

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\
 Data File : VL032800.D
 Acq On : 21 Nov 2018 5:13
 Operator : SY/AP
 Sample : J6015-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 21 06:19:06 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	1308616	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3436369	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3148010	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	2376967	10.10	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

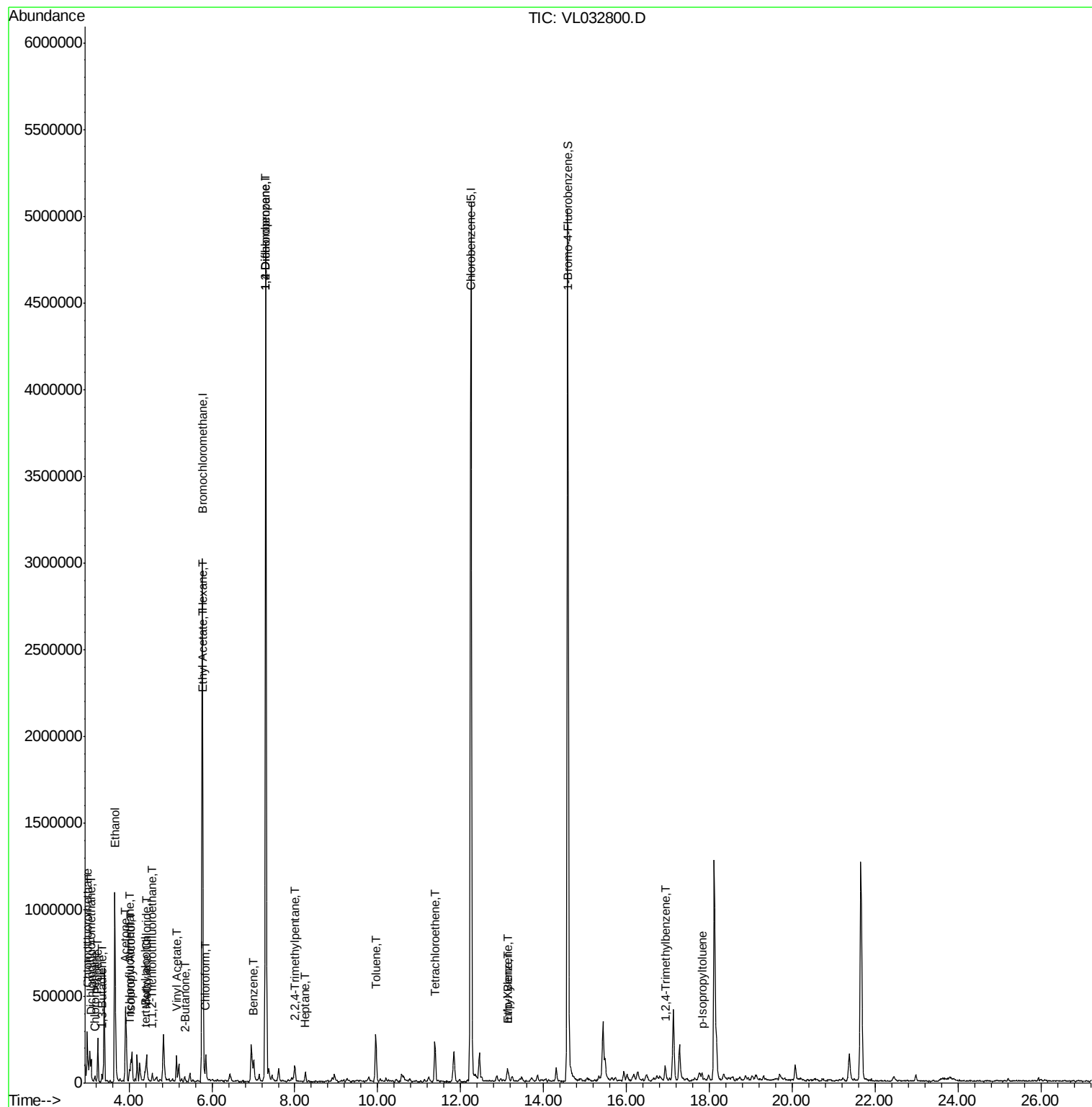
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.08	85	83675	0.445	ppbv 88
3) Chlorodifluoromethane	2.99	51	228803	2.205	ppbv # 69
4) Chloromethane	3.18	50	23909	0.416	ppbv # 86
9) Propene	3.25	41	60625	1.460	ppbv 97
10) Heptane	8.26	43	5158	0.033	ppbv # 1
11) Trichlorofluoromethane	4.01	101	39450	0.223	ppbv 97
12) 1,1,2-Trichlorotrifluoroet	4.56	101	12423	0.086	ppbv 97
13) Ethanol	3.66	45	1134434	83.421	ppbv 100
15) Acetone	3.91	43	465266	3.893	ppbv 93
16) 1,3-Butadiene	3.35	39	5884	0.127	ppbv 84
17) tert-Butyl alcohol	4.38	59	4833	0.129	ppbv # 73
19) Isopropyl Alcohol	4.04	45	145927	1.833	ppbv # 97
20) Methylene Chloride	4.42	84	49874	0.806	ppbv # 92
23) Vinyl Acetate	5.15	43	16392	0.075	ppbv # 1
25) Ethyl Acetate	5.79	43	48721	0.175	ppbv # 90
26) Hexane	5.79	57	39976	0.322	ppbv # 50
29) Chloroform	5.85	83	83054	0.376	ppbv # 83
34) 2-Butanone	5.35	43	29257	0.164	ppbv 98
36) Benzene	7.01	78	81332	0.297	ppbv 96
39) 1,2-Dichloropropane	7.30	63	845359	8.108	ppbv # 23
44) 2,2,4-Trimethylpentane	8.00	57	62128	0.136	ppbv # 78
52) Tetrachloroethene	11.38	164	29222	0.307	ppbv 86
53) Toluene	9.96	91	184126	0.645	ppbv 100
58) Ethyl Benzene	13.14	91	18565	0.049	ppbv 96
59) m/p-Xylene	13.13	91	33715	0.100	ppbv # 31
69) p-Isopropyltoluene	17.83	119	14570	0.031	ppbv # 50
74) 1,2,4-Trimethylbenzene	16.94	105	45970	0.118	ppbv # 63

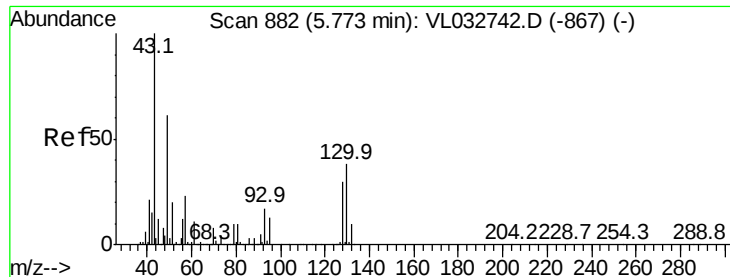
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :
MSVOA_L
ClientSampled :

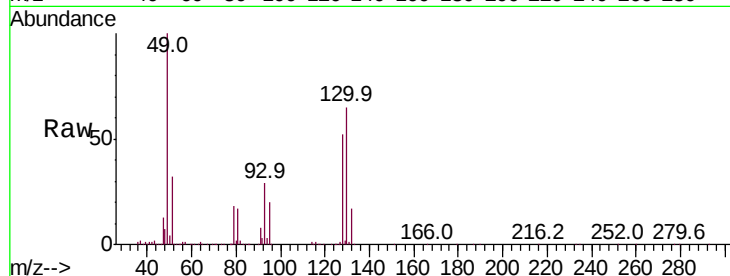
Tot Ion: 49 Resp: 1308616

Ion Ratio Lower Upper

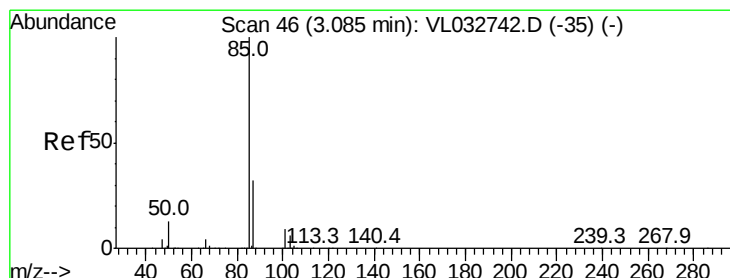
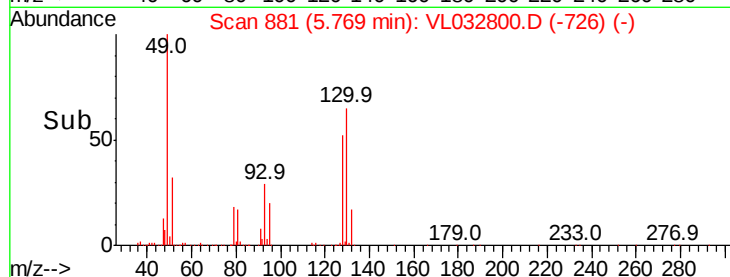
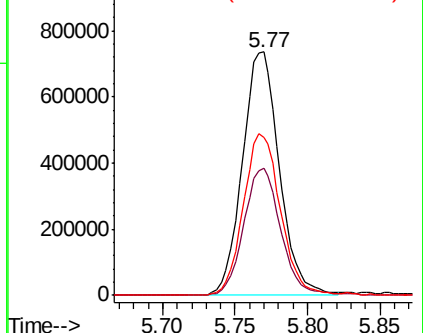
49 100

128 52.4 24.9 74.6

130 67.3 31.4 94.2



Abundance Ion 49.10 (48.80 to 49.80): VL0
1000000 Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.445 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032800.D

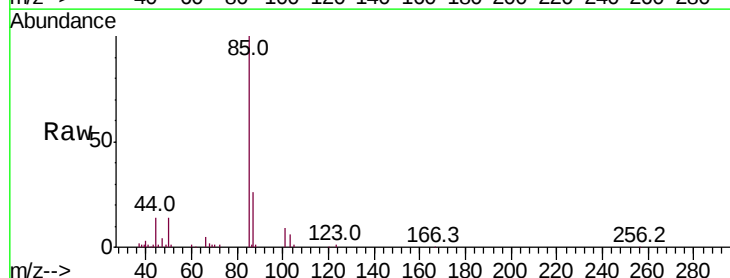
Acq: 21 Nov 2018 5:13

Tgt Ion: 85 Resp: 83675

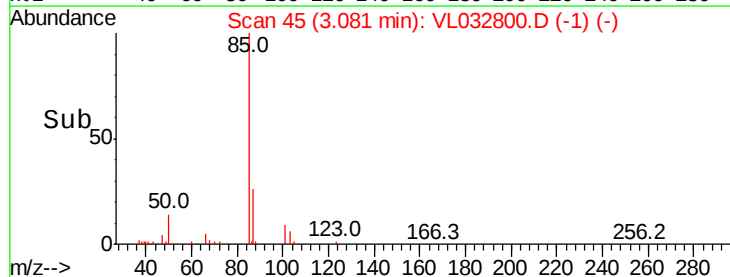
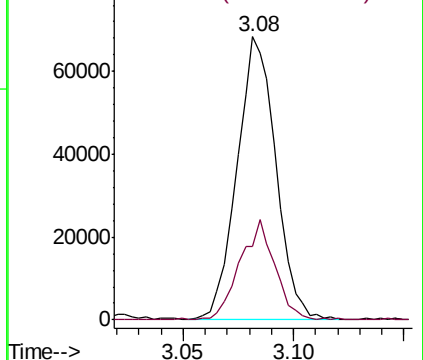
Ion Ratio Lower Upper

