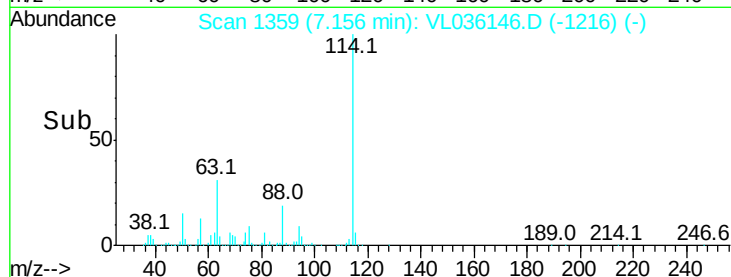
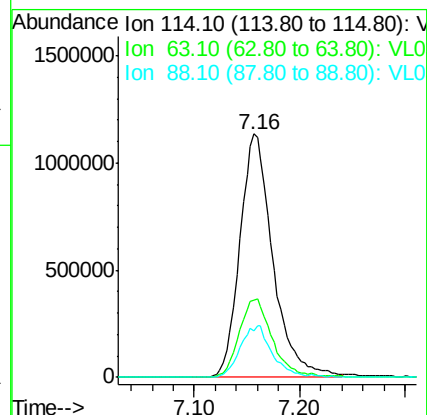
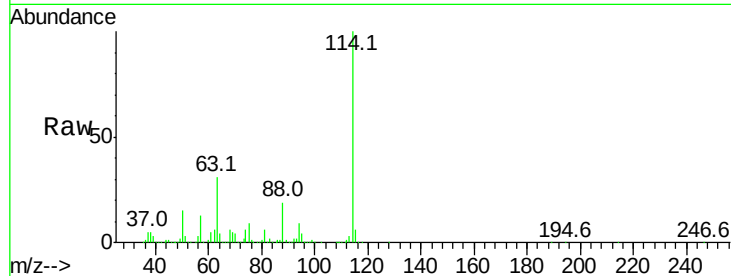




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.04 min
 Lab File: VL036146.D
 Acq: 11 Dec 2020 2:47

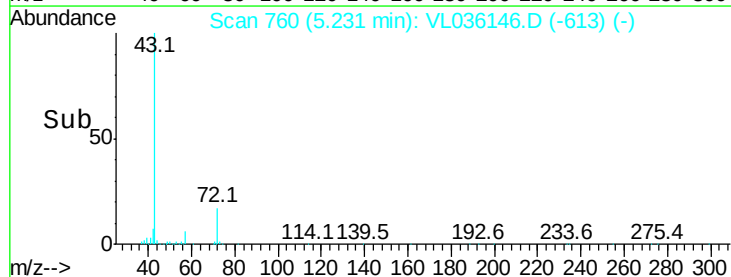
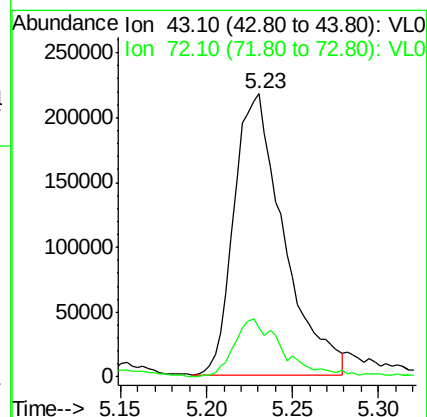
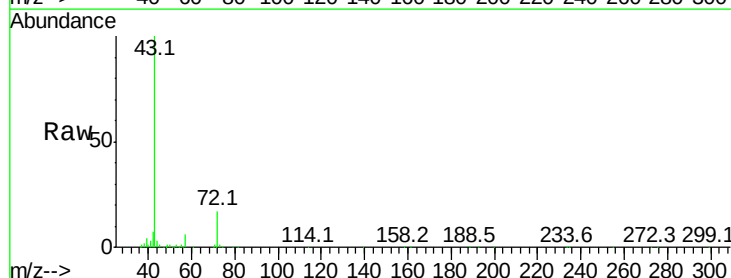
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1B

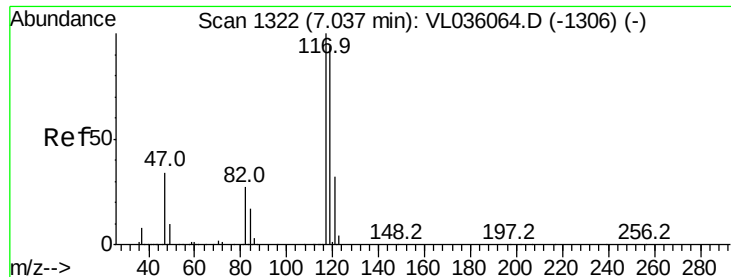
Tgt Ion:114 Resp: 2466778
 Ion Ratio Lower Upper
 114 100
 63 33.1 23.6 35.4
 88 21.0 15.8 23.6



#34
 2-Butanone
 Concen: 2.661 ppbv
 RT: 5.23 min Scan# 760
 Delta R.T. -0.03 min
 Lab File: VL036146.D
 Acq: 11 Dec 2020 2:47

Tgt Ion: 43 Resp: 435431
 Ion Ratio Lower Upper
 43 100
 72 21.8 16.5 24.7





#35

Carbon Tetrachloride

Concen: 0.039 ppbv

RT: 7.00 min Scan# 1309

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampled :

