

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\
 Data File : VL032788.D
 Acq On : 20 Nov 2018 21:26
 Operator : SY/AP
 Sample : J5961-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

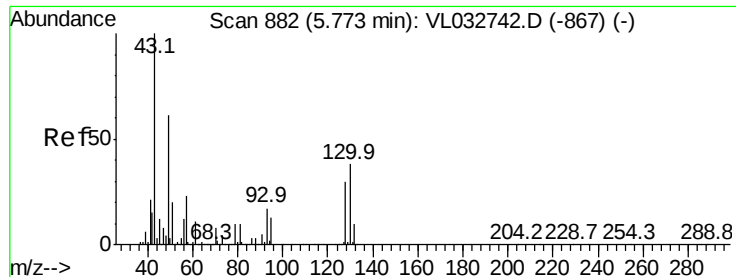
Quant Time: Nov 21 04:07:57 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1327182	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3343380	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3060046	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.59	95	2274531	9.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	86608	0.454	ppbv	96
3) Chlorodifluoromethane	2.99	51	158051	1.502	ppbv #	76
4) Chloromethane	3.18	50	26236	0.450	ppbv	93
9) Propene	3.05	41	26601	0.632	ppbv	84
10) Heptane	8.25	43	4972	0.031	ppbv #	26
11) Trichlorofluoromethane	4.01	101	38693	0.215	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.56	101	10620	0.072	ppbv #	75
13) Ethanol	3.66	45	937437	67.971	ppbv	99
15) Acetone	3.91	43	797263	6.578	ppbv	99
16) 1,3-Butadiene	3.35	39	12538	0.267	ppbv #	49
19) Isopropyl Alcohol	4.07	45	17171	0.213	ppbv #	95
20) Methylene Chloride	4.42	84	164771	2.626	ppbv	91
23) Vinyl Acetate	5.15	43	56772	0.257	ppbv #	74
25) Ethyl Acetate	5.79	43	104613	0.370	ppbv #	90
26) Hexane	5.79	57	102682	0.817	ppbv #	54
29) Chloroform	5.85	83	7688	0.034	ppbv #	57
34) 2-Butanone	5.34	43	85943	0.496	ppbv	100
36) Benzene	7.01	78	83178	0.312	ppbv	96
39) 1,2-Dichloropropane	7.30	63	828083	8.163	ppbv #	23
44) 2,2,4-Trimethylpentane	8.00	57	29728	0.067	ppbv #	43
52) Tetrachloroethene	11.38	164	403388	4.356	ppbv	98
53) Toluene	9.96	91	207764	0.748	ppbv	98

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.01 min

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ClientSampleId :

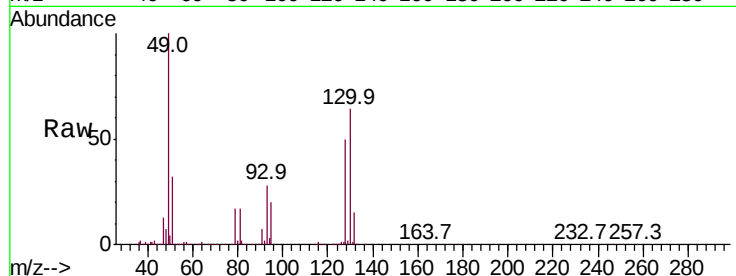
Tot Ion: 49 Resp: 1327182

Ion Ratio Lower Upper

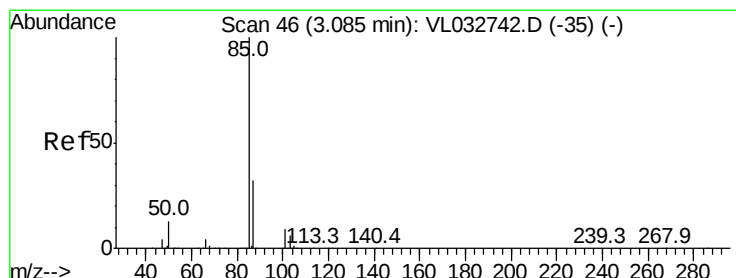
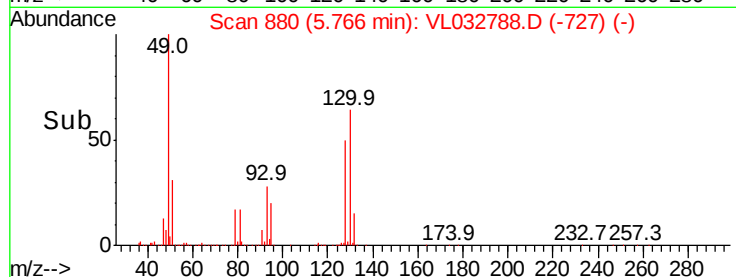
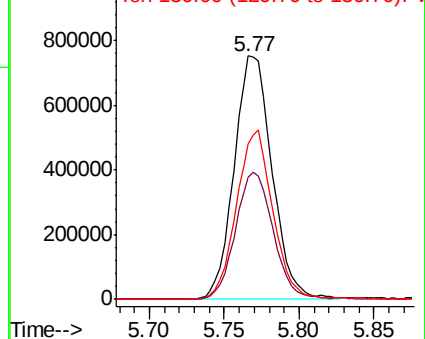
49 100

128 52.5 24.9 74.6

130 67.2 31.4 94.2



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.454 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032788.D

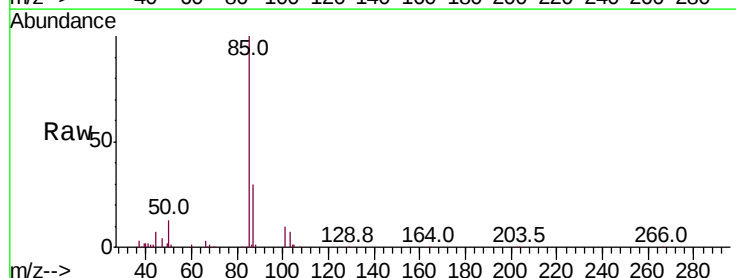
Acq: 20 Nov 2018 21:26

Tgt Ion: 85 Resp: 86608

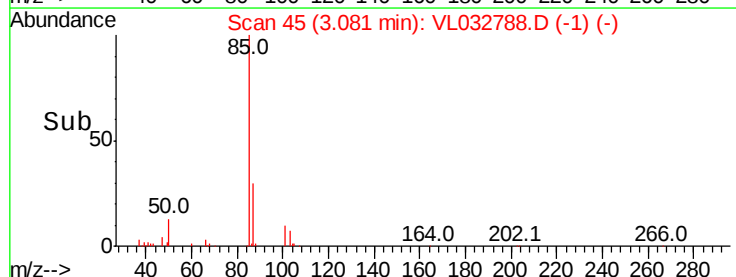
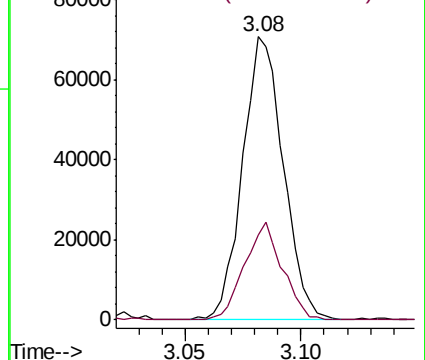
Ion Ratio Lower Upper

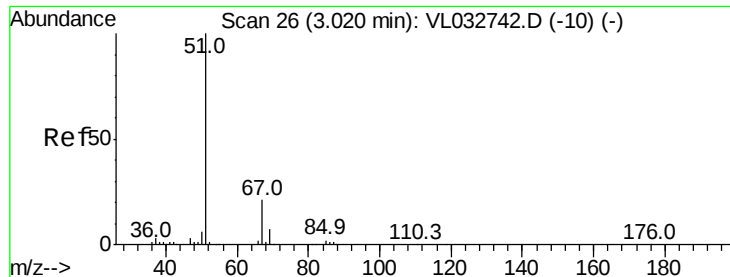
85 100

87 30.0 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.502 ppbv

RT: 2.99 min Scan# 18

Delta R.T. -0.03 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

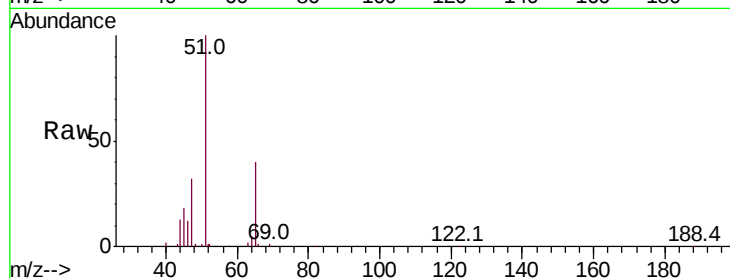
ClientSampleId :