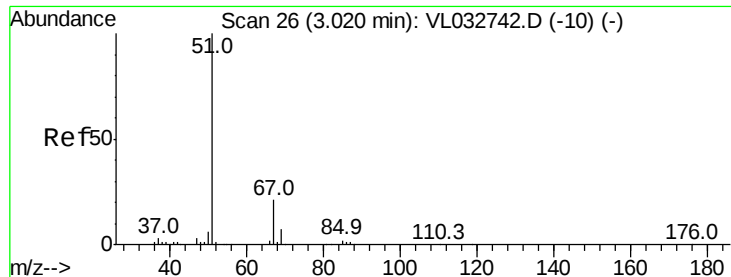
85 100

87 26.0 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0
80000 Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.205 ppbv

RT: 2.99 min Scan# 18

Delta R.T. -0.03 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

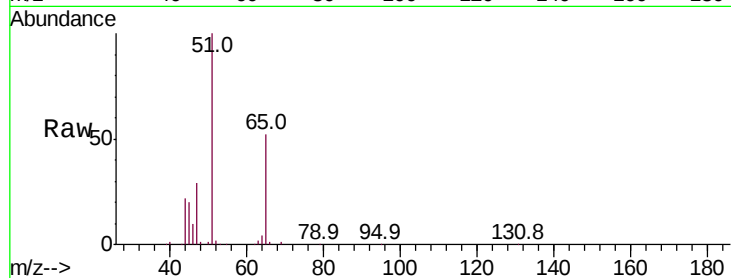
ClientSampleId :

Tot Ion: 51 Resp: 228803

Ion Ratio Lower Upper

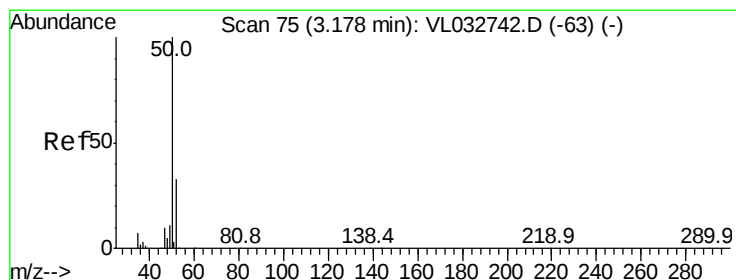
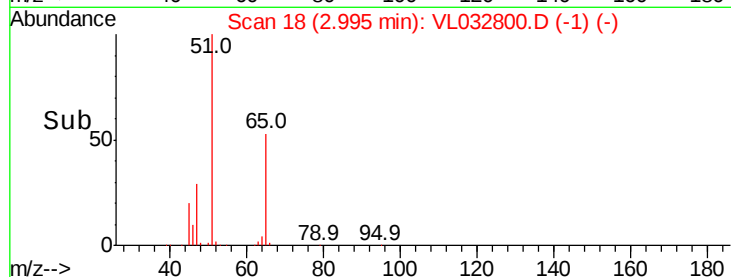
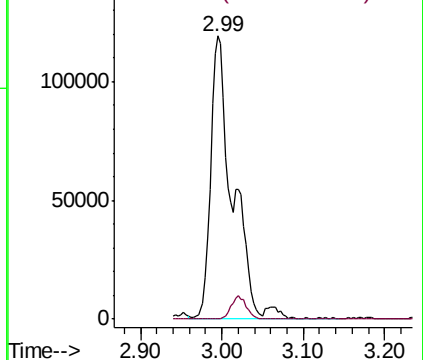
51 100

67 5.7 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: 0.416 ppbv

RT: 3.18 min Scan# 75

Delta R.T. 0.00 min

Lab File: VL032800.D

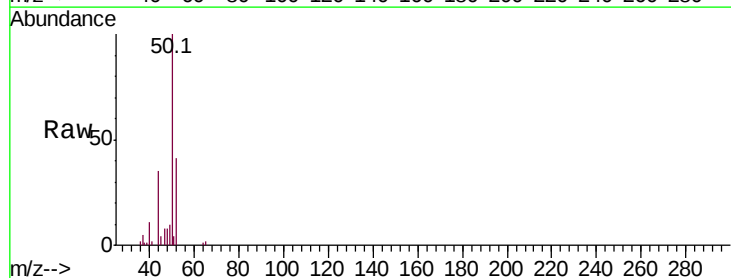
Acq: 21 Nov 2018 5:13

Tgt Ion: 50 Resp: 23909

Ion Ratio Lower Upper

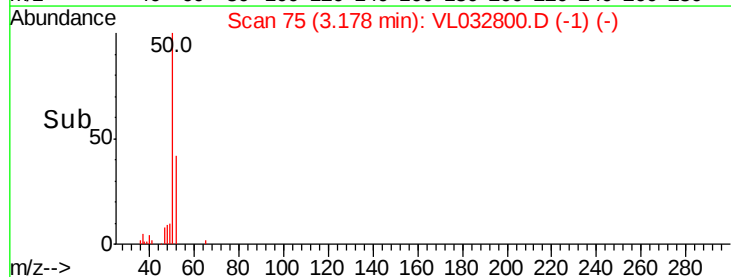
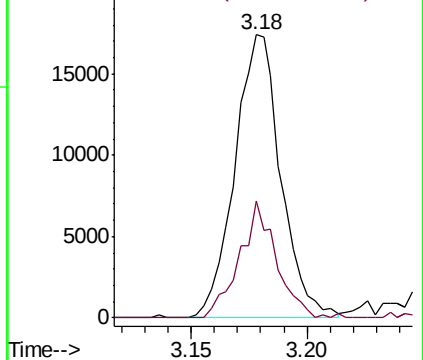
50 100

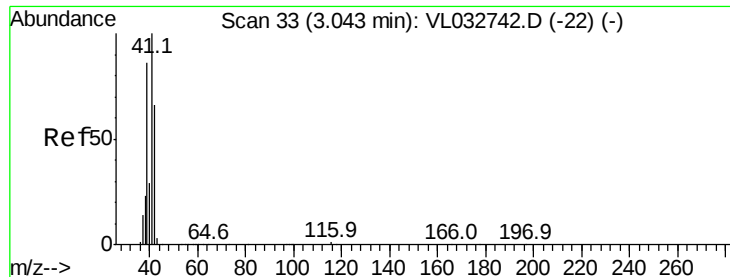
52 41.2 26.6 40.0#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.460 ppbv

RT: 3.25 min Scan# 96

Delta R.T. 0.20 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

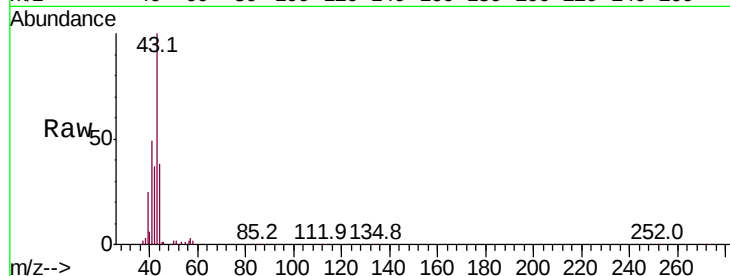
ClientSampleId :

Tot Ion: 41 Resp: 60625

Ion Ratio Lower Upper

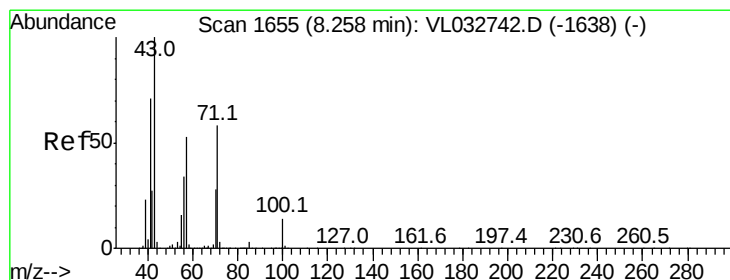
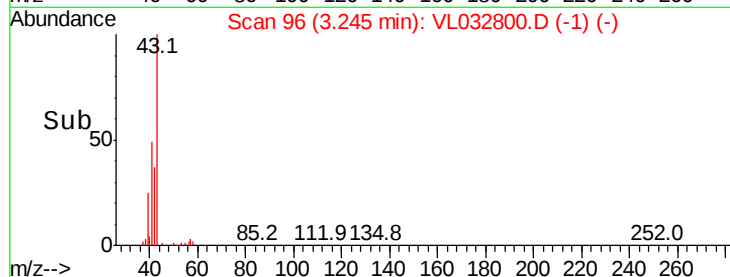
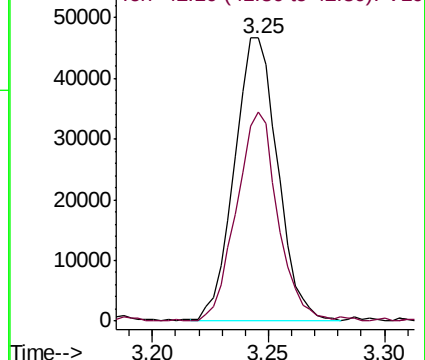
41 100

42 71.2 55.0 82.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.033 ppbv

RT: 8.26 min Scan# 1656

Delta R.T. 0.00 min

Lab File: VL032800.D

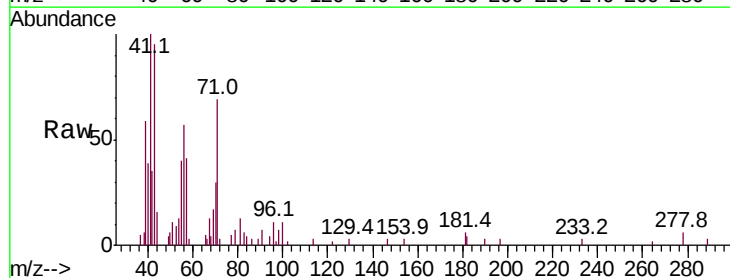
Acq: 21 Nov 2018 5:13

Tgt Ion: 43 Resp: 5158

Ion Ratio Lower Upper

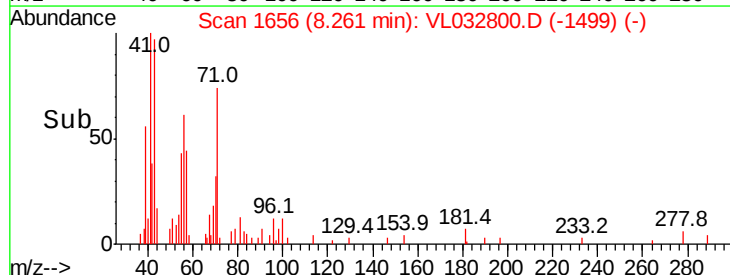
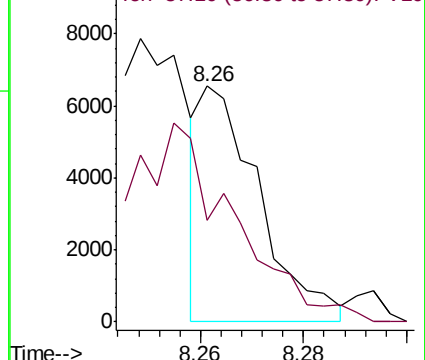
43 100

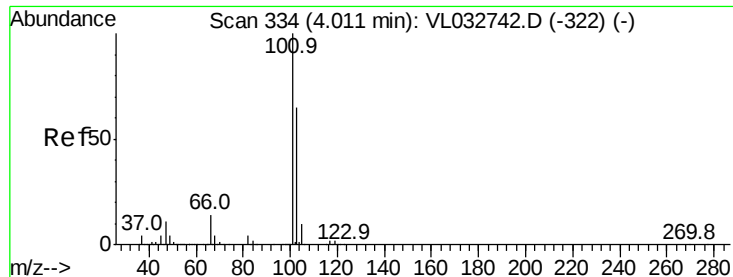
57 176.8 41.8 62.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

