

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071818\
 Data File : VL032287.D
 Acq On : 19 Jul 2018 8:23
 Operator : SY/AP
 Sample : J3454-09
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 20 01:30:36 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 18 14:38:53 2018
 QLast Update : Wed Jul 18 14:38:53 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.83	49	1559264	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.37	114	3363990	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.33	117	3892979	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.67	95	3068278	9.72	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.20%

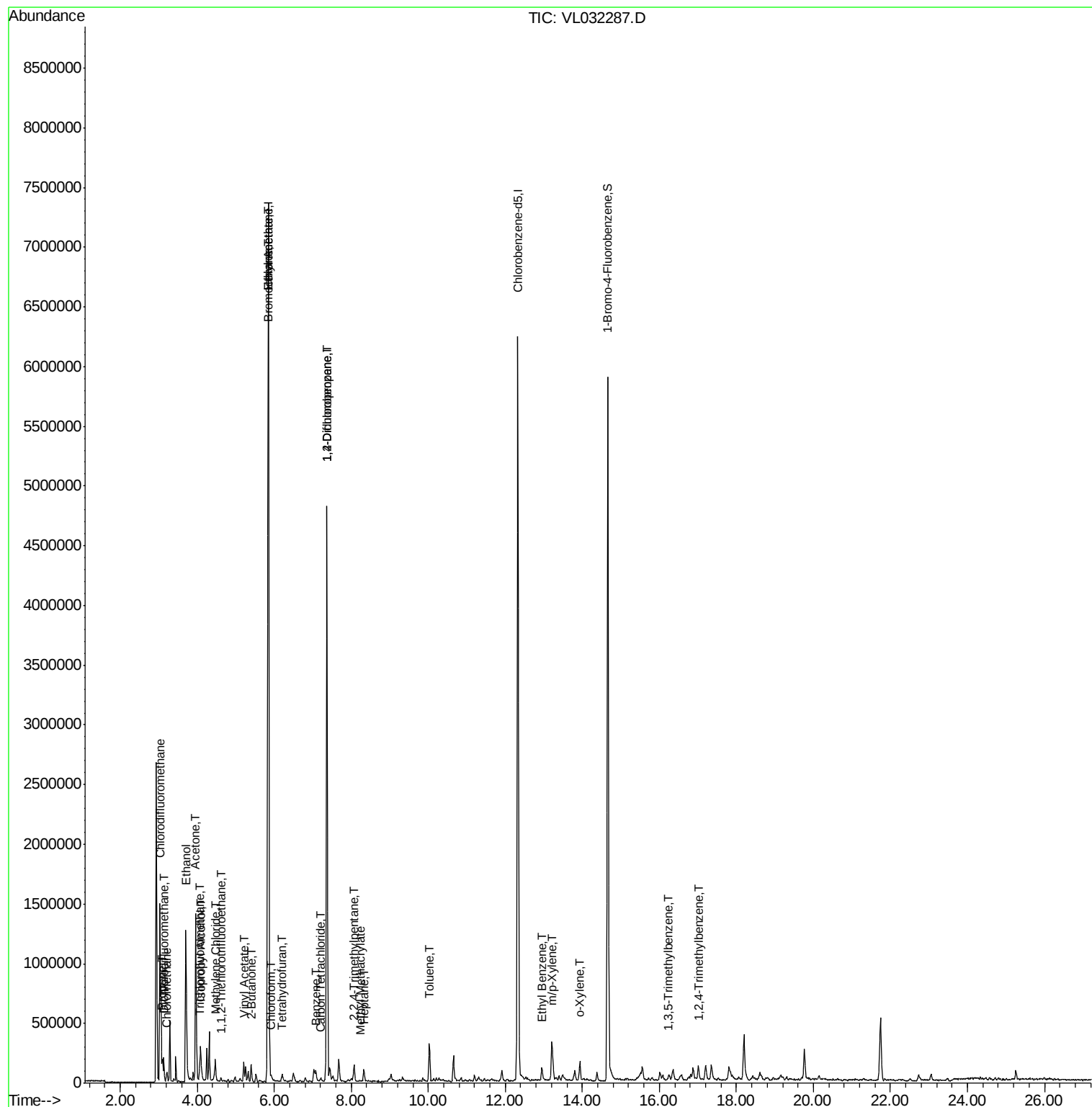
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.13	85	71532	0.270	ppbv 97
3) Chlorodifluoromethane	3.04	51	1627399	9.300	ppbv # 77
4) Chloromethane	3.22	50	58834	0.571	ppbv 91
9) Propene	3.10	41	46011	0.602	ppbv 83
10) Heptane	8.33	43	26044	0.107	ppbv # 77
11) Trichlorofluoromethane	4.06	101	66044	0.319	ppbv 97
12) 1,1,2-Trichlorotrifluoroet	4.61	101	8901	0.067	ppbv 91
13) Ethanol	3.71	45	1453365	66.513	ppbv 98
15) Acetone	3.96	43	1425334	8.734	ppbv 99
19) Isopropyl Alcohol	4.09	45	324263	2.938	ppbv # 1
20) Methylene Chloride	4.47	84	63023	1.003	ppbv 96
23) Vinyl Acetate	5.21	43	98280	0.336	ppbv # 68
25) Ethyl Acetate	5.85	43	1947866	5.480	ppbv # 77
26) Hexane	5.85	57	2688915	16.471	ppbv # 43
29) Chloroform	5.92	83	18858	0.078	ppbv 86
34) 2-Butanone	5.40	43	157994	0.684	ppbv 99
35) Carbon Tetrachloride	7.21	117	15906	0.069	ppbv 85
36) Benzene	7.08	78	60566	0.183	ppbv # 95
39) 1,2-Dichloropropane	7.37	63	934346	7.127	ppbv # 26
41) Tetrahydrofuran	6.20	42	10843	0.081	ppbv # 56
43) Methyl Methacrylate	8.22	69	2917	0.021	ppbv # 47
44) 2,2,4-Trimethylpentane	8.08	57	53159	0.092	ppbv # 4
53) Toluene	10.03	91	217792	0.543	ppbv 99
58) Ethyl Benzene	12.95	91	46709	0.085	ppbv 91
59) m/p-Xylene	13.23	91	80137	0.171	ppbv # 31
60) o-Xylene	13.94	91	59167	0.127	ppbv # 32
73) 1,3,5-Trimethylbenzene	16.24	105	19840	0.038	ppbv 97
74) 1,2,4-Trimethylbenzene	17.01	105	51706	0.094	ppbv # 74

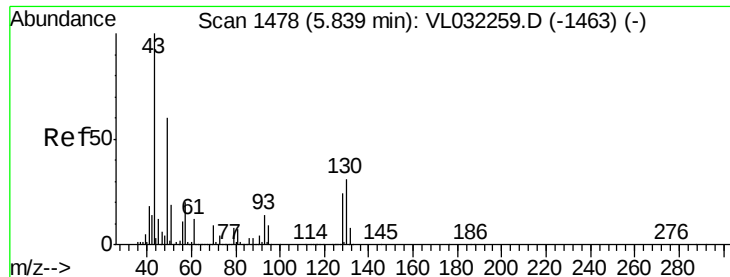
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.83 min Scan# 1475

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

ClientSampleId :

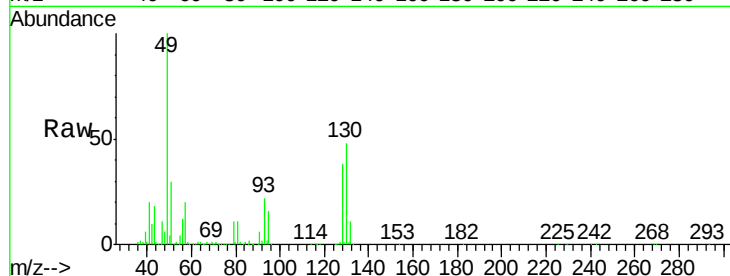
Tot Ion: 49 Resp: 1559264

Ion Ratio Lower Upper

49 100

128 39.7 20.1 60.2

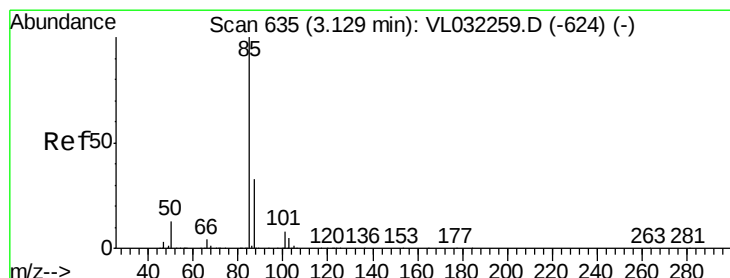
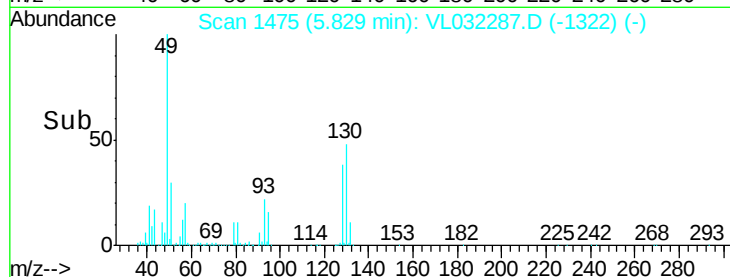
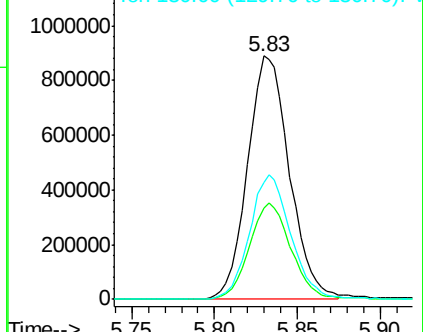
130 51.0 25.9 77.6



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: 0.270 ppbv

RT: 3.13 min Scan# 634

Delta R.T. -0.00 min

Lab File: VL032287.D

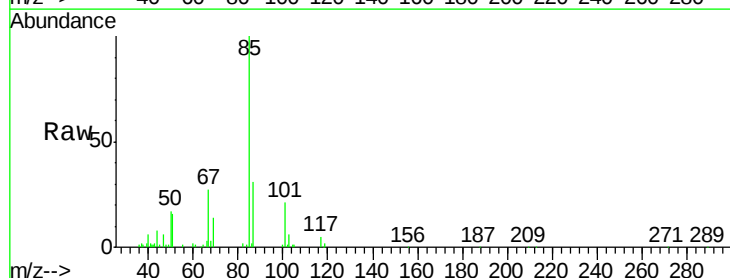
Acq: 19 Jul 2018 8:23

Tgt Ion: 85 Resp: 71532

Ion Ratio Lower Upper

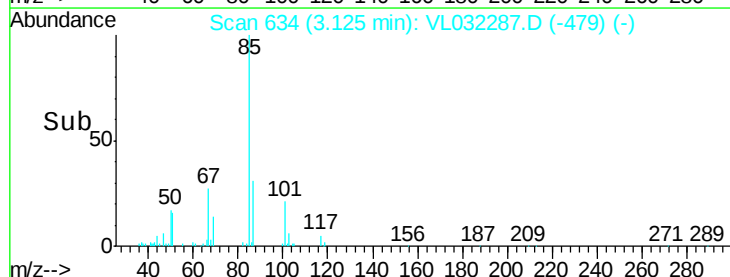
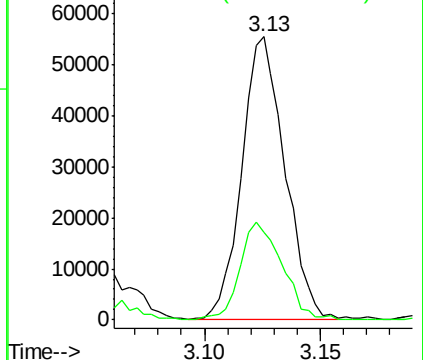
85 100