SS-1B

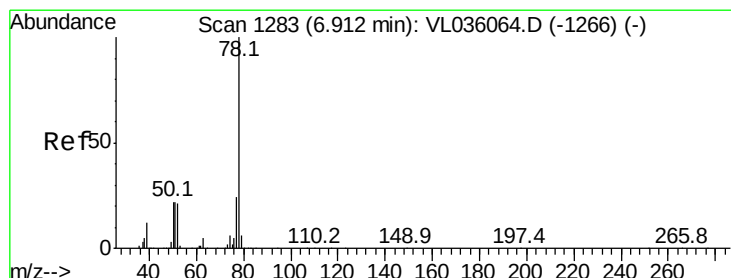
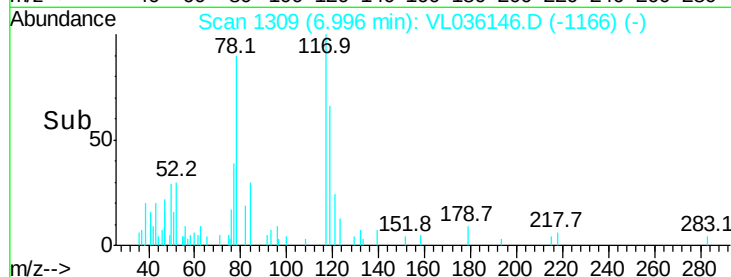
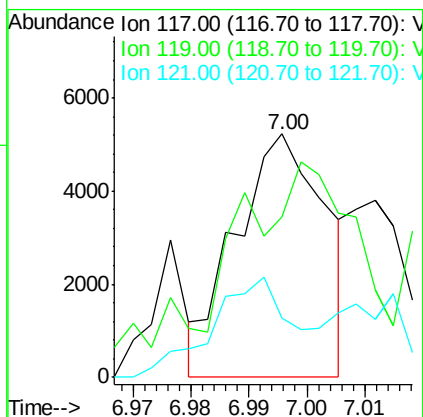
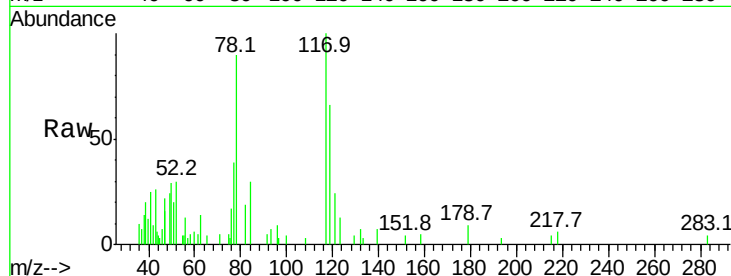
Tgt Ion: 117 Resp: 5591

Ion Ratio Lower Upper

117 100

119 59.2 75.1 112.7#

121 16.3 25.6 38.4#



#36

Benzene

Concen: 10.418 ppbv

RT: 6.87 min Scan# 1270

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

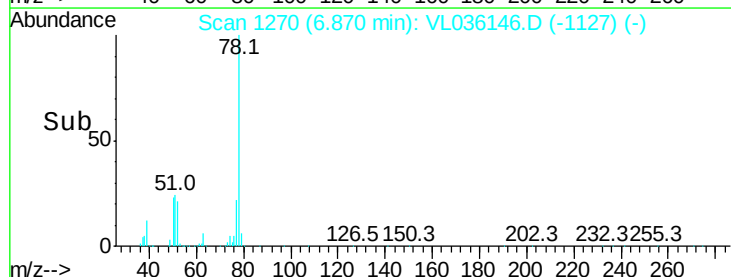
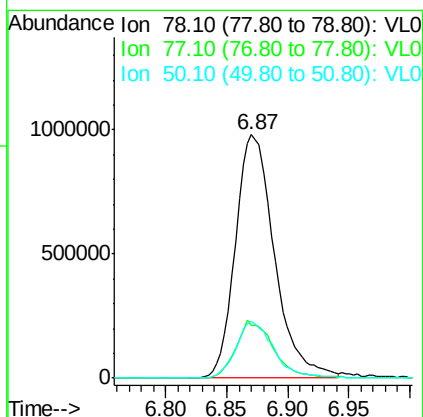
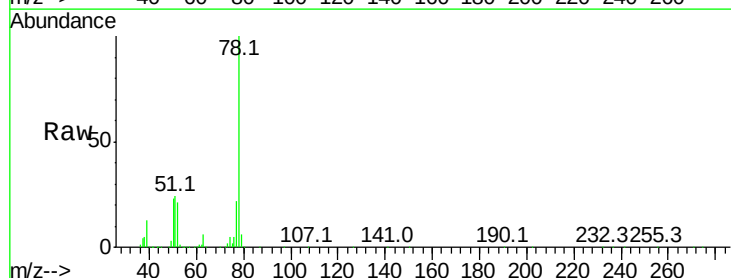
Tgt Ion: 78 Resp: 2177890

