

Data File : VL031865.D

Acq On : 12 Apr 2018 13:40

Operator : SY/AP

Sample : J2191-05

Misc : 400ml/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

Quant Time: Apr 14 01:35:08 2018

Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL041218AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Apr 13 16:50:02 2018

QLast Update : Fri Apr 13 16:50:02 2018

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.89	49	1115765	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.43	114	2285202	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.39	117	2178682	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.73	95	1748525	9.98	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

Target Compounds

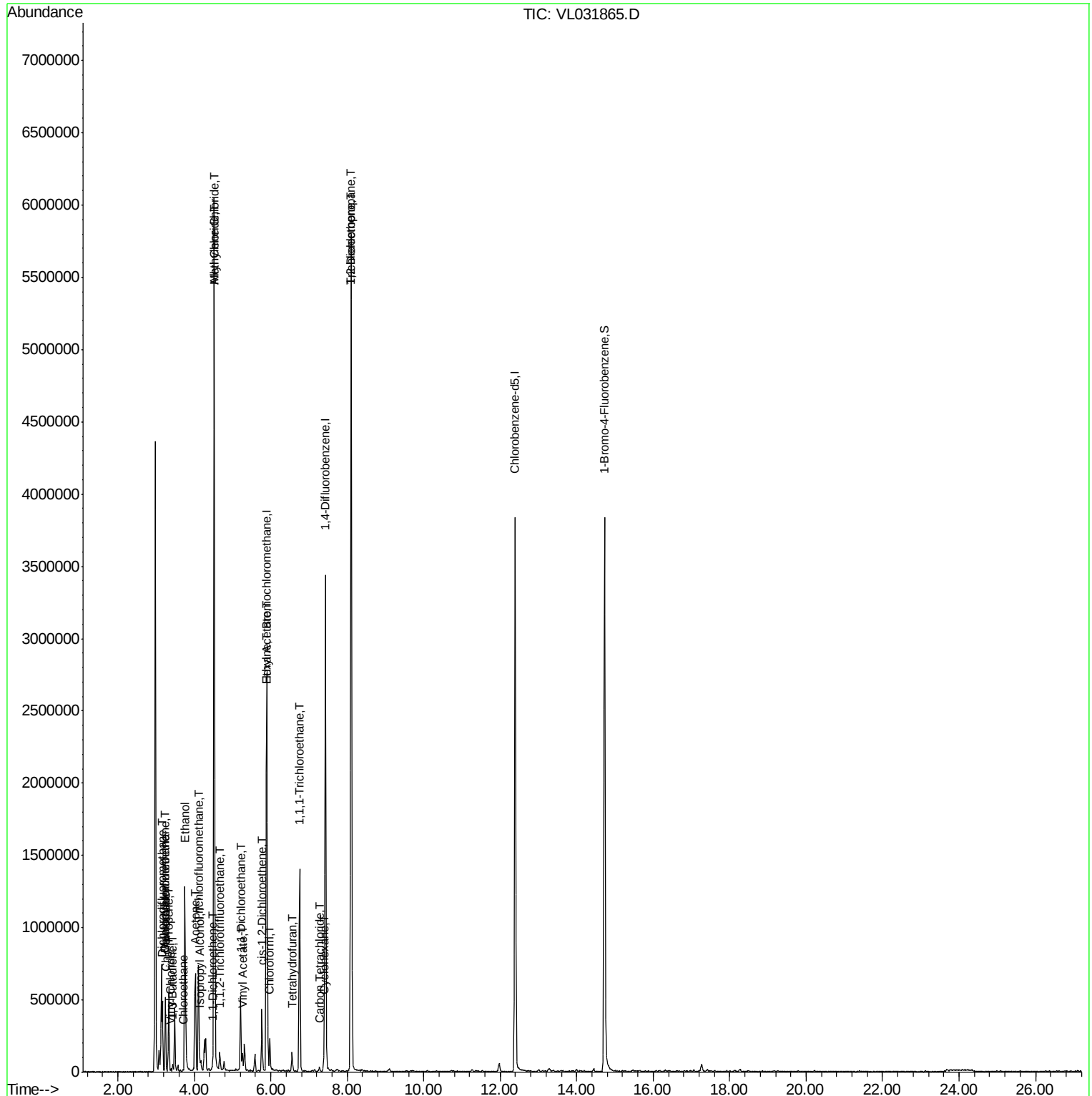
						Qvalue
2) Dichlorodifluoromethane	3.16	85	332980	1.45	ppbv	98
3) Chlorodifluoromethane	3.24	51	5330	0.04	ppbv	99
4) Chloromethane	3.26	50	17197	0.26	ppbv #	84
5) Vinyl Chloride	3.38	62	5955	0.08	ppbv #	77
7) Chloroethane	3.70	64	7705	0.26	ppbv #	72
8) Dichlorotetrafluoroethane	3.24	85	39700	0.21	ppbv #	25
9) Propene	3.33	41	165614	3.69	ppbv	90
11) Trichlorofluoromethane	4.11	101	484612	2.15	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.66	101	21935	0.15	ppbv #	14
13) Ethanol	3.75	45	1368683	89.88	ppbv	100
15) Acetone	4.01	43	608385	3.54	ppbv #	86
16) 1,3-Butadiene	3.43	39	15989	0.25	ppbv #	43
18) 1,1-Dichloroethene	4.47	96	2198	0.03	ppbv #	5
19) Isopropyl Alcohol	4.14	45	34645	0.36	ppbv #	94
20) Methylene Chloride	4.52	84	2169335	34.68	ppbv	94
21) Allyl Chloride	4.52	41	85424	0.87	ppbv #	25
23) Vinyl Acetate	5.26	43	41216	0.24	ppbv #	1
24) 1,1-Dichloroethane	5.21	63	399861	2.30	ppbv	99
25) Ethyl Acetate	5.91	43	179299	0.67	ppbv #	82
26) Hexane	5.91	57	218840	1.75	ppbv #	48
29) Chloroform	5.98	83	136759	0.65	ppbv	92
30) Cyclohexane	7.39	84	6761	0.08	ppbv #	1
31) cis-1,2-Dichloroethene	5.76	61	215589	1.91	ppbv	95
32) 1,1,1-Trichloroethane	6.76	97	854738	4.15	ppbv	99
35) Carbon Tetrachloride	7.28	117	16070	0.08	ppbv #	77
38) Trichloroethene	8.10	130	1691102	20.27	ppbv	94
39) 1,2-Dichloropropane	8.10	63	7101	0.09	ppbv #	1
41) Tetrahydrofuran	6.55	42	6680	0.09	ppbv #	37

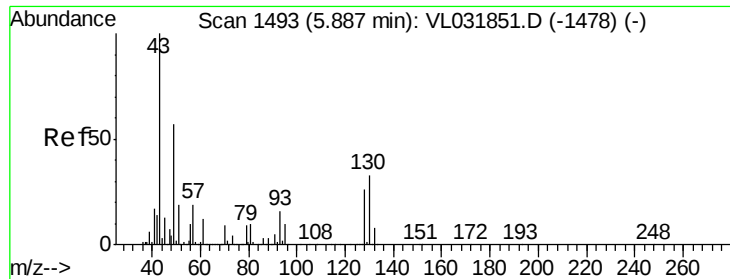
(#)=qualifier out of range (m)=manual integration (+)=signals summed

ALS Vial : 1 Sample Multiplier: 1

GAC-EFF-DUP-040218

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.89 min Scan# 1493

Delta R.T. -0.00 min

Lab File: VL031865.D

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Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

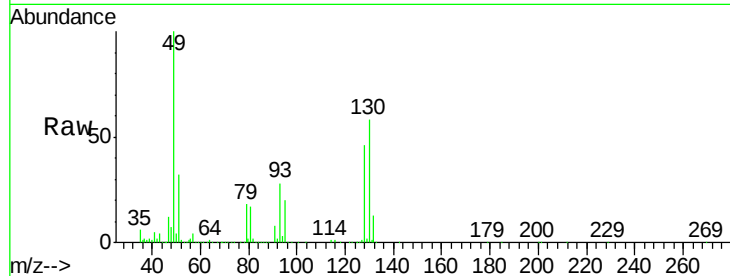
Tgt Ion: 49 Resp: 1115765

Ion Ratio Lower Upper

49 100

128 48.5 23.9 71.7

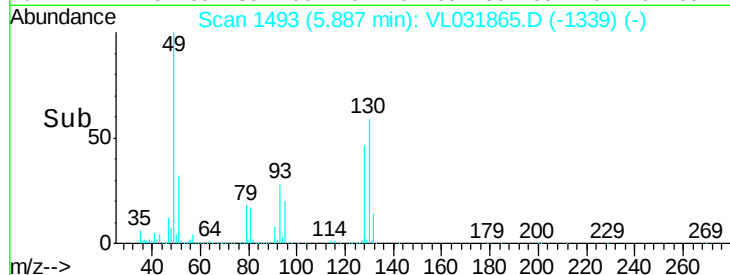
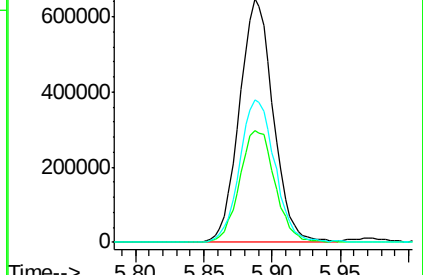
130 61.3 30.9 92.7



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: 1.45 ppbv

RT: 3.16 min Scan# 646

Delta R.T. -0.00 min

Lab File: VL031865.D

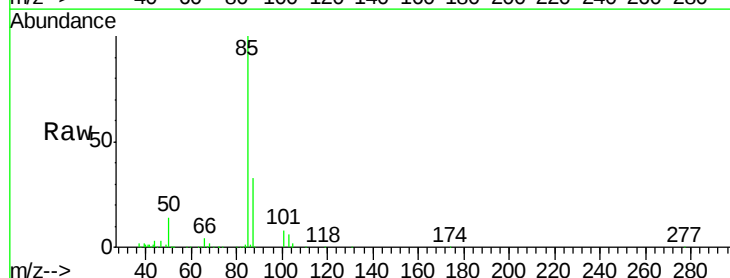
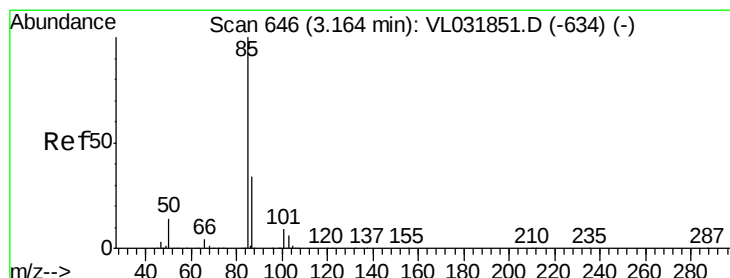
Acq: 12 Apr 2018 13:40

Tgt Ion: 85 Resp: 332980

Ion Ratio Lower Upper

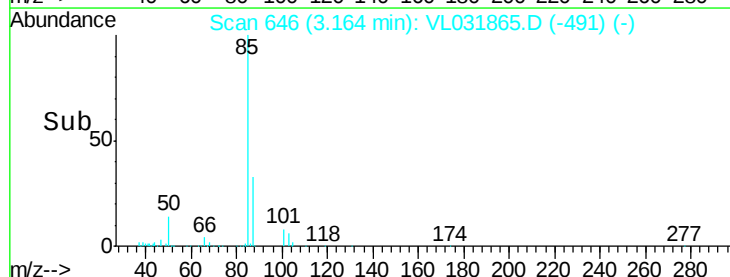
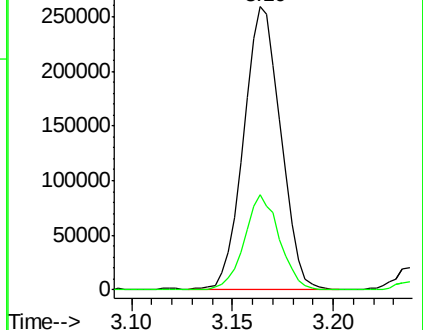
85 100