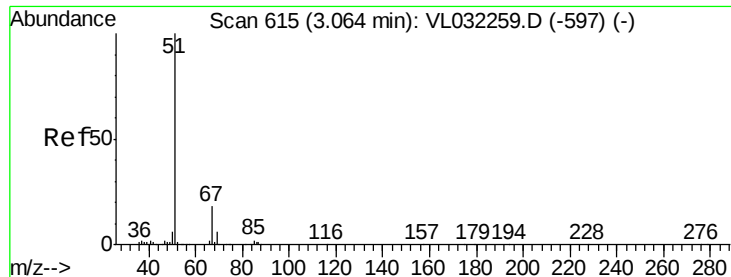
87 31.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 9.300 ppbv

RT: 3.04 min Scan# 606

Delta R.T. -0.03 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

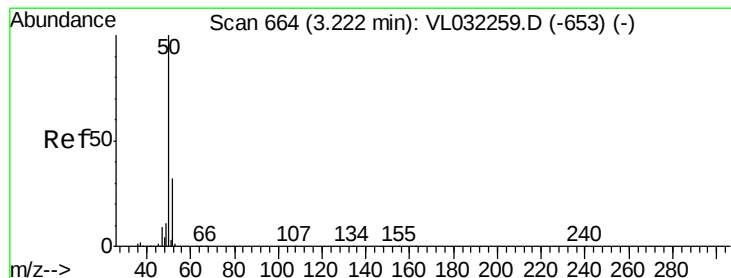
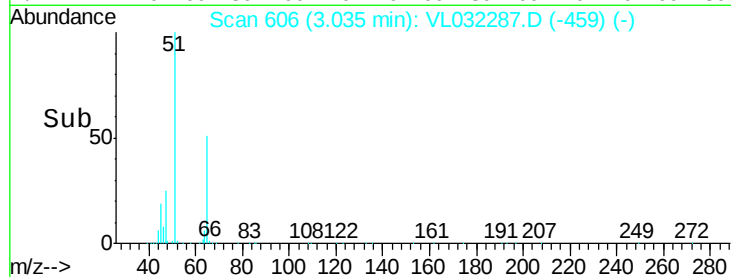
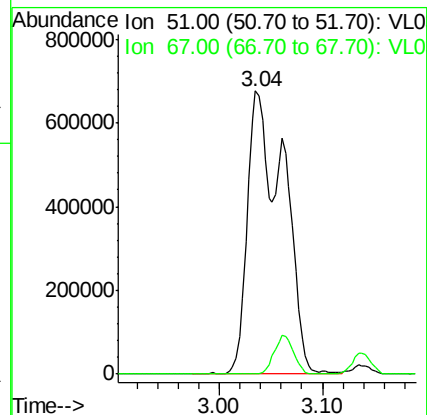
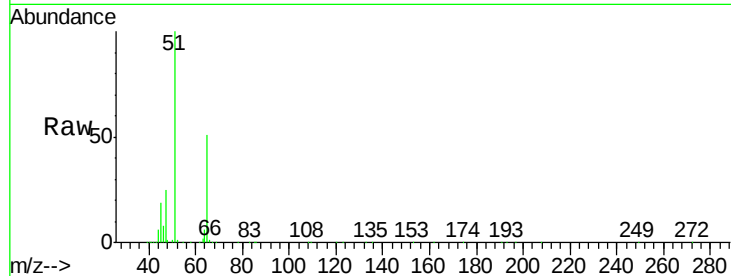
ClientSampleId :

Tot Ion: 51 Resp: 1627399

Ion Ratio Lower Upper

51 100

67 7.5 14.2 21.4#



#4

Chloromethane

Concen: 0.571 ppbv

RT: 3.22 min Scan# 664

Delta R.T. 0.00 min

Lab File: VL032287.D

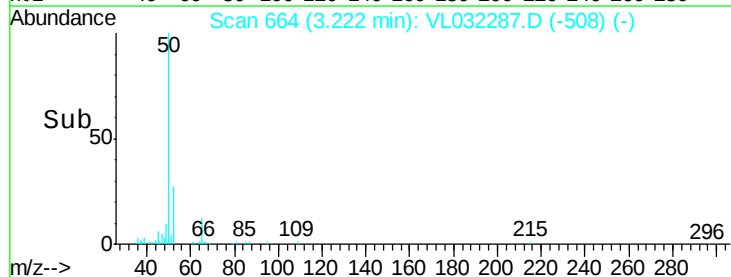
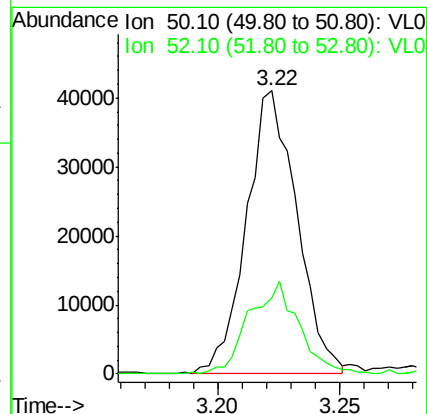
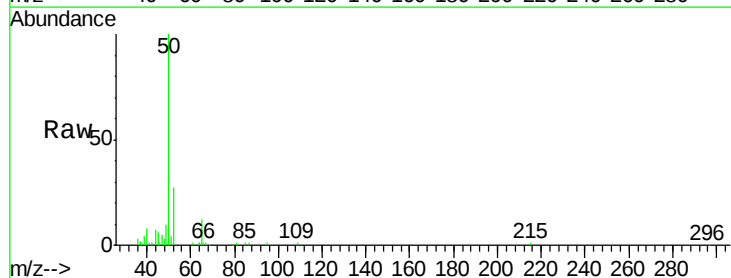
Acq: 19 Jul 2018 8:23

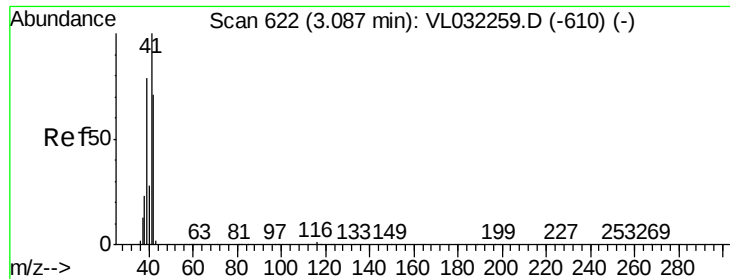
Tgt Ion: 50 Resp: 58834

Ion Ratio Lower Upper

50 100

52 26.4 25.3 37.9





#9

Propene

Concen: 0.602 ppbv

RT: 3.10 min Scan# 626

Delta R.T. 0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

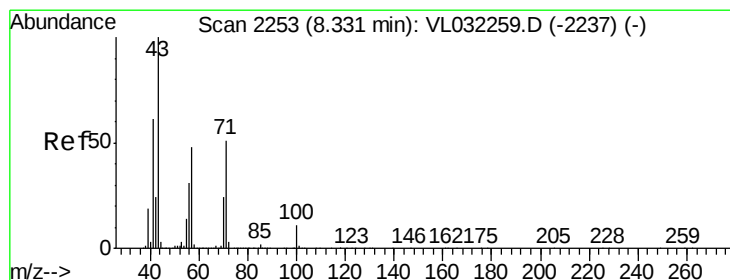
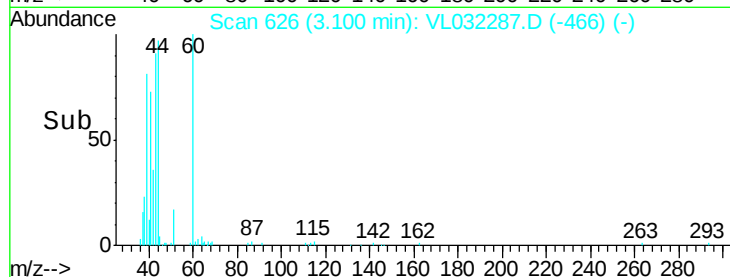
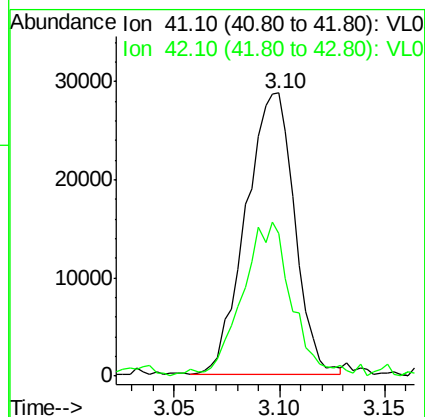
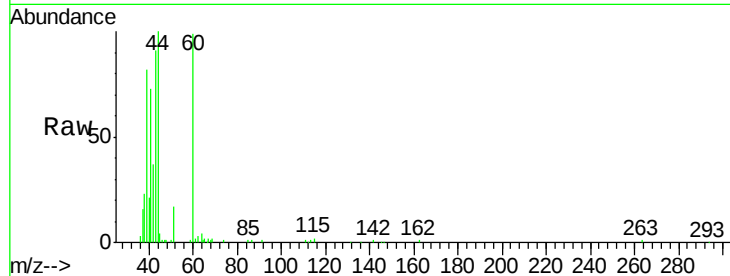
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 41 Resp: 46011

Ion Ratio Lower Upper

41 100

42 56.4 56.2 84.4



#10

Heptane

Concen: 0.107 ppbv

RT: 8.33 min Scan# 2252

Delta R.T. -0.00 min

Lab File: VL032287.D

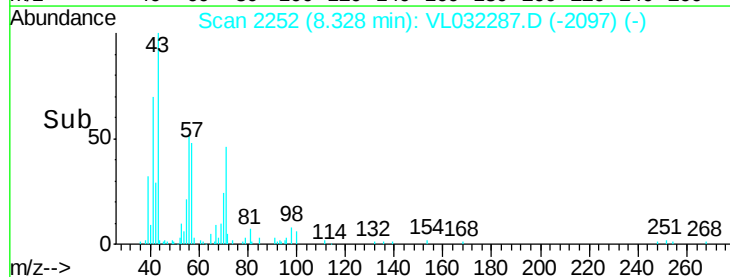
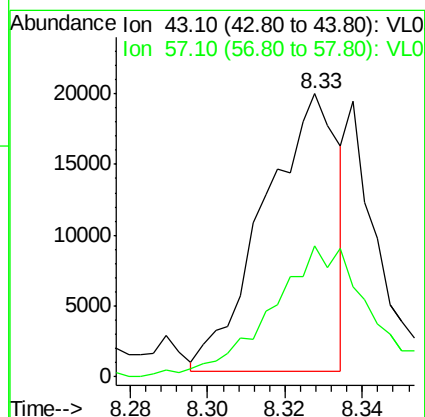
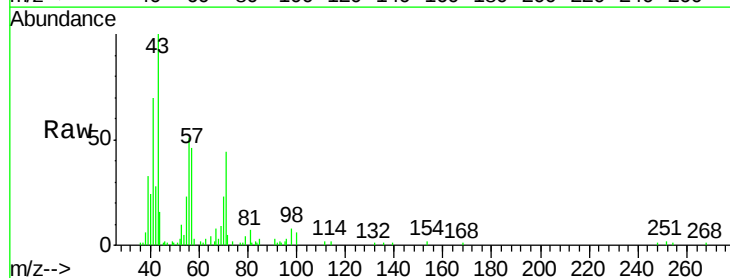
Acq: 19 Jul 2018 8:23

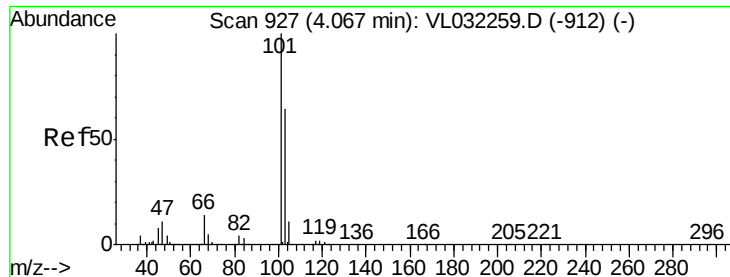
Tgt Ion: 43 Resp: 26044

Ion Ratio Lower Upper

43 100

57 65.9 39.9 59.9#





#11

Trichlorofluoromethane

Concen: 0.319 ppbv

RT: 4.06 min Scan# 926

Delta R.T. -0.00 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

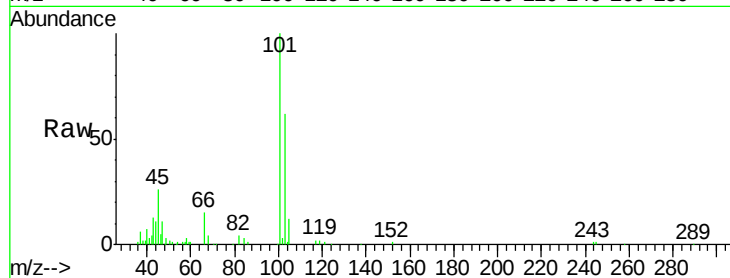
Instrument :
MSVOA_L
ClientSampled :