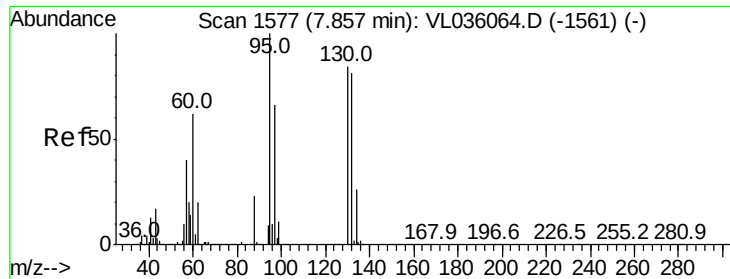
Ion Ratio Lower Upper

78 100

77 21.9 19.4 29.2

50 23.3 17.8 26.8





#38

Trichloroethene

Concen: 0.058 ppbv

RT: 7.81 min Scan# 1563

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

Tgt Ion:130 Resp: 4499

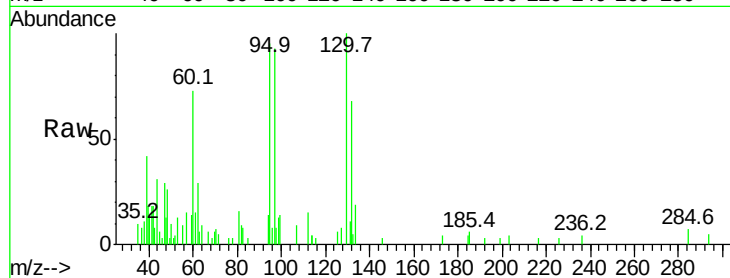
Ion Ratio Lower Upper

130 100

95 59.8 95.2 142.8#

132 57.3 76.9 115.3#

97 126.7 62.3 93.5#

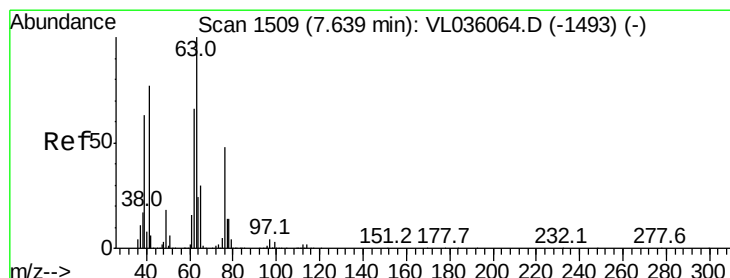
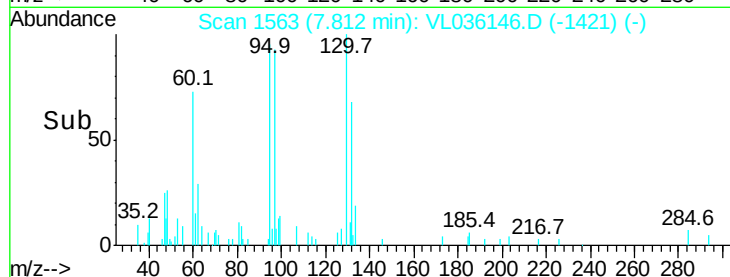
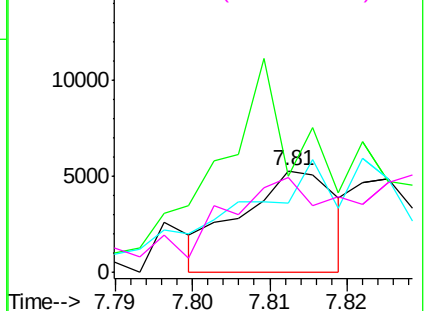


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 9.550 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.48 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

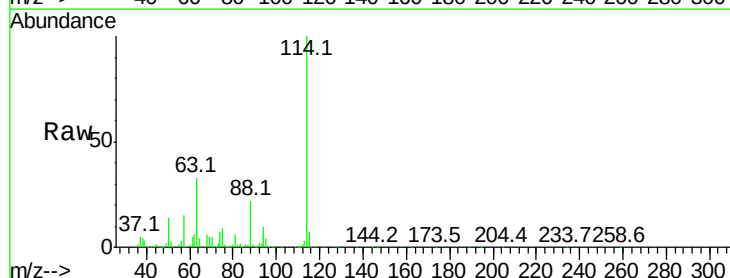
Tgt Ion: 63 Resp: 788403

Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

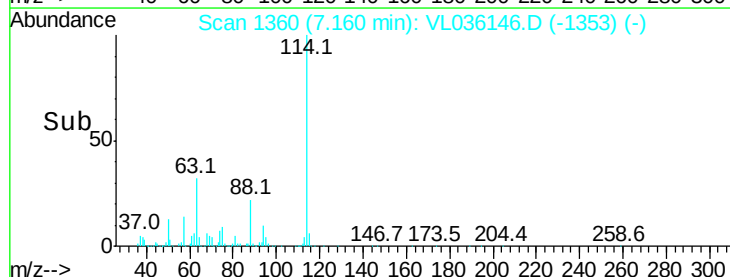
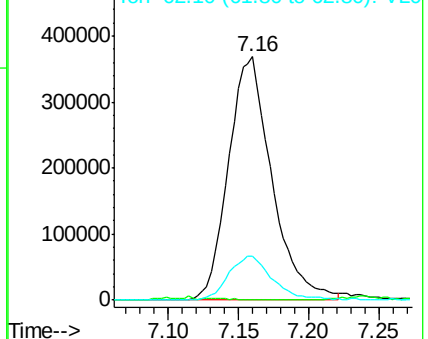
62 18.2 52.5 78.7#

