

Data File : VL031863.D

Acq On : 12 Apr 2018 12:20

Operator : SY/AP

Sample : J2191-07DUP

Misc : 400ml/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-040218DUP

Quant Time: Apr 14 01:34:35 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	1135685	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.43	114	2377672	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.39	117	2141245	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.72	95	1719347	9.99	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.90%

Target Compounds

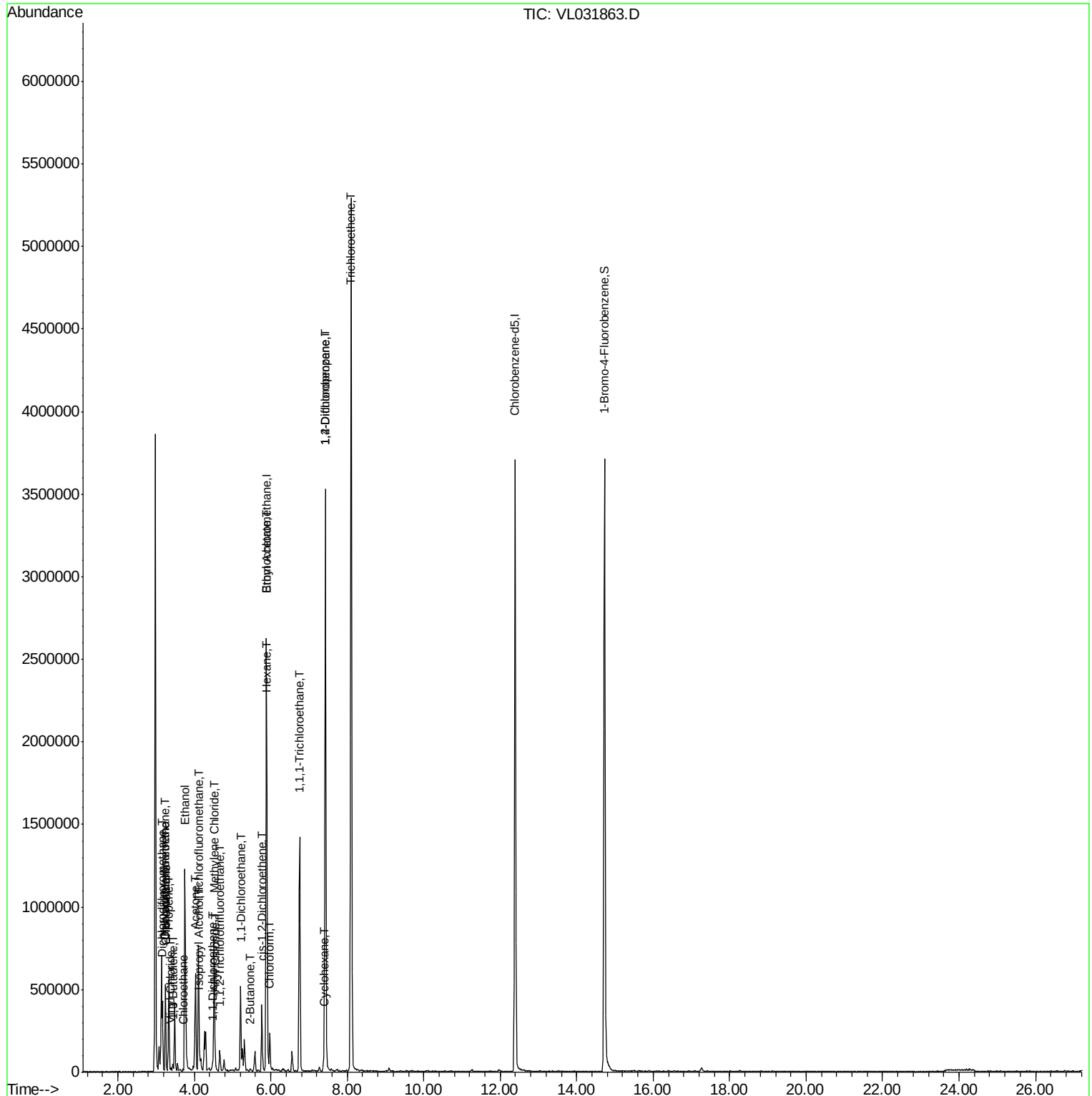
						Qvalue
2) Dichlorodifluoromethane	3.17	85	284793	1.22	ppbv	96
3) Chlorodifluoromethane	3.24	51	5131	0.04	ppbv	92
4) Chloromethane	3.26	50	13366	0.20	ppbv	92
5) Vinyl Chloride	3.39	62	10855	0.14	ppbv	97
7) Chloroethane	3.70	64	7364	0.24	ppbv #	76
8) Dichlorotetrafluoroethane	3.24	85	40261	0.21	ppbv #	22
9) Propene	3.33	41	168783	3.70	ppbv	89
11) Trichlorofluoromethane	4.11	101	500888	2.18	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.67	101	40906	0.27	ppbv	98
13) Ethanol	3.76	45	1368190	88.27	ppbv	99
15) Acetone	4.03	43	317859	1.82	ppbv #	79
16) 1,3-Butadiene	3.44	39	8190	0.13	ppbv #	54
18) 1,1-Dichloroethene	4.46	96	2750	0.04	ppbv #	73
19) Isopropyl Alcohol	4.14	45	20215	0.21	ppbv #	72
20) Methylene Chloride	4.52	84	273983	4.30	ppbv	94
21) Allyl Chloride	4.55	41	4001	0.04	ppbv #	14
24) 1,1-Dichloroethane	5.21	63	416655	2.36	ppbv	98
25) Ethyl Acetate	5.90	43	29310	0.11	ppbv #	72
26) Hexane	5.91	57	50635	0.40	ppbv #	60
29) Chloroform	5.97	83	137885	0.64	ppbv	98
30) Cyclohexane	7.38	84	2912	0.03	ppbv #	1
31) cis-1,2-Dichloroethene	5.76	61	214399	1.86	ppbv	98
32) 1,1,1-Trichloroethane	6.75	97	891201	4.25	ppbv	100
34) 2-Butanone	5.47	43	9138	0.06	ppbv #	78
38) Trichloroethene	8.10	130	1544316	17.79	ppbv	98
39) 1,2-Dichloropropane	7.43	63	645602	8.12	ppbv #	21