Tot Ion: 51 Resp: 158051

Ion Ratio Lower Upper

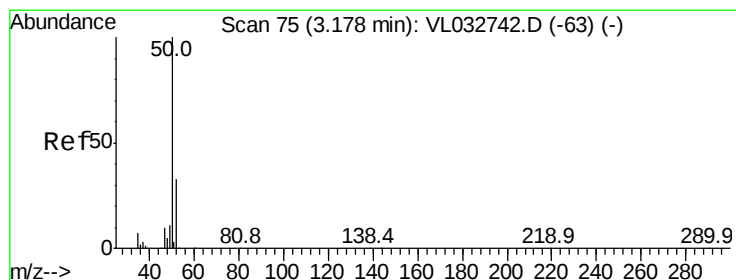
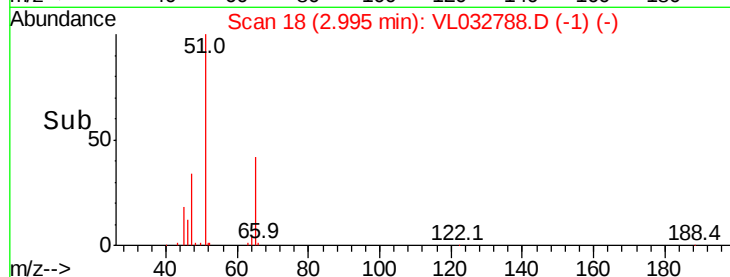
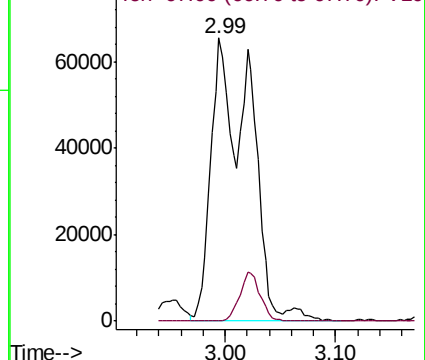
51 100

67 9.2 16.1 24.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.450 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032788.D

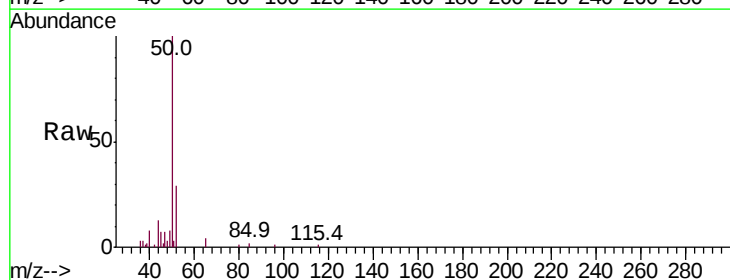
Acq: 20 Nov 2018 21:26

Tgt Ion: 50 Resp: 26236

Ion Ratio Lower Upper

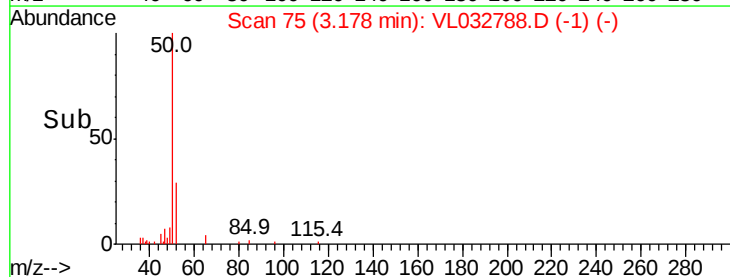
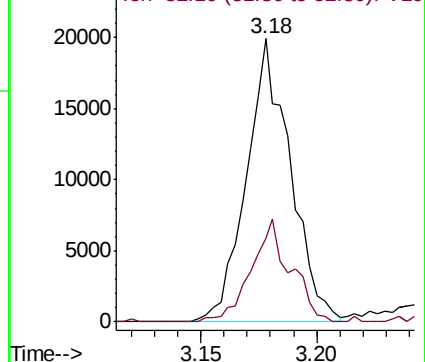
50 100

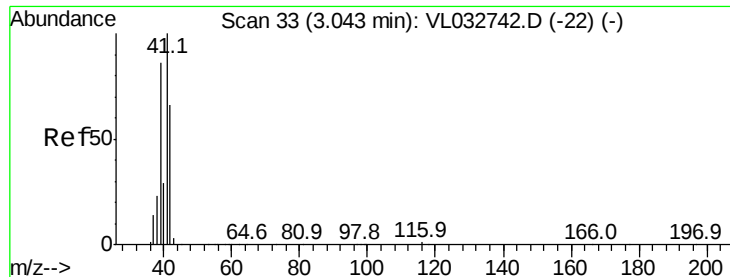
52 29.5 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.632 ppbv

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

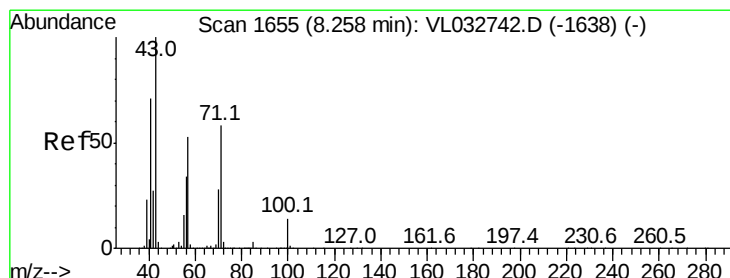
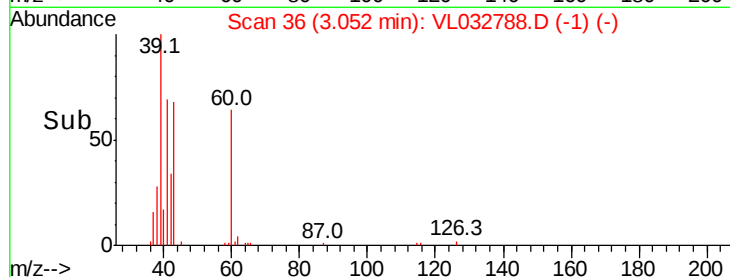
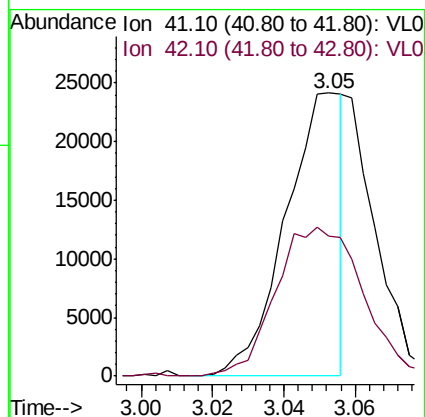
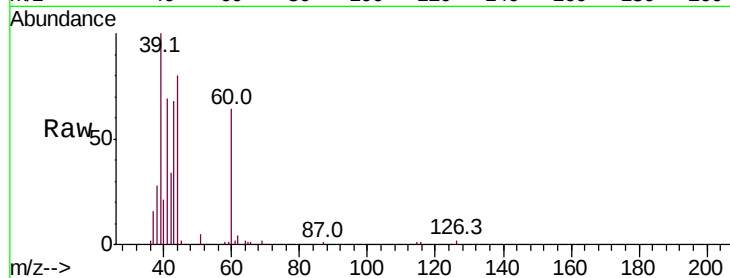
ClientSampleId :

Tot Ion: 41 Resp: 26601

Ion Ratio Lower Upper

41 100

42 81.5 55.0 82.6



#10

Heptane

Concen: 0.031 ppbv

RT: 8.25 min Scan# 1652

Delta R.T. -0.01 min

Lab File: VL032788.D

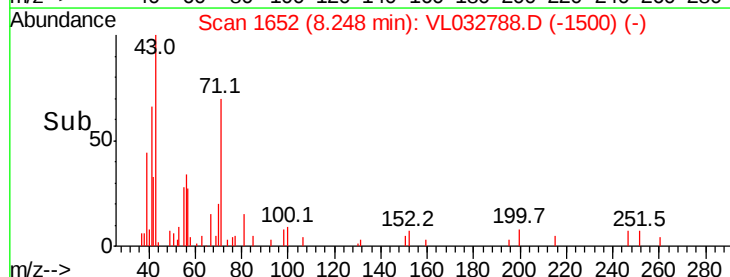
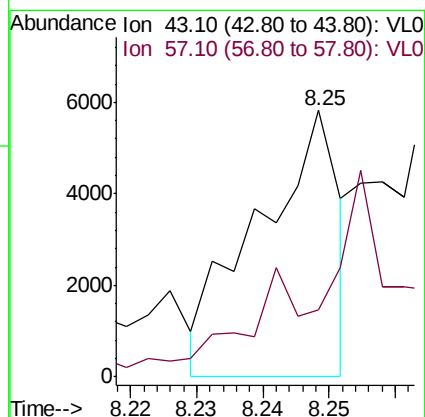
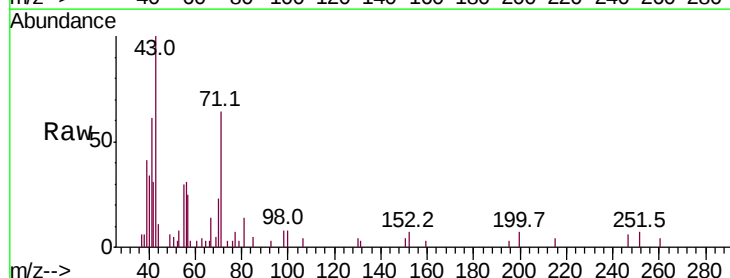
Acq: 20 Nov 2018 21:26