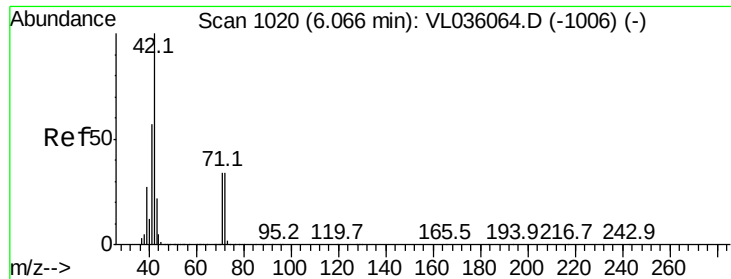


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.068 ppbv

RT: 6.04 min Scan# 1011

Delta R.T. -0.03 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

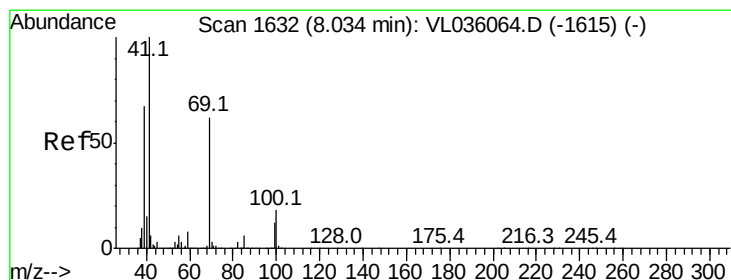
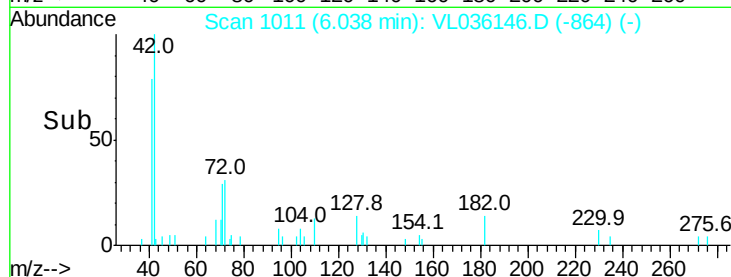
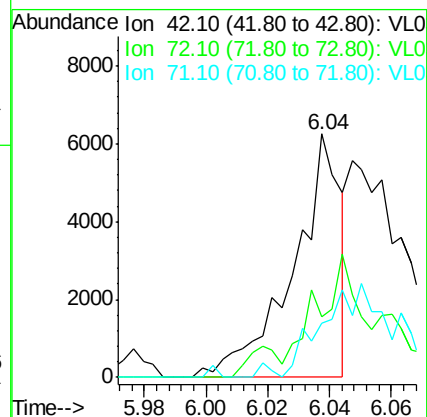
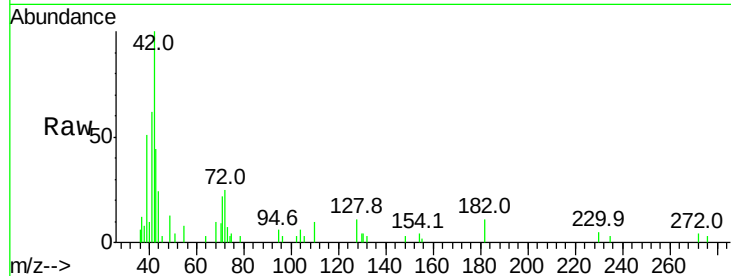
Tgt Ion: 42 Resp: 6600

Ion Ratio Lower Upper

42 100

72 0.0 28.3 42.5#

71 0.0 27.3 40.9#



#43

Methyl Methacrylate

Concen: 0.075 ppbv

RT: 7.99 min Scan# 1619

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

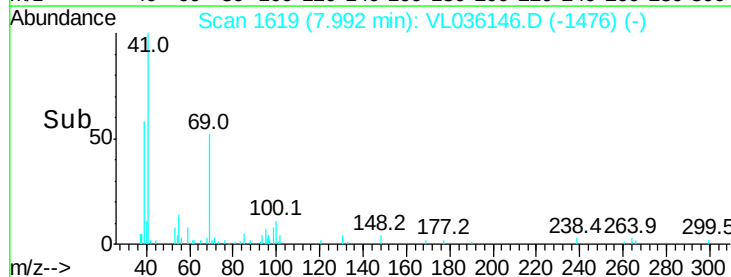
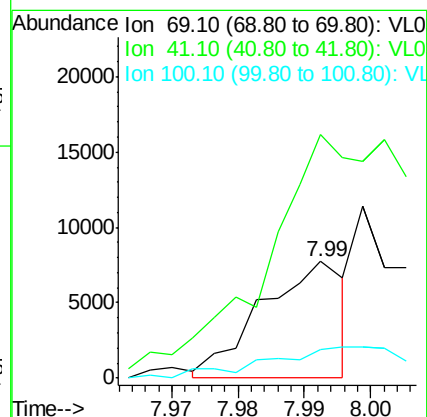
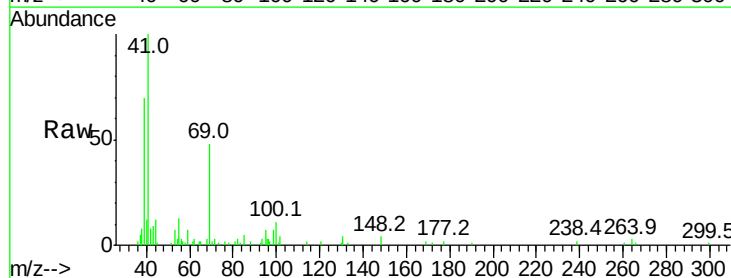
Tgt Ion: 69 Resp: 6726