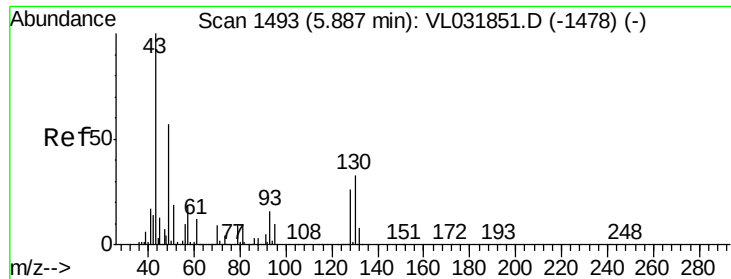
(#)=qualifier out of range (m)=manual integration (+)=signals summed

ALS Vial : 1 Sample Multiplier: 1

GAC-EFF-040218DUP

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.89 min Scan# 1493

Delta R.T. -0.00 min

Lab File: VL031863.D

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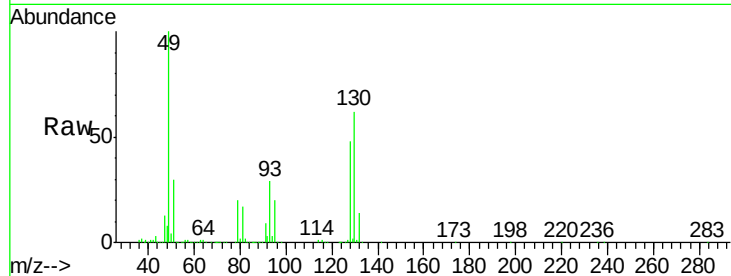
Tgt Ion: 49 Resp: 1135685

Ion Ratio Lower Upper

49 100

128 48.6 23.9 71.7

130 62.7 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

5.89

800000

600000

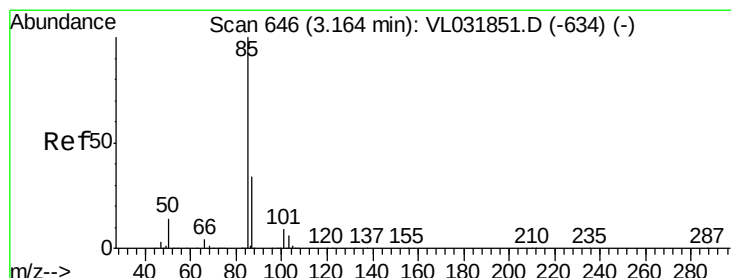
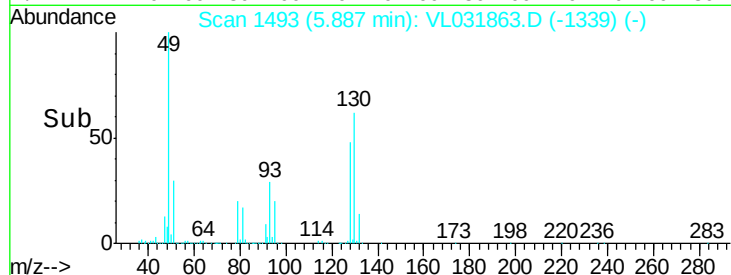
400000