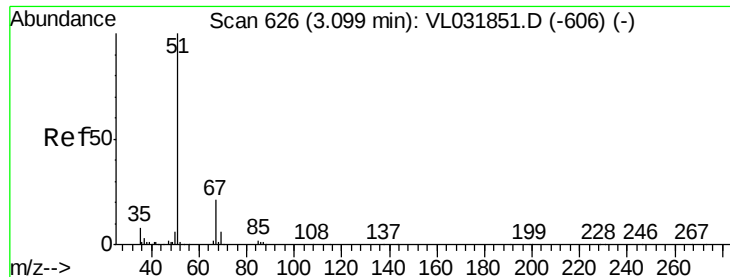
87 33.5 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.04 ppbv

RT: 3.24 min Scan# 670

Delta R.T. 0.14 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

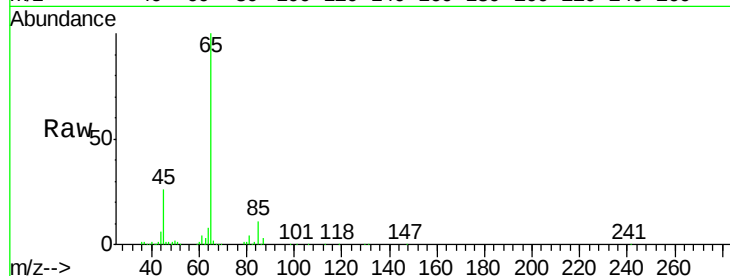
GAC-EFF-DUP-040218

Tgt Ion: 51 Resp: 5330

Ion Ratio Lower Upper

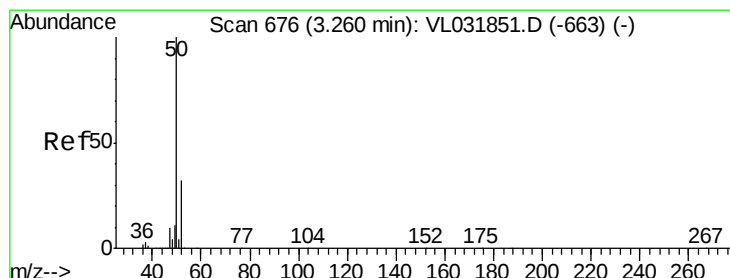
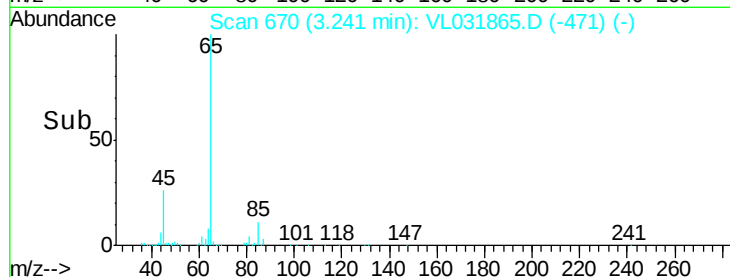
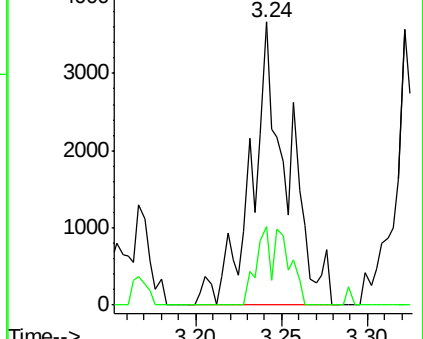
51 100

67 22.5 17.5 26.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.26 ppbv

RT: 3.26 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL031865.D

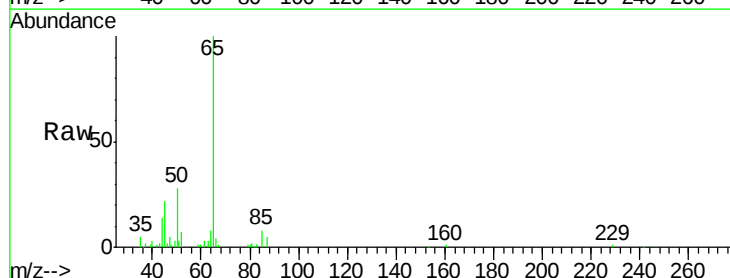
Acq: 12 Apr 2018 13:40

Tgt Ion: 50 Resp: 17197

Ion Ratio Lower Upper

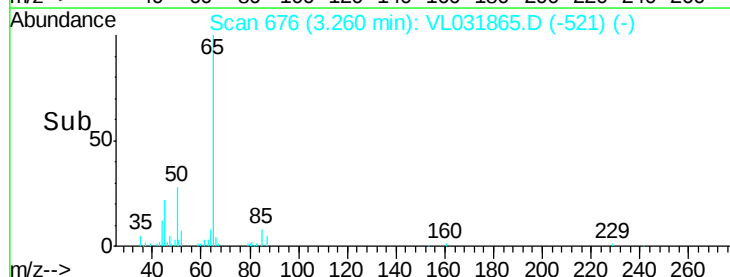
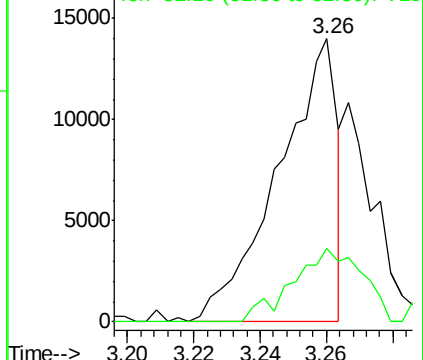
50 100

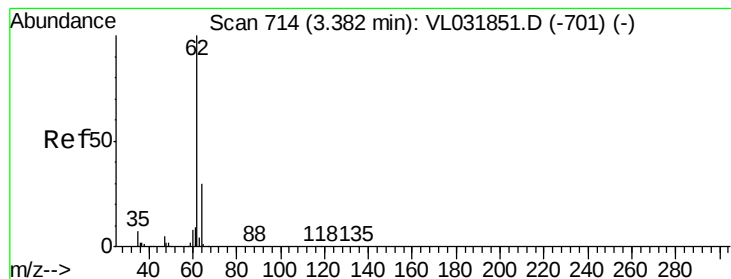
52 25.8 28.1 42.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.08 ppbv

RT: 3.38 min Scan# 713

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

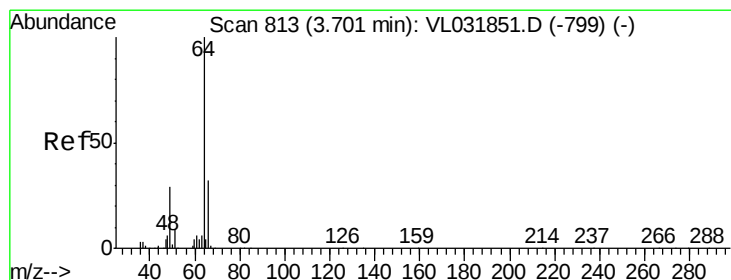
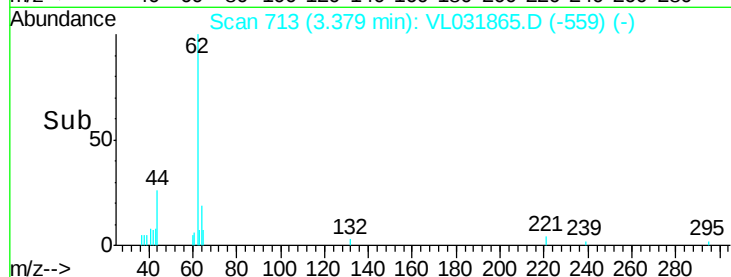
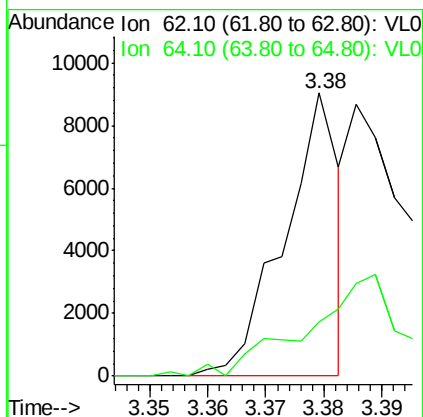
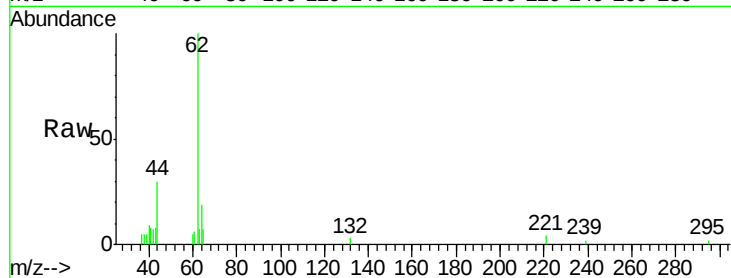
GAC-EFF-DUP-040218

Tgt Ion: 62 Resp: 5955

Ion Ratio Lower Upper

62 100

64 19.3 25.9 38.9#



#7

Chloroethane

Concen: 0.26 ppbv

RT: 3.70 min Scan# 813

Delta R.T. 0.00 min

Lab File: VL031865.D

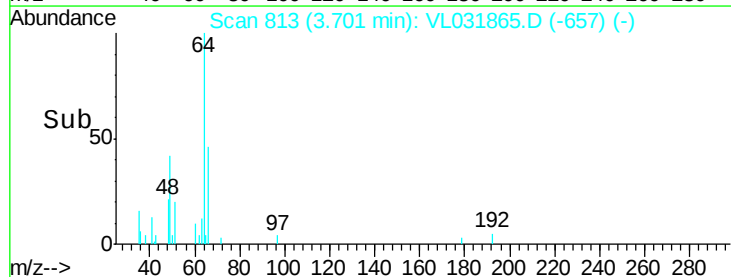
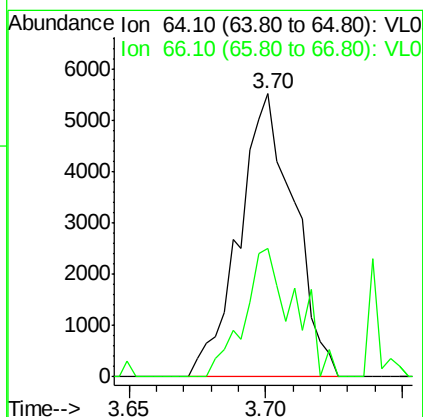
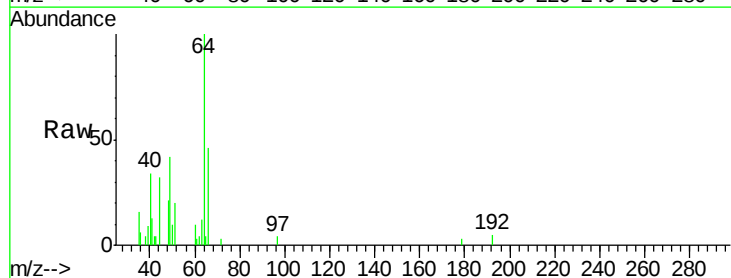
Acq: 12 Apr 2018 13:40