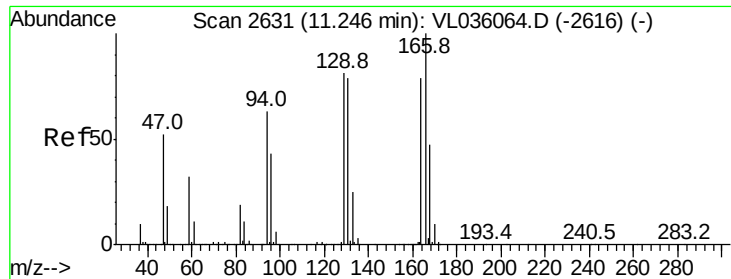
Ion Ratio Lower Upper

69 100

41 568.7 133.0 199.6#

100 0.0 25.4 38.0#





#52

Tetrachloroethene

Concen: 0.623 ppbv

RT: 11.20 min Scan# 2616

Delta R.T. -0.05 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

Tgt Ion:164 Resp: 47167

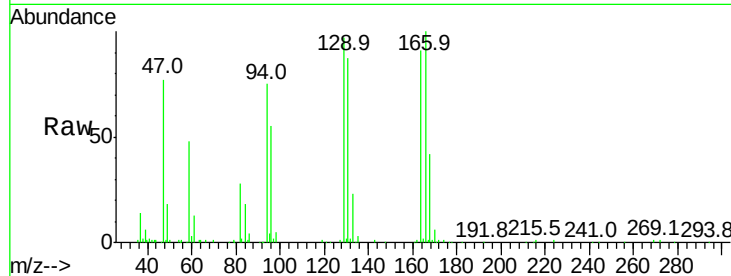
Ion Ratio Lower Upper

164 100

166 109.4 101.9 152.9

129 106.4 82.1 123.1

131 95.0 80.8 121.2

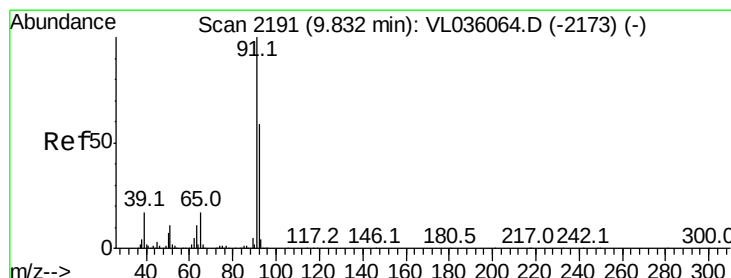
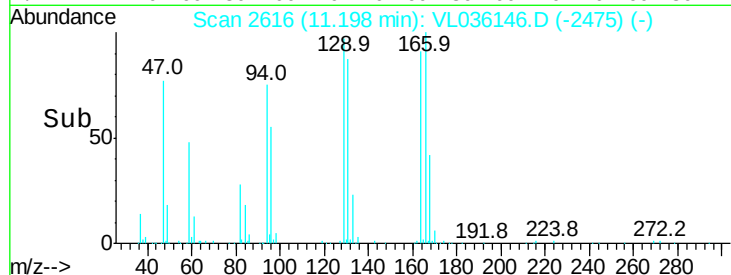
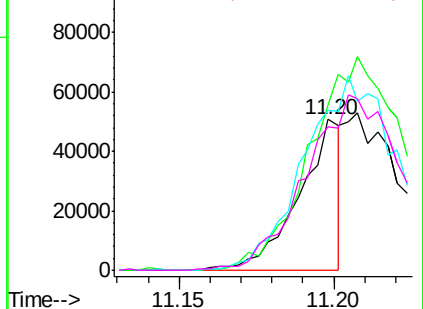


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.605 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.04 min

Lab File: VL036146.D

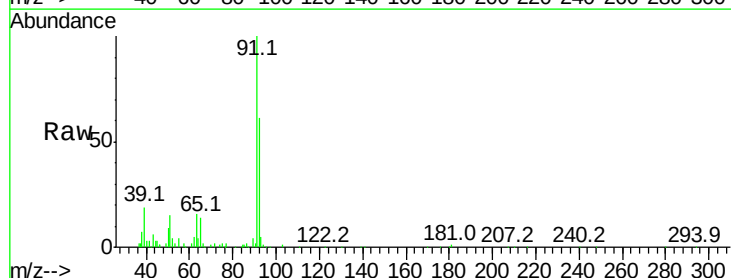
Acq: 11 Dec 2020 2:47

Tgt Ion: 91 Resp: 142011

Ion Ratio Lower Upper

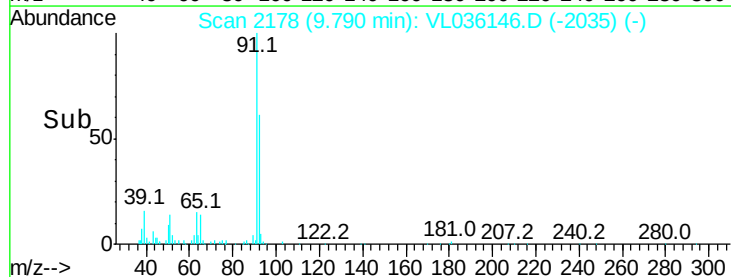
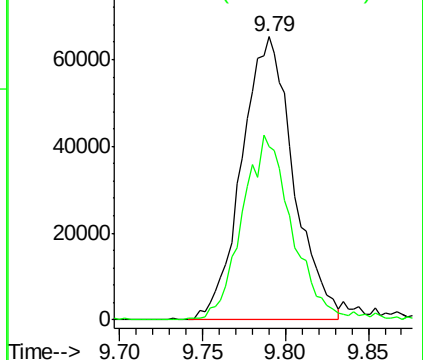
91 100