200000

0

5.80 5.85 5.90 5.95

Time-->



#2

Dichlorodifluoromethane

Concen: 1.22 ppbv

RT: 3.17 min Scan# 647

Delta R.T. 0.00 min

Lab File: VL031863.D

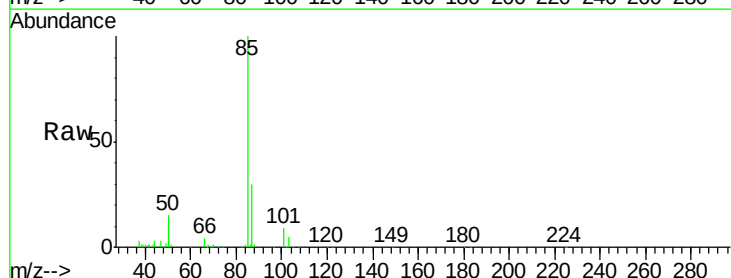
Acq: 12 Apr 2018 12:20

Tgt Ion: 85 Resp: 284793

Ion Ratio Lower Upper

85 100

87 30.1 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.17

250000

200000

150000

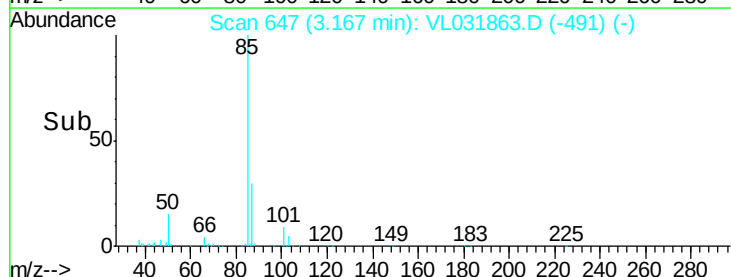
100000

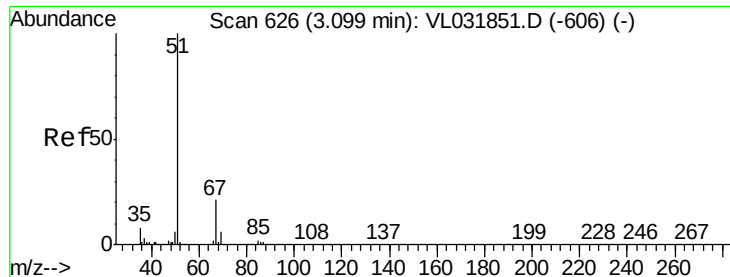
50000

0

3.15 3.20

Time-->





#3

Chlorodifluoromethane

Concen: 0.04 ppbv

RT: 3.24 min Scan# 670

Delta R.T. 0.14 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

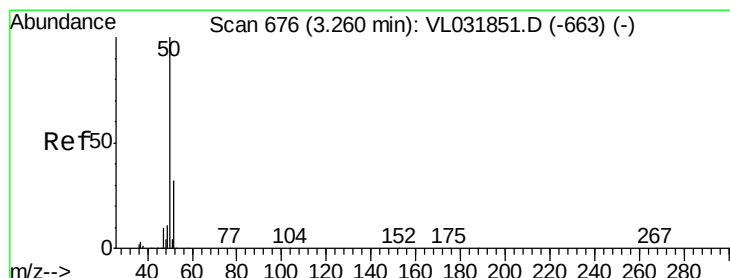
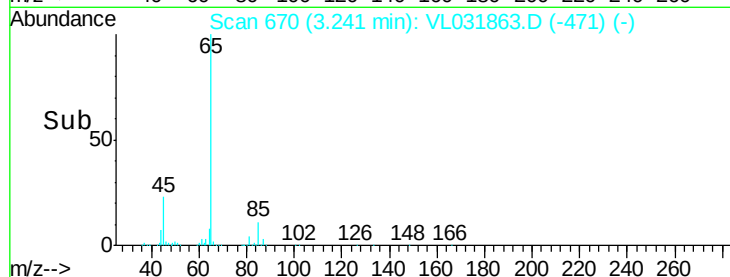
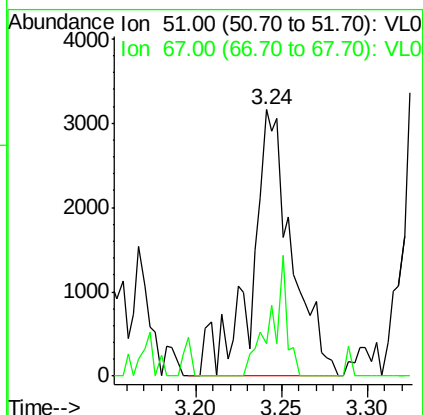
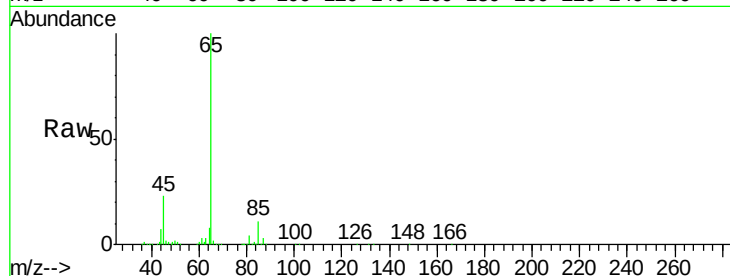
GAC-EFF-040218DUP

Tgt Ion: 51 Resp: 5131

Ion Ratio Lower Upper

51 100

67 18.0 17.5 26.3



#4

Chloromethane

Concen: 0.20 ppbv

RT: 3.26 min Scan# 675

Delta R.T. -0.00 min

Lab File: VL031863.D

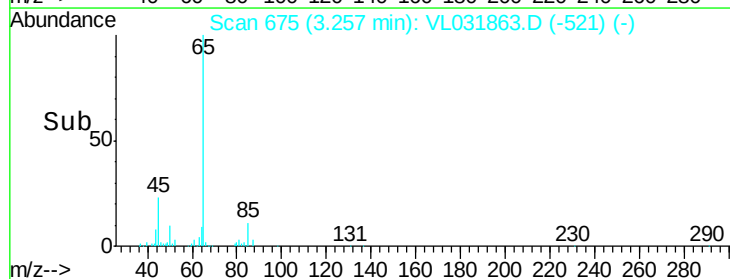
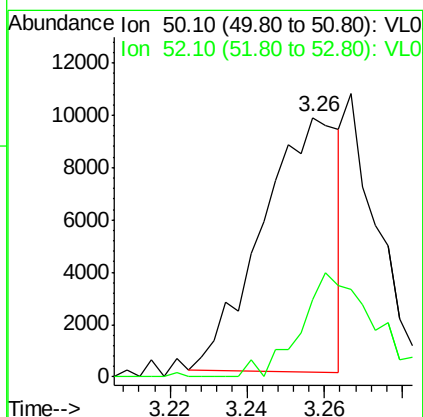
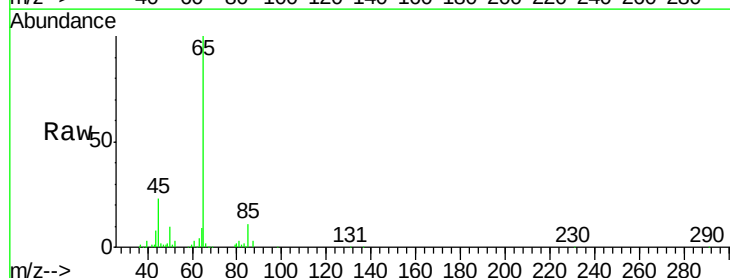
Acq: 12 Apr 2018 12:20