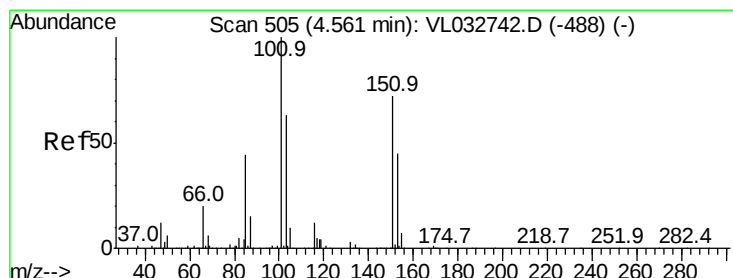
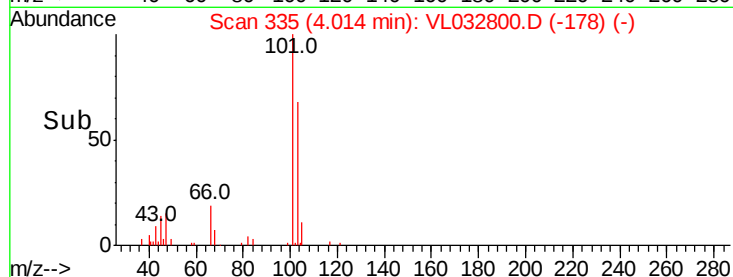
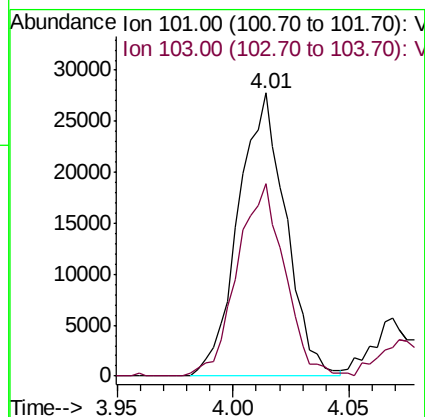
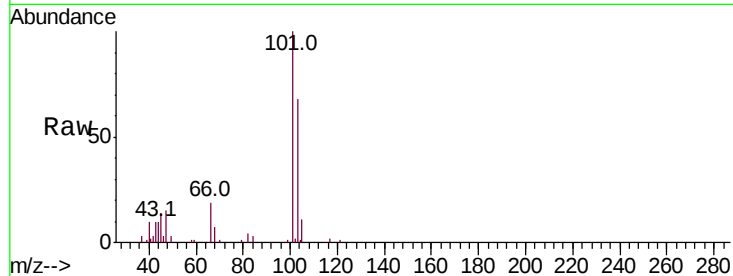




#11
 Trichlorofluoromethane
 Concen: 0.223 ppbv
 RT: 4.01 min Scan# 335
 Delta R.T. 0.00 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

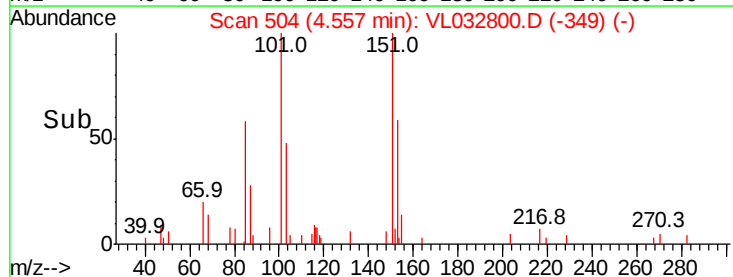
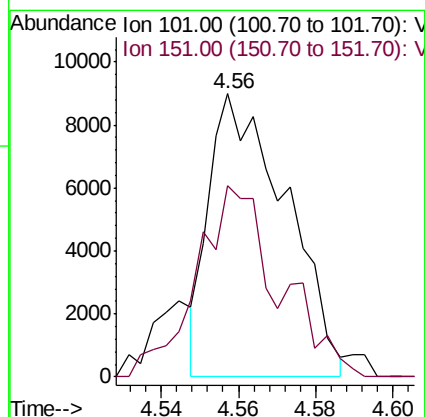
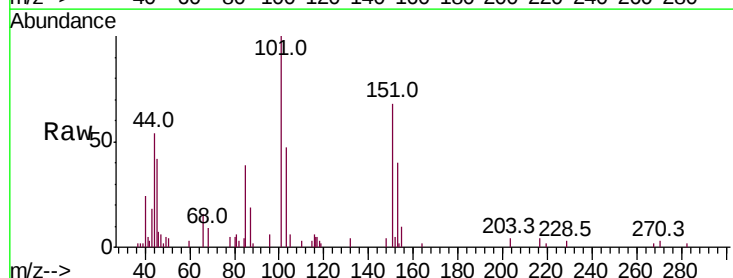
Instrument :
 MSVOA_L
 ClientSampleId :

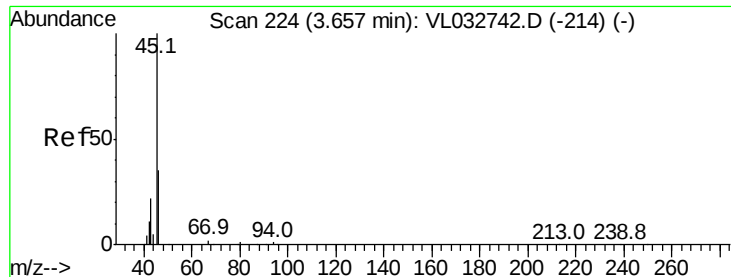
Tot Ion:101 Resp: 39450
 Ion Ratio Lower Upper
 101 100
 103 66.9 51.6 77.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.086 ppbv
 RT: 4.56 min Scan# 504
 Delta R.T. -0.00 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

Tgt Ion:101 Resp: 12423
 Ion Ratio Lower Upper
 101 100
 151 73.2 56.7 85.1





#13

Ethanol

Concen: 83.421 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.00 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

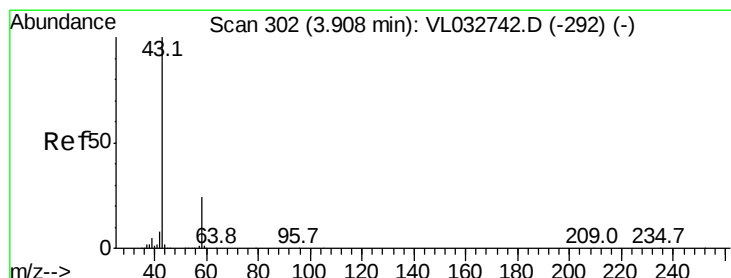
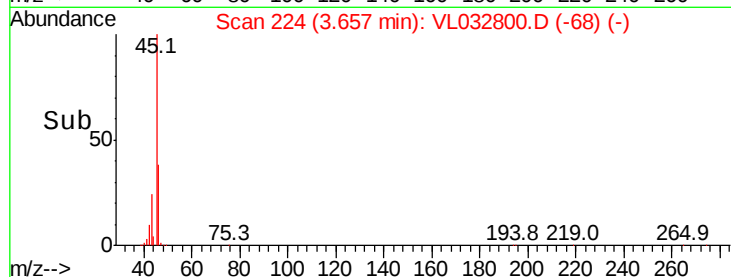
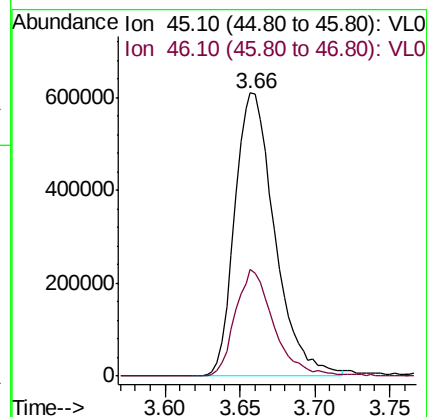
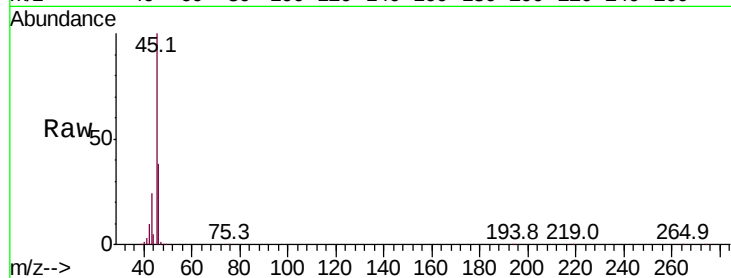
ClientSampleId :

Tot Ion: 45 Resp: 1134434

Ion Ratio Lower Upper

45 100

46 36.4 14.5 57.9



#15

Acetone

Concen: 3.893 ppbv

RT: 3.91 min Scan# 303

Delta R.T. 0.00 min

Lab File: VL032800.D

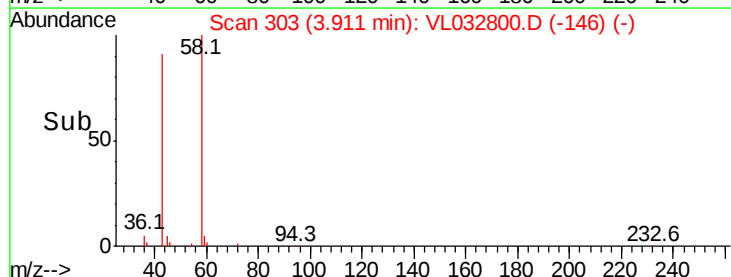
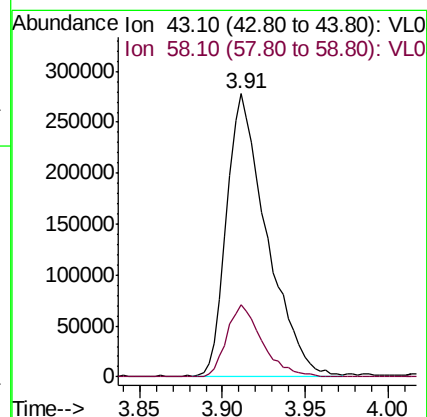
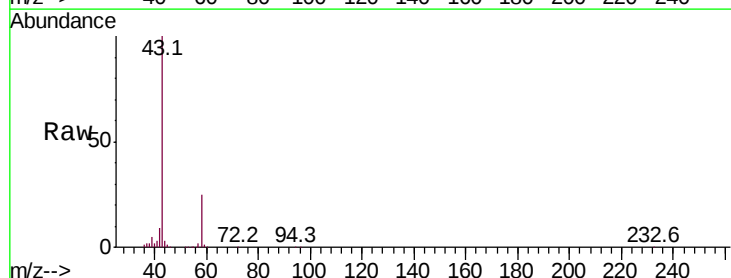
Acq: 21 Nov 2018 5:13