Tot Ion:101 Resp: 66044

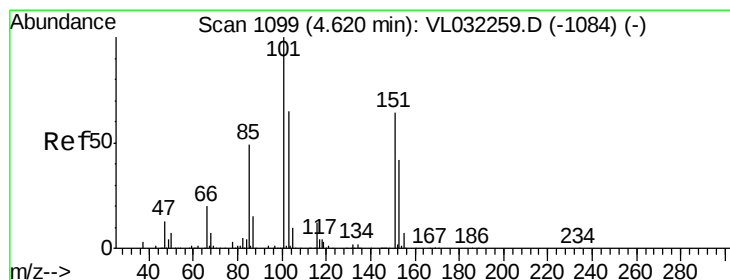
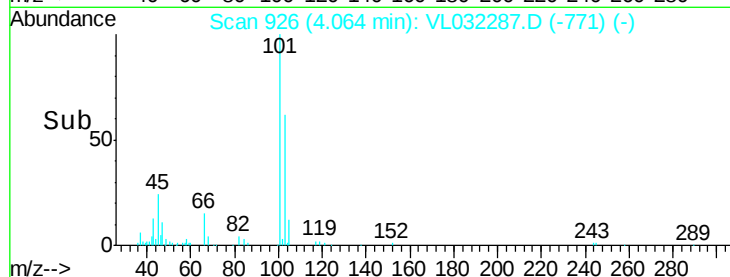
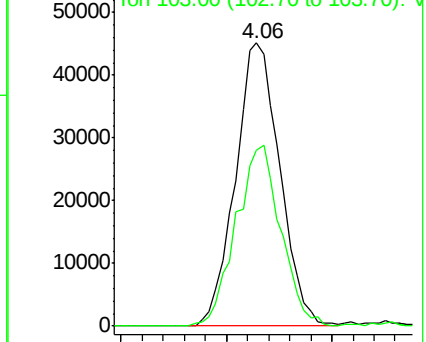
Ion Ratio Lower Upper

101 100

103 62.1 51.5 77.3



Abundance Ion 101.00 (100.70 to 101.70): V
Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.067 ppbv

RT: 4.61 min Scan# 1096

Delta R.T. -0.01 min

Lab File: VL032287.D

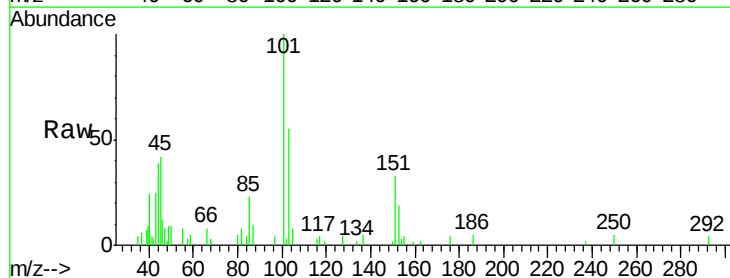
Acq: 19 Jul 2018 8:23

Tgt Ion:101 Resp: 8901

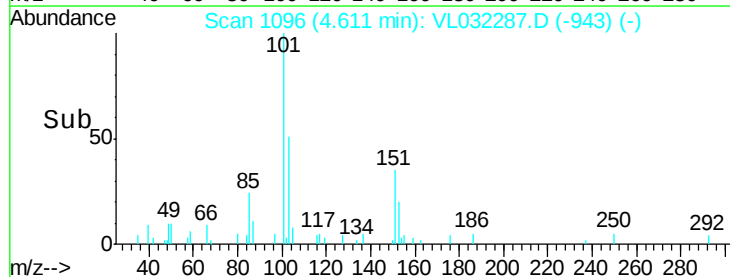
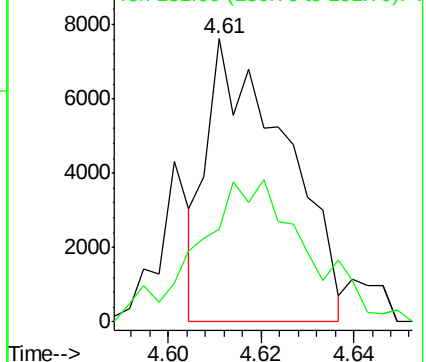
Ion Ratio Lower Upper

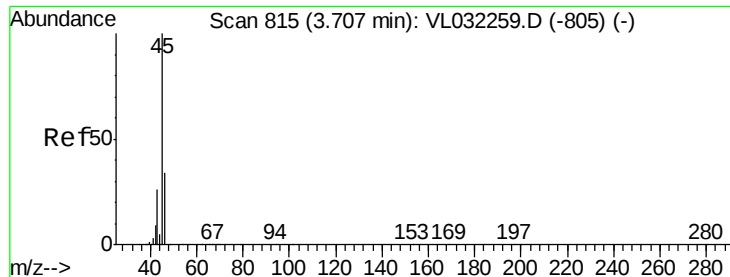
101 100

151 70.8 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V
Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 66.513 ppbv

RT: 3.71 min Scan# 815

Delta R.T. 0.00 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

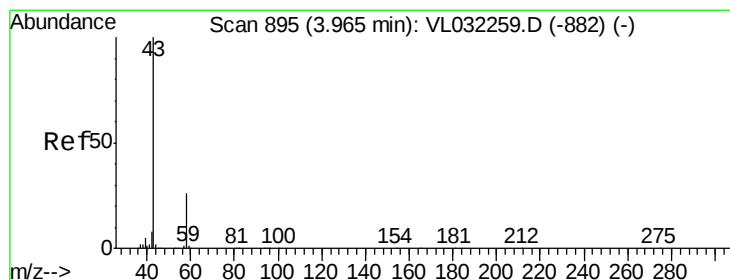
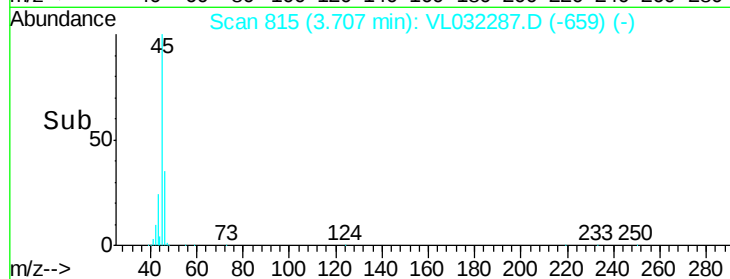
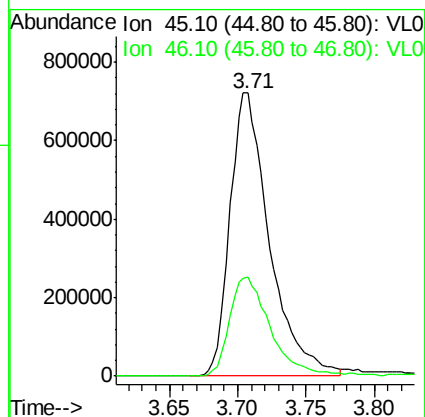
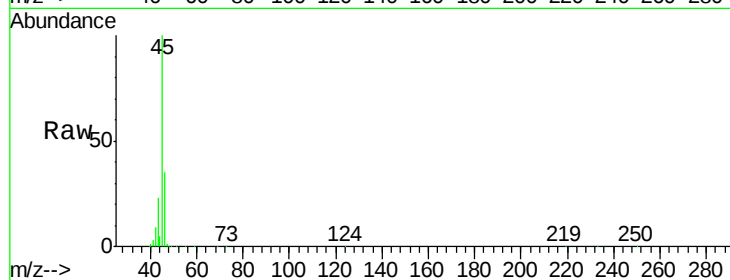
ClientSampleId :

Tot Ion: 45 Resp: 1453365

Ion Ratio Lower Upper

45 100

46 36.7 15.2 60.8



#15

Acetone

Concen: 8.734 ppbv

RT: 3.96 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL032287.D

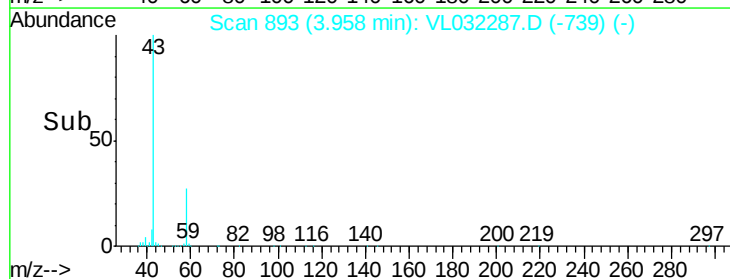
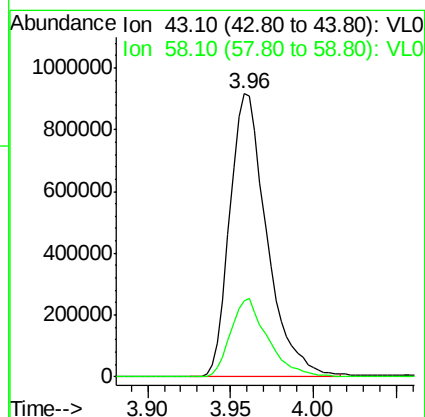
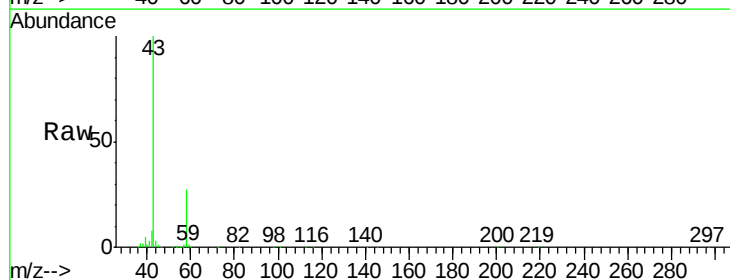
Acq: 19 Jul 2018 8:23

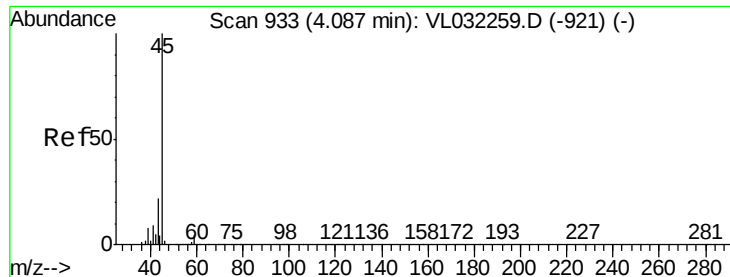
Tgt Ion: 43 Resp: 1425334

Ion Ratio Lower Upper

43 100

58 27.8 21.8 32.6





#19

Isopropyl Alcohol

Concen: 2.938 ppbv

RT: 4.09 min Scan# 933

Delta R.T. 0.00 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

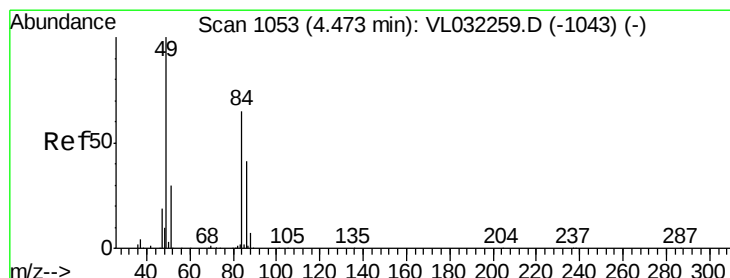
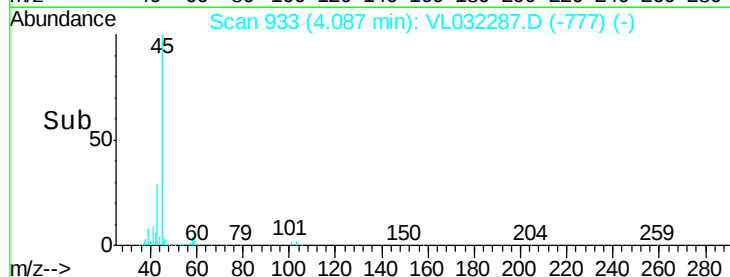
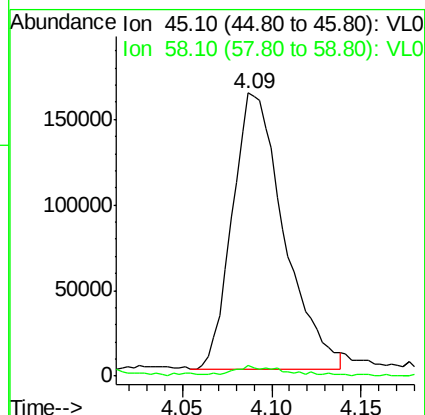
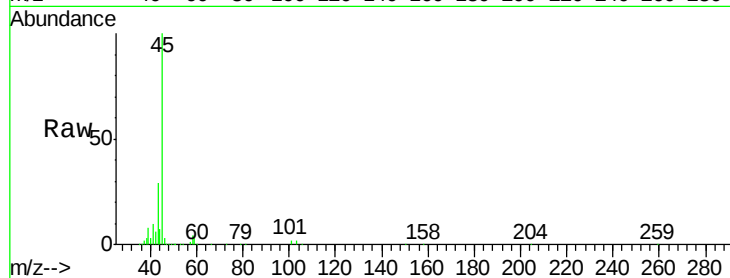
ClientSampleId :