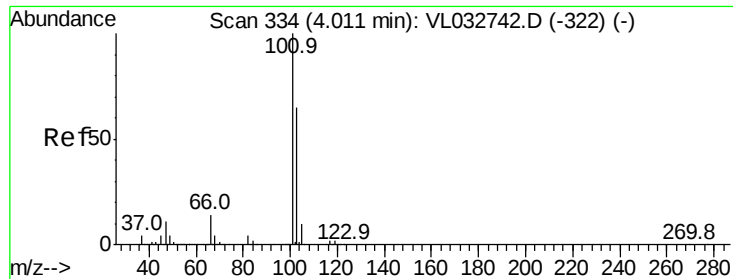
Tgt Ion: 43 Resp: 4972

Ion Ratio Lower Upper

43 100

57 0.0 41.8 62.8#

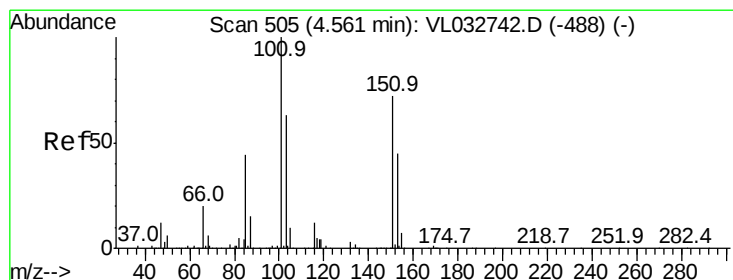
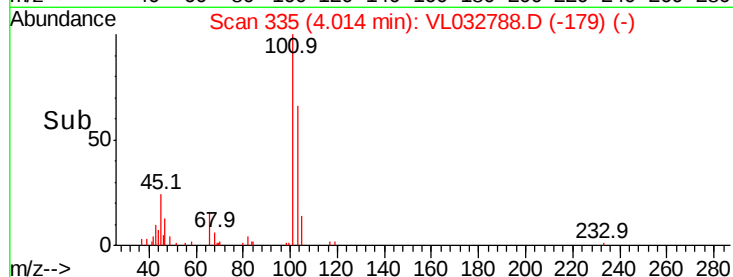
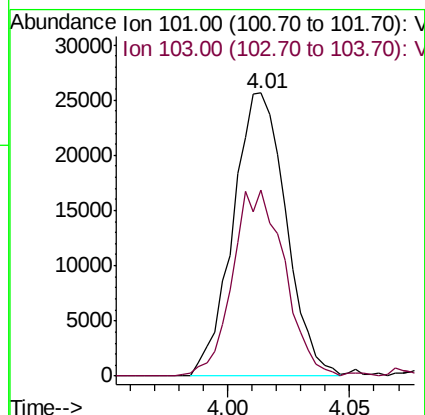
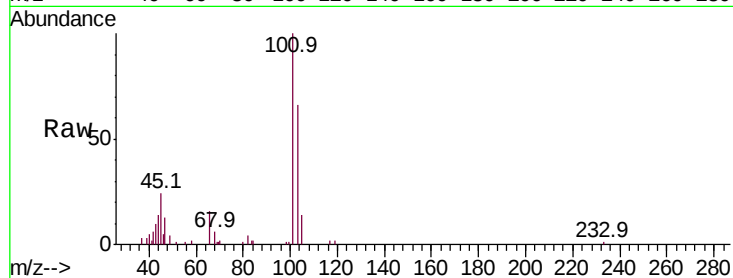




#11
 Trichlorofluoromethane
 Concen: 0.215 ppbv
 RT: 4.01 min Scan# 335
 Delta R.T. 0.00 min
 Lab File: VL032788.D
 Acq: 20 Nov 2018 21:26

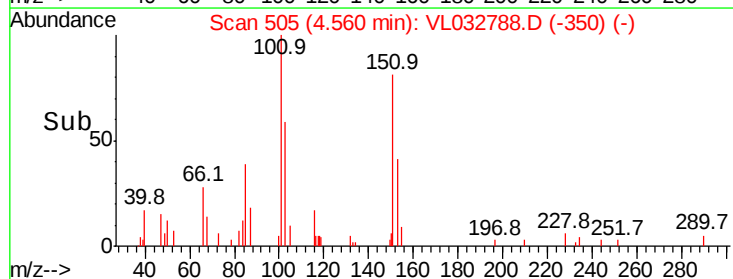
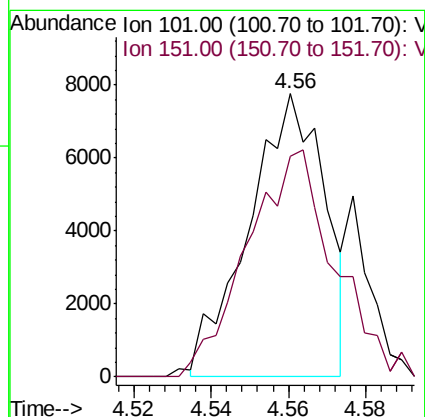
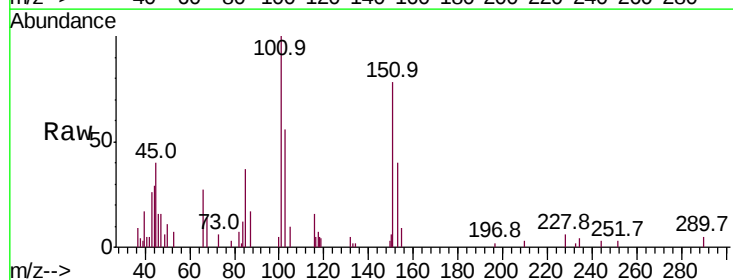
Instrument :
 MSVOA_L
 ClientSampleId :

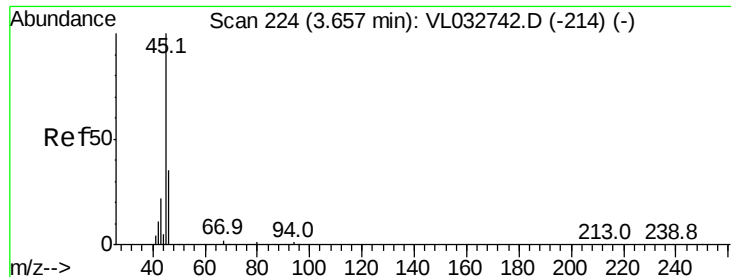
Tot Ion:101 Resp: 38693
 Ion Ratio Lower Upper
 101 100
 103 65.8 51.6 77.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.072 ppbv
 RT: 4.56 min Scan# 505
 Delta R.T. -0.00 min
 Lab File: VL032788.D
 Acq: 20 Nov 2018 21:26

Tgt Ion:101 Resp: 10620
 Ion Ratio Lower Upper
 101 100
 151 91.5 56.7 85.1#





#13

Ethanol

Concen: 67.971 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

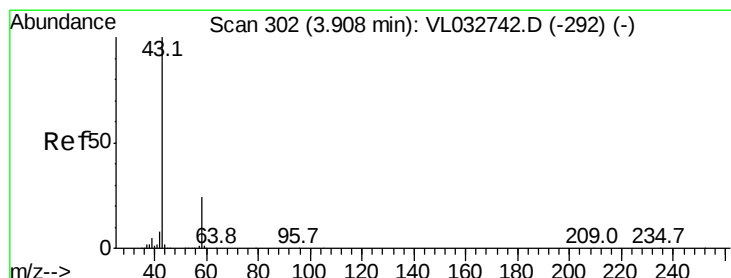
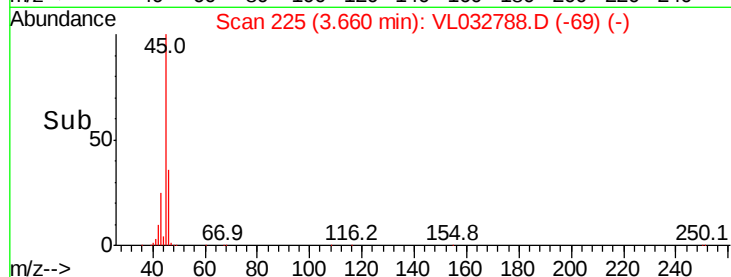
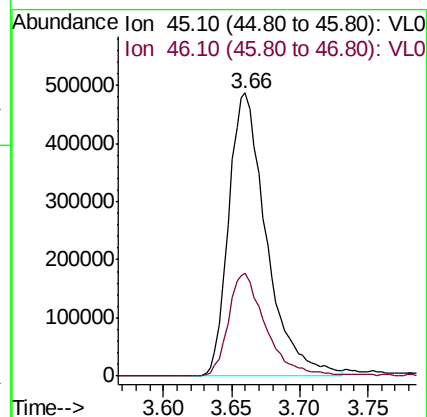
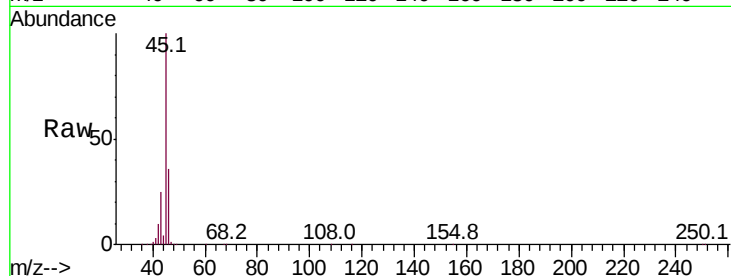
ClientSampled :