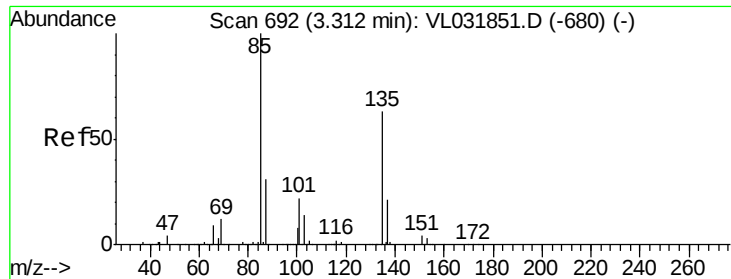
Tgt Ion: 64 Resp: 7705

Ion Ratio Lower Upper

64 100

66 44.0 23.4 35.0#





#8

Dichlorotetrafluoroethane

Concen: 0.21 ppbv

RT: 3.24 min Scan# 671

Delta R.T. -0.07 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

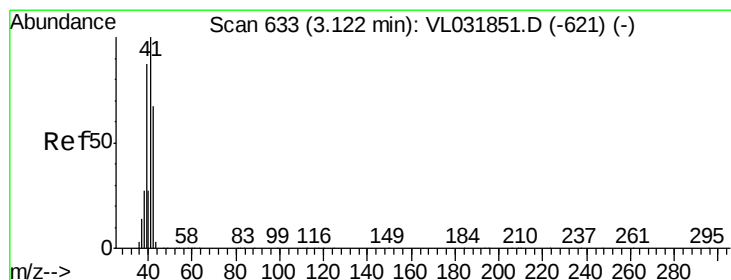
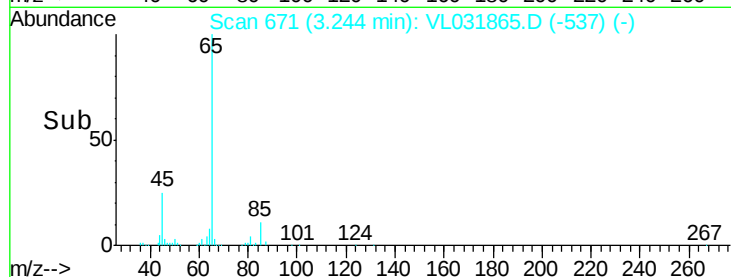
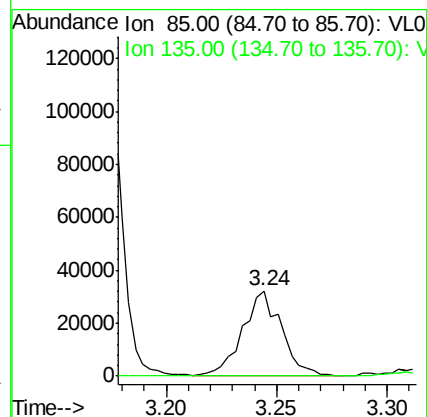
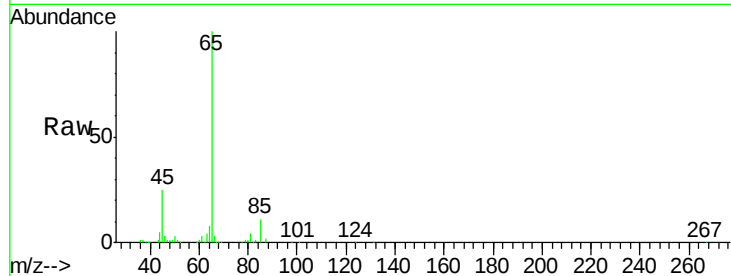
GAC-EFF-DUP-040218

Tgt Ion: 85 Resp: 39700

Ion Ratio Lower Upper

85 100

135 6.1 52.7 79.1#



#9

Propene

Concen: 3.69 ppbv

RT: 3.33 min Scan# 698

Delta R.T. 0.21 min

Lab File: VL031865.D

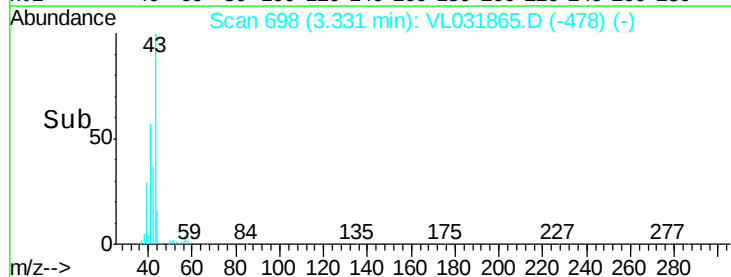
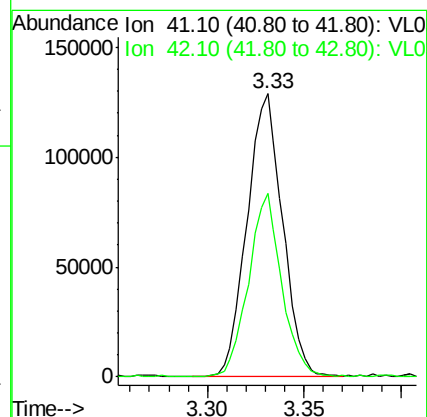
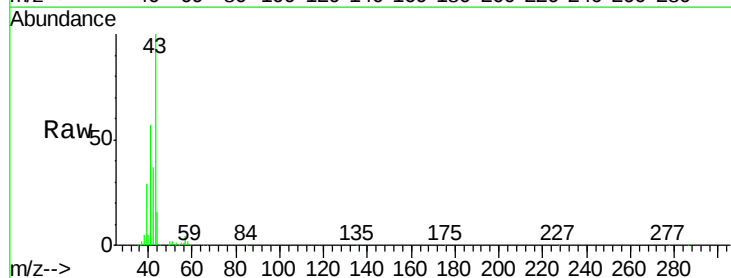
Acq: 12 Apr 2018 13:40

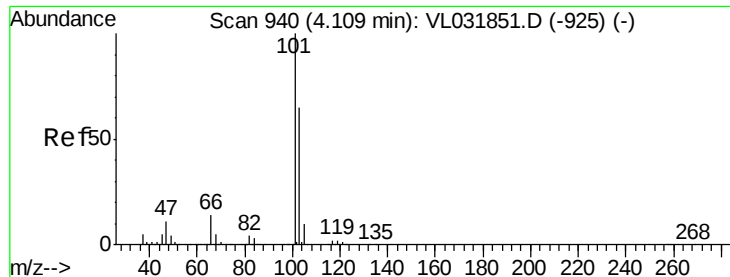
Tgt Ion: 41 Resp: 165614

Ion Ratio Lower Upper

41 100

42 60.9 55.0 82.4

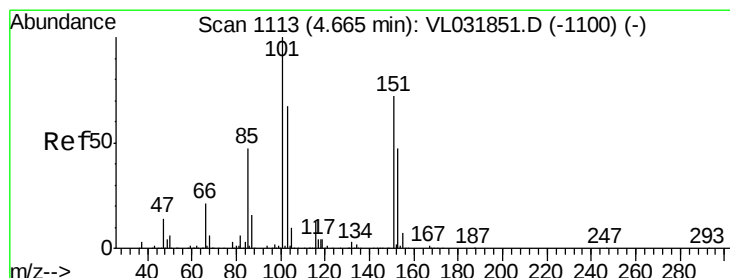
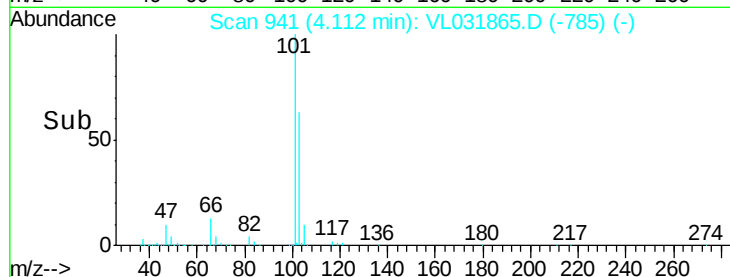
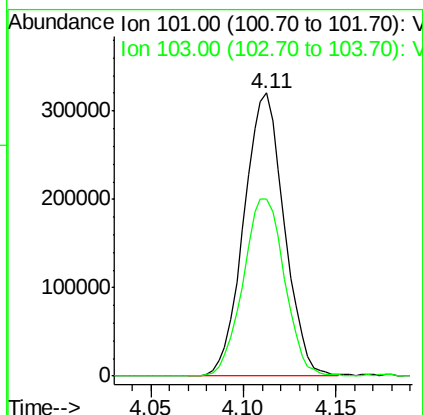
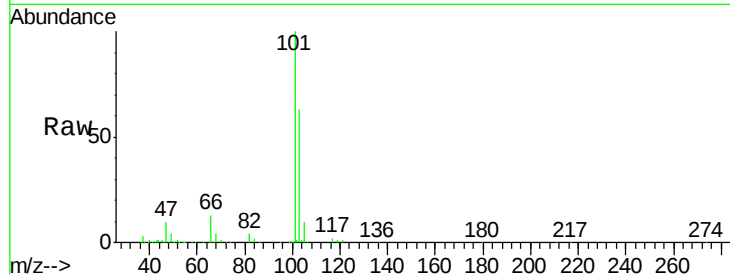




#11
 Trichlorofluoromethane
 Concen: 2.15 ppbv
 RT: 4.11 min Scan# 941
 Delta R.T. 0.00 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

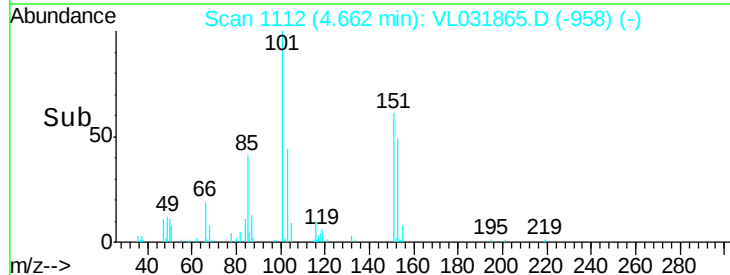
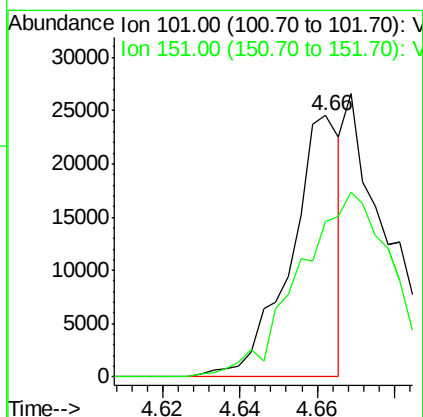
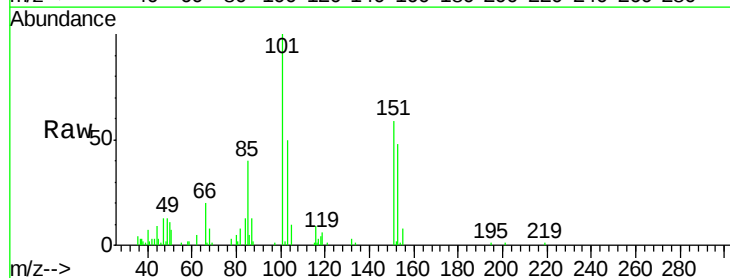
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-DUP-040218

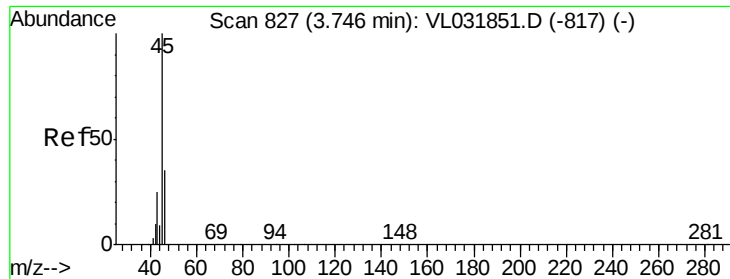
Tgt Ion:101 Resp: 484612
 Ion Ratio Lower Upper
 101 100
 103 62.7 51.8 77.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.15 ppbv
 RT: 4.66 min Scan# 1112
 Delta R.T. -0.00 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