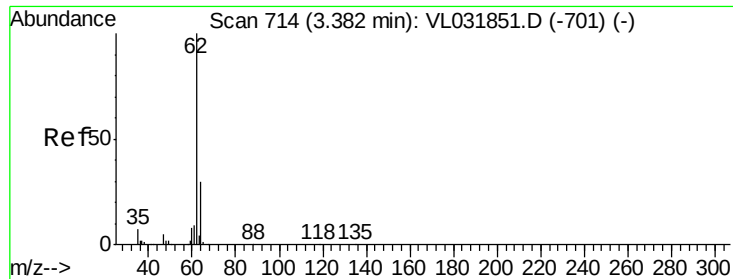
Tgt Ion: 50 Resp: 13366

Ion Ratio Lower Upper

50 100

52 30.7 28.1 42.1





#5

Vinyl Chloride

Concen: 0.14 ppbv

RT: 3.39 min Scan# 715

Delta R.T. 0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

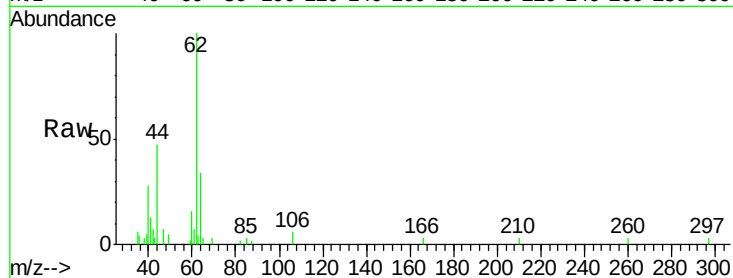
GAC-EFF-040218DUP

Tgt Ion: 62 Resp: 10855

Ion Ratio Lower Upper

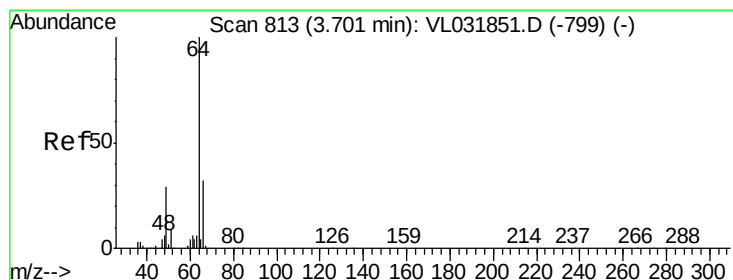
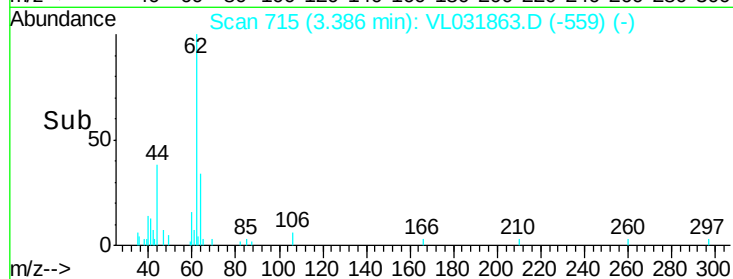
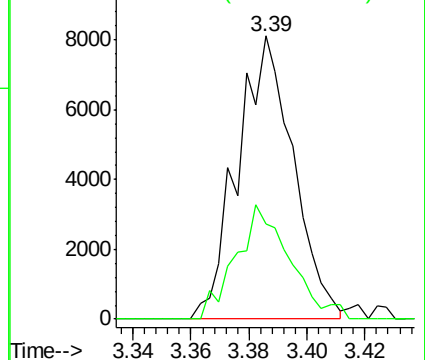
62 100