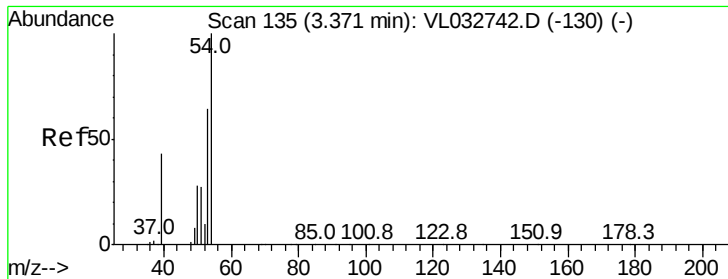
Tgt Ion: 43 Resp: 465266

Ion Ratio Lower Upper

43 100

58 22.9 21.1 31.7

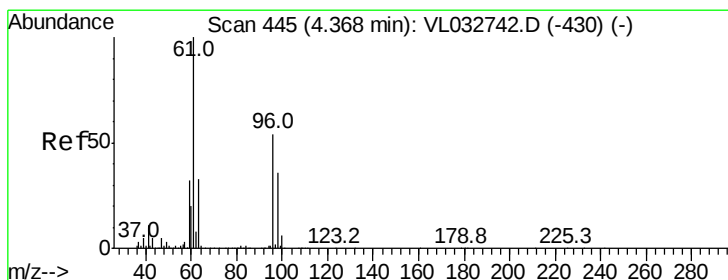
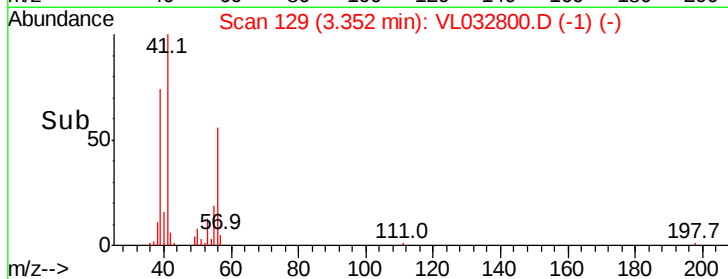
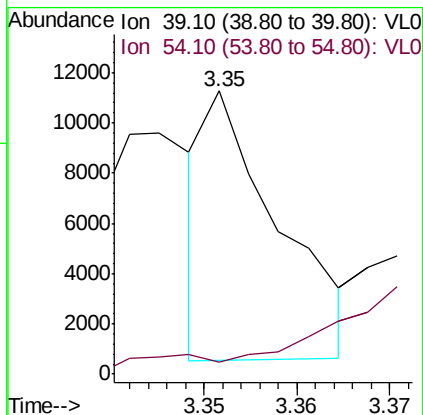
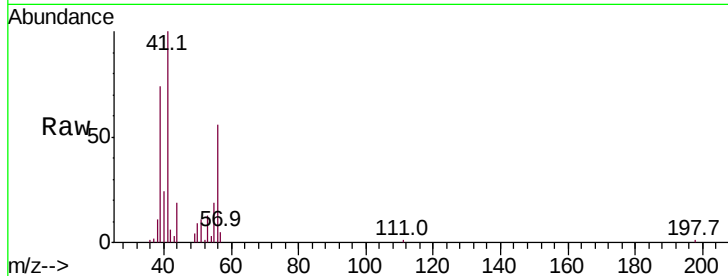




#16
1,3-Butadiene
Concen: 0.127 ppbv
RT: 3.35 min Scan# 129
Delta R.T. -0.02 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

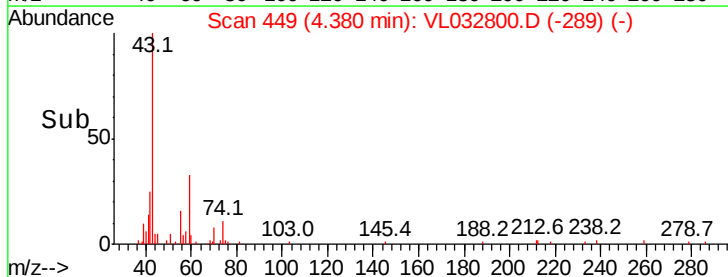
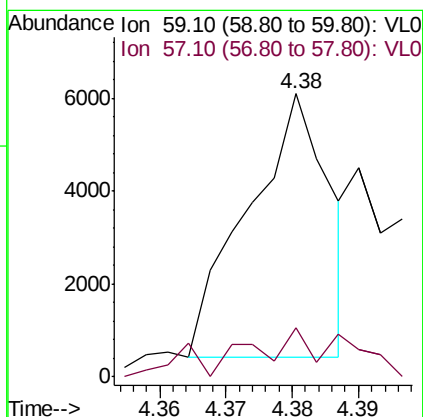
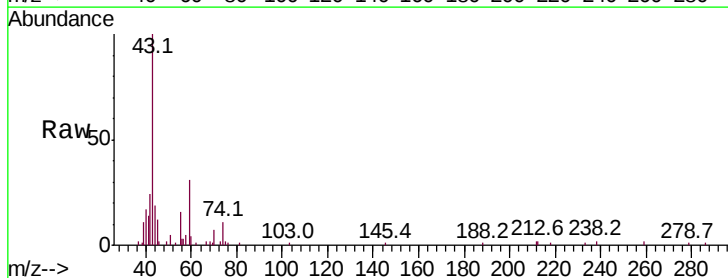
Instrument :
MSVOA_L
ClientSampleId :

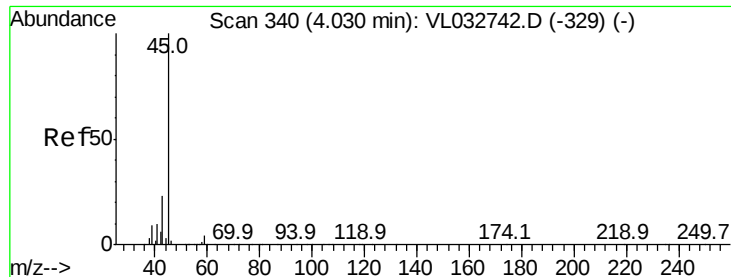
Tot Ion: 39 Resp: 5884
Ion Ratio Lower Upper
39 100
54 101.2 68.9 103.3



#17
tert-Butyl alcohol
Concen: 0.129 ppbv
RT: 4.38 min Scan# 449
Delta R.T. 0.01 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

Tgt Ion: 59 Resp: 4833
Ion Ratio Lower Upper
59 100
57 0.0 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 1.833 ppbv

RT: 4.04 min Scan# 344

Delta R.T. 0.01 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

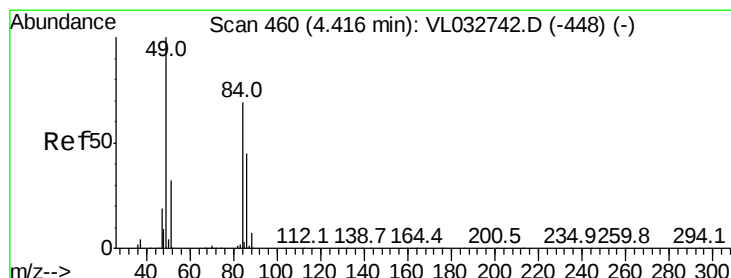
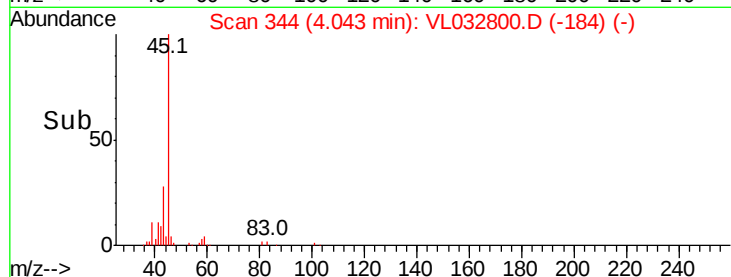
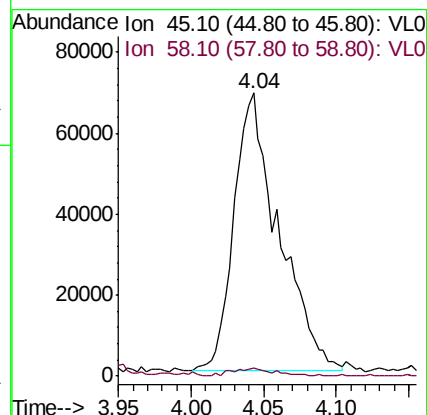
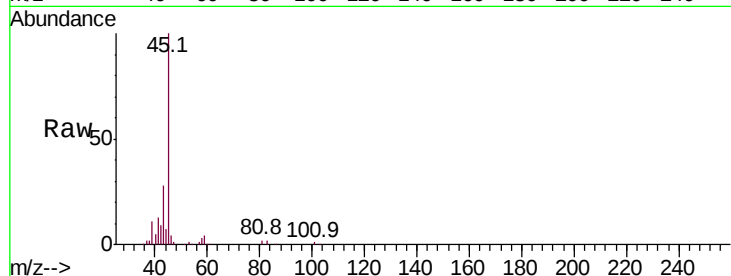
ClientSampleId :

Tot Ion: 45 Resp: 145927

Ion Ratio Lower Upper

45 100

58 3.0 1.4 2.0#



#20

Methylene Chloride

Concen: 0.806 ppbv

RT: 4.42 min Scan# 460

Delta R.T. -0.00 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Tgt Ion: 84 Resp: 49874

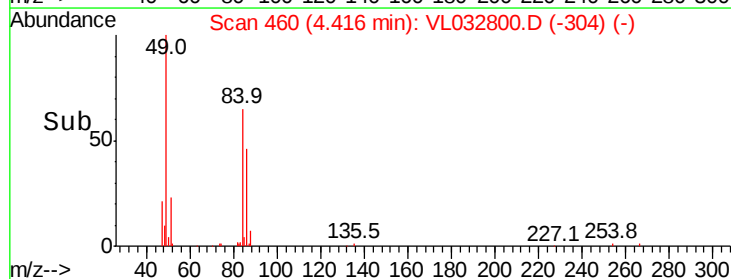
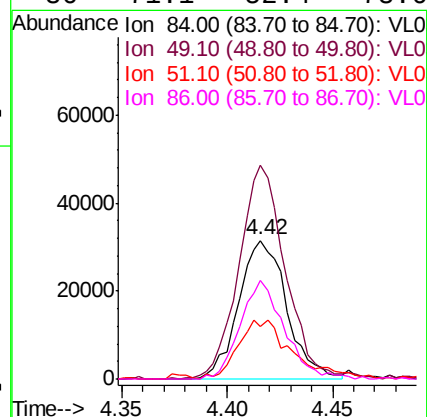
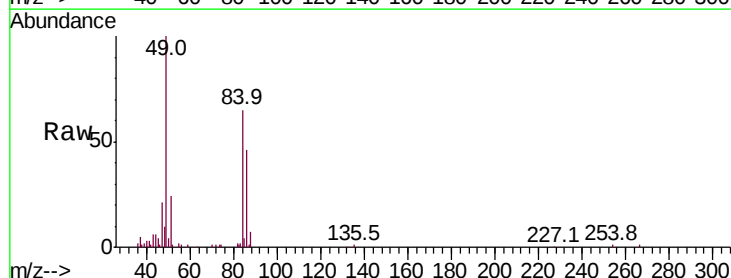
Ion Ratio Lower Upper