Tgt Ion:101 Resp: 21935
 Ion Ratio Lower Upper
 101 100
 151 0.0 57.0 85.6#





#13

Ethanol

Concen: 89.88 ppbv

RT: 3.75 min Scan# 829

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

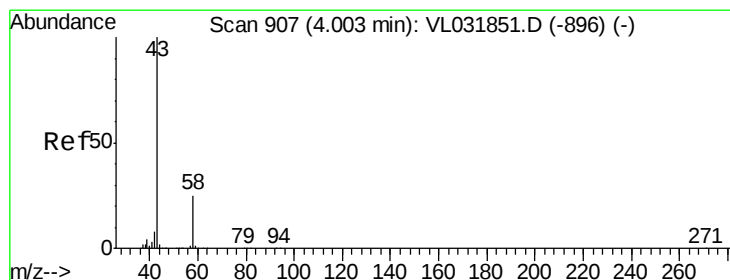
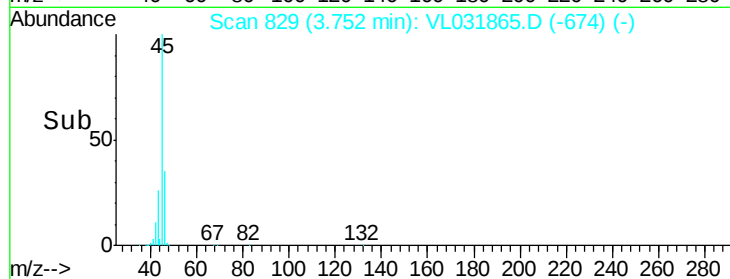
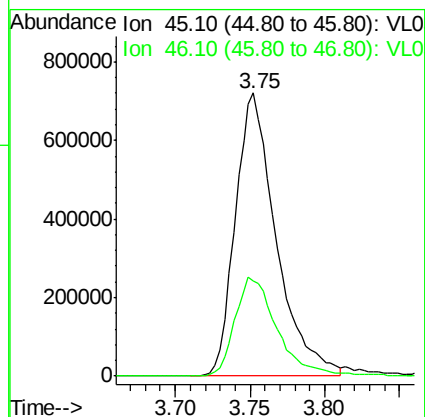
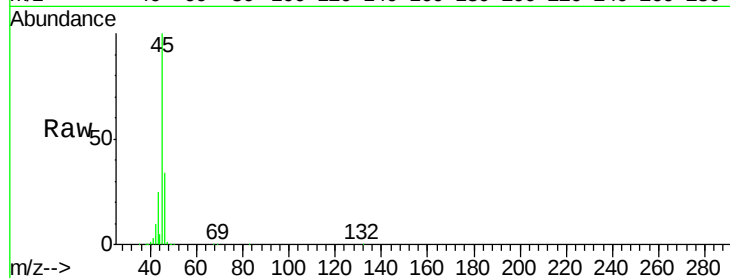
GAC-EFF-DUP-040218

Tgt Ion: 45 Resp: 1368683

Ion Ratio Lower Upper

45 100

46 36.9 14.6 58.6



#15

Acetone

Concen: 3.54 ppbv

RT: 4.01 min Scan# 909

Delta R.T. 0.01 min

Lab File: VL031865.D

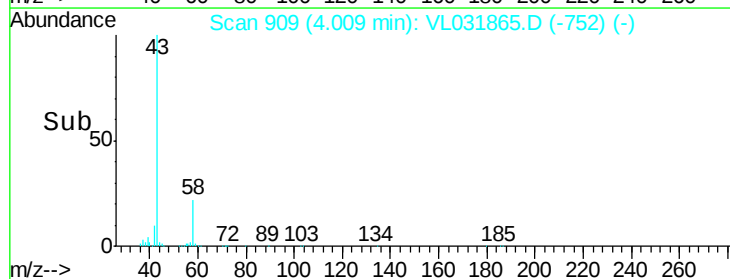
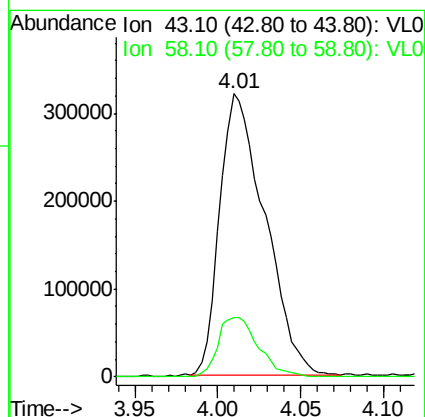
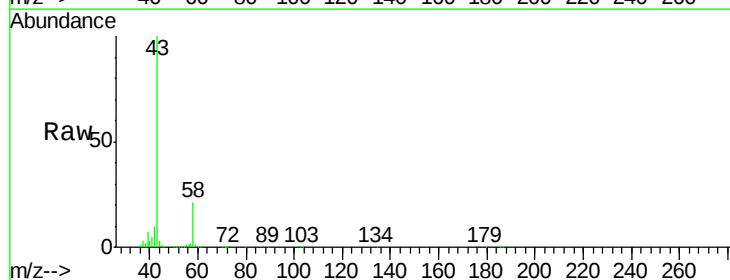
Acq: 12 Apr 2018 13:40

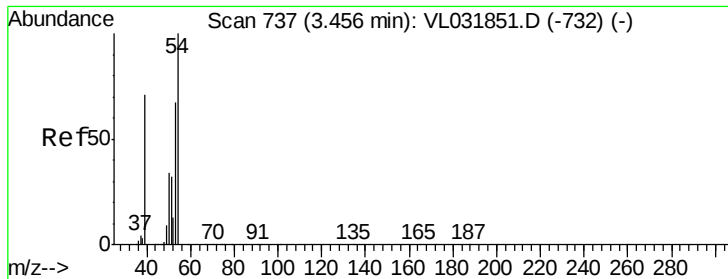
Tgt Ion: 43 Resp: 608385

Ion Ratio Lower Upper

43 100

58 19.1 20.9 31.3#

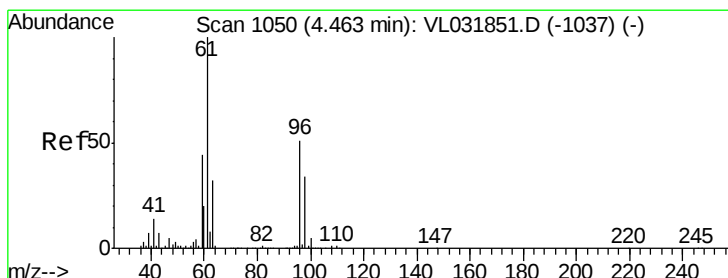
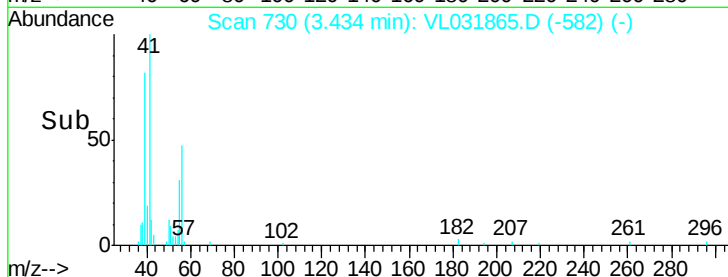
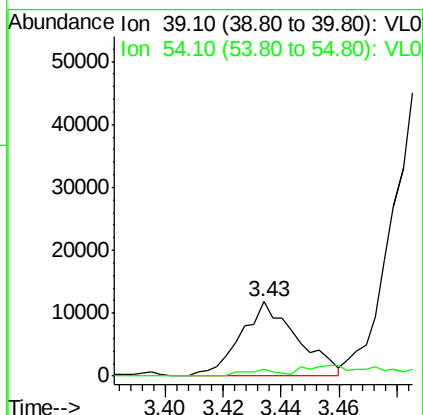
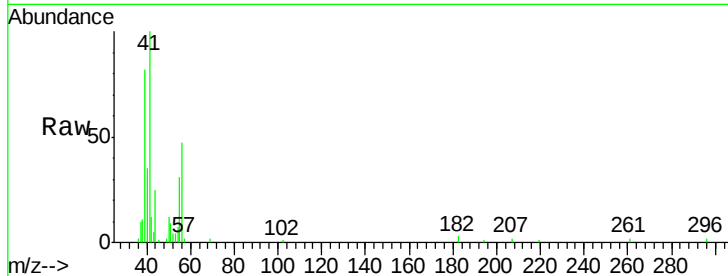




#16
 1,3-Butadiene
 Concen: 0.25 ppbv
 RT: 3.43 min Scan# 730
 Delta R.T. -0.02 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

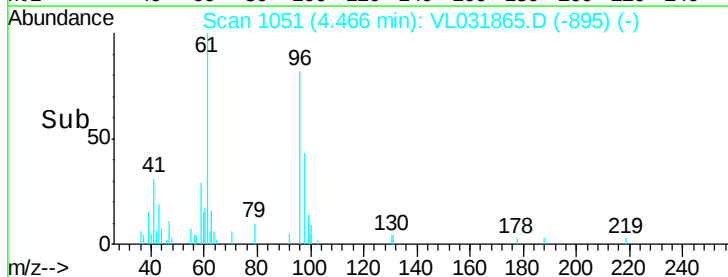
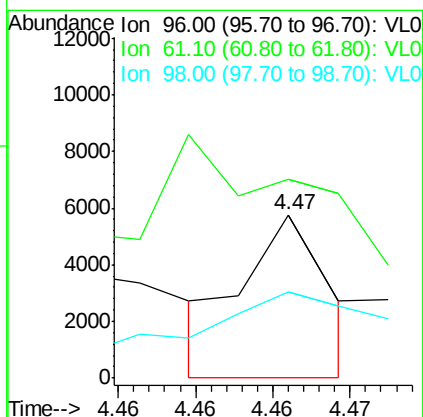
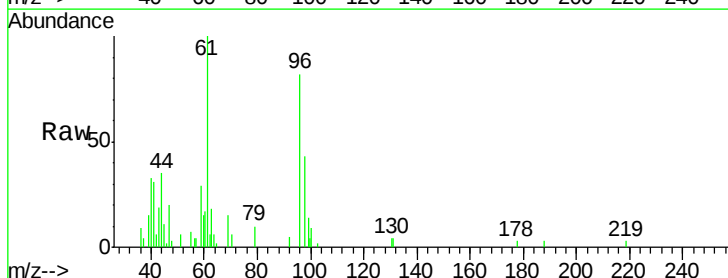
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-DUP-040218

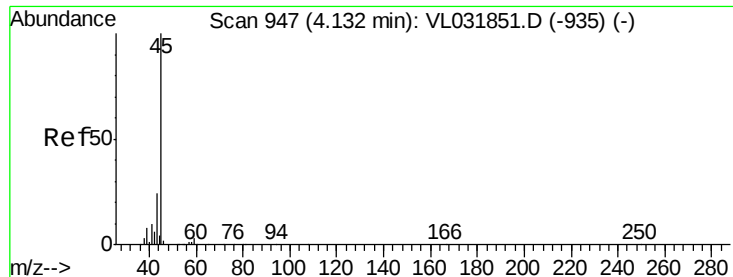
Tgt Ion: 39 Resp: 15989
 Ion Ratio Lower Upper
 39 100
 54 28.8 63.3 94.9#



#18
 1,1-Dichloroethene
 Concen: 0.03 ppbv
 RT: 4.47 min Scan# 1051
 Delta R.T. 0.00 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

Tgt Ion: 96 Resp: 2198
 Ion Ratio Lower Upper
 96 100
 61 16.2 161.0 241.6#
 98 53.7 52.7 79.1





#19

Isopropyl Alcohol

Concen: 0.36 ppbv

RT: 4.14 min Scan# 950

Delta R.T. 0.01 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

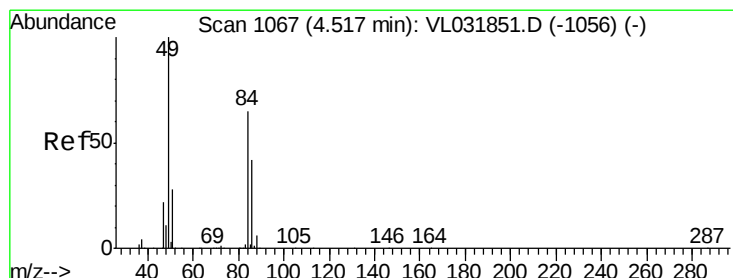
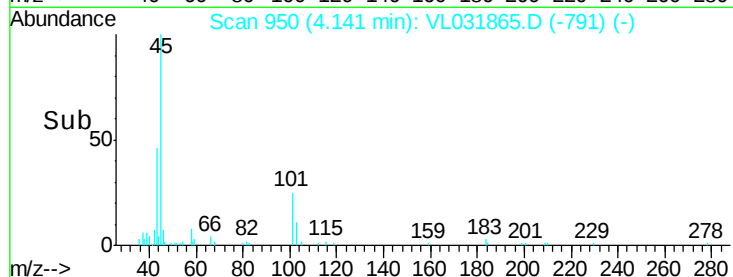
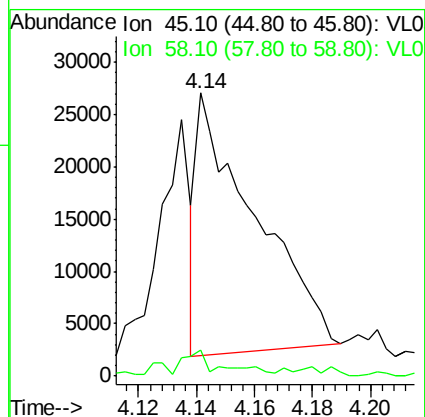
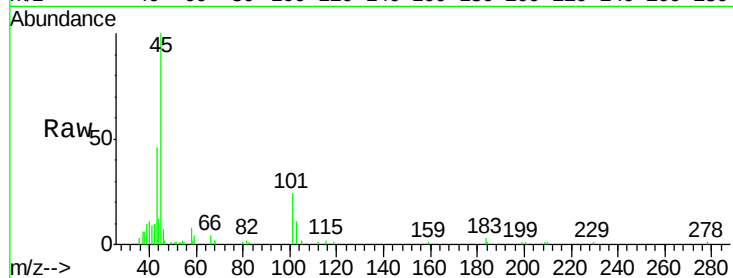
GAC-EFF-DUP-040218