64 33.8 25.9 38.9



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#7

Chloroethane

Concen: 0.24 ppbv

RT: 3.70 min Scan# 812

Delta R.T. -0.00 min

Lab File: VL031863.D

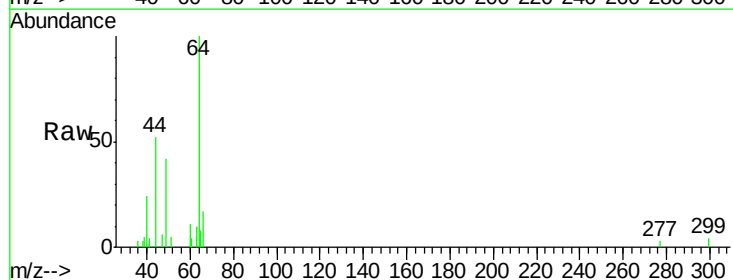
Acq: 12 Apr 2018 12:20

Tgt Ion: 64 Resp: 7364

Ion Ratio Lower Upper

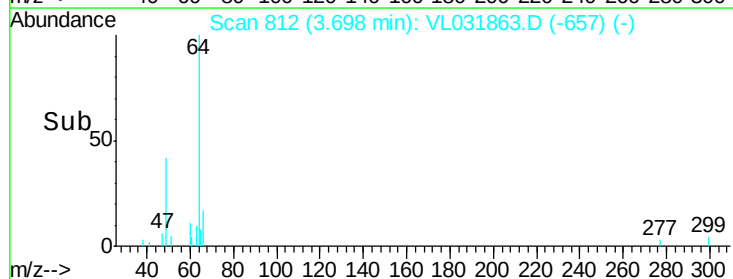
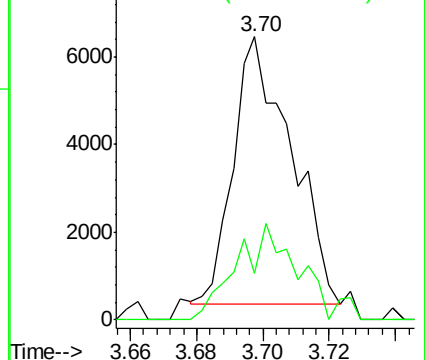
64 100

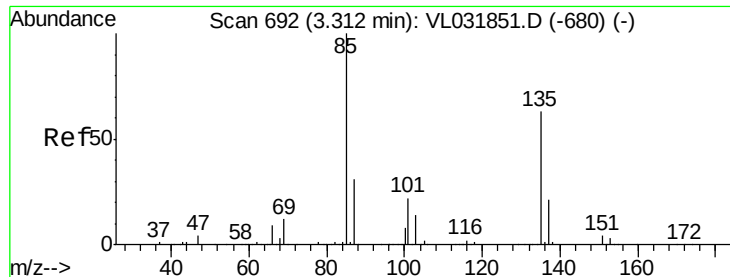
66 16.5 23.4 35.0#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 0.21 ppbv

RT: 3.24 min Scan# 670

Delta R.T. -0.07 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

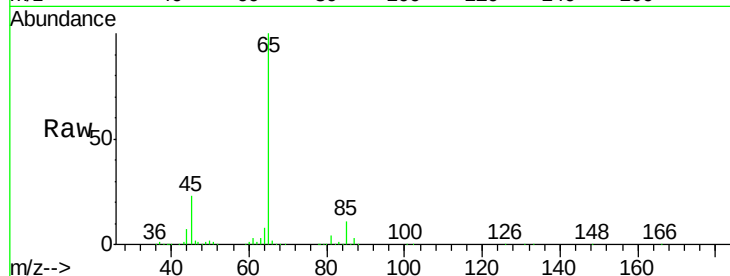
GAC-EFF-040218DUP

Tgt Ion: 85 Resp: 40261

Ion Ratio Lower Upper

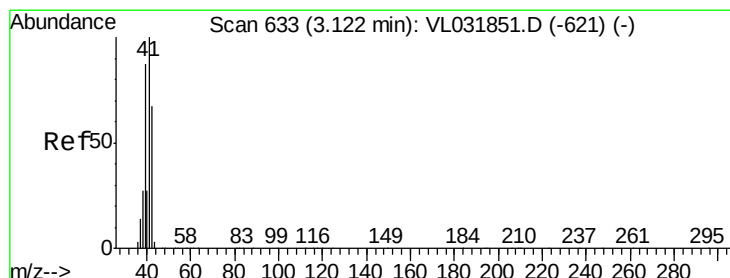
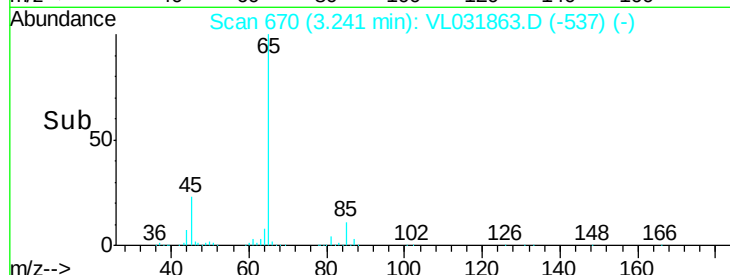
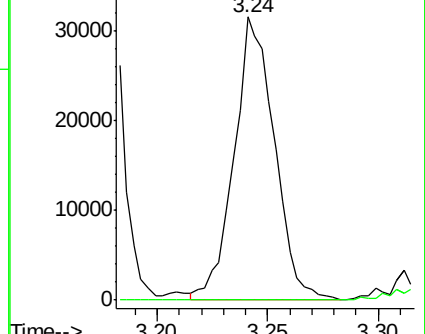
85 100