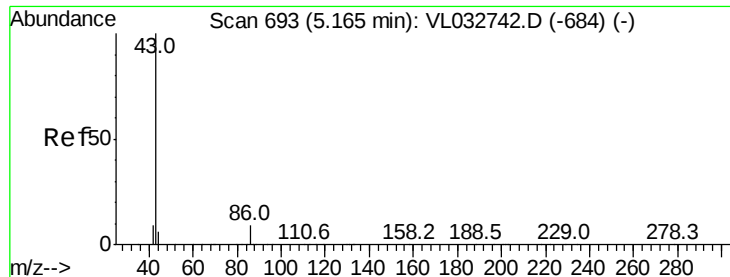
84 100

49 153.4 115.8 173.6

51 36.7 36.9 55.3#

86 71.1 52.4 78.6





#23

Vinyl Acetate

Concen: 0.075 ppbv

RT: 5.15 min Scan# 688

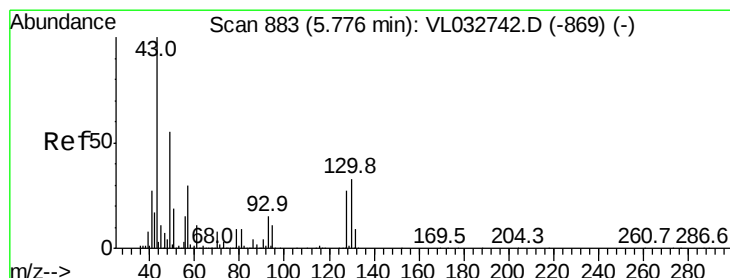
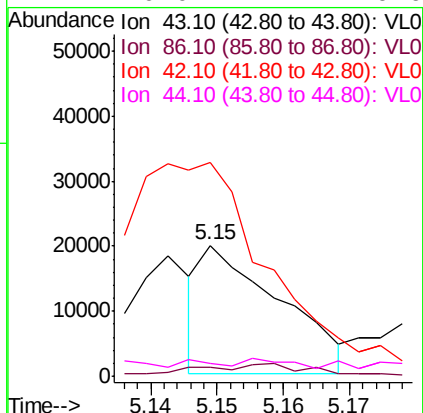
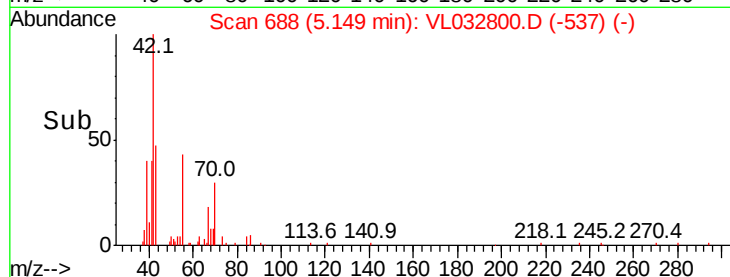
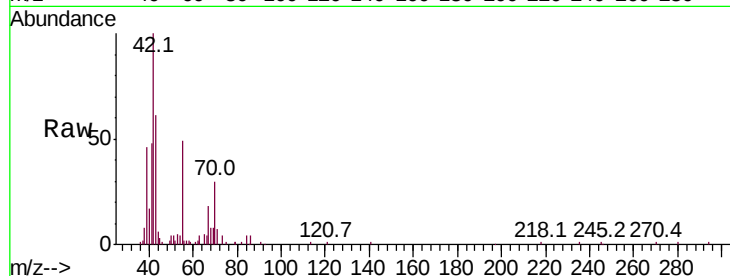
Delta R.T. -0.02 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	16392
Ion	Ratio	Lower	Upper
43	100		
86	6.7	6.2	9.4
42	176.8	7.8	11.6#
44	0.0	4.4	6.6#



#25

Ethyl Acetate

Concen: 0.175 ppbv

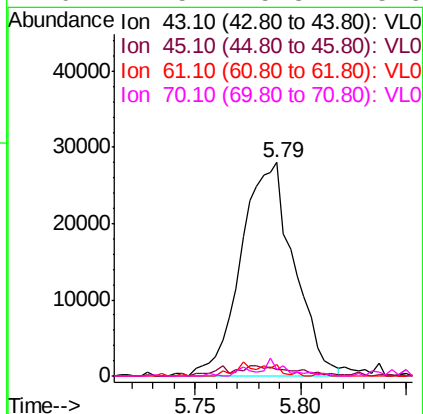
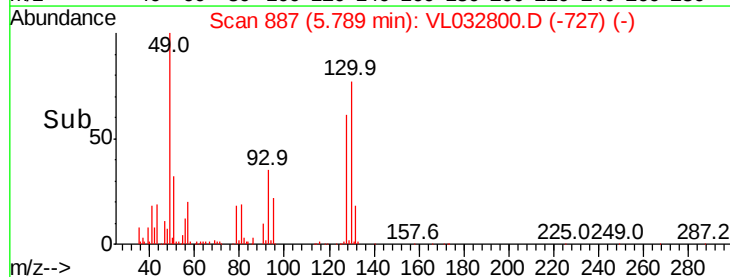
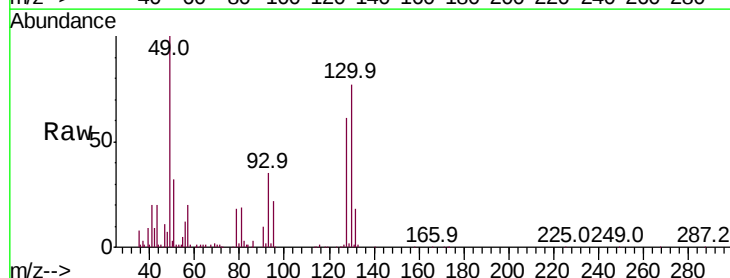
RT: 5.79 min Scan# 887

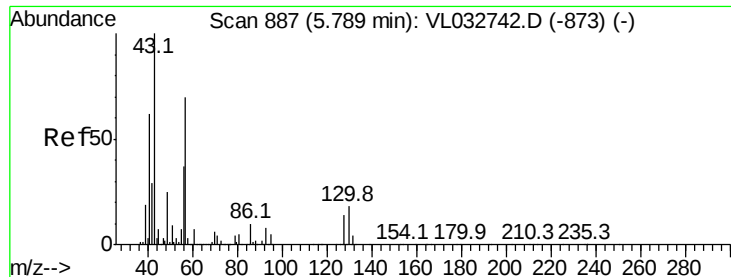
Delta R.T. 0.01 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Tgt Ion:	43	Resp:	48721
Ion	Ratio	Lower	Upper
43	100		
45	7.2	7.9	11.9#
61	4.3	7.8	11.6#
70	4.5	5.8	8.6#

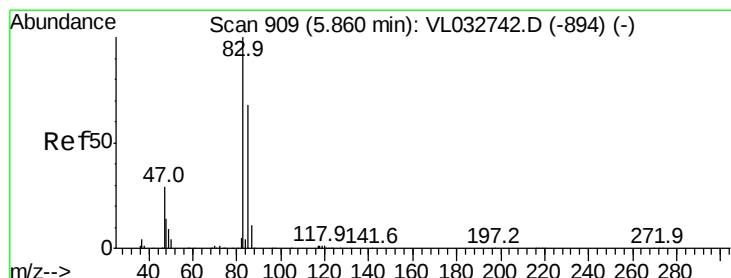
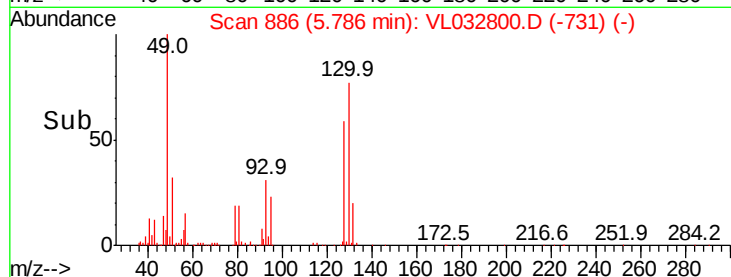
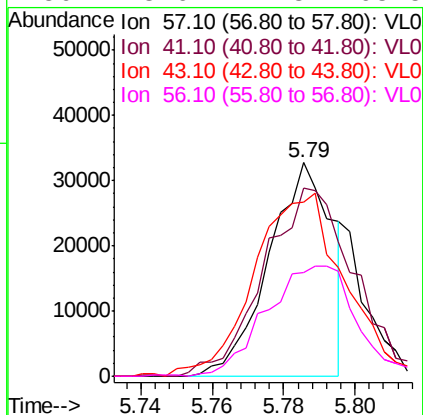
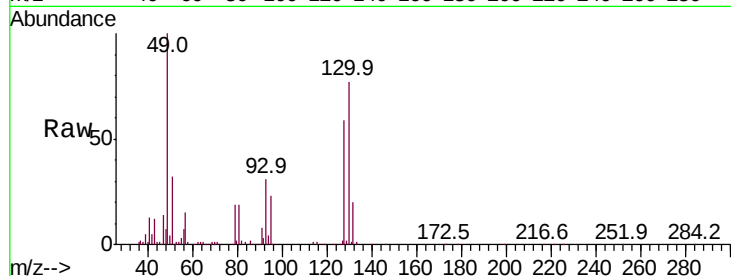




#26
Hexane
Concen: 0.322 ppbv
RT: 5.79 min Scan# 886
Delta R.T. -0.00 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

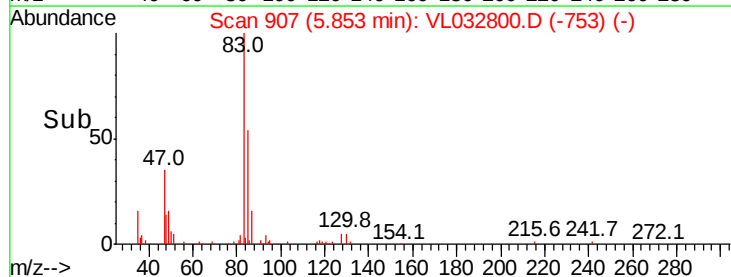
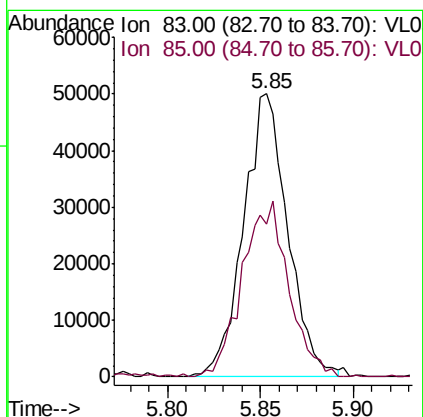
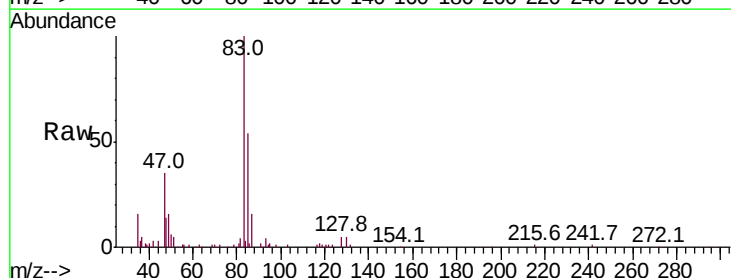
Instrument :
MSVOA_L
ClientSampled :

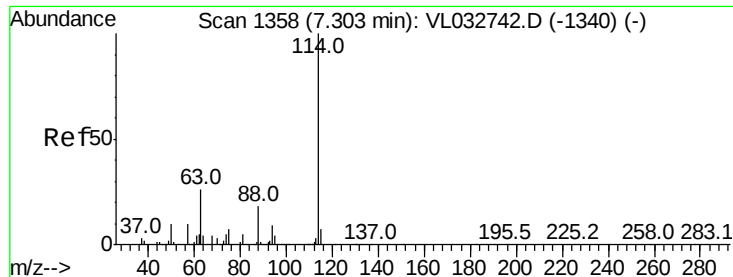
Tot Ion: 57 Resp: 39976
Ion Ratio Lower Upper
57 100
41 127.9 70.3 105.5#
43 125.2 174.0 261.0#
56 73.6 42.3 63.5#



#29
Chloroform
Concen: 0.376 ppbv
RT: 5.85 min Scan# 907
Delta R.T. -0.01 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