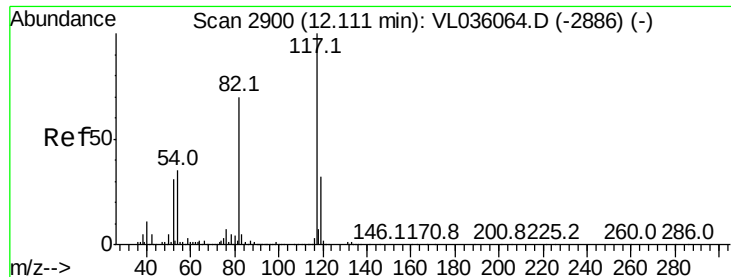
92 63.8 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

Instrument :

MSVOA_L

ClientSampleId :

SS-1B

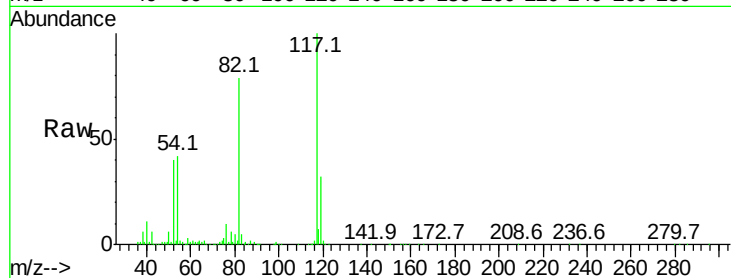
Tgt Ion:117 Resp: 2231264

Ion Ratio Lower Upper

117 100

82 80.8 0.0 0.0#

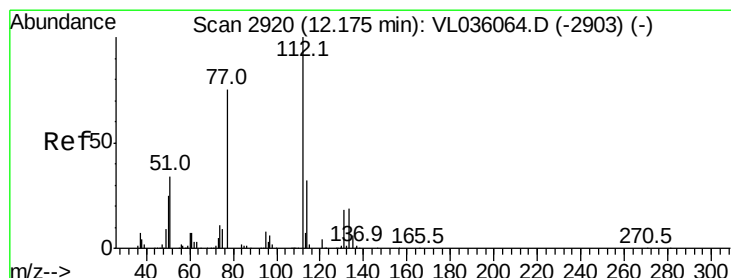
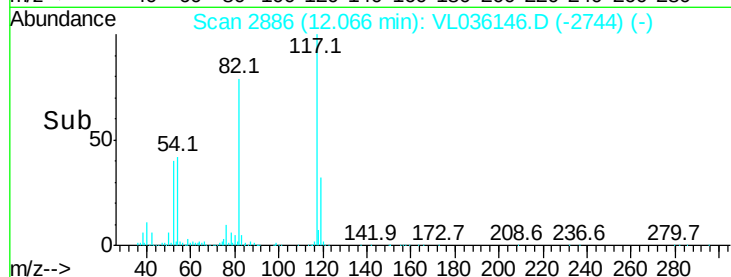
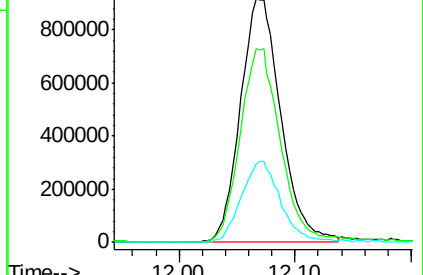
119 32.5 0.0 0.0#



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#57

Chlorobenzene

Concen: 0.040 ppbv

RT: 12.13 min Scan# 2907

Delta R.T. -0.04 min

Lab File: VL036146.D

Acq: 11 Dec 2020 2:47

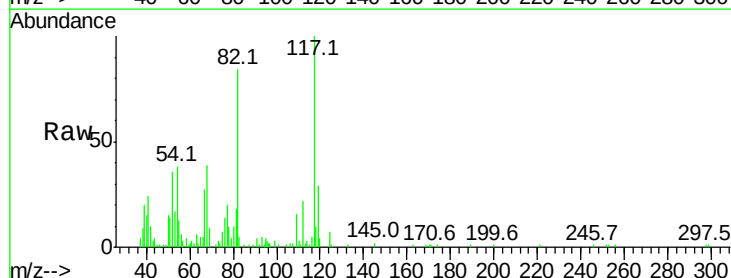
Tgt Ion:112 Resp: 6205

Ion Ratio Lower Upper

112 100

77 51.6 60.5 90.7#

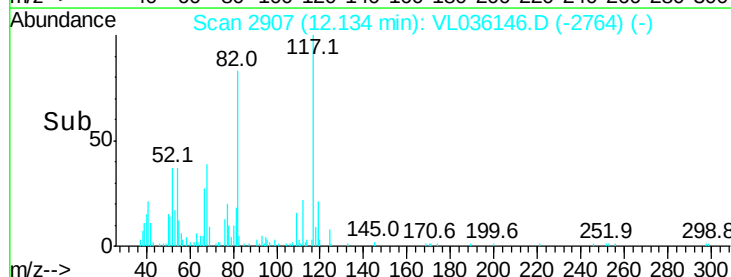
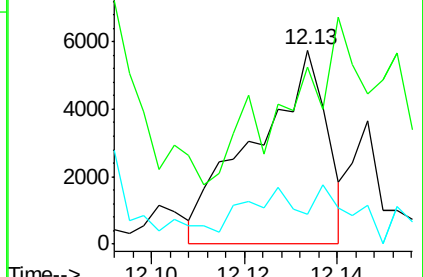
114 13.3 29.2 35.6#