135 3.7 52.7 79.1#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): VL0



#9

Propene

Concen: 3.70 ppbv

RT: 3.33 min Scan# 697

Delta R.T. 0.21 min

Lab File: VL031863.D

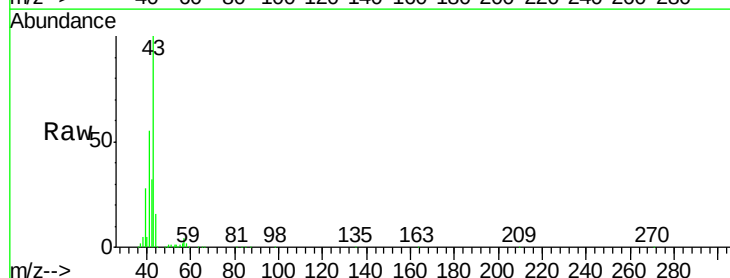
Acq: 12 Apr 2018 12:20

Tgt Ion: 41 Resp: 168783

Ion Ratio Lower Upper

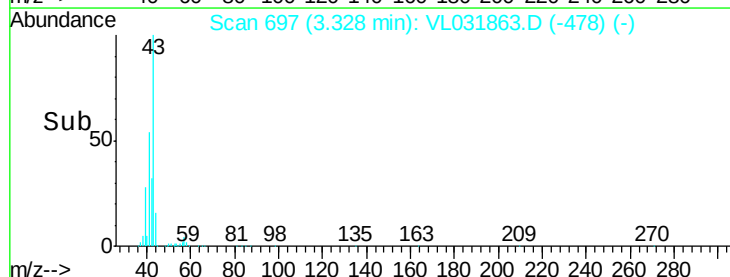
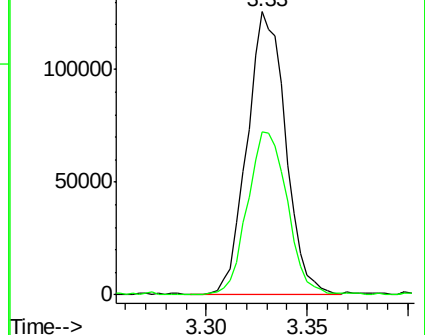
41 100

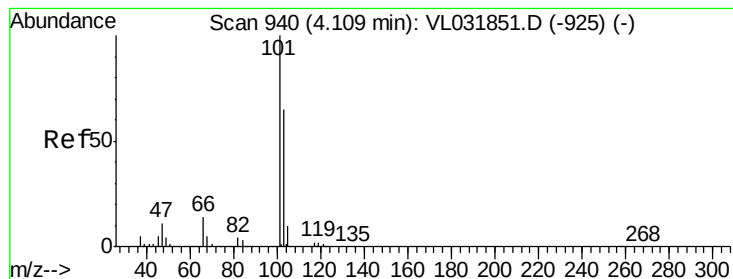
42 59.7 55.0 82.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#11

Trichlorofluoromethane

Concen: 2.18 ppbv

RT: 4.11 min Scan# 940

Delta R.T. -0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

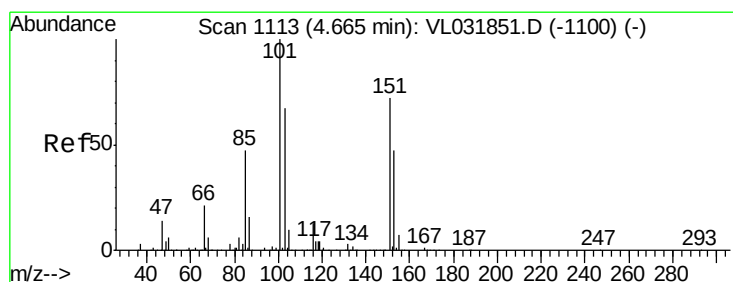
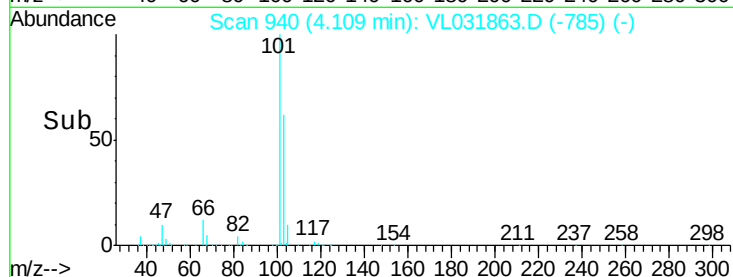
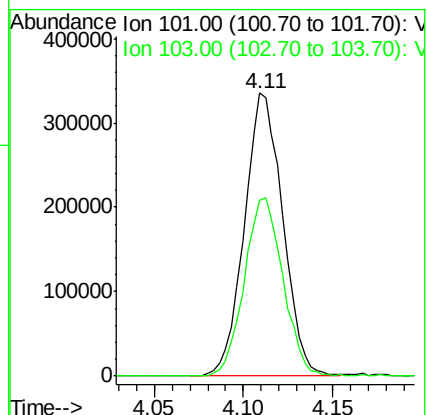
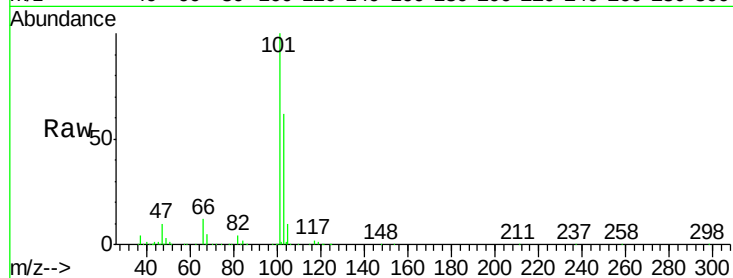
GAC-EFF-040218DUP