Tot Ion: 45 Resp: 937437

Ion Ratio Lower Upper

45 100

46 36.9 14.5 57.9



#15

Acetone

Concen: 6.578 ppbv

RT: 3.91 min Scan# 302

Delta R.T. -0.00 min

Lab File: VL032788.D

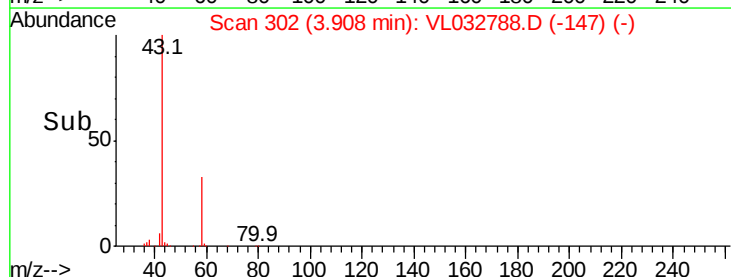
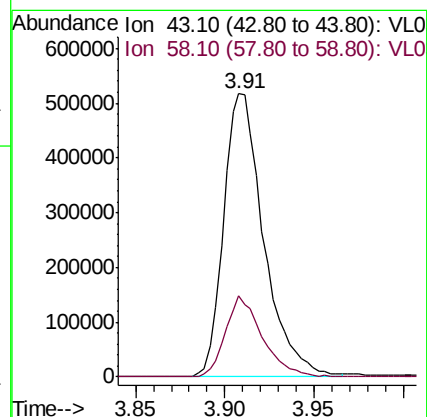
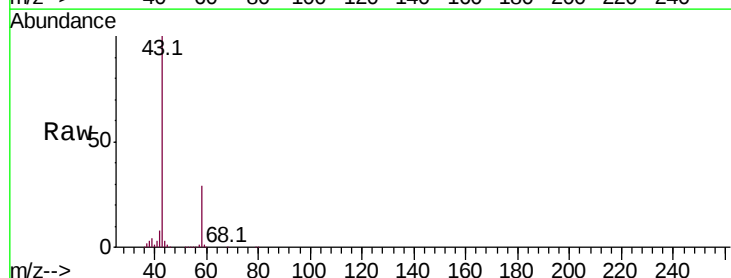
Acq: 20 Nov 2018 21:26

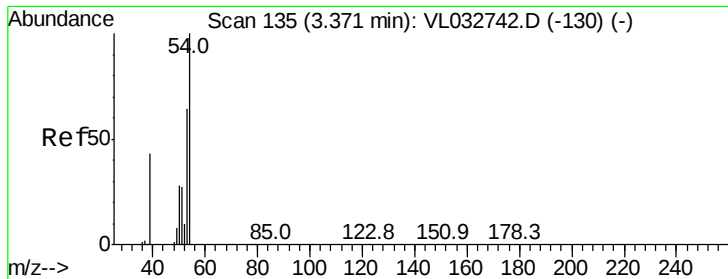
Tgt Ion: 43 Resp: 797263

Ion Ratio Lower Upper

43 100

58 27.0 21.1 31.7





#16

1,3-Butadiene

Concen: 0.267 ppbv

RT: 3.35 min Scan# 129

Delta R.T. -0.02 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

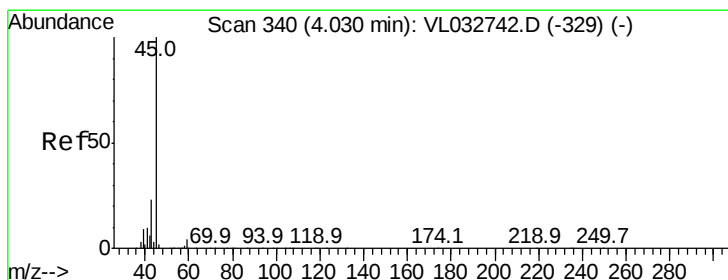
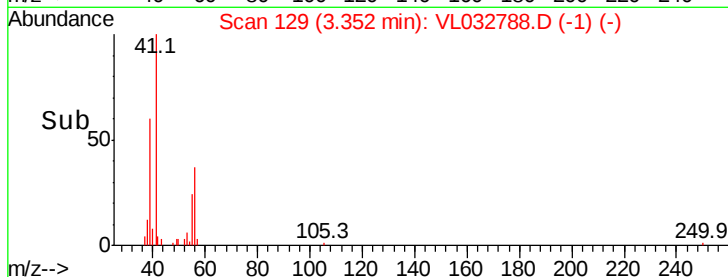
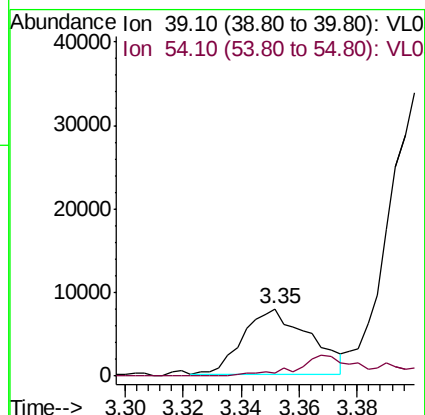
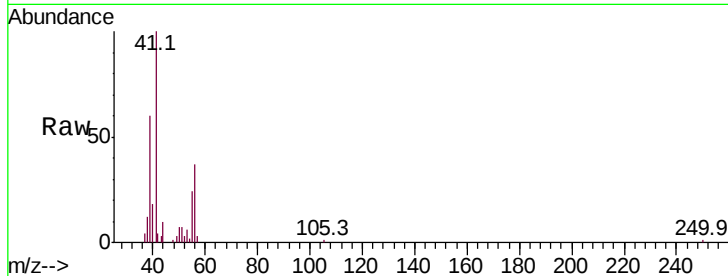
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 39 Resp: 12538

Ion Ratio Lower Upper

39 100

54 39.4 68.9 103.3#



#19

Isopropyl Alcohol

Concen: 0.213 ppbv

RT: 4.07 min Scan# 354

Delta R.T. 0.04 min

Lab File: VL032788.D

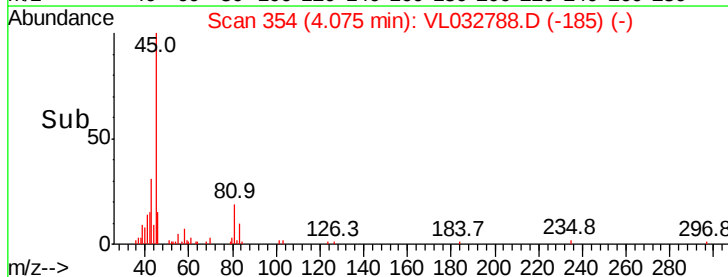
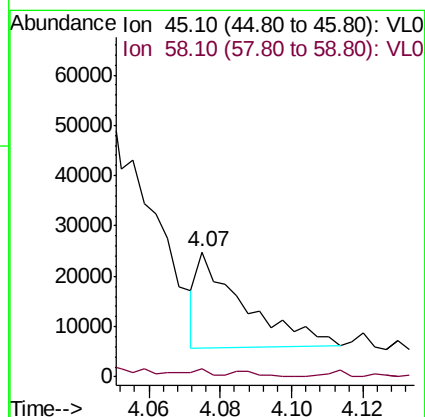
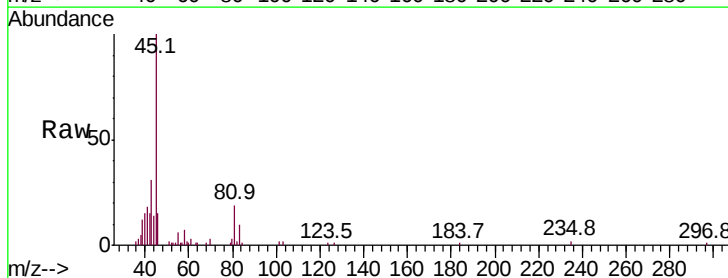
Acq: 20 Nov 2018 21:26