Tot Ion: 45 Resp: 324263

Ion Ratio Lower Upper

45 100

58 123.0 1.5 2.3#



#20

Methylene Chloride

Concen: 1.003 ppbv

RT: 4.47 min Scan# 1053

Delta R.T. 0.00 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Tgt Ion: 84 Resp: 63023

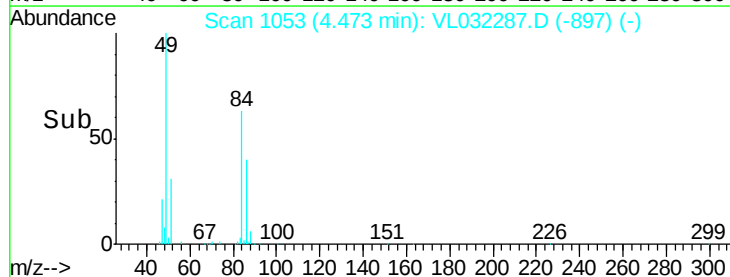
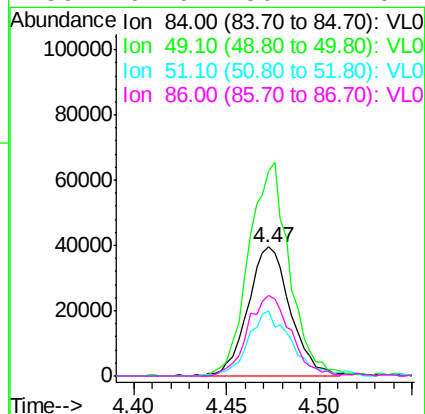
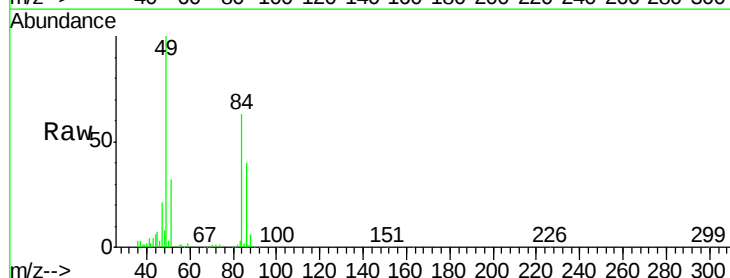
Ion Ratio Lower Upper

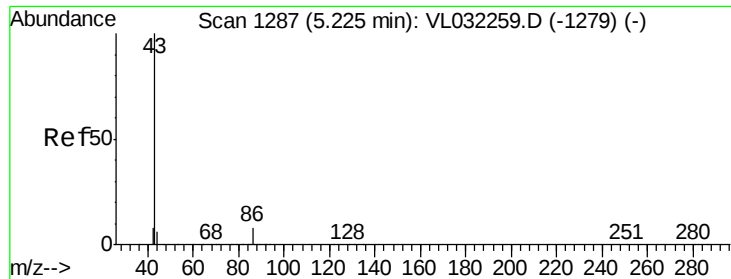
84 100

49 159.0 122.4 183.6

51 50.2 36.8 55.2

86 62.9 50.7 76.1

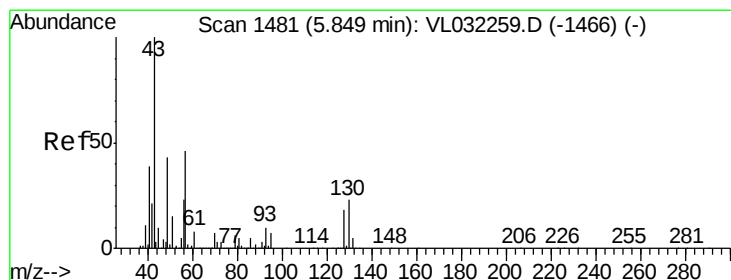
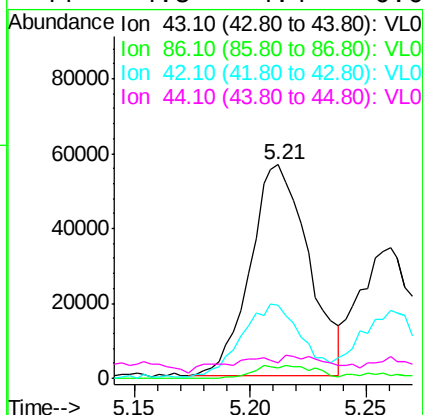
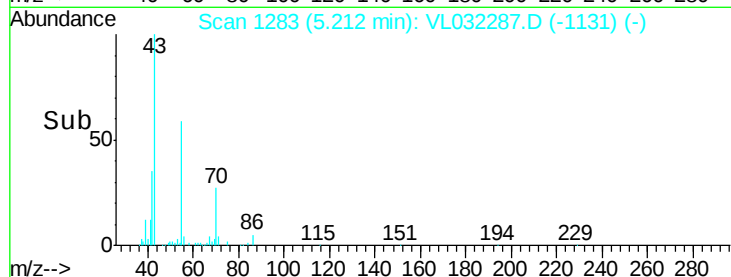
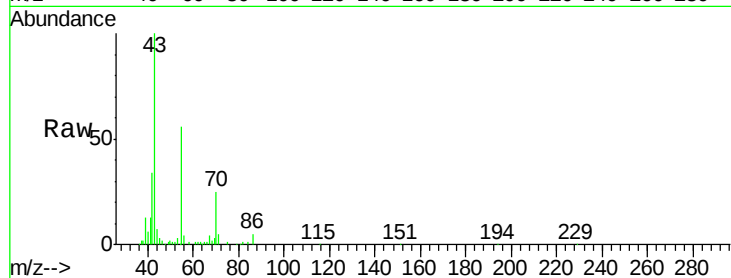




#23
 Vinyl Acetate
 Concen: 0.336 ppbv
 RT: 5.21 min Scan# 1283
 Delta R.T. -0.01 min
 Lab File: VL032287.D
 Acq: 19 Jul 2018 8:23

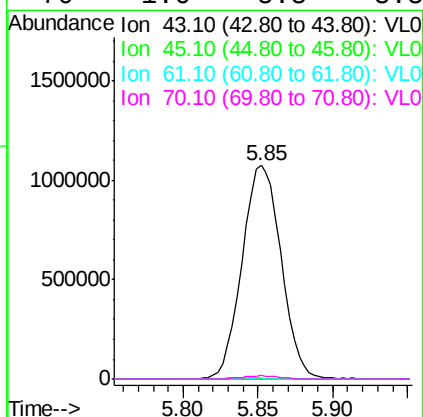
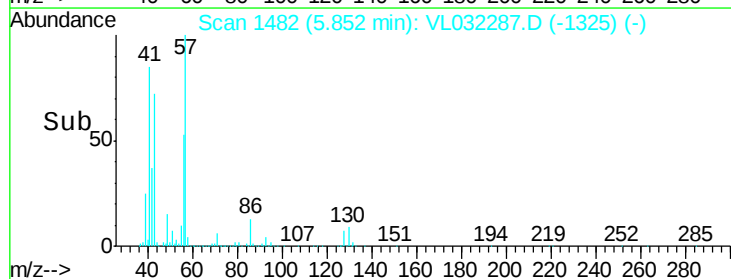
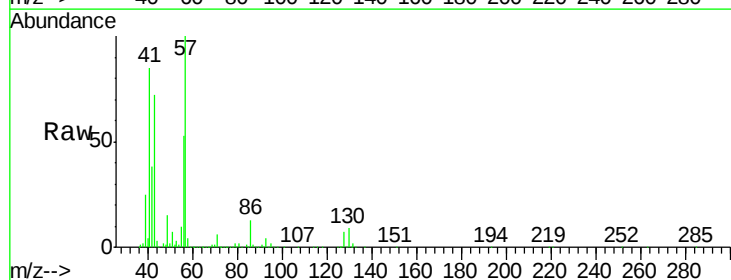
Instrument :
 MSVOA_L
 ClientSampleId :

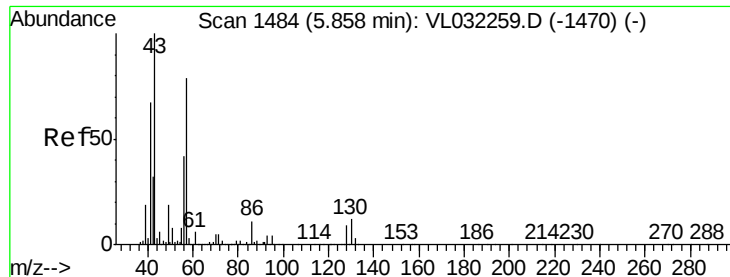
Tot Ion:	43	Resp:	98280
Ion	Ratio	Lower	Upper
43	100		
86	5.2	5.9	8.9#
42	34.5	7.3	10.9#
44	4.8	4.4	6.6



#25
 Ethyl Acetate
 Concen: 5.480 ppbv
 RT: 5.85 min Scan# 1482
 Delta R.T. 0.00 min
 Lab File: VL032287.D
 Acq: 19 Jul 2018 8:23

Tgt Ion:	43	Resp:	1947866
Ion	Ratio	Lower	Upper
43	100		
45	0.6	7.9	11.9#
61	0.4	7.6	11.4#
70	1.6	5.8	8.8#