Tgt Ion: 83 Resp: 83054
Ion Ratio Lower Upper
83 100
85 54.2 54.2 81.4#



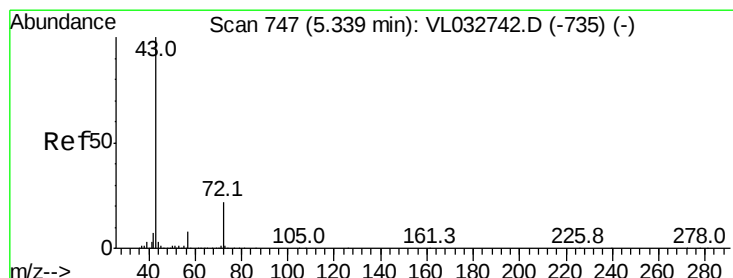
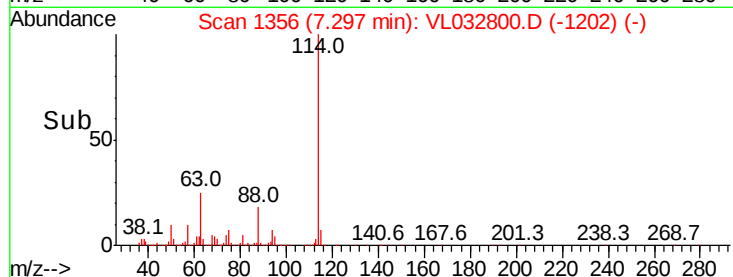
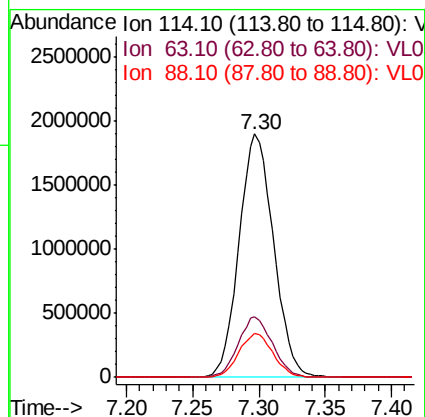
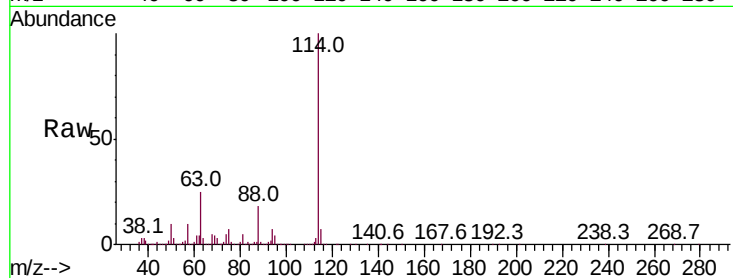


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.01 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3436369

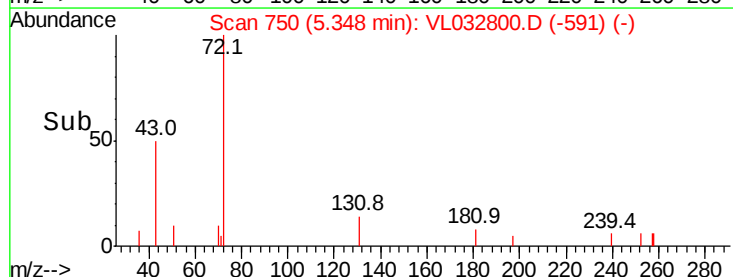
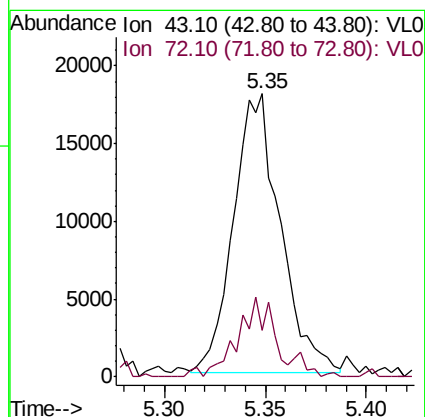
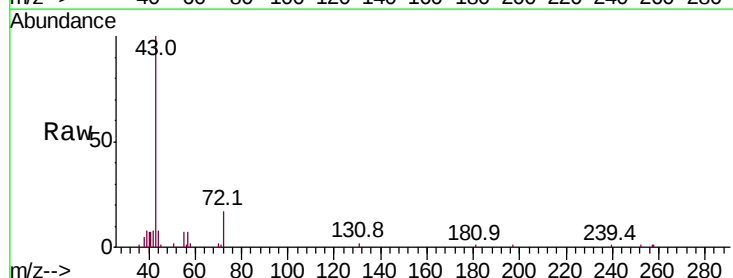
Ion	Ratio	Lower	Upper
114	100		
63	24.7	20.9	31.3
88	17.9	14.4	21.6

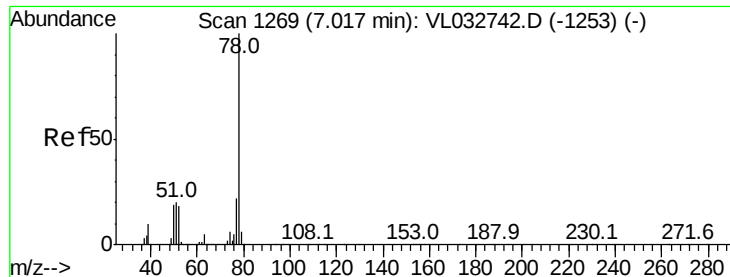


#34
 2-Butanone
 Concen: 0.164 ppbv
 RT: 5.35 min Scan# 750
 Delta R.T. 0.01 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

Tgt Ion: 43 Resp: 29257

Ion	Ratio	Lower	Upper
43	100		
72	23.9	18.4	27.6

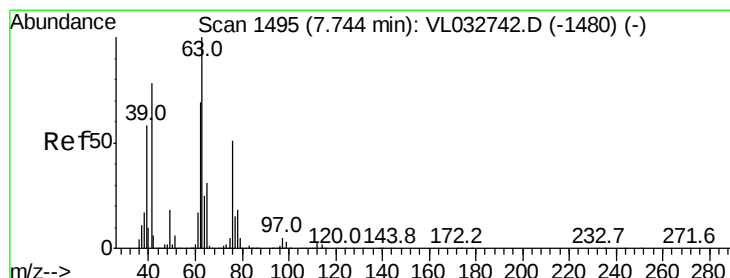
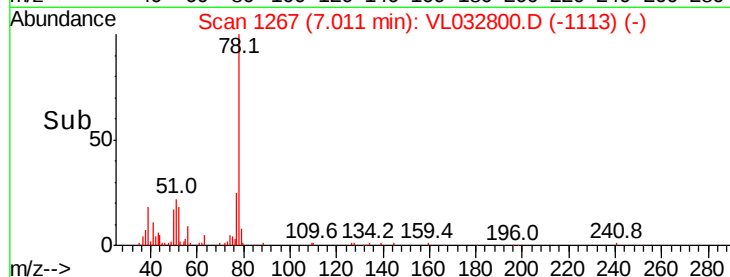
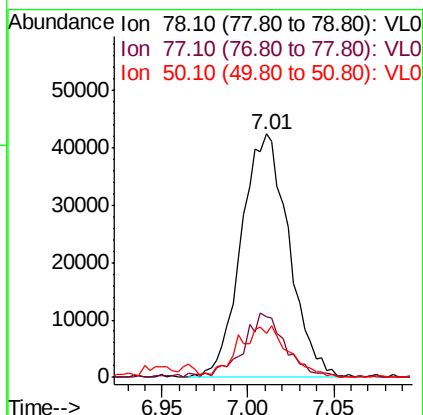
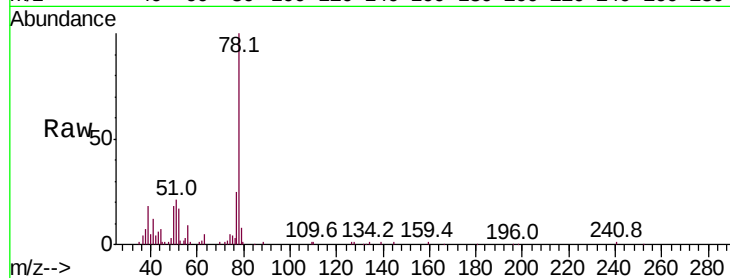




#36
Benzene
Concen: 0.297 ppbv
RT: 7.01 min Scan# 1267
Delta R.T. -0.01 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

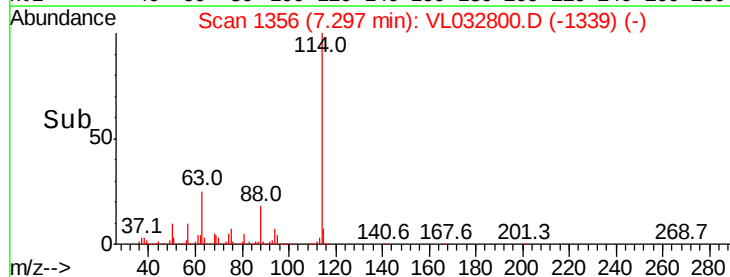
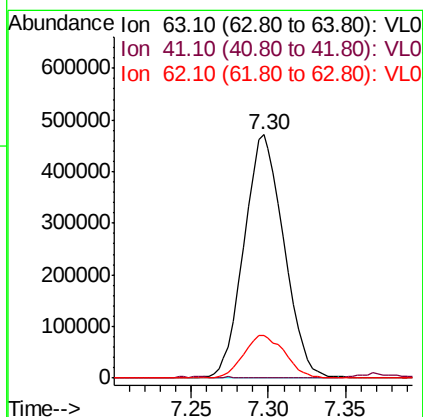
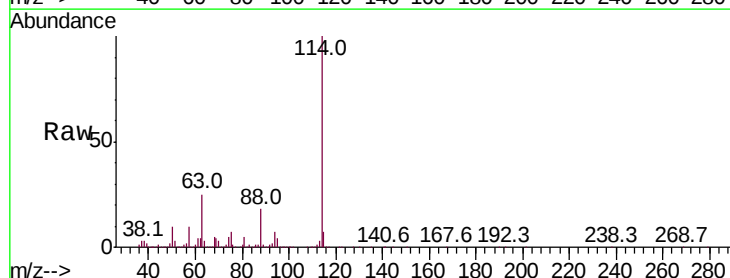
Instrument :
MSVOA_L
ClientSampled :

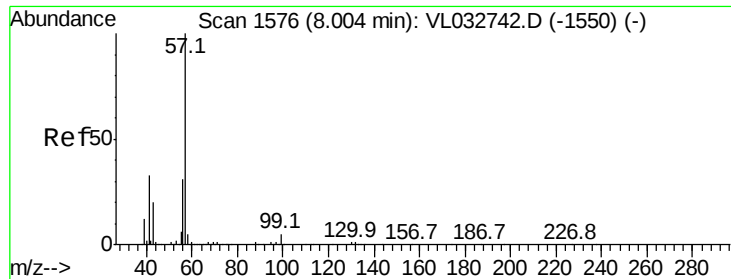
Tot Ion: 78 Resp: 81332
Ion Ratio Lower Upper
78 100
77 24.1 17.8 26.8
50 17.4 15.4 23.0



#39
1,2-Dichloropropane
Concen: 8.108 ppbv
RT: 7.30 min Scan# 1356
Delta R.T. -0.45 min
Lab File: VL032800.D
Acq: 21 Nov 2018 5:13

Tgt Ion: 63 Resp: 845359
Ion Ratio Lower Upper
63 100
41 0.0 62.0 93.0#
62 17.3 55.4 83.2#





#44

2,2,4-Trimethylpentane

Concen: 0.136 ppbv

RT: 8.00 min Scan# 1574

Delta R.T. -0.01 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :
MSVOA_L
ClientSampleId :