Tgt Ion:101 Resp: 500888

Ion Ratio Lower Upper

101 100

103 62.1 51.8 77.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.27 ppbv

RT: 4.67 min Scan# 1114

Delta R.T. 0.00 min

Lab File: VL031863.D

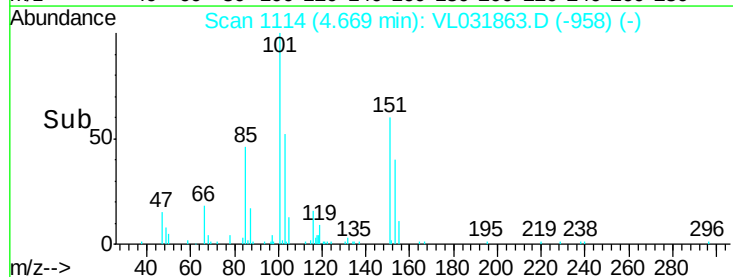
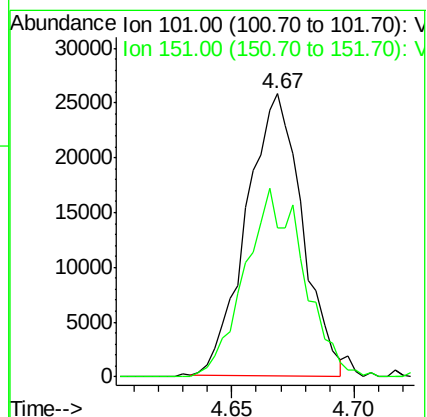
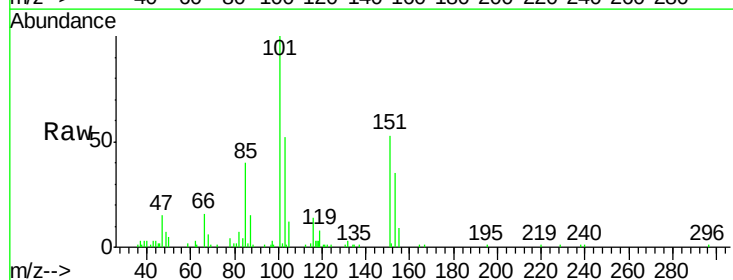
Acq: 12 Apr 2018 12:20

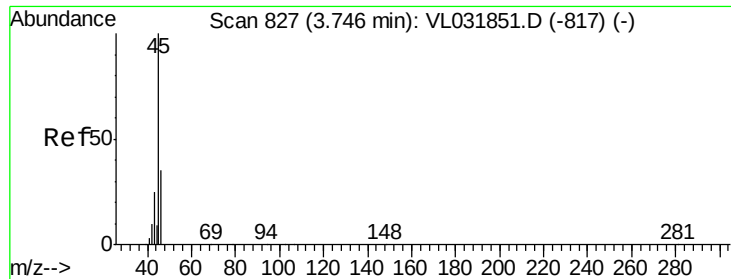
Tgt Ion:101 Resp: 40906

Ion Ratio Lower Upper

101 100

151 70.0 57.0 85.6

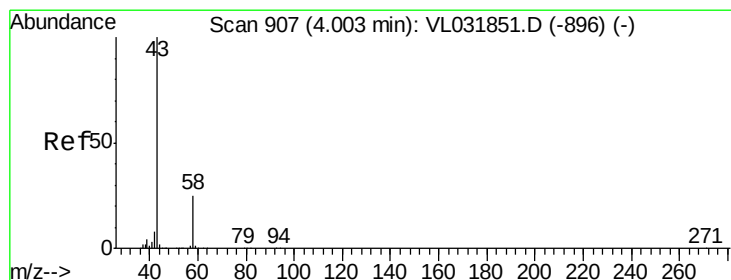
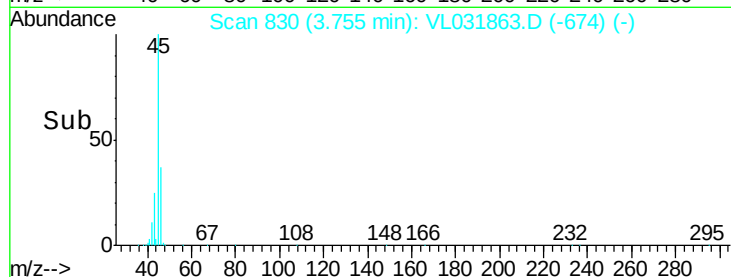
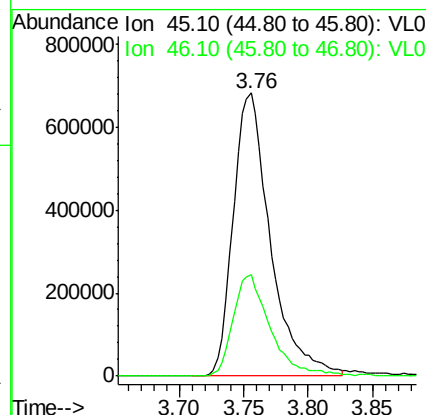
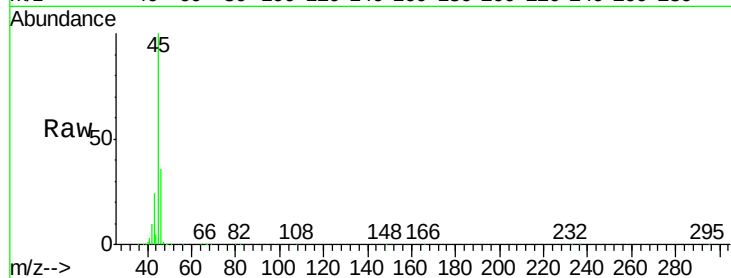