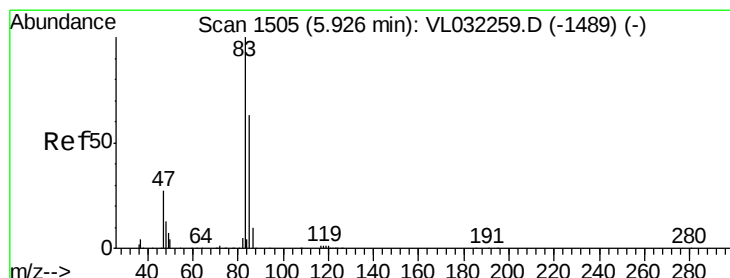
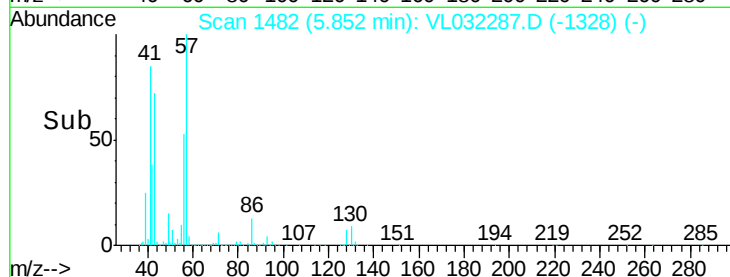
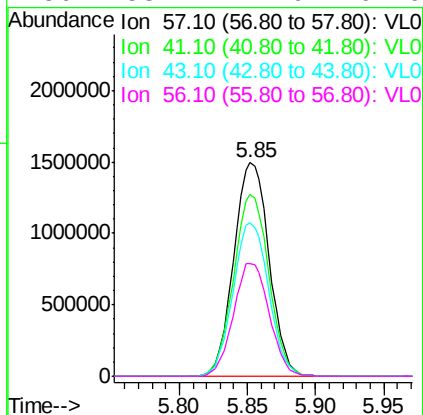
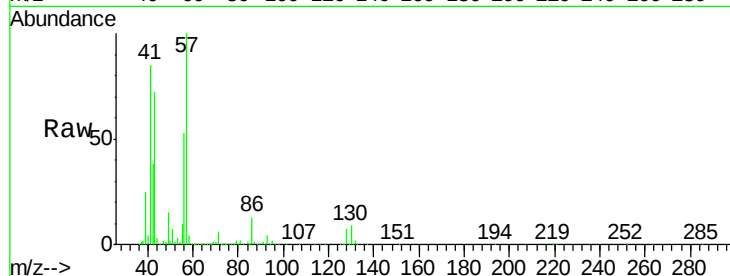


#26
Hexane
Concen: 16.471 ppbv
RT: 5.85 min Scan# 1482
Delta R.T. -0.01 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 2688915

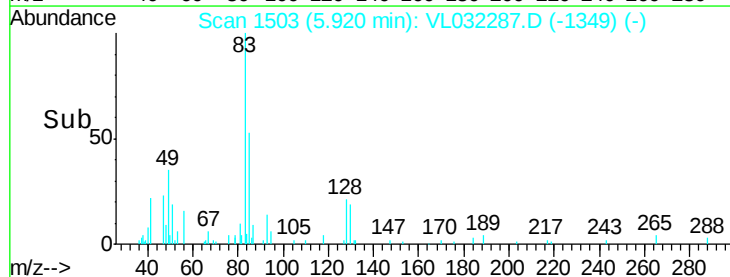
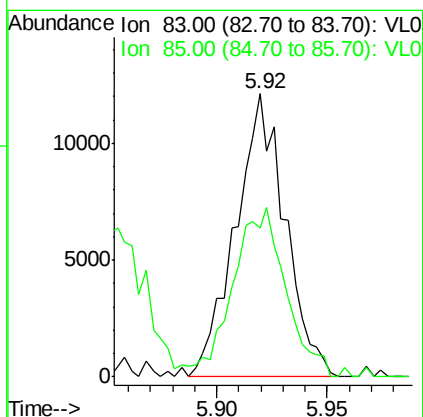
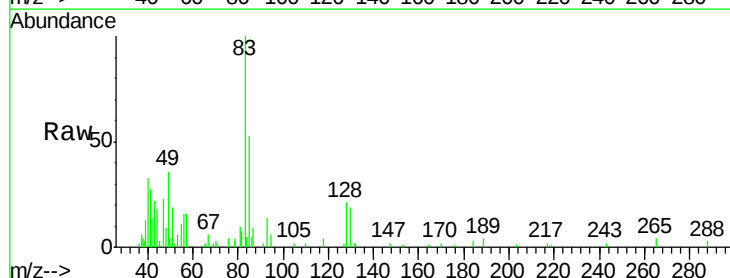
Ion	Ratio	Lower	Upper
57	100		
41	85.3	67.9	101.9
43	72.9	175.9	263.9#
56	53.4	41.9	62.9

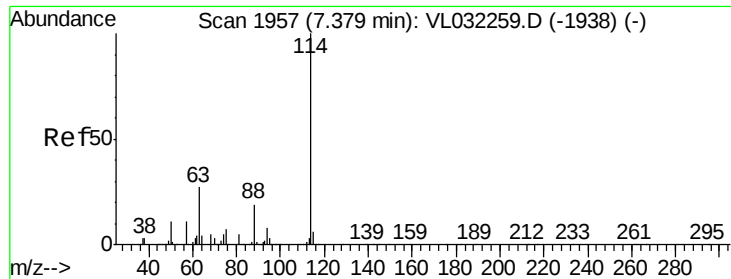


#29
Chloroform
Concen: 0.078 ppbv
RT: 5.92 min Scan# 1503
Delta R.T. -0.01 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

Tgt Ion: 83 Resp: 18858

Ion	Ratio	Lower	Upper
83	100		
85	52.8	50.7	76.1



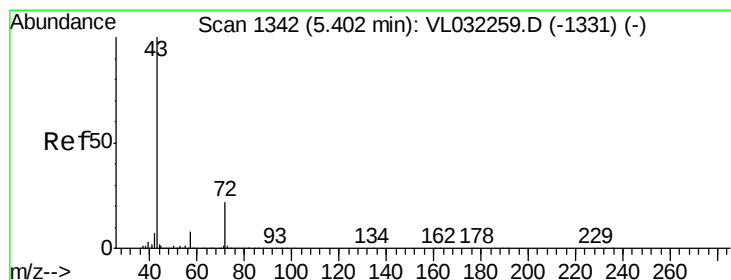
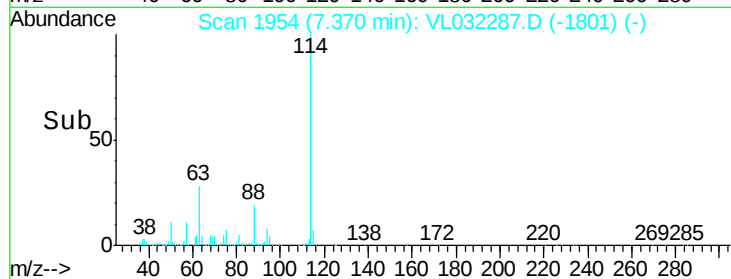
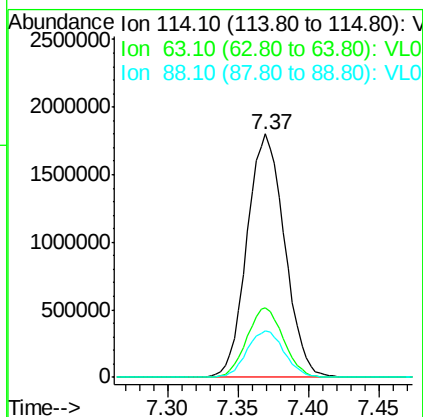
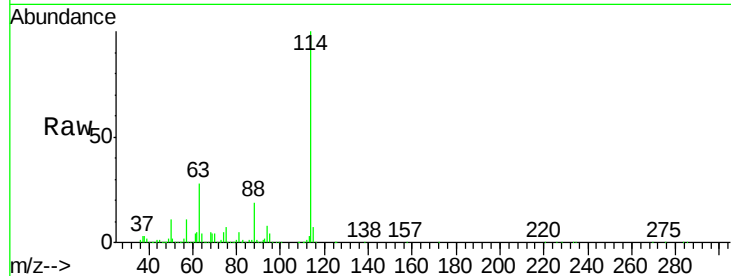


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.37 min Scan# 1954
 Delta R.T. -0.01 min
 Lab File: VL032287.D
 Acq: 19 Jul 2018 8:23

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3363990

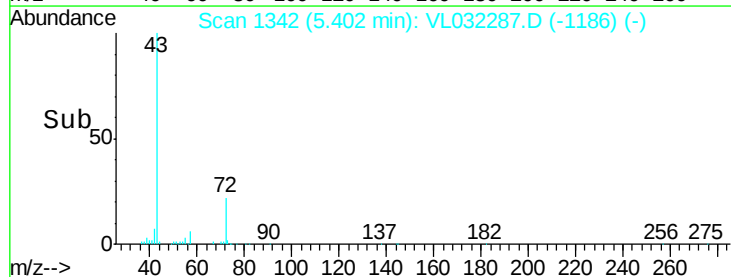
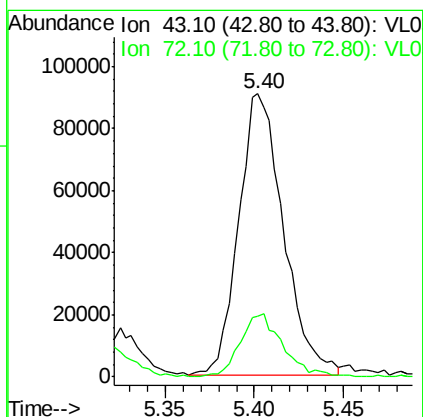
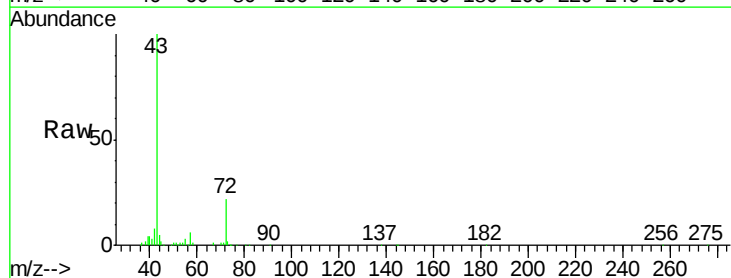
Ion	Ratio	Lower	Upper
114	100		
63	27.9	22.6	33.8
88	19.0	15.2	22.8

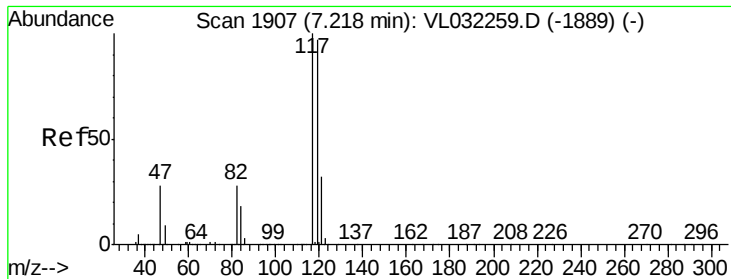


#34
 2-Butanone
 Concen: 0.684 ppbv
 RT: 5.40 min Scan# 1342
 Delta R.T. 0.00 min
 Lab File: VL032287.D
 Acq: 19 Jul 2018 8:23

Tgt Ion: 43 Resp: 157994

Ion	Ratio	Lower	Upper
43	100		
72	21.7	17.7	26.5





#35

Carbon Tetrachloride

Concen: 0.069 ppbv

RT: 7.21 min Scan# 1905

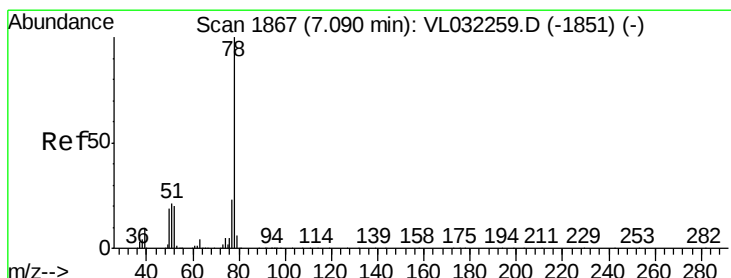
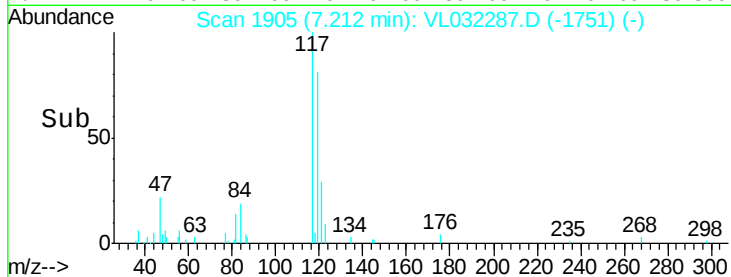
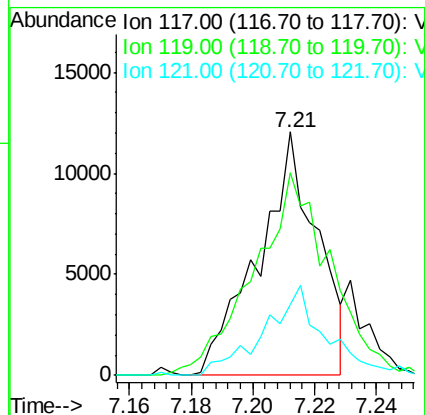
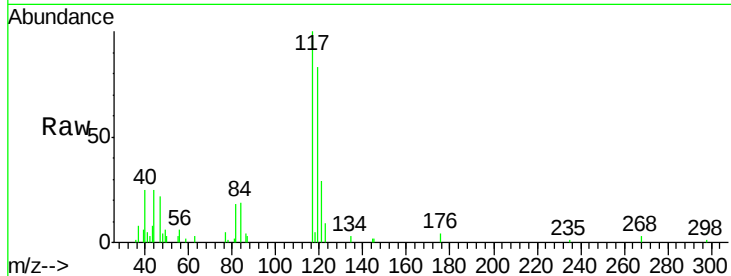
Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117	Resp:	15906
Ion Ratio	Lower	Upper
117 100		
119 78.9	77.4	116.0
121 29.2	25.4	38.2