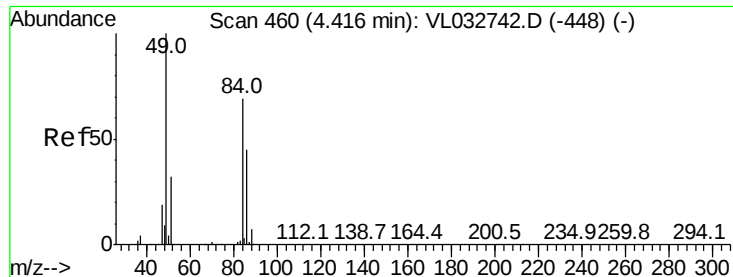
Tgt Ion: 45 Resp: 17171

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#

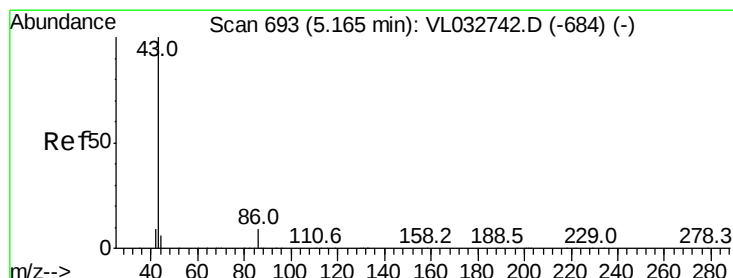
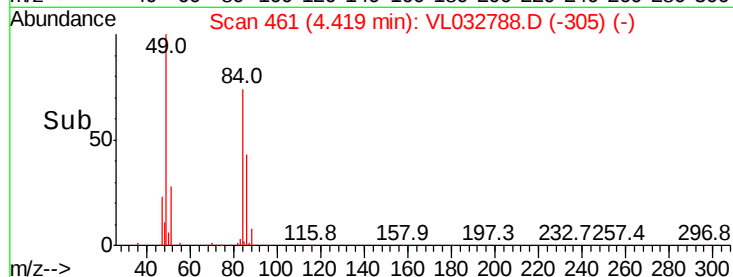
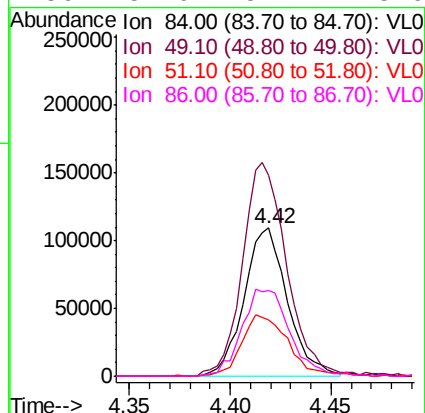
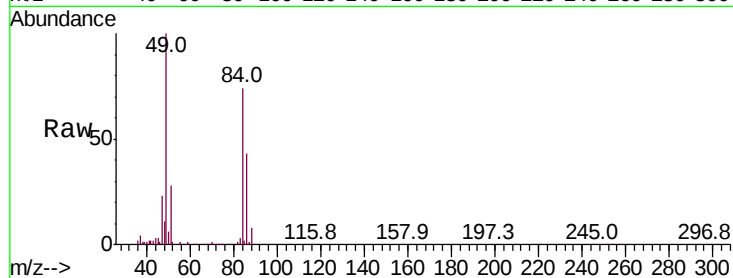




#20
Methvlene Chloride
Concen: 2.626 ppbv
RT: 4.42 min Scan# 461
Delta R.T. 0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

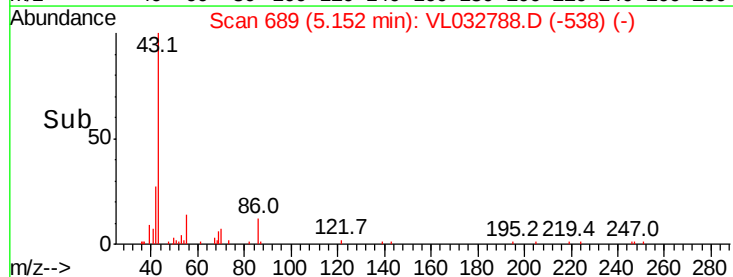
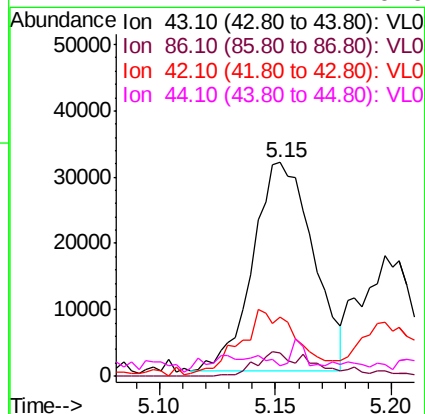
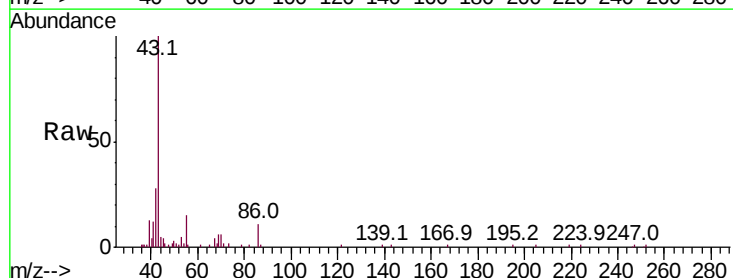
Instrument :
MSVOA_L
ClientSampleId :

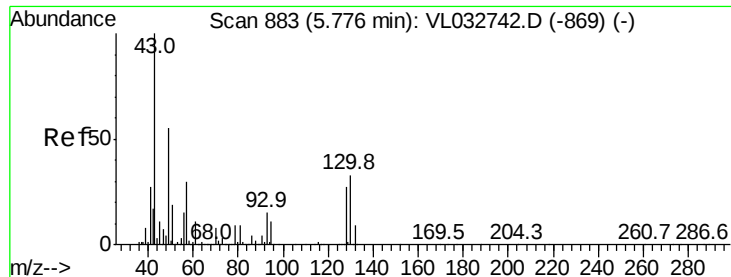
Tot Ion:	84	Resp:	164771
Ion	Ratio	Lower	Upper
84	100		
49	135.5	115.8	173.6
51	38.3	36.9	55.3
86	57.9	52.4	78.6



#23
Vinyl Acetate
Concen: 0.257 ppbv
RT: 5.15 min Scan# 689
Delta R.T. -0.01 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Tgt Ion:	43	Resp:	56772
Ion	Ratio	Lower	Upper
43	100		
86	11.1	6.2	9.4#
42	27.2	7.8	11.6#
44	1.4	4.4	6.6#

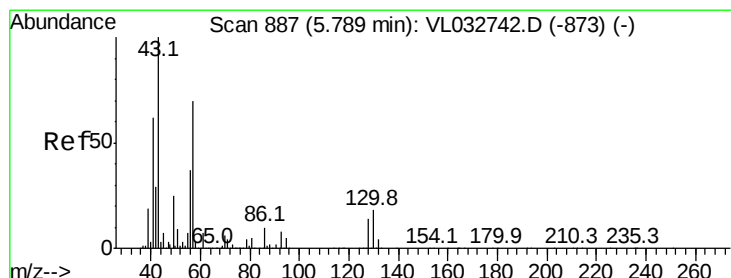
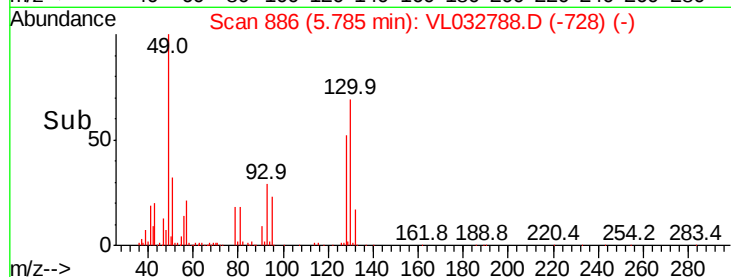
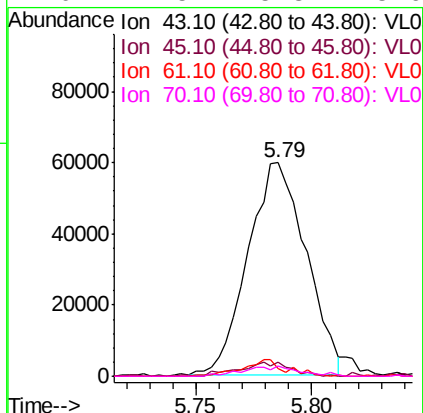
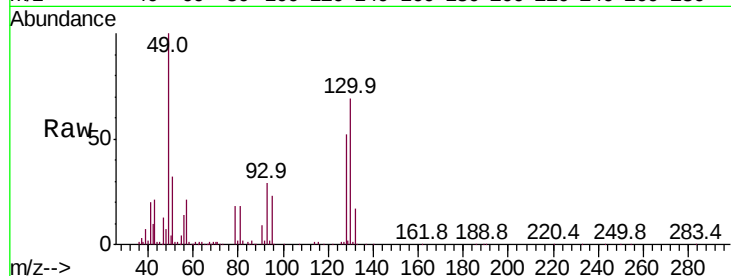




#25
Ethyl Acetate
Concen: 0.370 ppbv
RT: 5.79 min Scan# 886
Delta R.T. 0.01 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