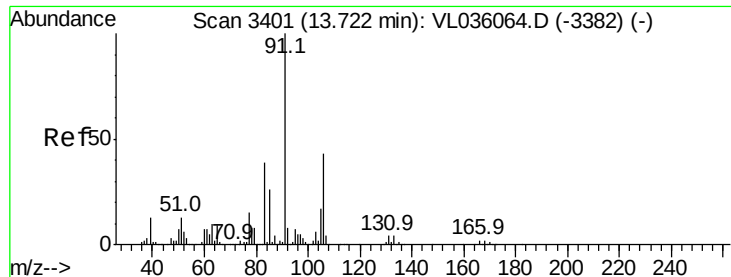


Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V

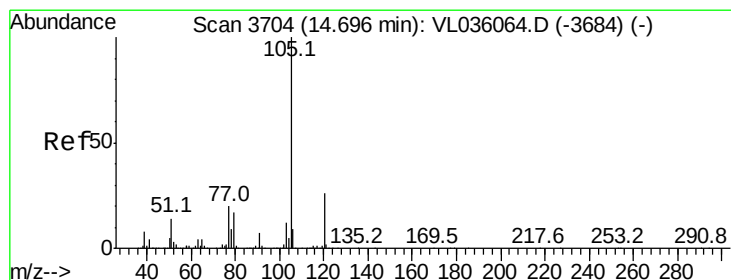
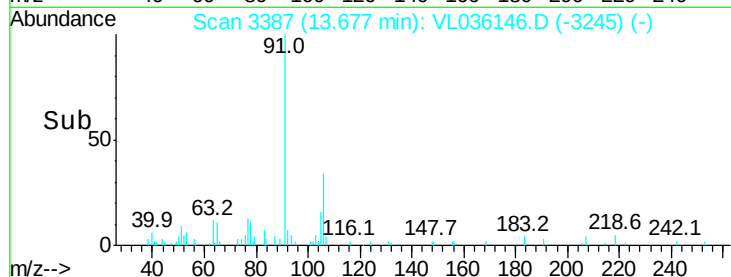
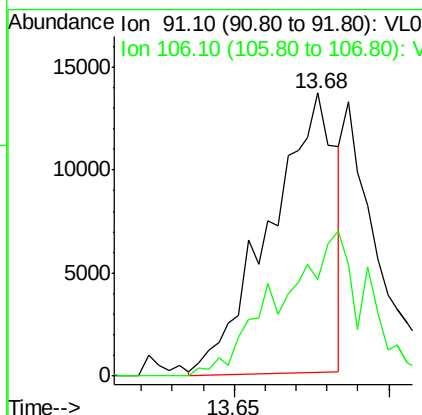
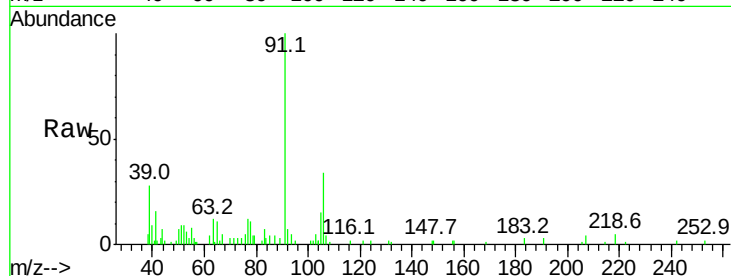




#60
o-Xylene
Concen: 0.082 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.04 min
Lab File: VL036146.D
Acq: 11 Dec 2020 2:47

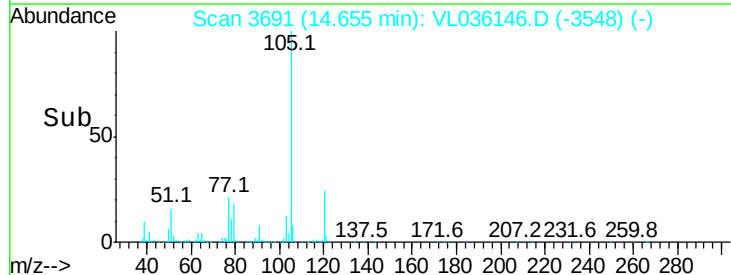
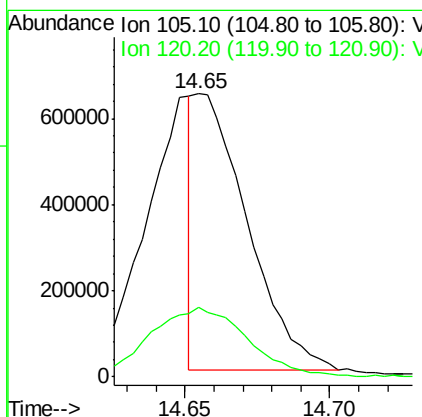
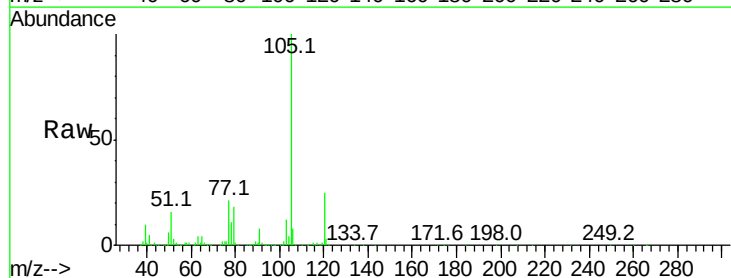
Instrument :
MSVOA_L
ClientSampleId :
SS-1B