Tgt Ion: 45 Resp: 34645

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#



#20

Methylene Chloride

Concen: 34.68 ppbv

RT: 4.52 min Scan# 1068

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Tgt Ion: 84 Resp: 2169335

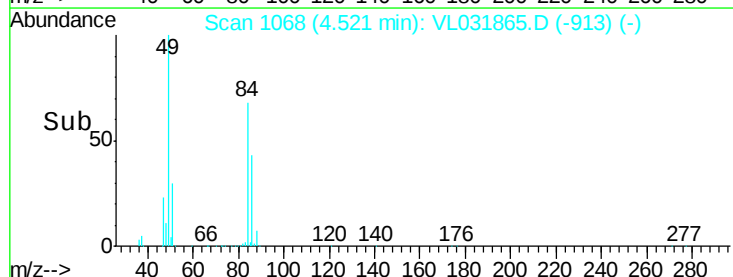
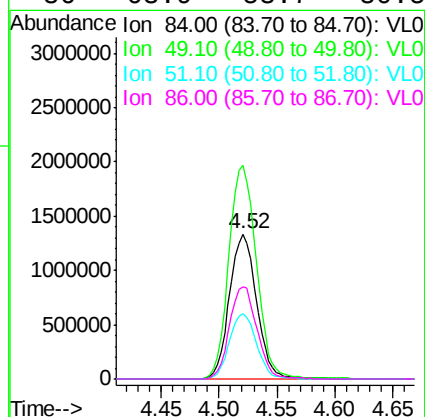
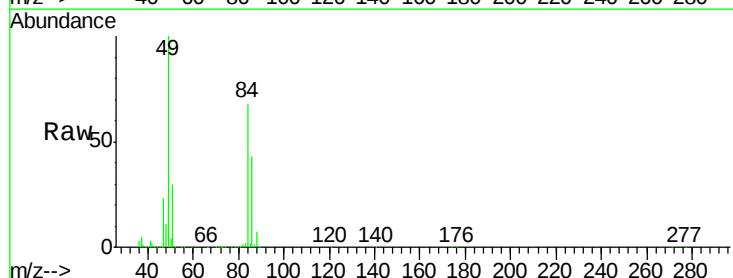
Ion Ratio Lower Upper

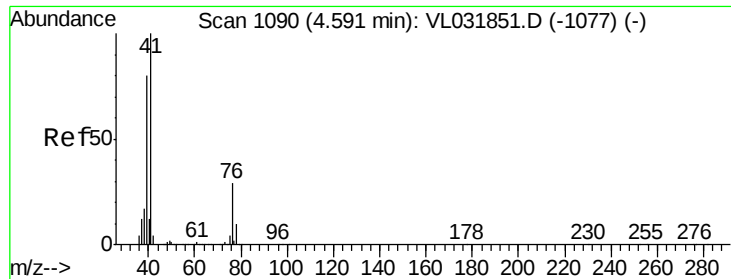
84 100

49 147.2 125.6 188.4

51 44.7 36.4 54.6

86 63.9 53.7 80.5

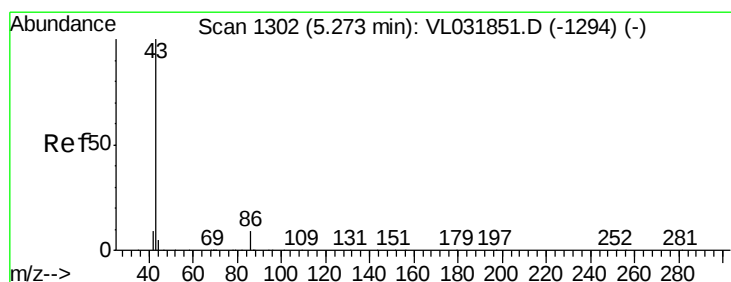
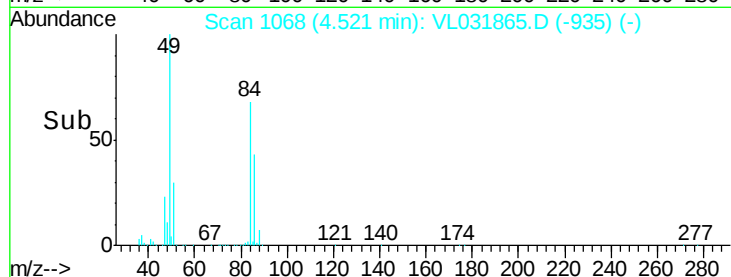
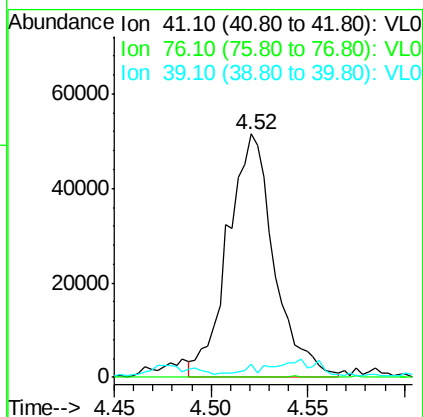
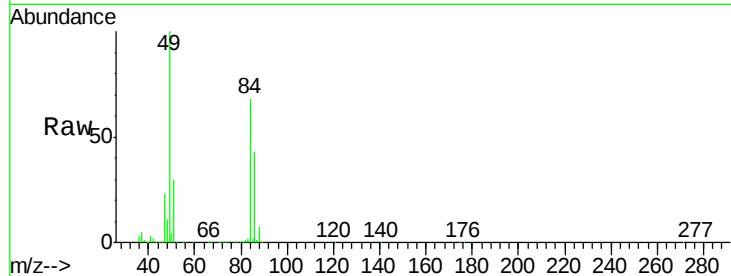




#21
 Allyl Chloride
 Concen: 0.87 ppbv
 RT: 4.52 min Scan# 1068
 Delta R.T. -0.07 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

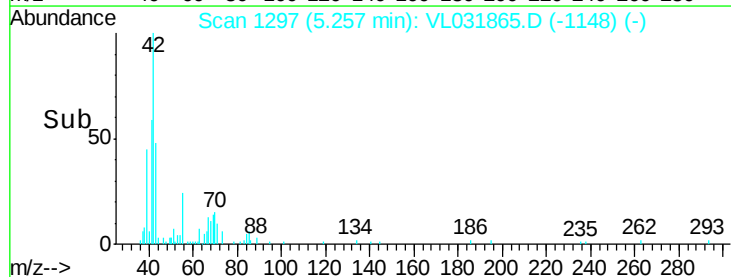
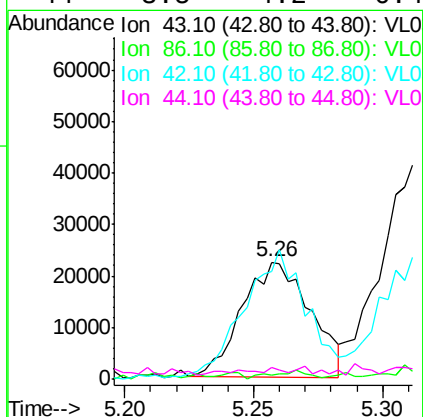
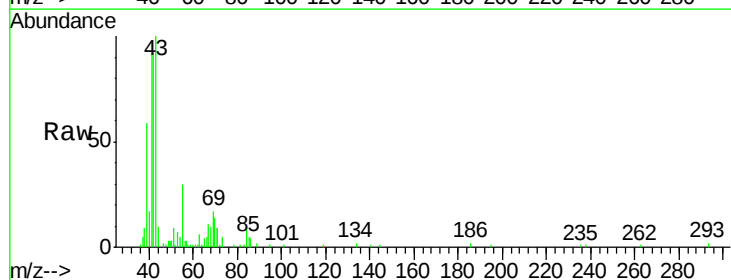
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-DUP-040218

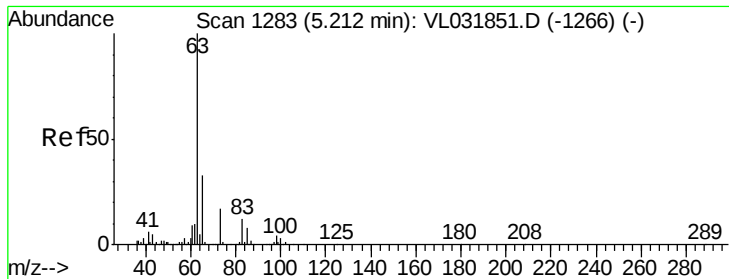
Tgt Ion: 41 Resp: 85424
 Ion Ratio Lower Upper
 41 100
 76 0.1 23.4 35.2#
 39 10.3 67.6 101.4#



#23
 Vinyl Acetate
 Concen: 0.24 ppbv
 RT: 5.26 min Scan# 1297
 Delta R.T. -0.02 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

Tgt Ion: 43 Resp: 41216
 Ion Ratio Lower Upper
 43 100
 86 1.8 5.8 8.8#
 42 90.2 8.5 12.7#
 44 3.5 4.2 6.4#





#24

1,1-Dichloroethane

Concen: 2.30 ppbv

RT: 5.21 min Scan# 1283

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

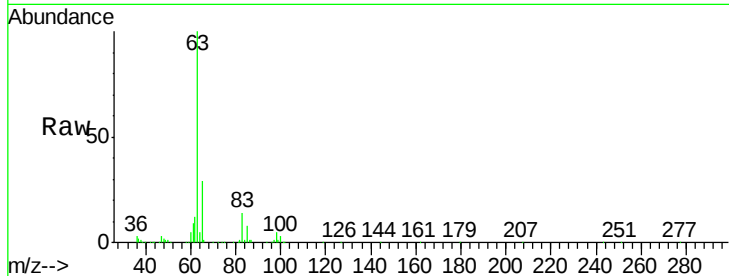
Tgt Ion: 63 Resp: 399861

Ion Ratio Lower Upper

63 100

98 5.3 2.4 7.2

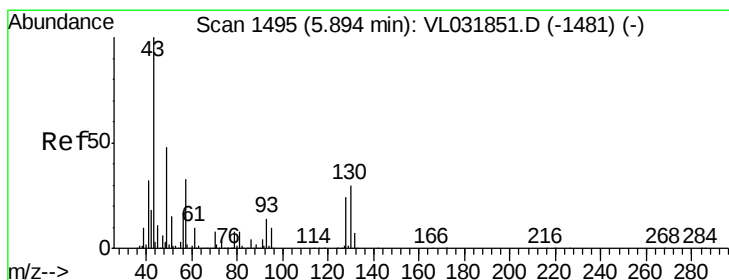
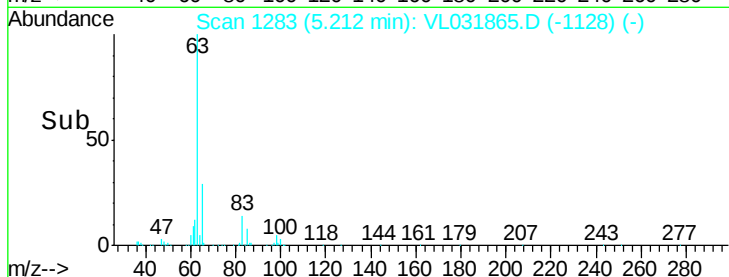
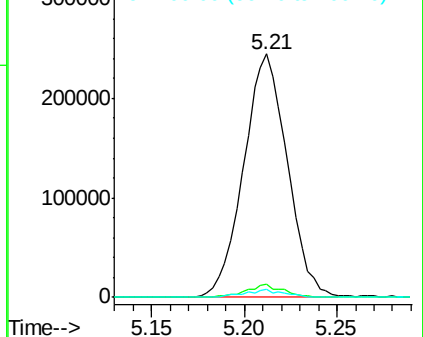
100 3.1 1.5 4.4