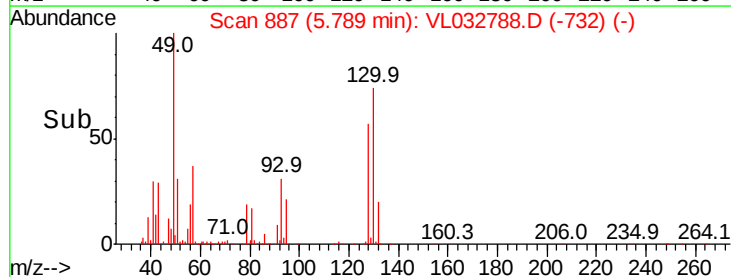
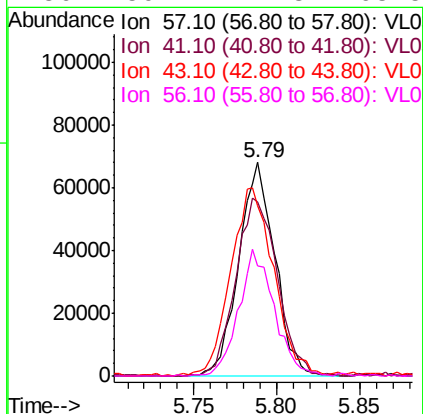
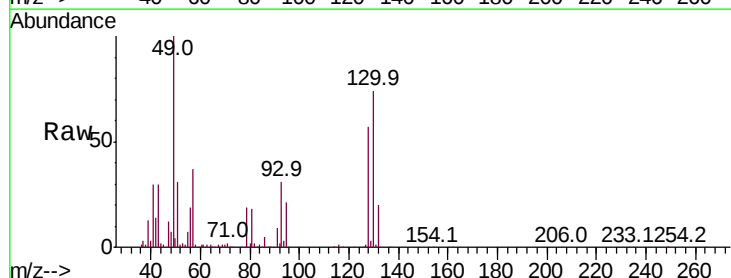
Instrument :
MSVOA_L
ClientSampleId :

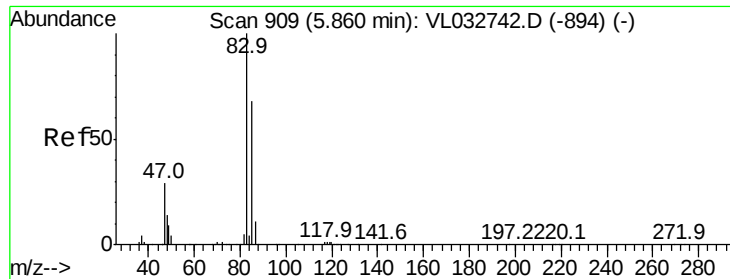
Tot Ion:	43	Resp:	104613
Ion	Ratio	Lower	Upper
43	100		
45	6.4	7.9	11.9#
61	5.7	7.8	11.6#
70	4.5	5.8	8.6#



#26
Hexane
Concen: 0.817 ppbv
RT: 5.79 min Scan# 887
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Tgt Ion:	57	Resp:	102682
Ion	Ratio	Lower	Upper
57	100		
41	96.5	70.3	105.5
43	105.1	174.0	261.0#
56	59.4	42.3	63.5





#29

Chloroform

Concen: 0.034 ppbv

RT: 5.85 min Scan# 906

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

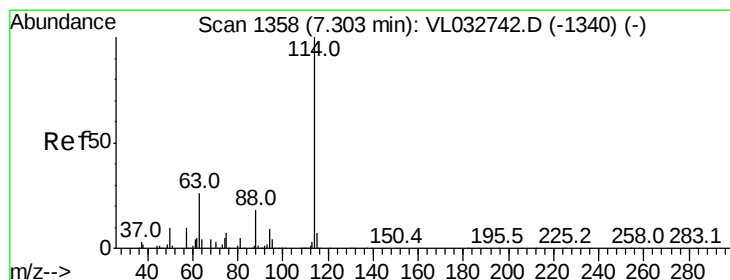
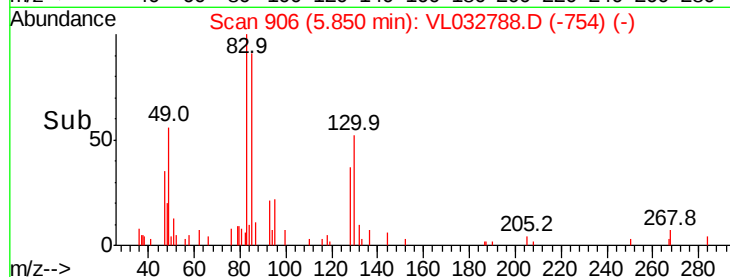
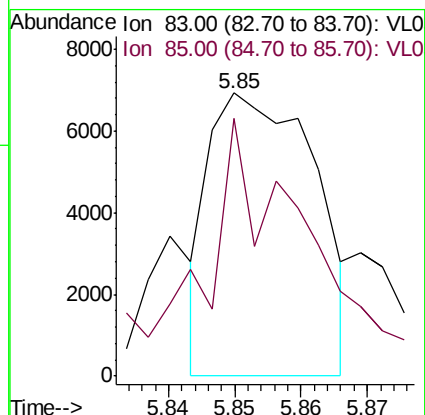
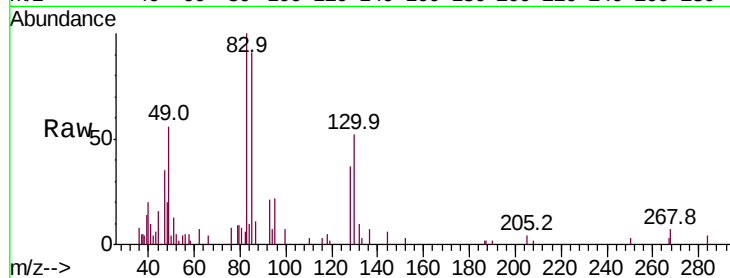
ClientSampleId :

Tot Ion: 83 Resp: 7688

Ion Ratio Lower Upper

83 100

85 102.3 54.2 81.4#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1357

Delta R.T. -0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

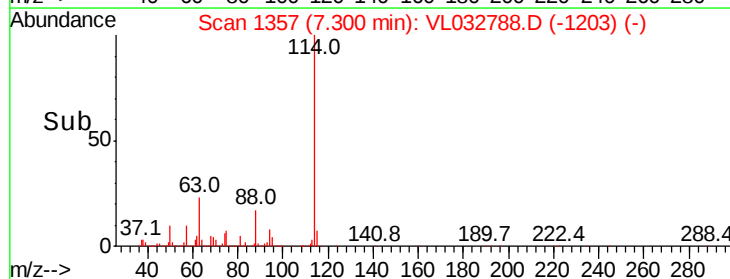
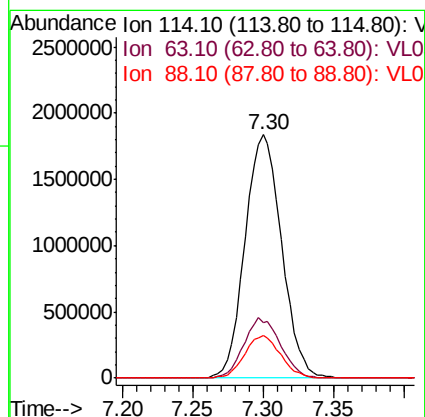
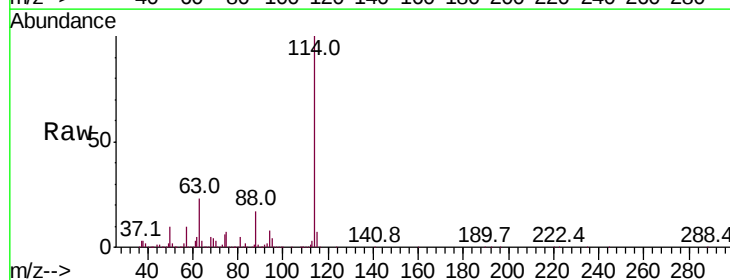
Tgt Ion: 114 Resp: 3343380