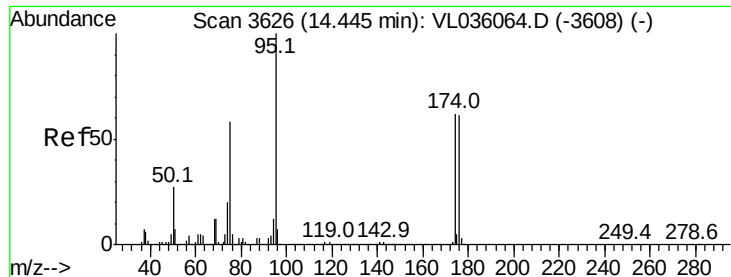
Tgt Ion: 91 Resp: 19946
Ion Ratio Lower Upper
91 100
106 0.0 21.6 64.6#



#62
Isopropylbenzene
Concen: 2.247 ppbv
RT: 14.65 min Scan# 3691
Delta R.T. -0.04 min
Lab File: VL036146.D
Acq: 11 Dec 2020 2:47

Tgt Ion: 105 Resp: 808368
Ion Ratio Lower Upper
105 100
120 47.9 20.1 30.1#

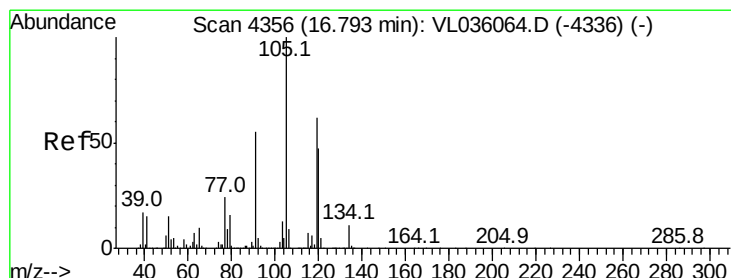
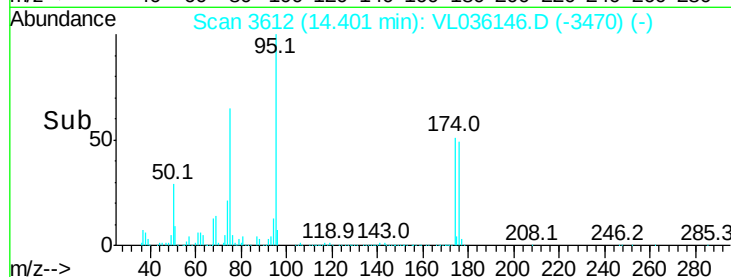
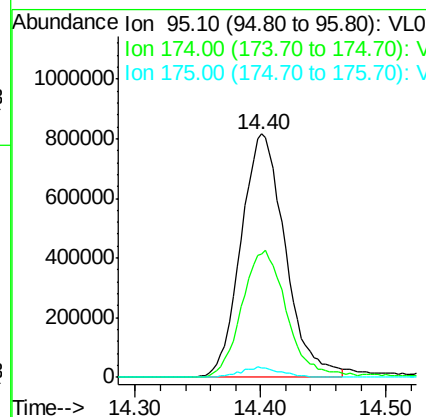
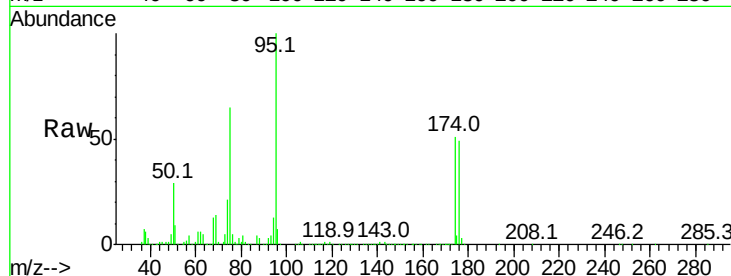




#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.285 ppbv
 RT: 14.40 min Scan# 3612
 Delta R.T. -0.04 min
 Lab File: VL036146.D
 Acq: 11 Dec 2020 2:47

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1B

Tgt Ion: 95 Resp: 1999458
 Ion Ratio Lower Upper
 95 100
 174 55.3 50.7 76.1
 175 4.0 4.0 6.0#



#74
 1,2,4-Trimethylbenzene
 Concen: 0.092 ppbv
 RT: 16.74 min Scan# 4340
 Delta R.T. -0.05 min
 Lab File: VL036146.D
 Acq: 11 Dec 2020 2:47

Tgt Ion: 105 Resp: 23290
 Ion Ratio Lower Upper
 105 100
 120 35.5 37.4 56.0#
 91 7.9 45.6 68.4#
 77 11.6 19.4 29.2#