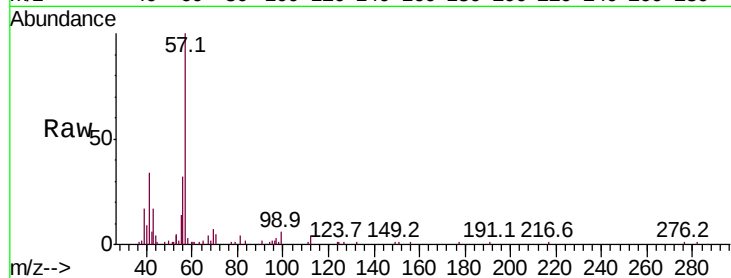
Tot Ion: 57 Resp: 62128

Ion Ratio Lower Upper

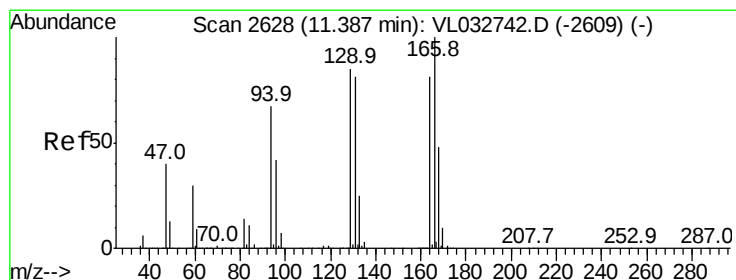
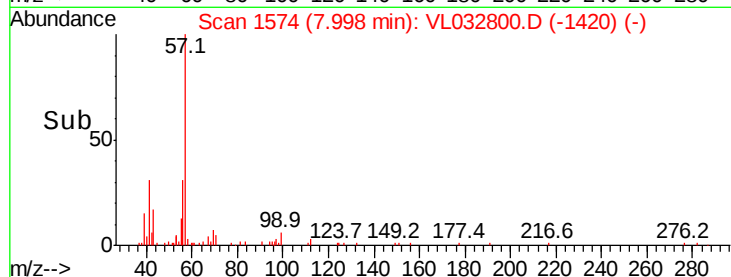
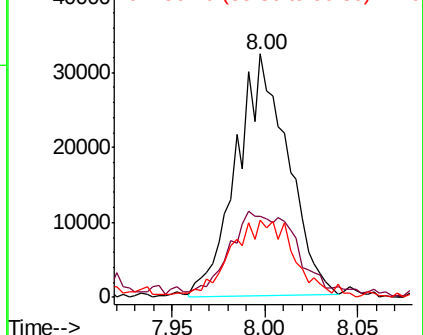
57 100

41 47.8 26.6 39.8#

56 41.0 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: 0.307 ppbv

RT: 11.38 min Scan# 2625

Delta R.T. -0.01 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Tgt Ion: 164 Resp: 29222

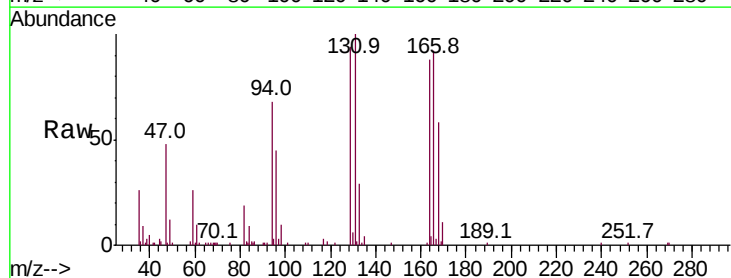
Ion Ratio Lower Upper

164 100

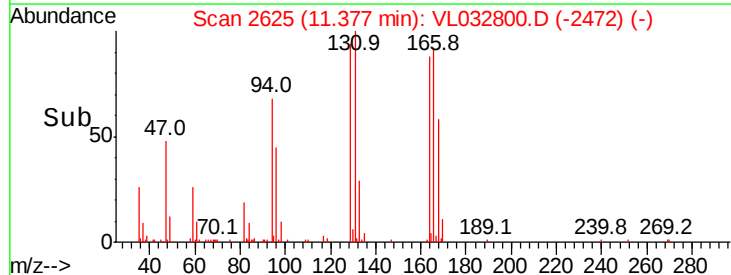
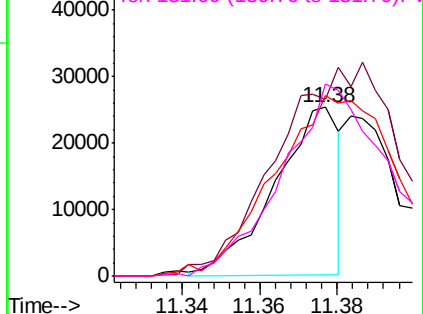
166 100.7 99.3 148.9

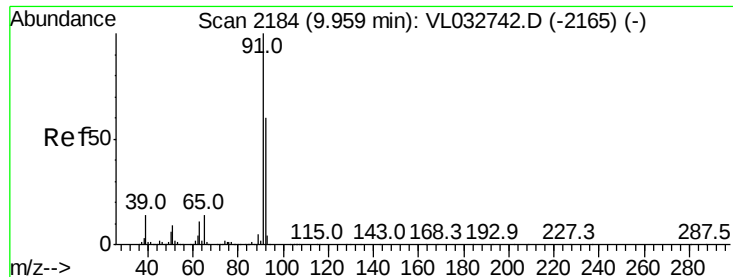
129 109.8 83.9 125.9

131 116.7 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: 0.645 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. -0.00 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

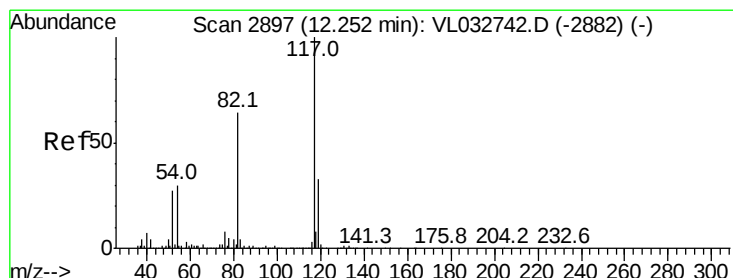
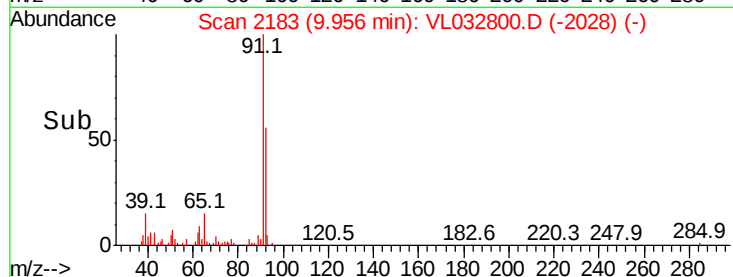
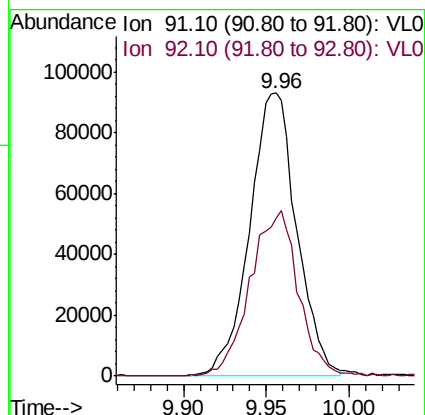
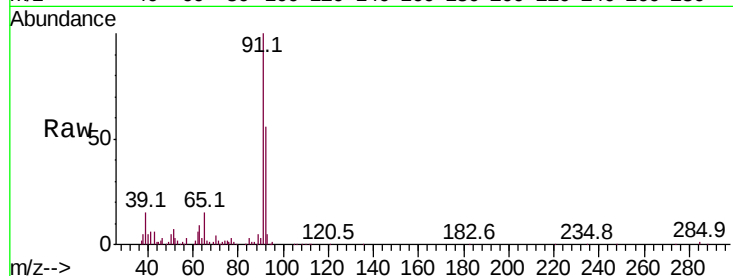
ClientSampleId :

Tot Ion: 91 Resp: 184126

Ion Ratio Lower Upper

91 100

92 60.0 47.9 71.9



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

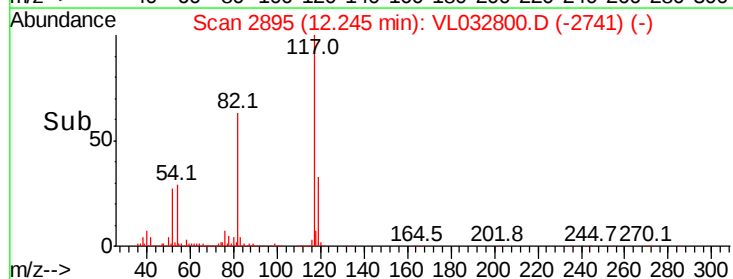
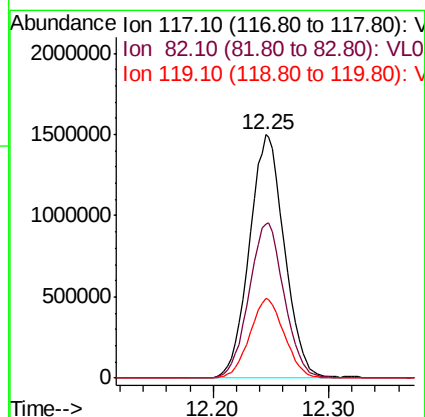
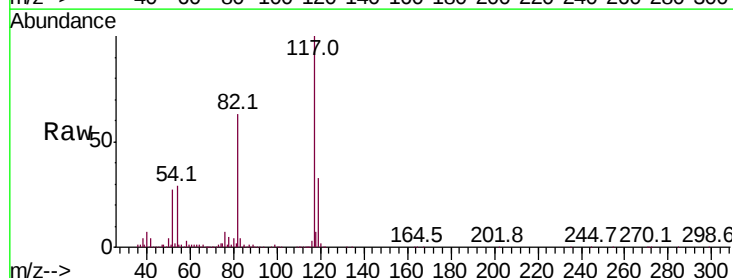
Tgt Ion: 117 Resp: 3148010