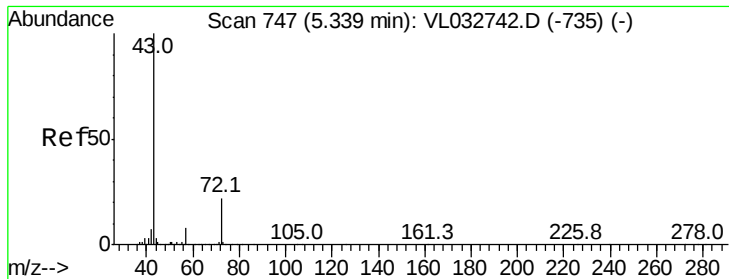
Ion Ratio Lower Upper

114 100

63 24.8 20.9 31.3

88 17.3 14.4 21.6





#34

2-Butanone

Concen: 0.496 ppbv

RT: 5.34 min Scan# 748

Delta R.T. 0.00 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

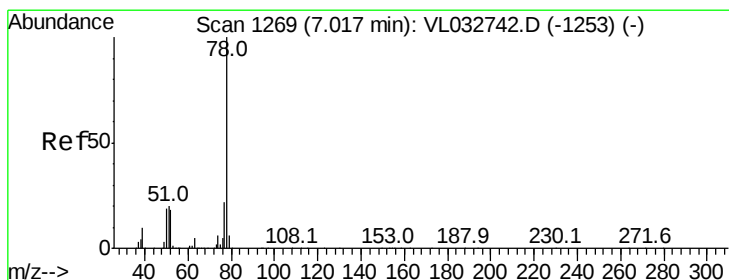
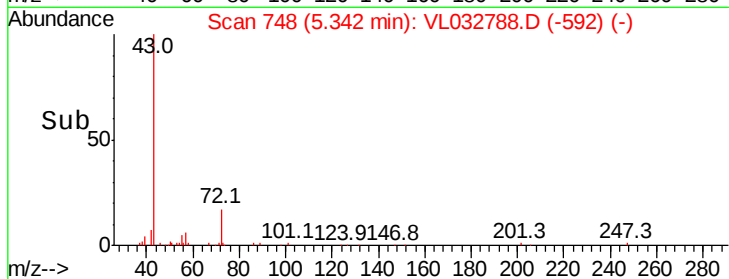
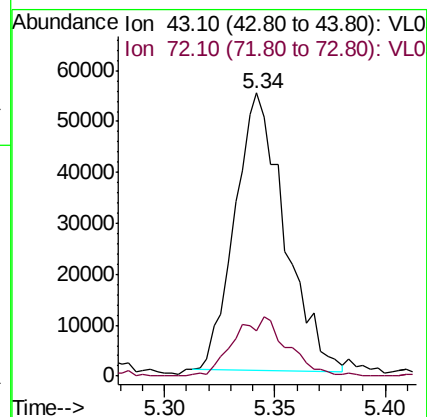
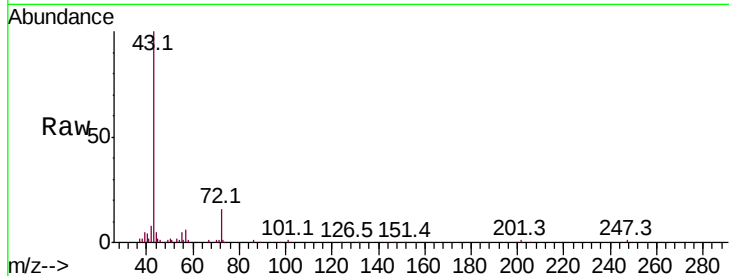
ClientSampleId :

Tot Ion: 43 Resp: 85943

Ion Ratio Lower Upper

43 100

72 23.0 18.4 27.6



#36

Benzene

Concen: 0.312 ppbv

RT: 7.01 min Scan# 1266

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

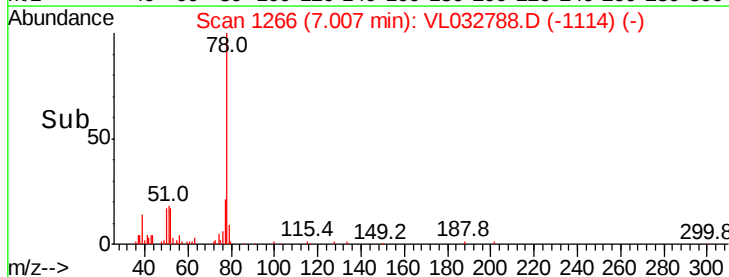
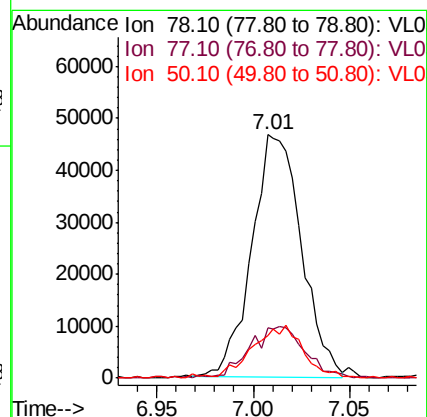
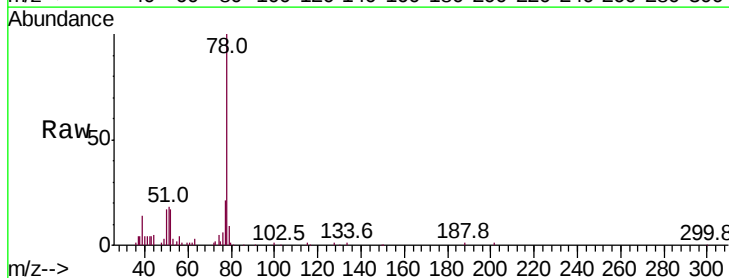
Tgt Ion: 78 Resp: 83178

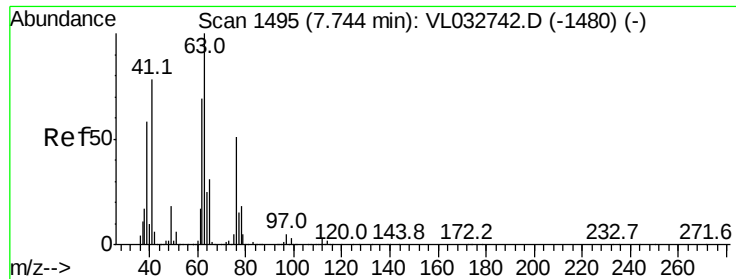
Ion Ratio Lower Upper

78 100

77 21.0 17.8 26.8

50 16.4 15.4 23.0





#39

1,2-Dichloropropane

Concen: 8.163 ppbv

RT: 7.30 min Scan# 1356

Delta R.T. -0.45 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

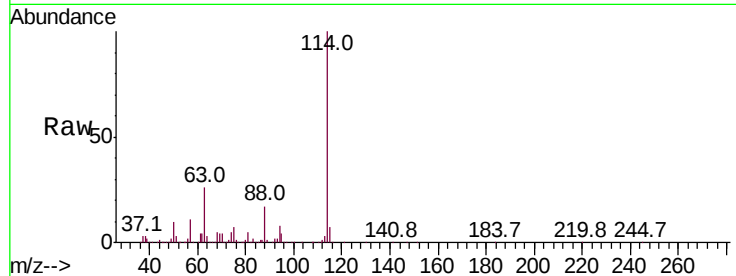
Tot Ion: 63 Resp: 828083

Ion Ratio Lower Upper

63 100

41 0.0 62.0 93.0#

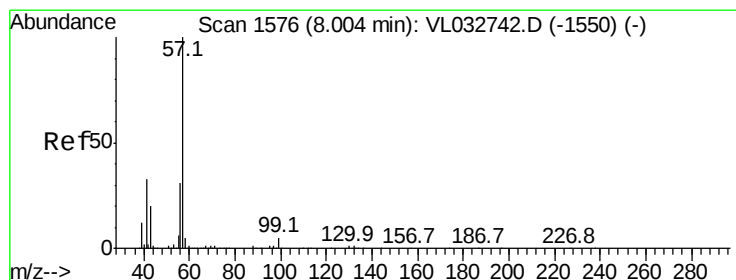
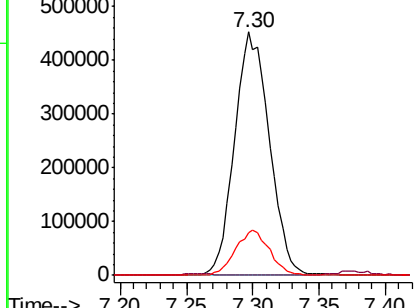
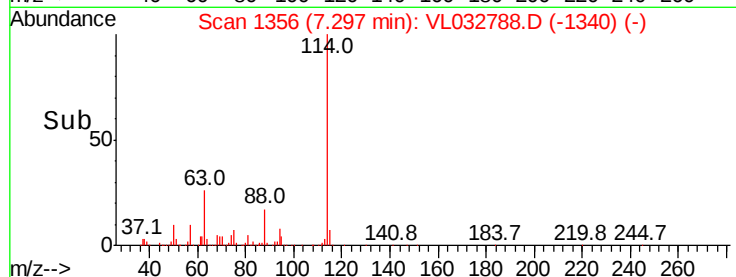
62 17.4 55.4 83.2#



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



#44

2,2,4-Trimethylpentane

Concen: 0.067 ppbv

RT: 8.00 min Scan# 1574

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

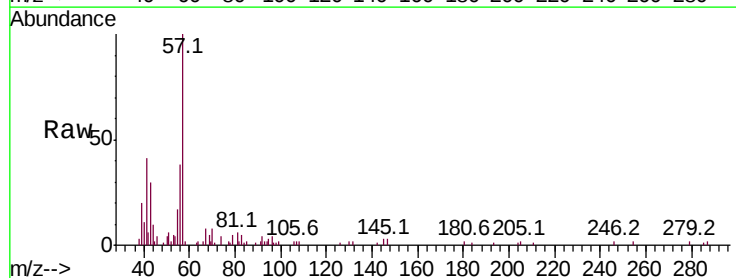
Tgt Ion: 57 Resp: 29728

Ion Ratio Lower Upper

57 100

41 73.8 26.6 39.8#

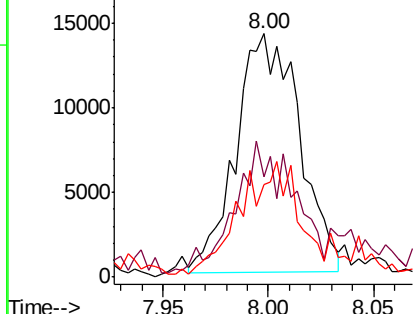
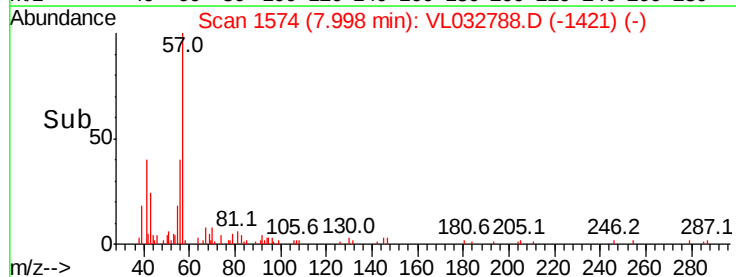
56 54.1 24.8 37.2#