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 0.67 ppbv

RT: 5.91 min Scan# 1499

Delta R.T. 0.01 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Tgt Ion: 43 Resp: 179299

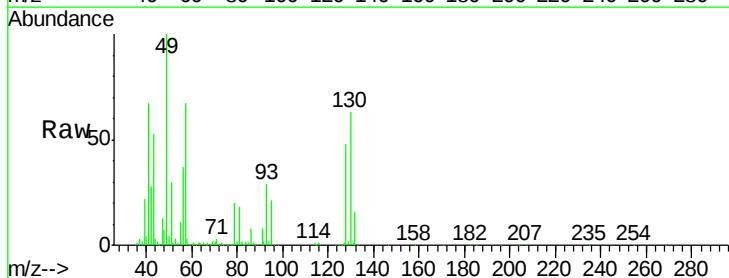
Ion Ratio Lower Upper

43 100

45 4.1 7.8 11.8#

61 0.0 7.2 10.8#

70 3.2 5.8 8.8#

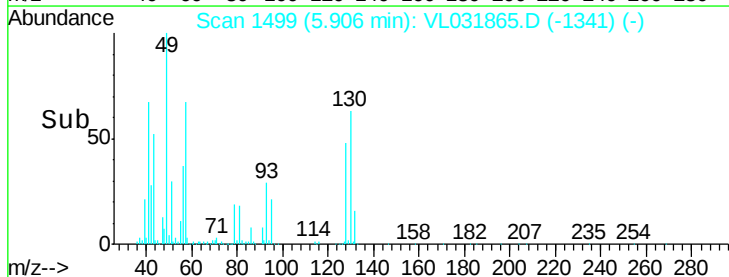
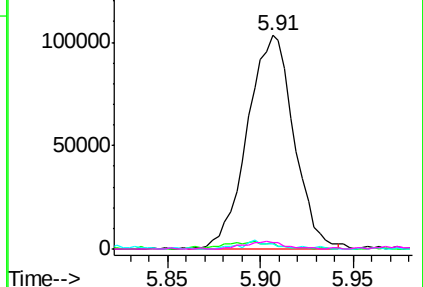


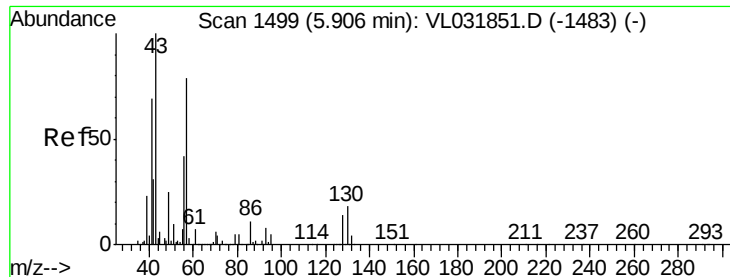
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 1.75 ppbv

RT: 5.91 min Scan# 1499

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

Tgt Ion: 57 Resp: 218840

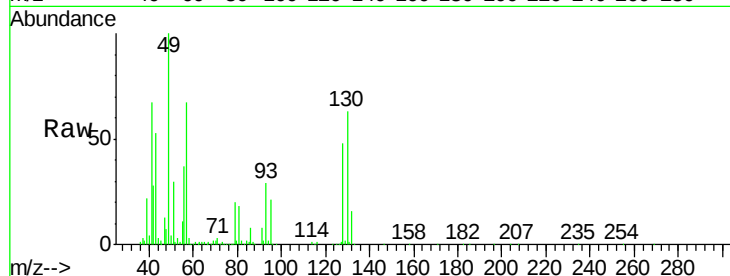
Ion Ratio Lower Upper

57 100

41 97.7 72.0 108.0

43 83.1 169.8 254.8#

56 56.8 42.0 63.0

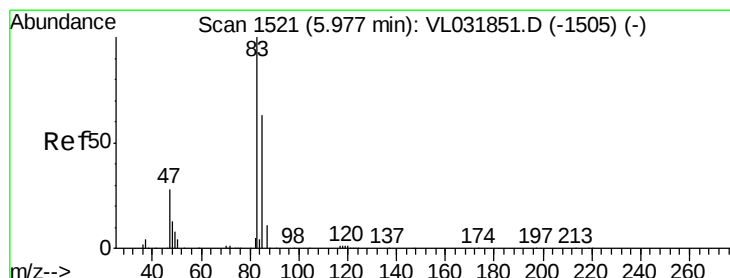
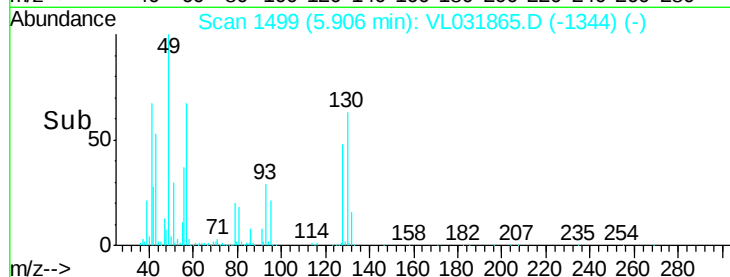
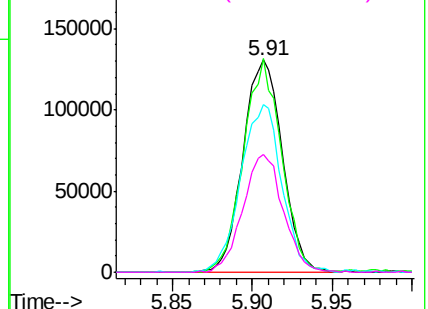


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.65 ppbv

RT: 5.98 min Scan# 1521

Delta R.T. -0.00 min

Lab File: VL031865.D

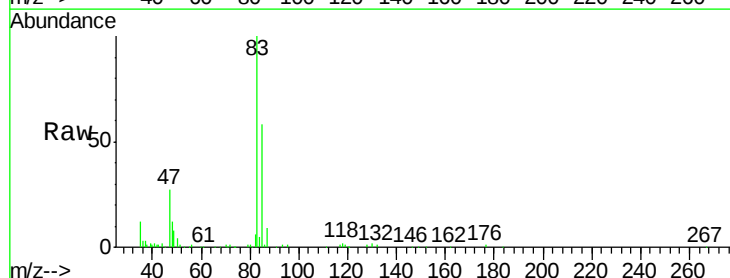
Acq: 12 Apr 2018 13:40

Tgt Ion: 83 Resp: 136759

Ion Ratio Lower Upper

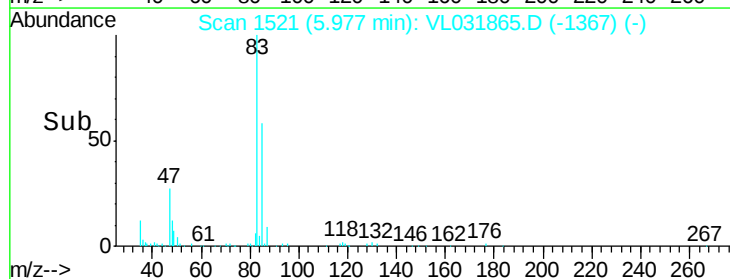
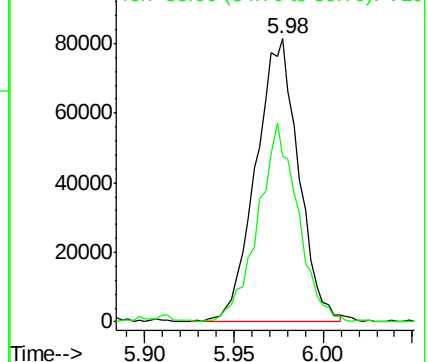
83 100

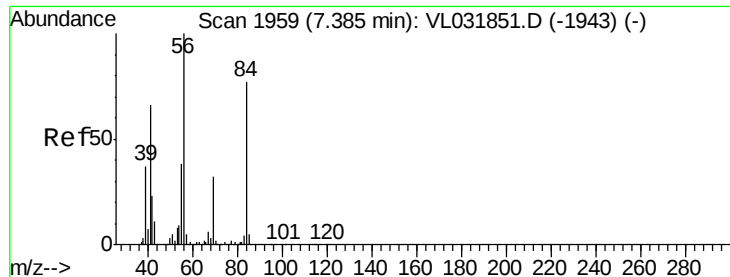
85 57.6 51.4 77.0



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

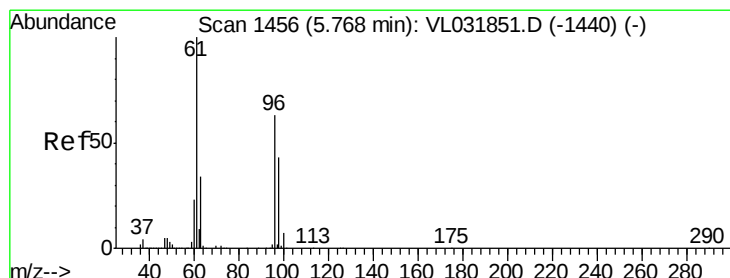
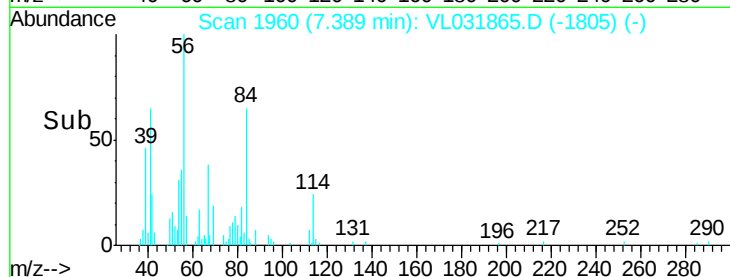
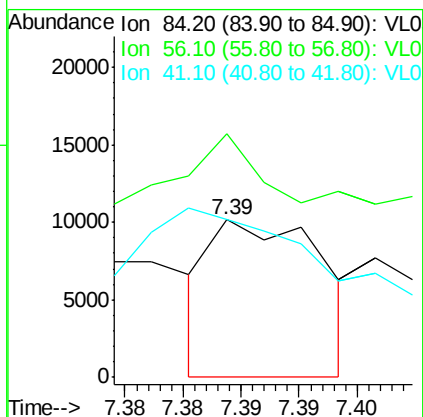
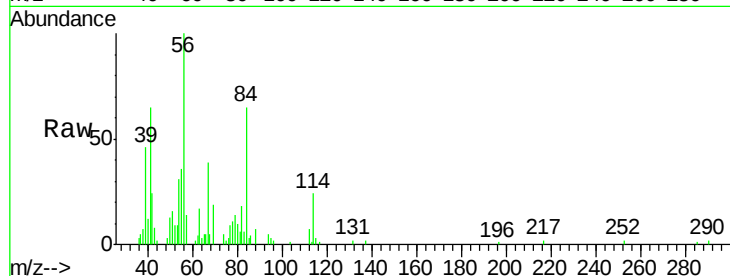




#30
Cyclohexane
Concen: 0.08 ppbv
RT: 7.39 min Scan# 1960
Delta R.T. -0.00 min
Lab File: VL031865.D
Acq: 12 Apr 2018 13:40