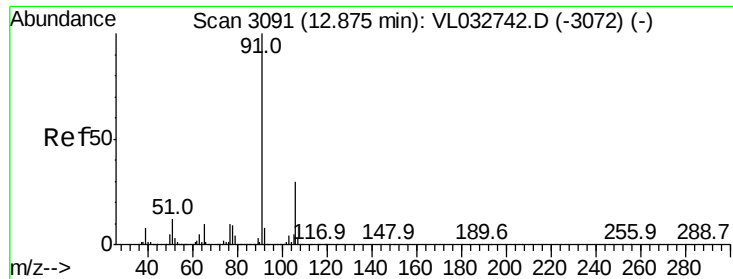
Ion Ratio Lower Upper

117 100

82 64.2 51.0 76.6

119 32.4 28.0 42.0





#58

Ethyl Benzene

Concen: 0.049 ppbv

RT: 13.14 min Scan# 3172

Delta R.T. 0.26 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

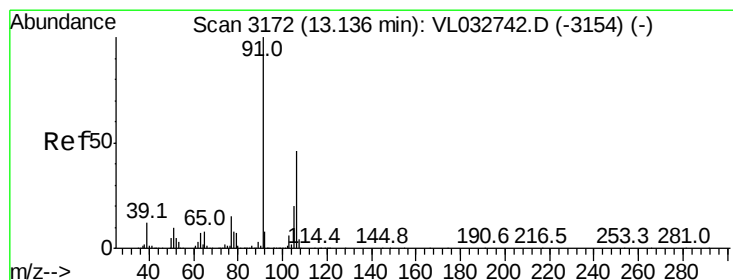
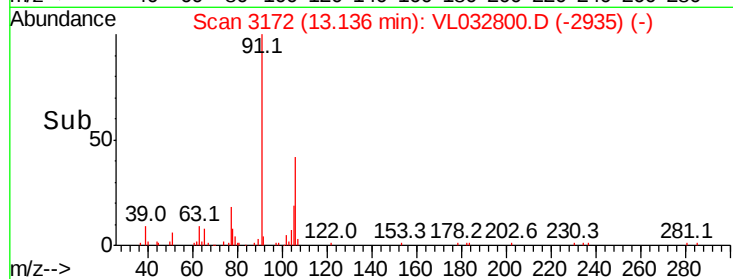
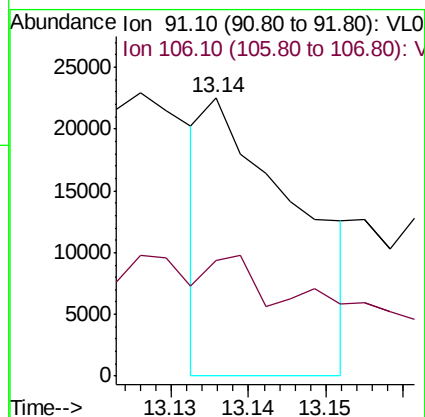
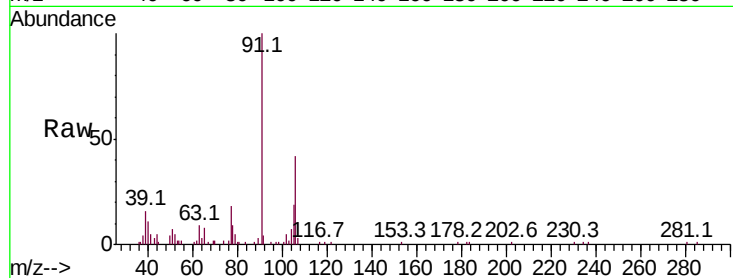
ClientSampleId :

Tot Ion: 91 Resp: 18565

Ion Ratio Lower Upper

91 100

106 27.2 23.6 35.4



#59

m/p-Xylene

Concen: 0.100 ppbv

RT: 13.13 min Scan# 3169

Delta R.T. -0.01 min

Lab File: VL032800.D

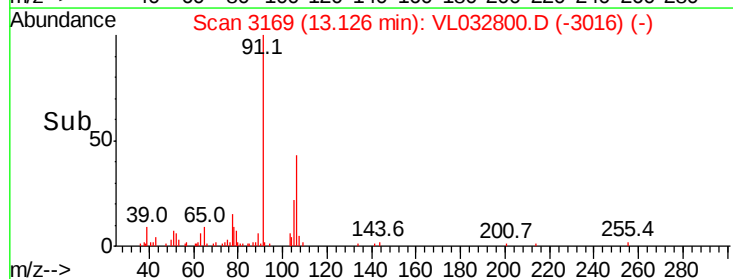
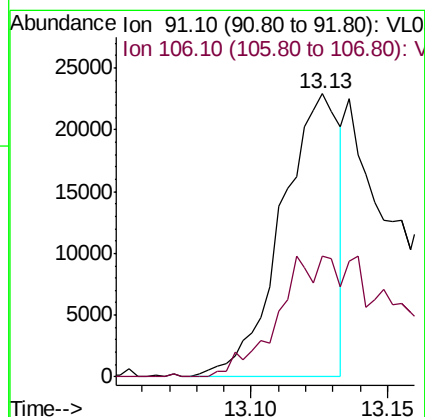
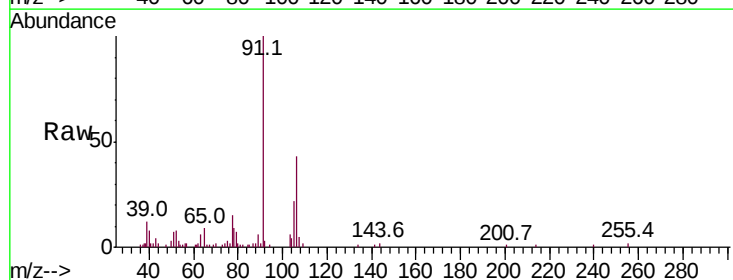
Acq: 21 Nov 2018 5:13

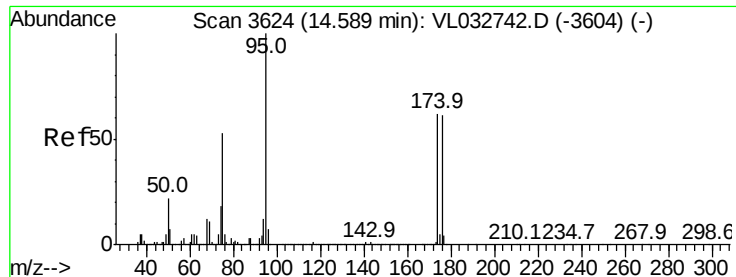
Tgt Ion: 91 Resp: 33715

Ion Ratio Lower Upper

91 100

106 90.5 36.1 54.1#



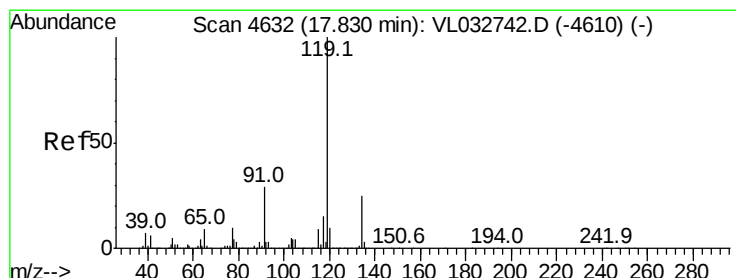
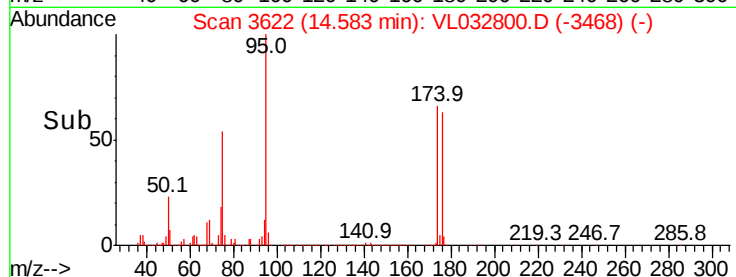
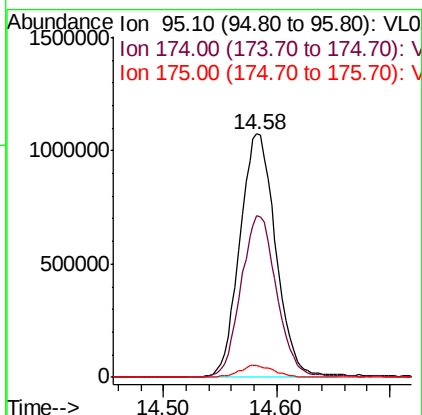
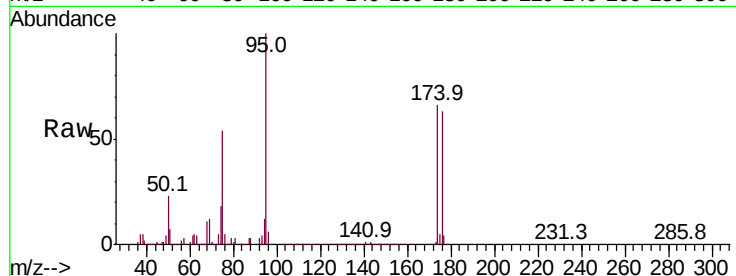


#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.095 ppbv
 RT: 14.58 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2376967

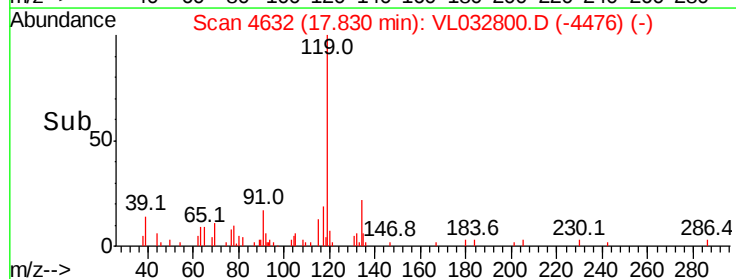
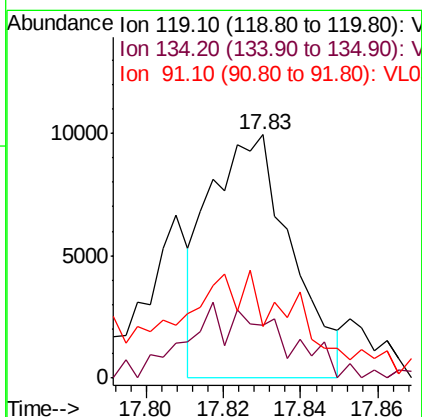
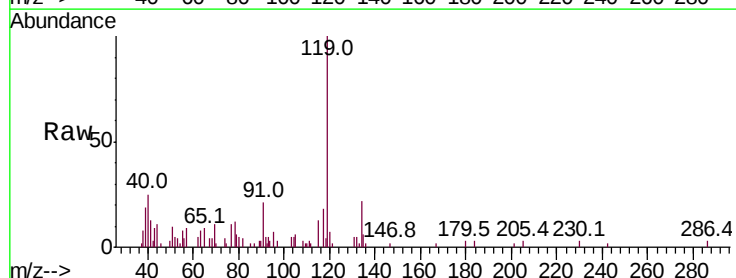
Ion	Ratio	Lower	Upper
95	100		
174	67.0	50.7	76.1
175	4.9	3.8	5.6

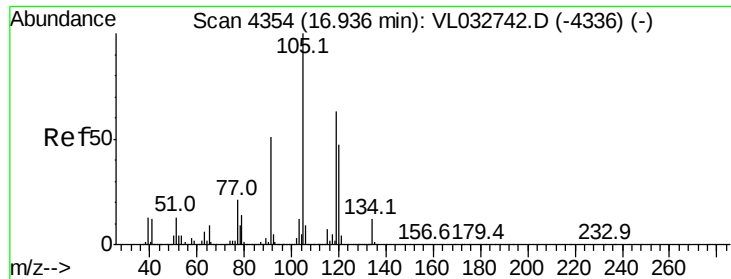


#69
 p-Isopropyltoluene
 Concen: 0.031 ppbv
 RT: 17.83 min Scan# 4632
 Delta R.T. -0.00 min
 Lab File: VL032800.D
 Acq: 21 Nov 2018 5:13

Tgt Ion: 119 Resp: 14570

Ion	Ratio	Lower	Upper
119	100		
134	38.9	20.2	30.4#
91	66.9	23.5	35.3#





#74

1,2,4-Trimethylbenzene

Concen: 0.118 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. -0.00 min

Lab File: VL032800.D

Acq: 21 Nov 2018 5:13

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp: 45970

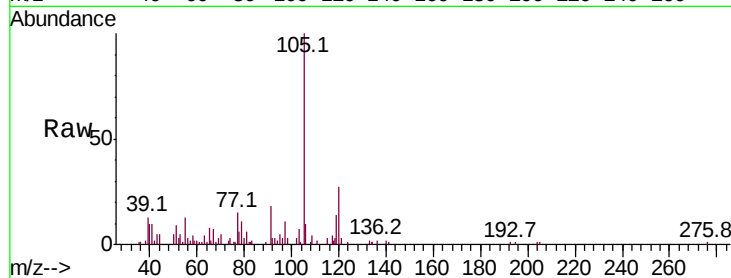
Ion Ratio Lower Upper

105 100

120 27.0 37.6 56.4#

91 16.4 42.5 63.7#

77 14.3 17.4 26.2#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