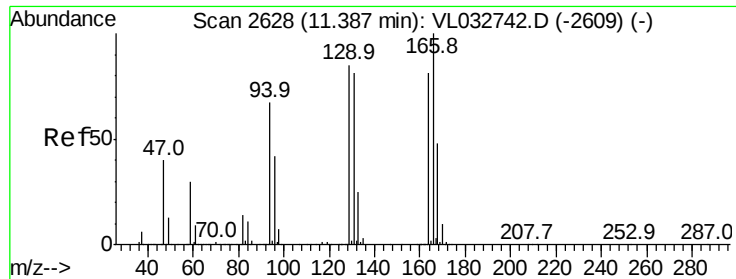


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 4.356 ppbv

RT: 11.38 min Scan# 2626

Delta R.T. -0.01 min

Lab File: VL032788.D

Acq: 20 Nov 2018 21:26

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 403388

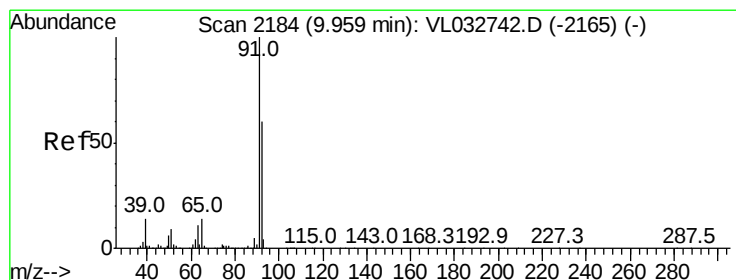
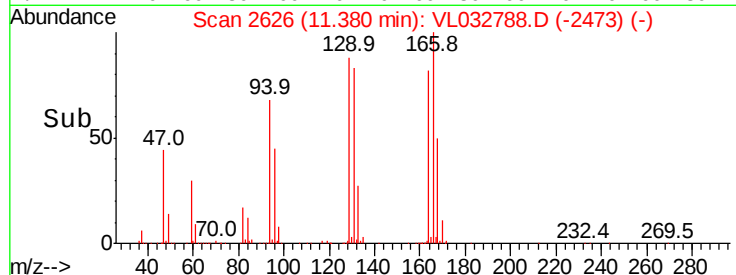
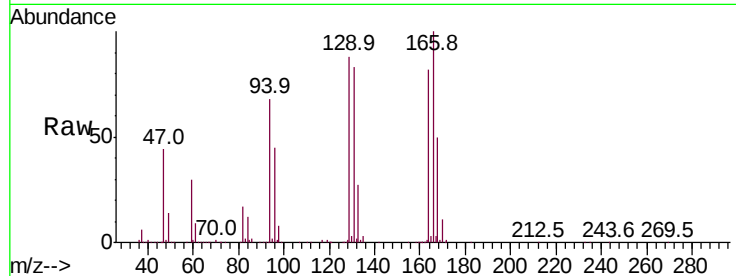
Ion Ratio Lower Upper

164 100

166 122.6 99.3 148.9

129 107.7 83.9 125.9

131 101.8 80.8 121.2



#53

Toluene

Concen: 0.748 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. -0.00 min

Lab File: VL032788.D

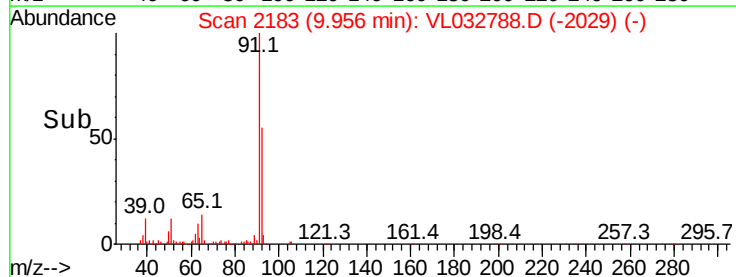
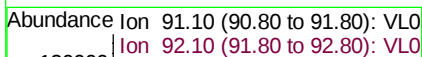
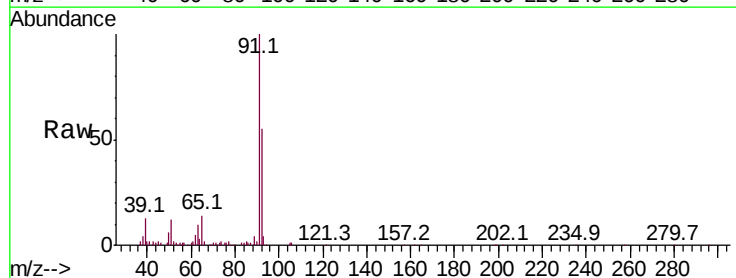
Acq: 20 Nov 2018 21:26

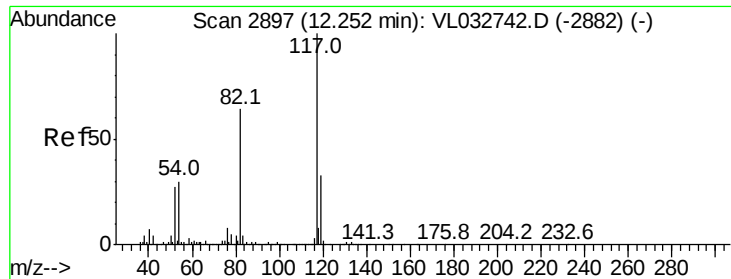
Tgt Ion: 91 Resp: 207764

Ion Ratio Lower Upper

91 100

92 58.5 47.9 71.9

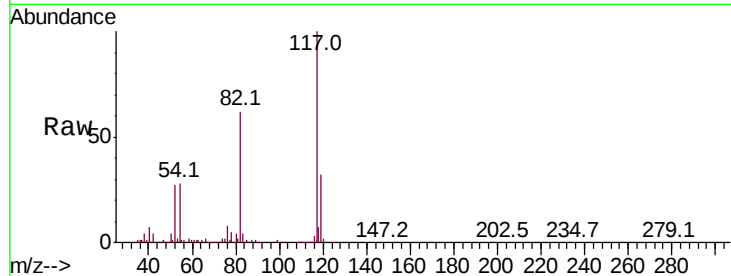




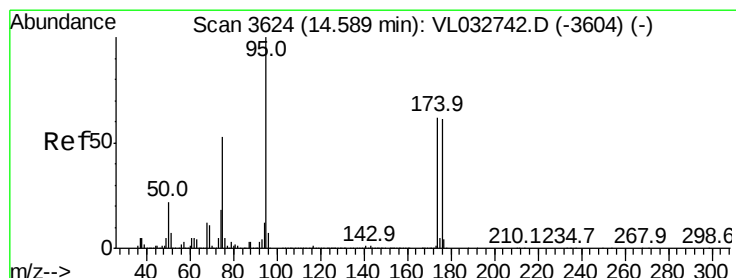
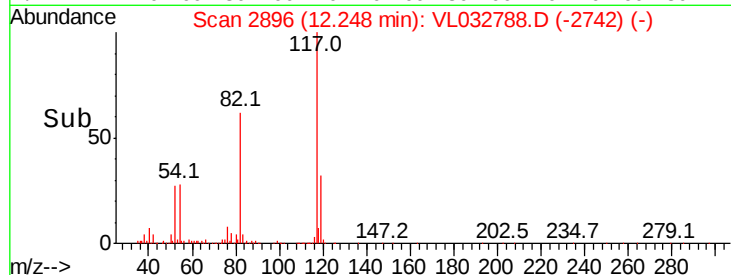
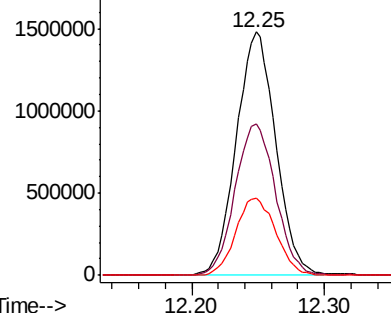
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2896
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 3060046
Ion Ratio Lower Upper
117 100
82 64.2 51.0 76.6
119 32.7 28.0 42.0

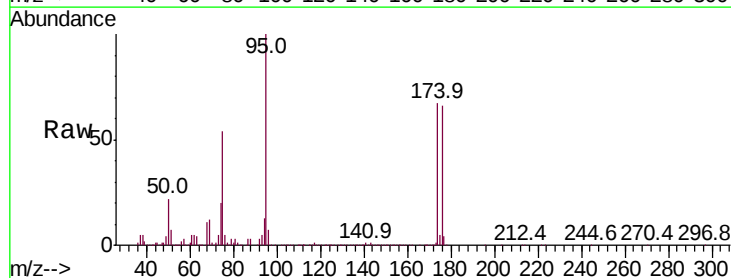


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V



#68
1-Bromo-4-Fluorobenzene
Concen: 9.938 ppbv
RT: 14.59 min Scan# 3623
Delta R.T. -0.00 min
Lab File: VL032788.D
Acq: 20 Nov 2018 21:26

Tgt Ion: 95 Resp: 2274531
Ion Ratio Lower Upper
95 100
174 66.9 50.7 76.1
175 4.9 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V