#36

Benzene

Concen: 0.183 ppbv

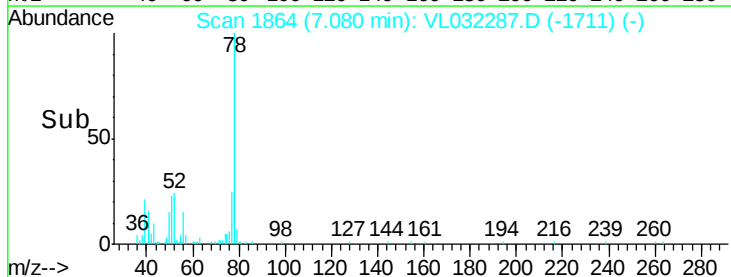
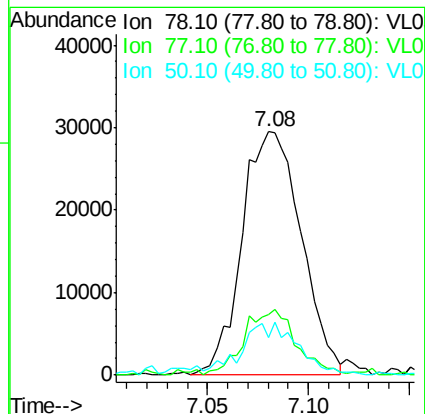
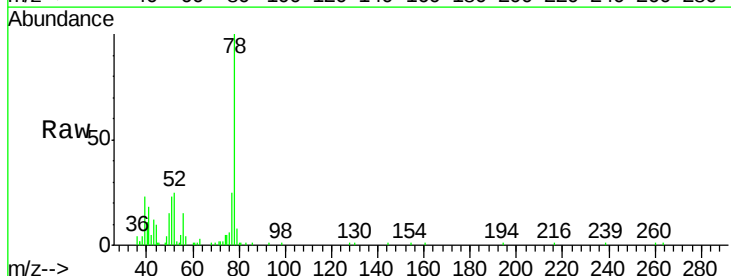
RT: 7.08 min Scan# 1864

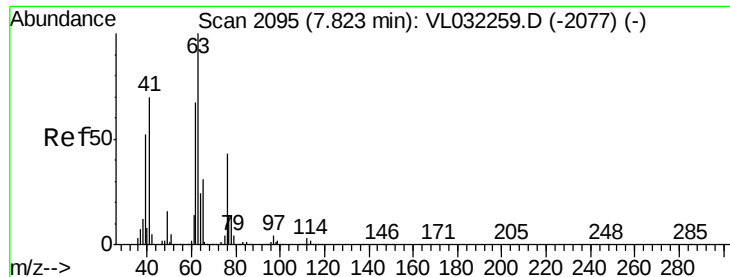
Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Tgt Ion: 78	Resp:	60566
Ion Ratio	Lower	Upper
78 100		
77 23.8	18.6	27.8
50 14.4	15.0	22.6





#39

1,2-Dichloropropane

Concen: 7.127 ppbv

RT: 7.37 min Scan# 1954

Delta R.T. -0.45 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

ClientSampleId :

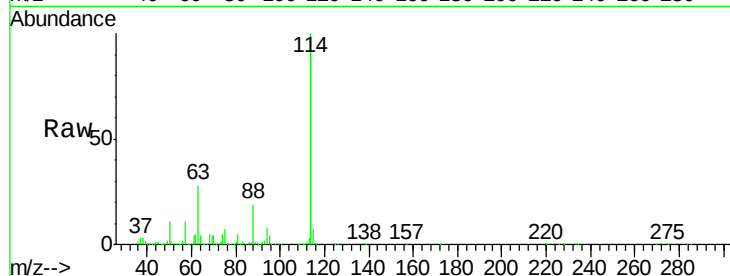
Tot Ion: 63 Resp: 934346

Ion Ratio Lower Upper

63 100

41 0.0 55.8 83.6#

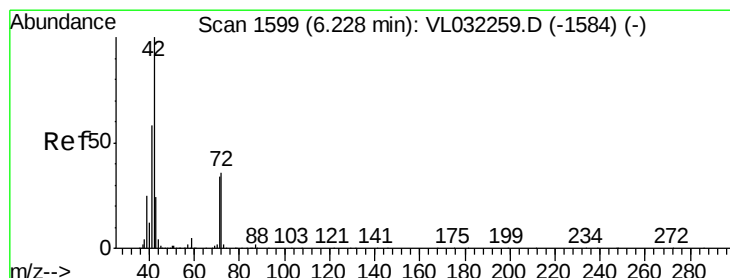
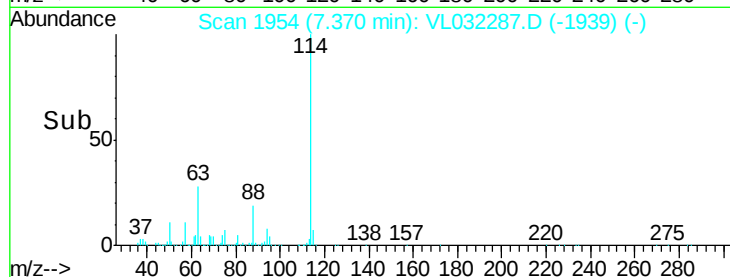
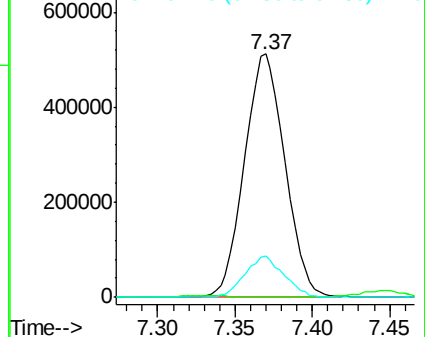
62 16.9 53.8 80.8#



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: 0.081 ppbv

RT: 6.20 min Scan# 1591

Delta R.T. -0.03 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

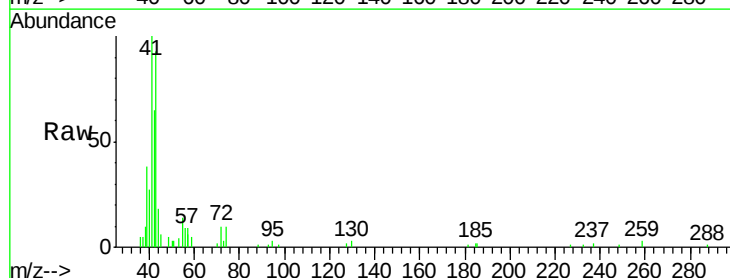
Tgt Ion: 42 Resp: 10843

Ion Ratio Lower Upper

42 100

72 53.4 29.4 44.0#

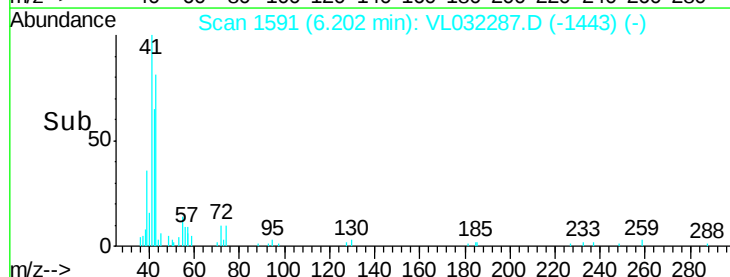
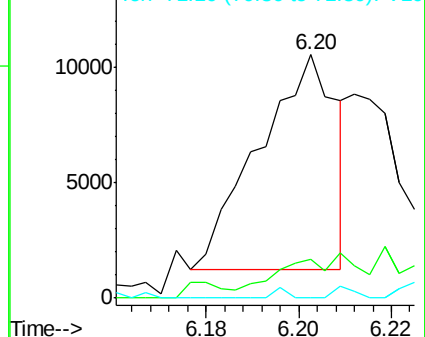
71 0.0 28.2 42.4#

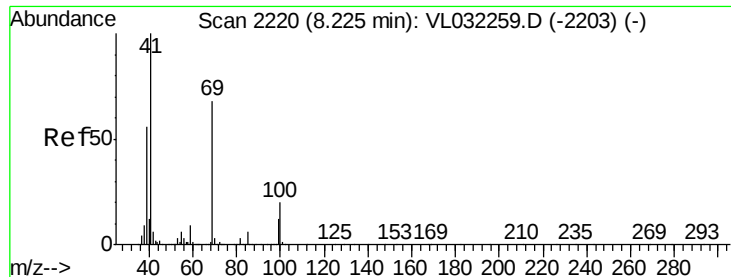


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0

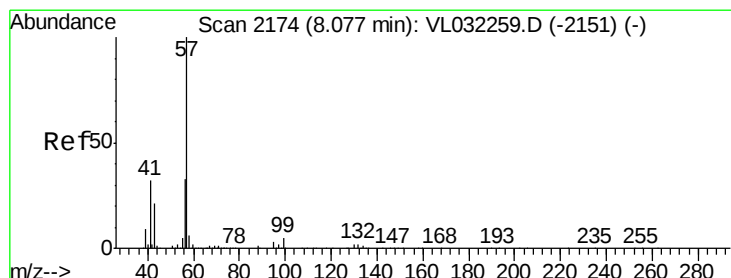
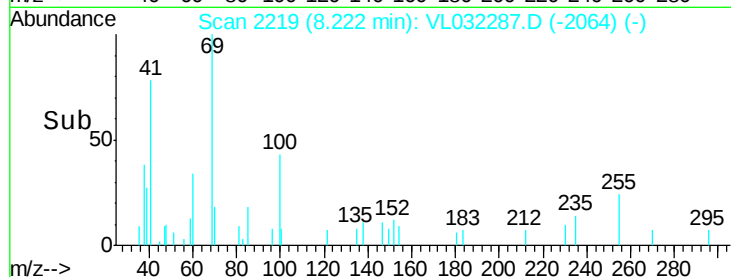
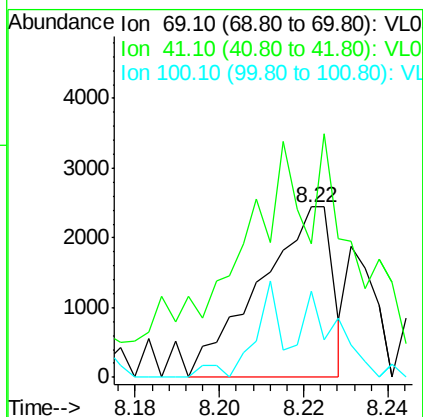
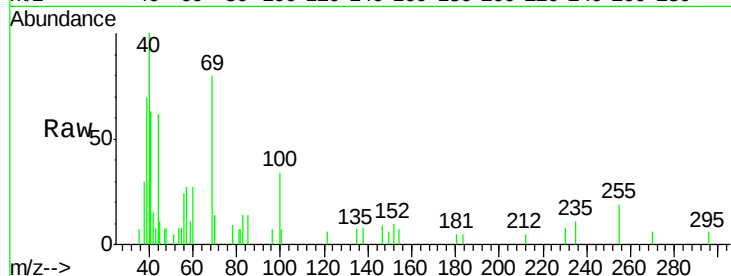




#43
Methvl Methacrvlate
Concen: 0.021 ppbv
RT: 8.22 min Scan# 2219
Delta R.T. -0.00 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