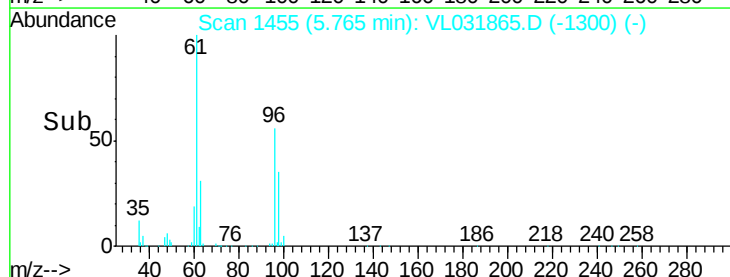
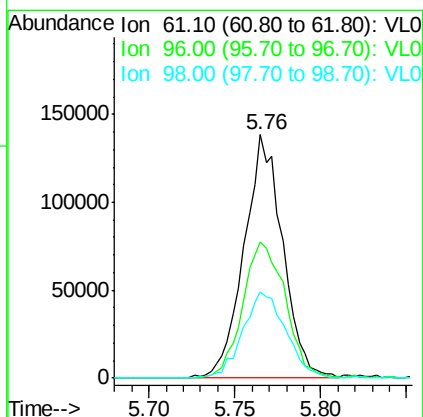
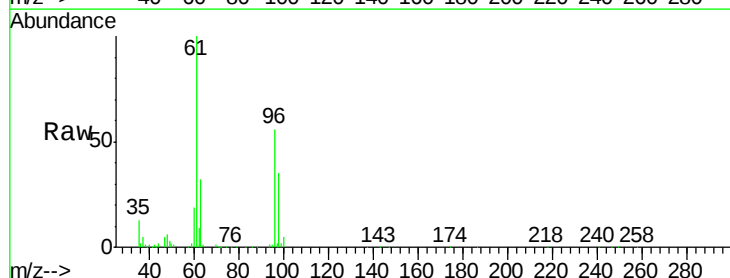
Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-DUP-040218

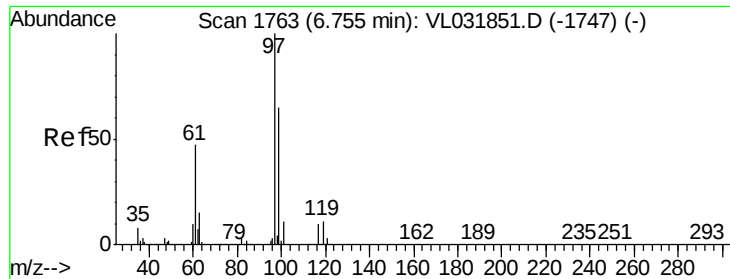
Tgt Ion: 84 Resp: 6761
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 333.5 68.2 102.2#



#31
cis-1,2-Dichloroethene
Concen: 1.91 ppbv
RT: 5.76 min Scan# 1455
Delta R.T. -0.00 min
Lab File: VL031865.D
Acq: 12 Apr 2018 13:40

Tgt Ion: 61 Resp: 215589
Ion Ratio Lower Upper
61 100
96 55.8 47.6 71.4
98 35.2 30.3 45.5





#32

1,1,1-Trichloroethane

Concen: 4.15 ppbv

RT: 6.76 min Scan# 1763

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

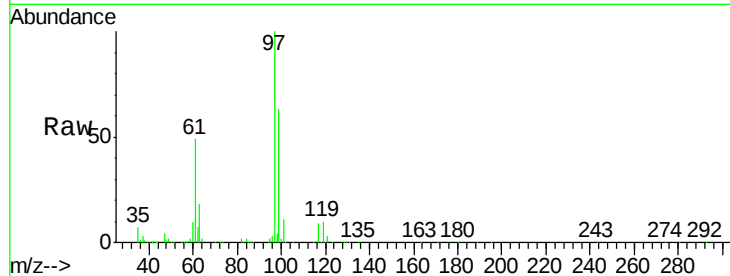
Tgt Ion: 97 Resp: 854738

Ion Ratio Lower Upper

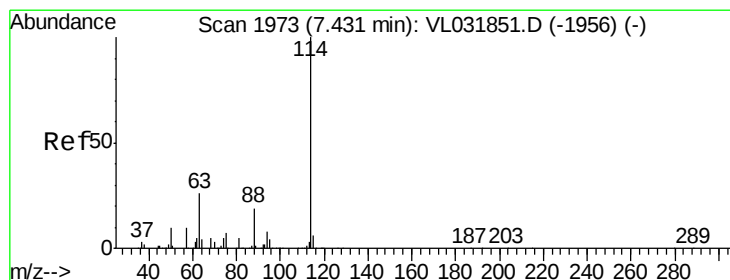
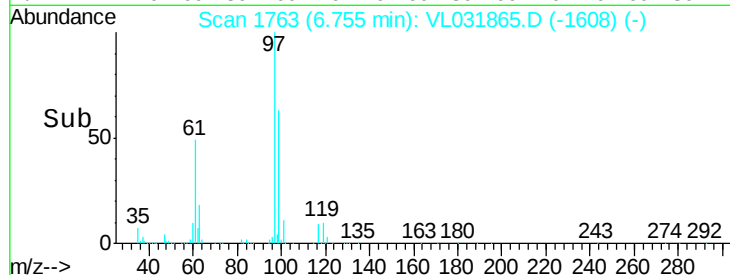
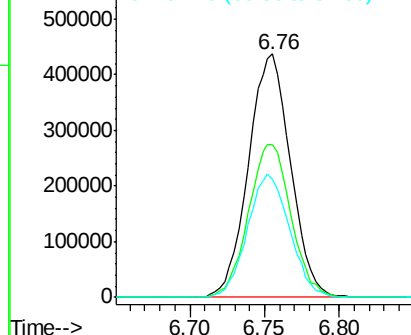
97 100

99 63.6 51.5 77.3

61 51.0 40.0 60.0



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.43 min Scan# 1972

Delta R.T. -0.01 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

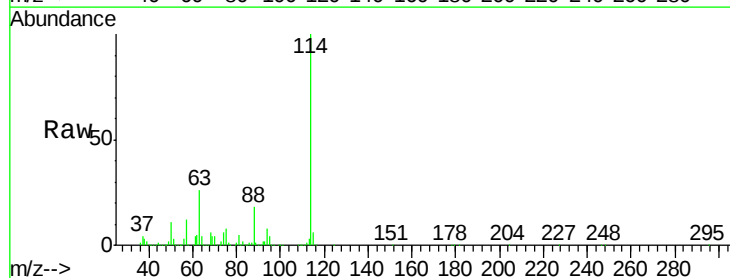
Tgt Ion: 114 Resp: 2285202

Ion Ratio Lower Upper

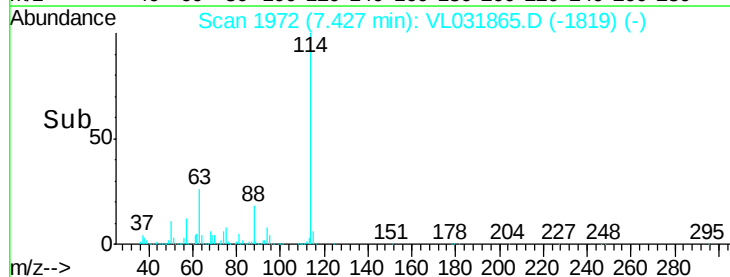
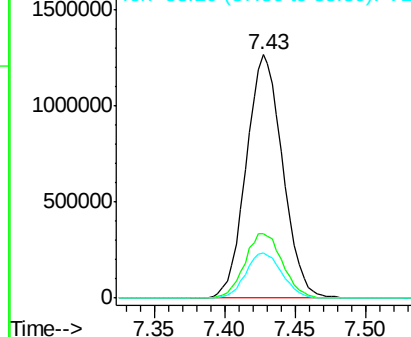
114 100

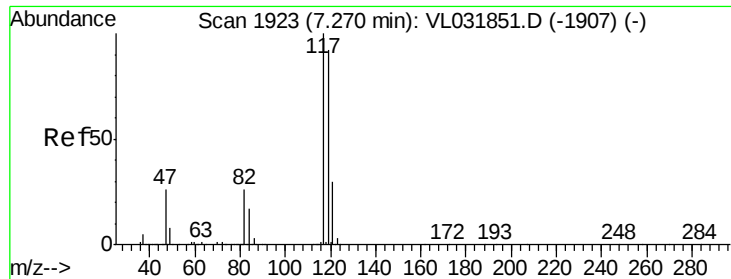
63 27.6 21.8 32.6

88 18.6 14.6 22.0



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0

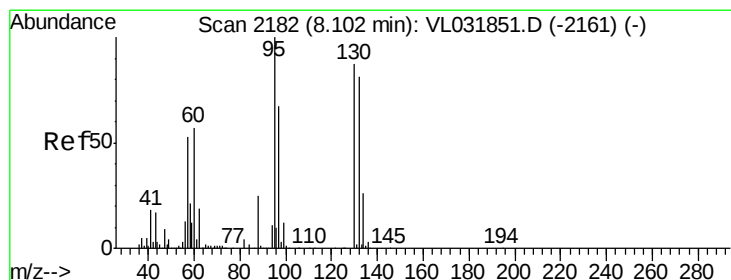
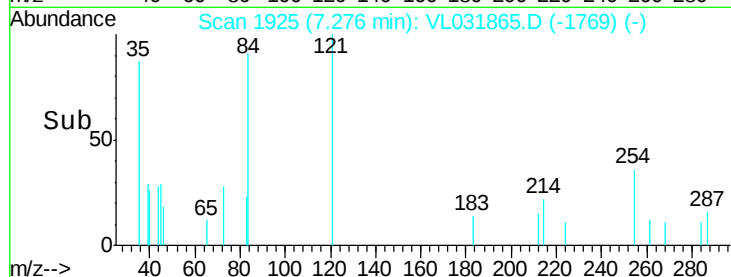
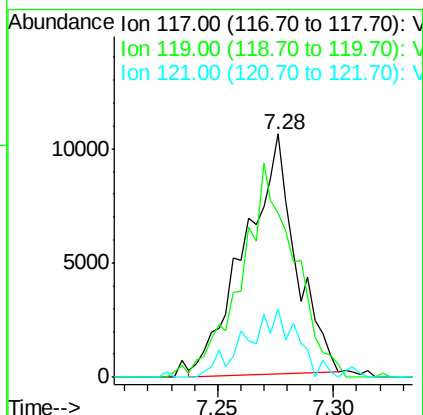
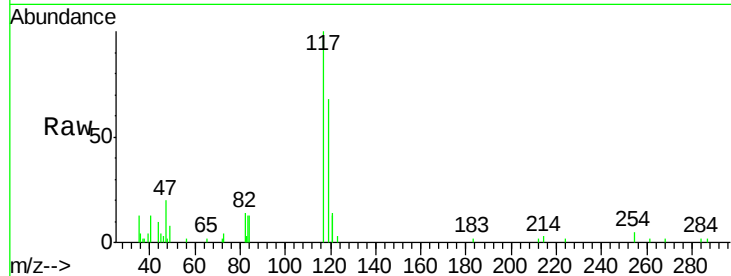




#35
Carbon Tetrachloride
Concen: 0.08 ppbv
RT: 7.28 min Scan# 1925
Delta R.T. 0.00 min
Lab File: VL031865.D
Acq: 12 Apr 2018 13:40