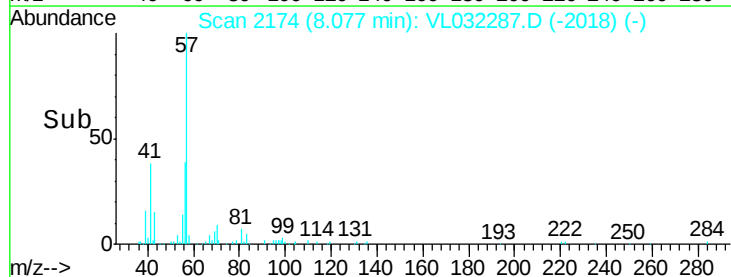
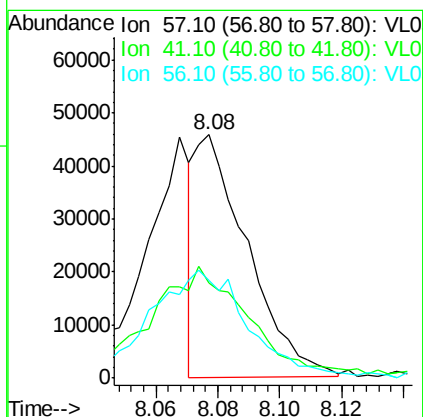
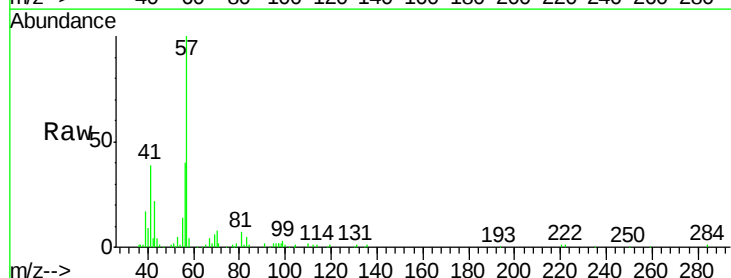
Instrument :
MSVOA_L
ClientSampleId :

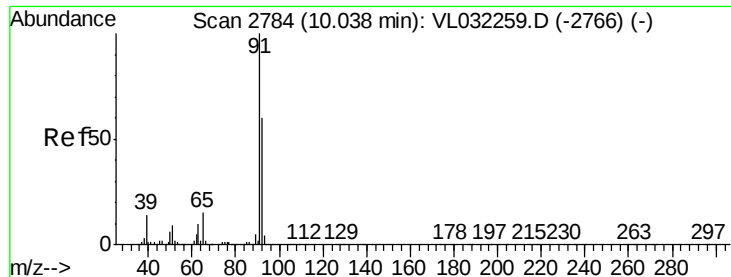
Tot Ion: 69 Resp: 2917
Ion Ratio Lower Upper
69 100
41 220.6 118.6 177.8#
100 46.0 23.3 34.9#



#44
2,2,4-Trimethylpentane
Concen: 0.092 ppbv
RT: 8.08 min Scan# 2174
Delta R.T. 0.00 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

Tgt Ion: 57 Resp: 53159
Ion Ratio Lower Upper
57 100
41 81.3 24.4 36.6#
56 87.2 25.7 38.5#





#53

Toluene

Concen: 0.543 ppbv

RT: 10.03 min Scan# 2782

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

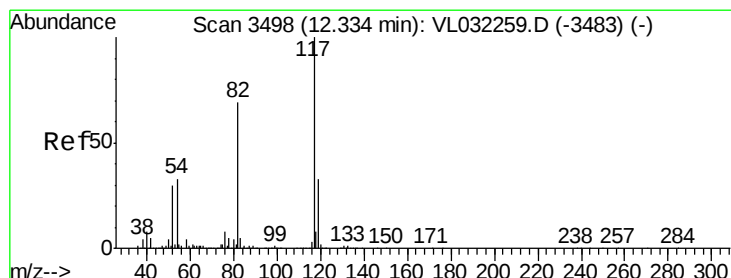
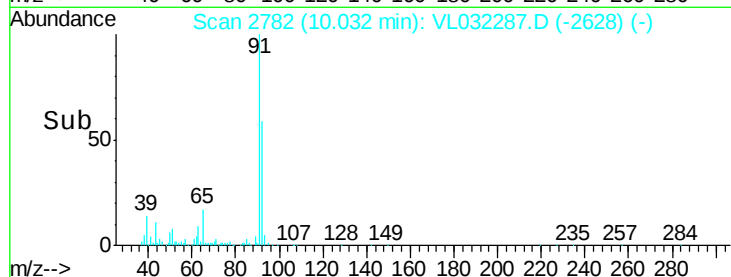
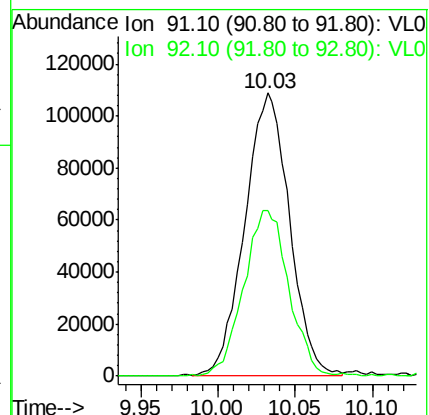
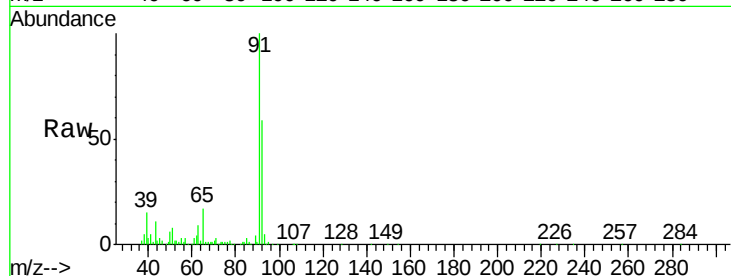
ClientSampleId :

Tot Ion: 91 Resp: 217792

Ion Ratio Lower Upper

91 100

92 60.0 48.6 72.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.33 min Scan# 3496

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

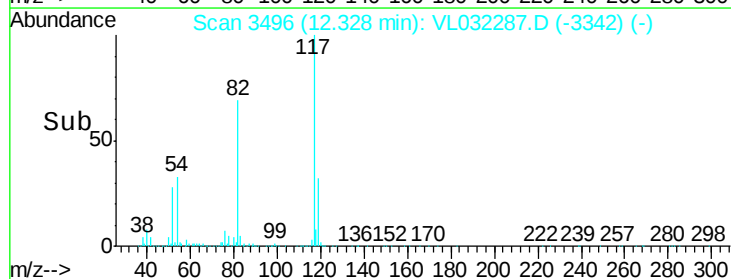
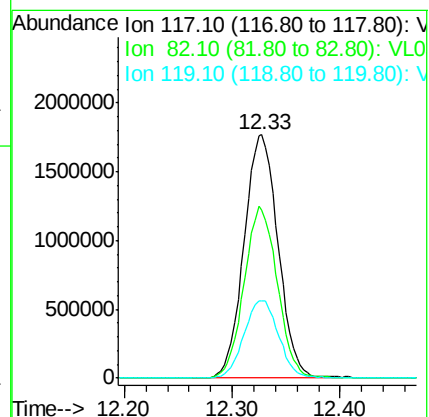
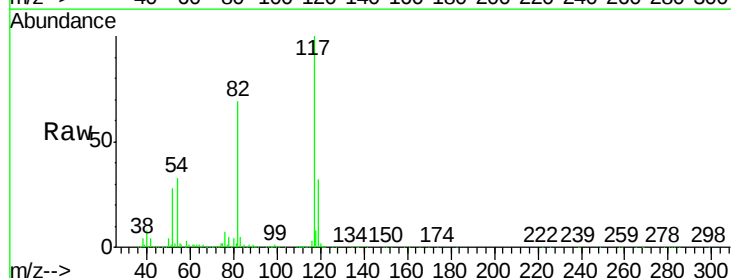
Tgt Ion: 117 Resp: 3892979

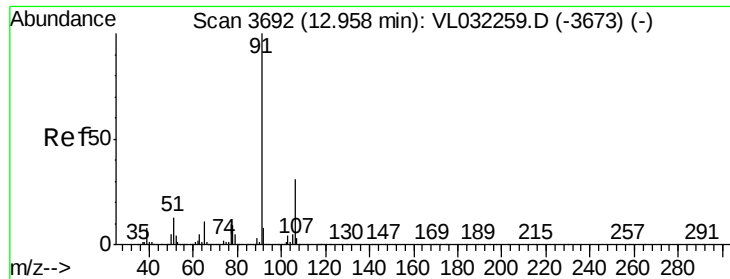
Ion Ratio Lower Upper

117 100

82 69.4 53.9 80.9

119 32.4 25.5 38.3





#58

Ethyl Benzene

Concen: 0.085 ppbv

RT: 12.95 min Scan# 3690

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

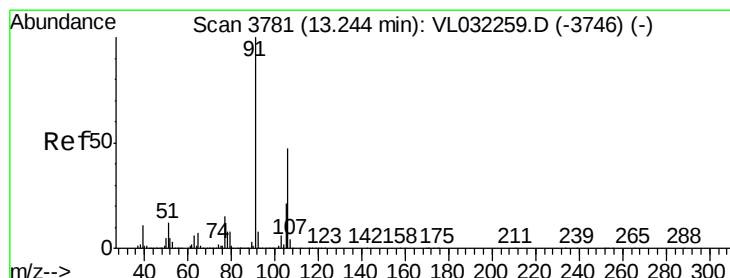
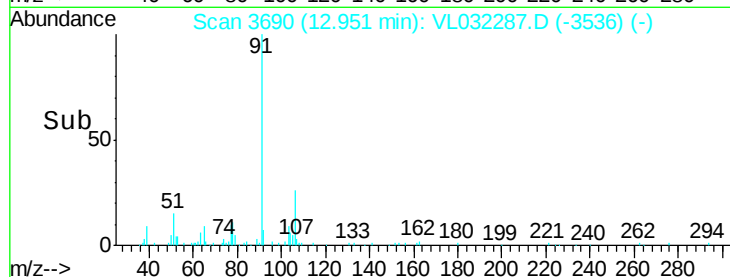
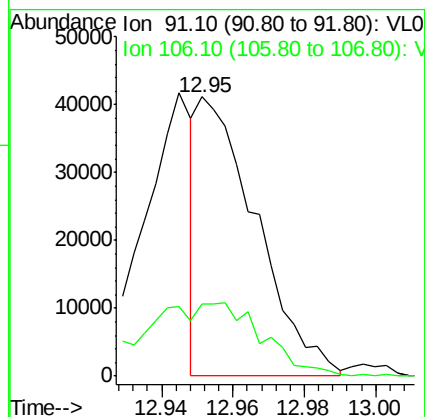
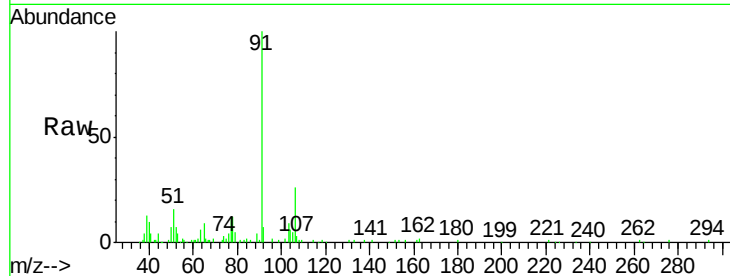
ClientSampleId :