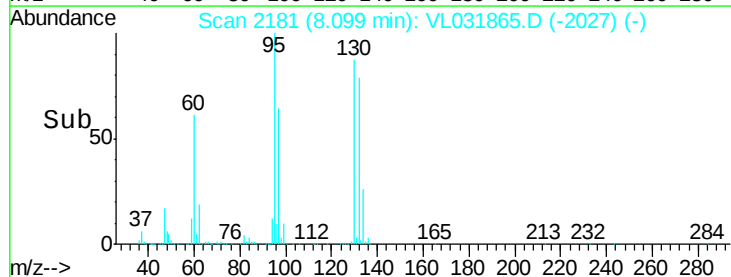
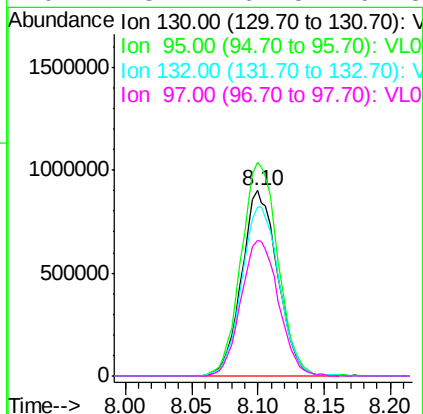
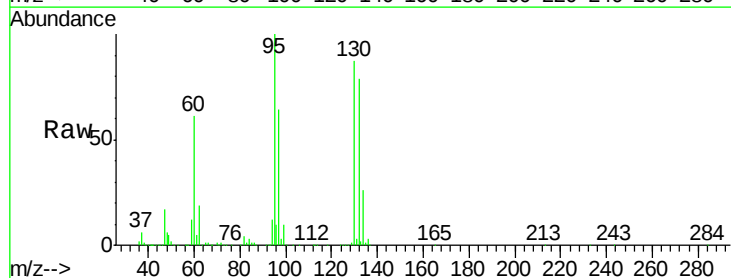
Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-DUP-040218

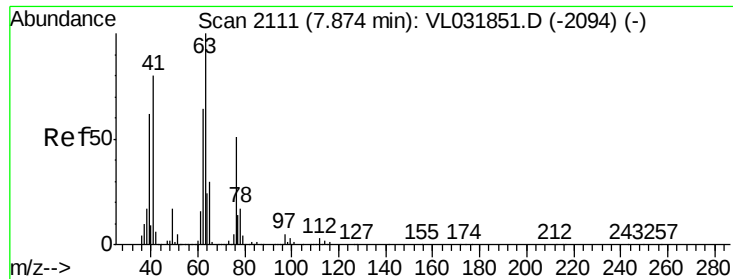
Tgt Ion:117 Resp: 16070
Ion Ratio Lower Upper
117 100
119 67.4 76.9 115.3#
121 28.4 24.5 36.7



#38
Trichloroethene
Concen: 20.27 ppbv
RT: 8.10 min Scan# 2181
Delta R.T. -0.00 min
Lab File: VL031865.D
Acq: 12 Apr 2018 13:40

Tgt Ion:130 Resp: 1691102
Ion Ratio Lower Upper
130 100
95 115.3 96.6 144.8
132 90.8 79.1 118.7
97 73.4 61.5 92.3

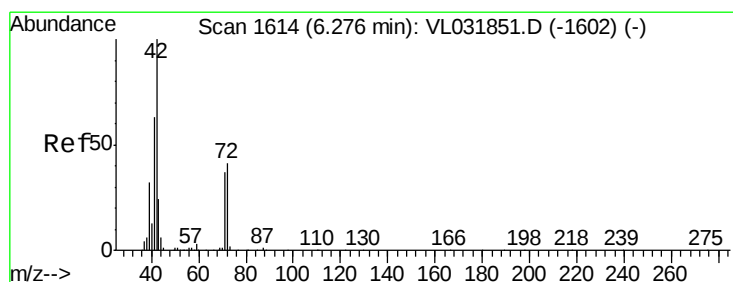
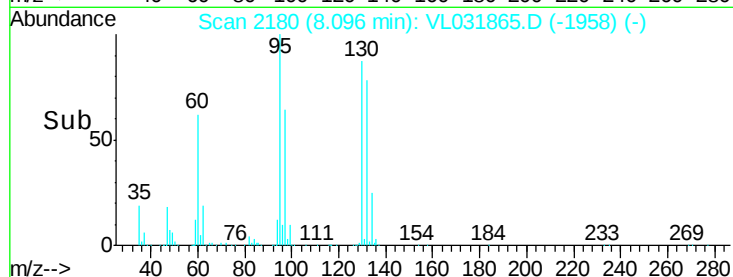
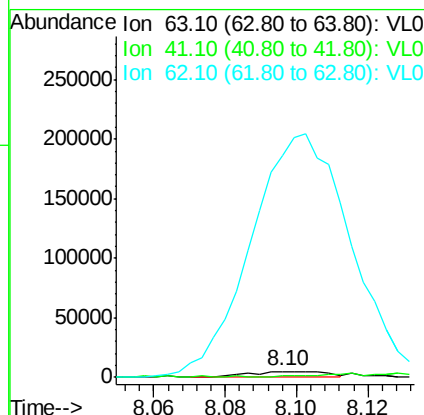
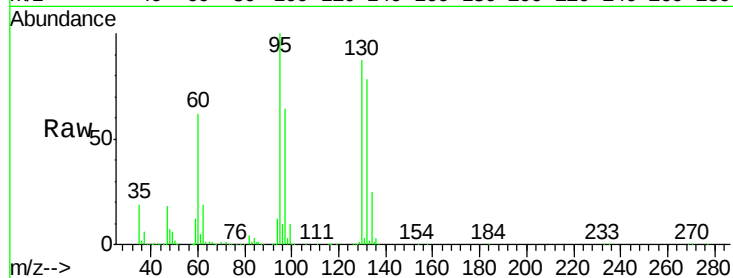




#39
 1,2-Dichloropropane
 Concen: 0.09 ppbv
 RT: 8.10 min Scan# 2180
 Delta R.T. 0.22 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

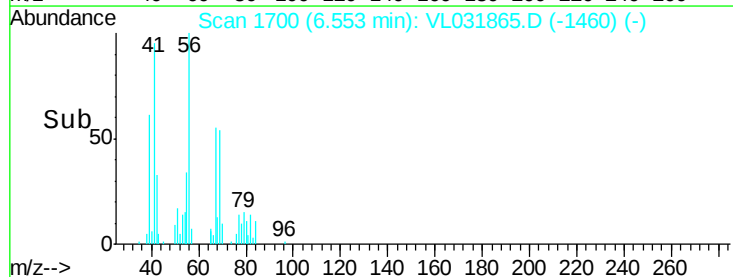
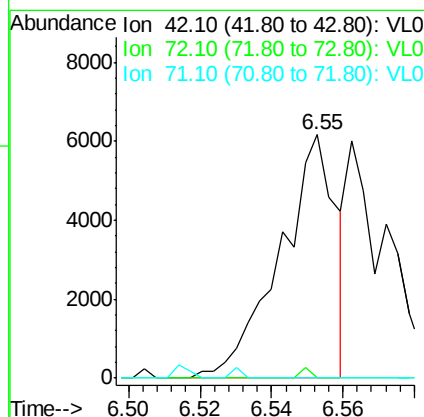
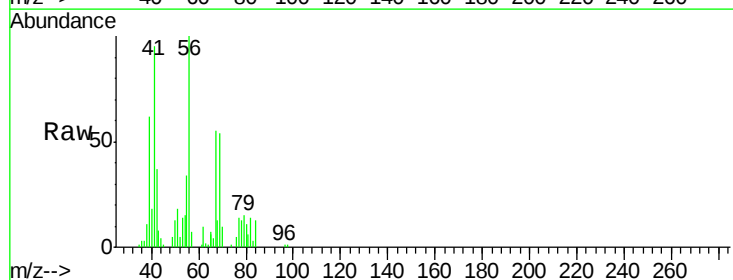
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-DUP-040218

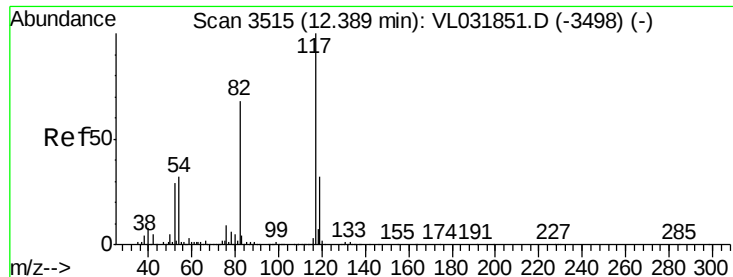
Tgt Ion: 63 Resp: 7101
 Ion Ratio Lower Upper
 63 100
 41 18.9 65.8 98.6#
 62 3658.1 55.0 82.6#



#41
 Tetrahydrofuran
 Concen: 0.09 ppbv
 RT: 6.55 min Scan# 1700
 Delta R.T. 0.27 min
 Lab File: VL031865.D
 Acq: 12 Apr 2018 13:40

Tgt Ion: 42 Resp: 6680
 Ion Ratio Lower Upper
 42 100
 72 2.9 33.2 49.8#
 71 0.0 31.5 47.3#





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.39 min Scan# 3515

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-DUP-040218

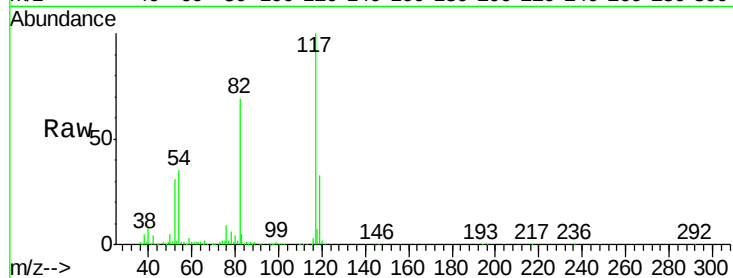
Tgt Ion:117 Resp: 2178682

Ion Ratio Lower Upper

117 100

82 70.5 54.6 81.8

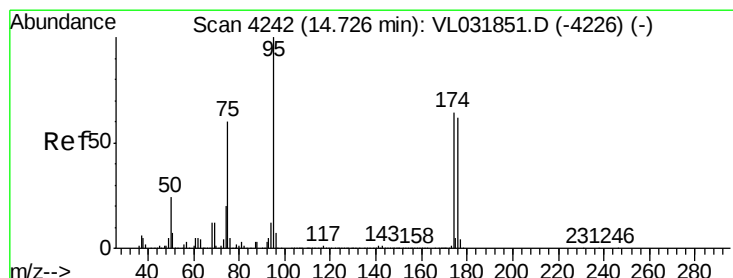
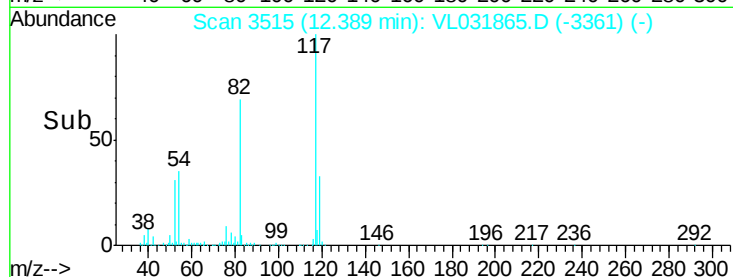
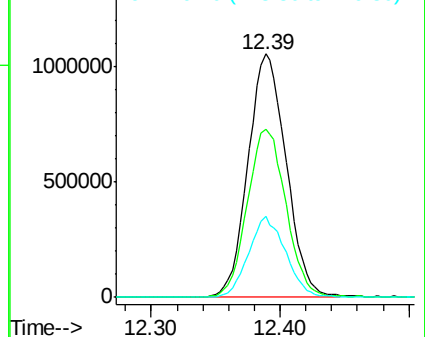
119 32.4 26.0 39.0



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: 9.98 ppbv

RT: 14.73 min Scan# 4243

Delta R.T. -0.00 min

Lab File: VL031865.D

Acq: 12 Apr 2018 13:40

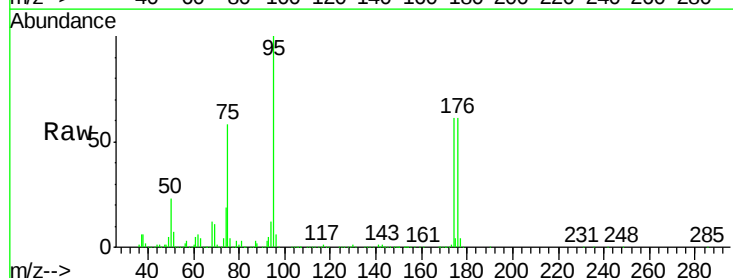
Tgt Ion: 95 Resp: 1748525

Ion Ratio Lower Upper

95 100

174 65.4 52.3 78.5

175 4.5 3.9 5.9



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