Tot Ion: 91 Resp: 46709

Ion Ratio Lower Upper

91 100

106 25.5 24.5 36.7



#59

m/p-Xylene

Concen: 0.171 ppbv

RT: 13.23 min Scan# 3778

Delta R.T. -0.01 min

Lab File: VL032287.D

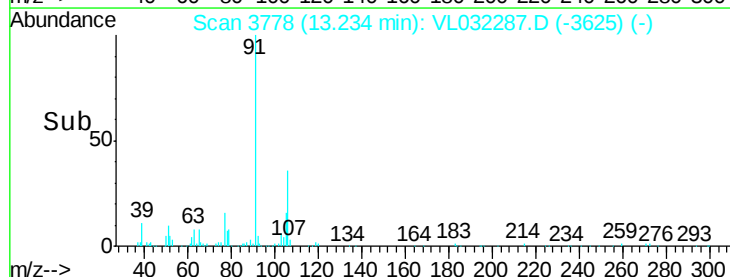
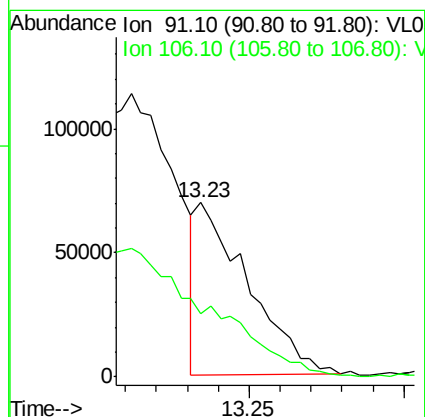
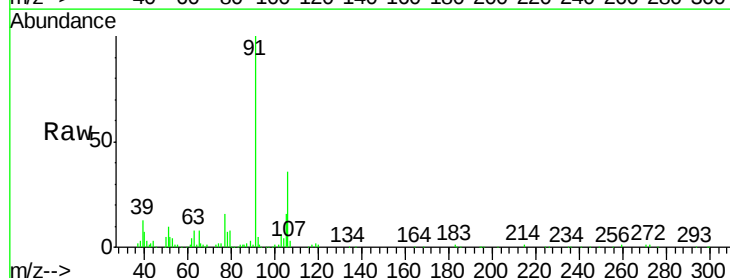
Acq: 19 Jul 2018 8:23

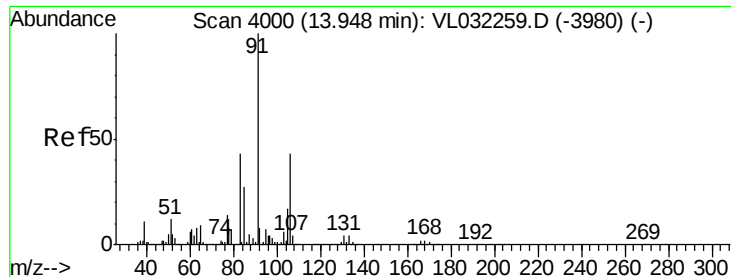
Tgt Ion: 91 Resp: 80137

Ion Ratio Lower Upper

91 100

106 0.0 36.2 54.2#

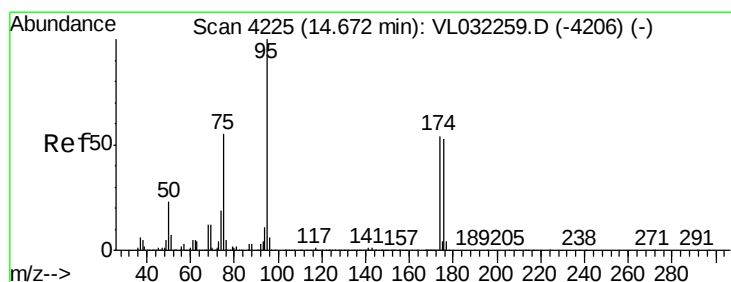
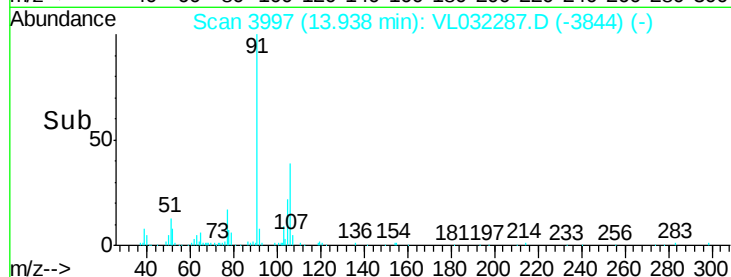
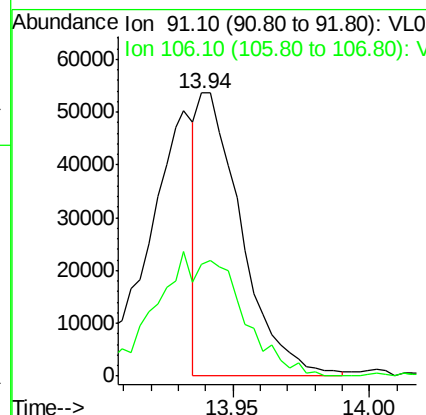
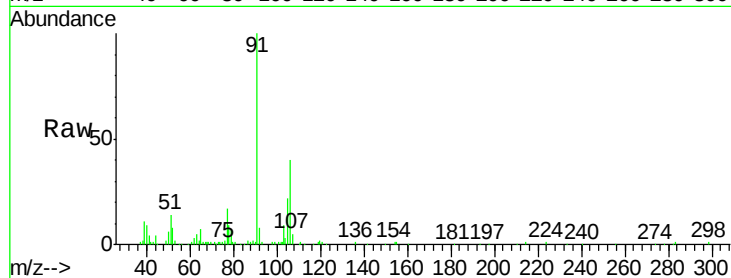




#60
o-Xylene
Concen: 0.127 ppbv
RT: 13.94 min Scan# 3997
Delta R.T. -0.01 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

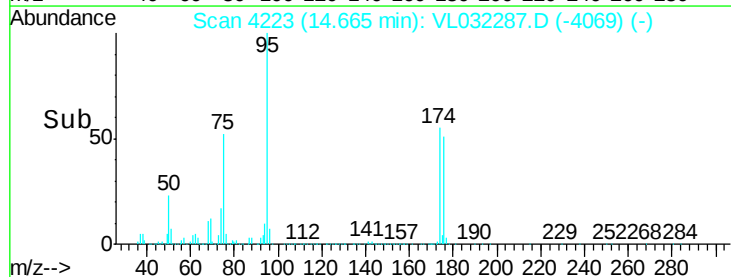
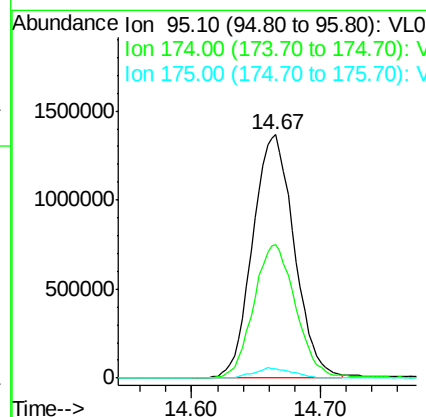
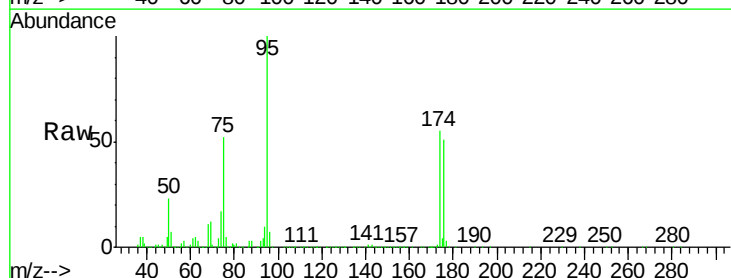
Instrument :
MSVOA_L
ClientSampled :

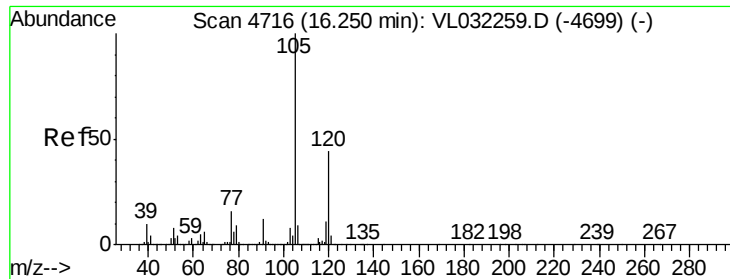
Tot Ion: 91 Resp: 59167
Ion Ratio Lower Upper
91 100
106 0.0 21.7 65.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.721 ppbv
RT: 14.67 min Scan# 4223
Delta R.T. -0.01 min
Lab File: VL032287.D
Acq: 19 Jul 2018 8:23

Tgt Ion: 95 Resp: 3068278
Ion Ratio Lower Upper
95 100
174 56.0 44.3 66.5
175 4.0 3.3 4.9





#73

1,3,5-Trimethylbenzene

Concen: 0.038 ppbv

RT: 16.24 min Scan# 4713

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Instrument :

MSVOA_L

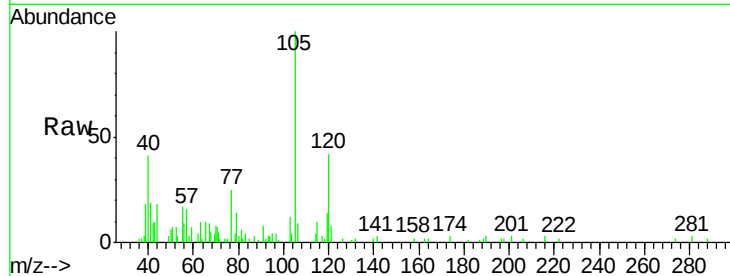
ClientSampleId :

Tot Ion:105 Resp: 19840

Ion Ratio Lower Upper

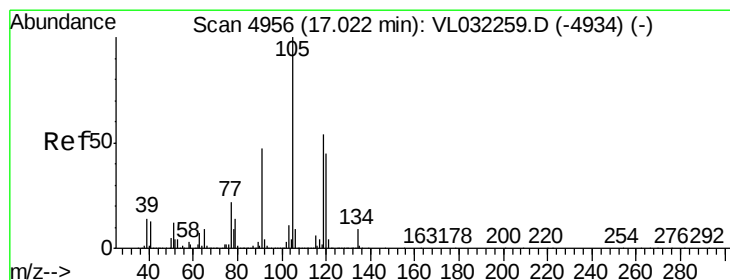
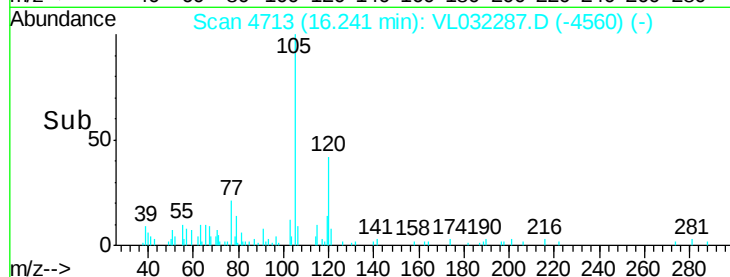
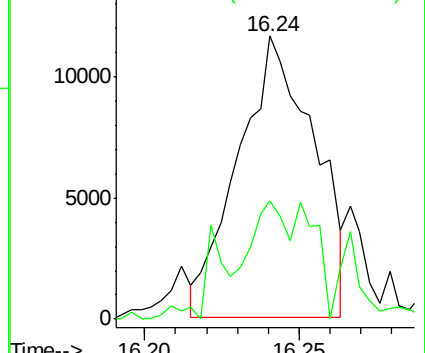
105 100

120 42.8 35.5 53.3



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.094 ppbv

RT: 17.01 min Scan# 4953

Delta R.T. -0.01 min

Lab File: VL032287.D

Acq: 19 Jul 2018 8:23

Tgt Ion:105 Resp: 51706

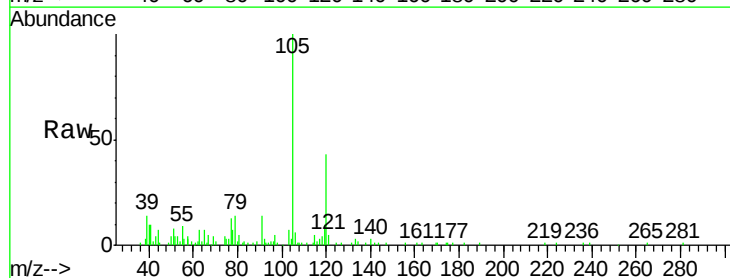
Ion Ratio Lower Upper

105 100

120 42.9 35.8 53.6

91 13.5 38.2 57.4#

77 11.7 17.5 26.3#



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