#13
Ethanol
Concen: 88.27 ppbv
RT: 3.76 min Scan# 830
Delta R.T. 0.00 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

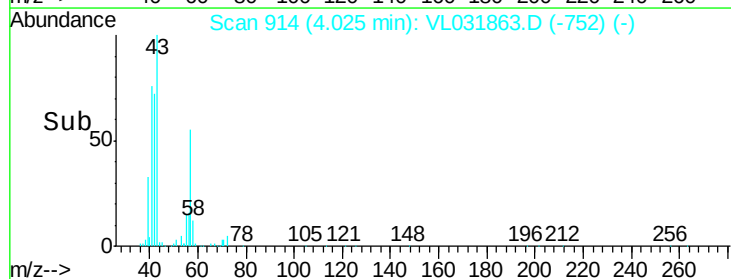
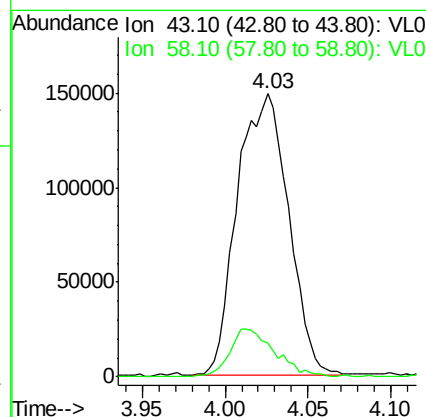
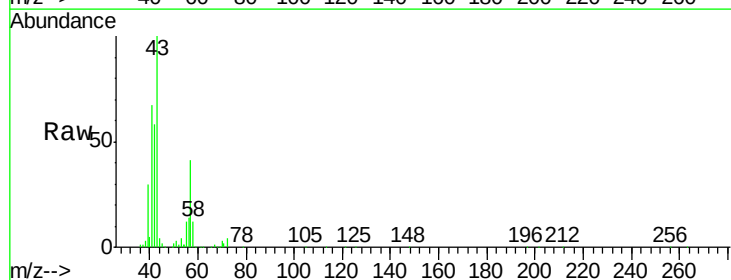
Instrument :
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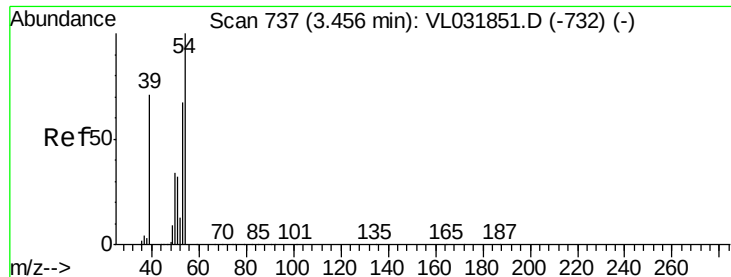
Tgt Ion: 45 Resp: 1368190
Ion Ratio Lower Upper
45 100
46 36.2 14.6 58.6



#15
Acetone
Concen: 1.82 ppbv
RT: 4.03 min Scan# 914
Delta R.T. 0.02 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

Tgt Ion: 43 Resp: 317859
Ion Ratio Lower Upper
43 100
58 15.4 20.9 31.3#

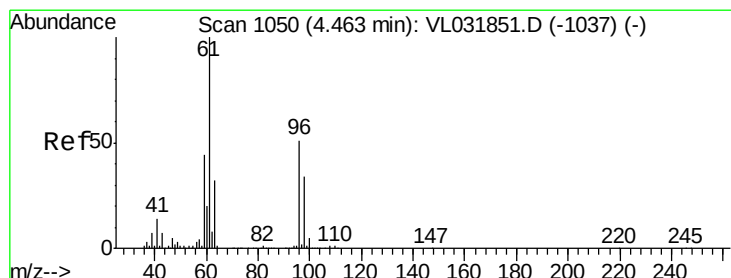
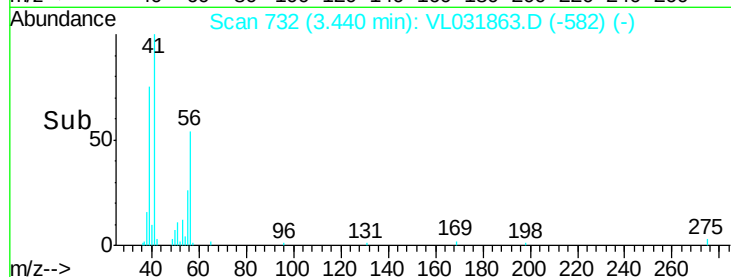
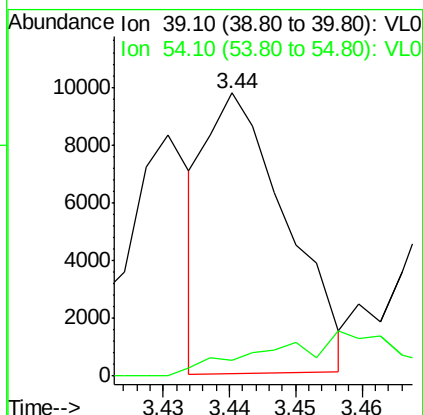
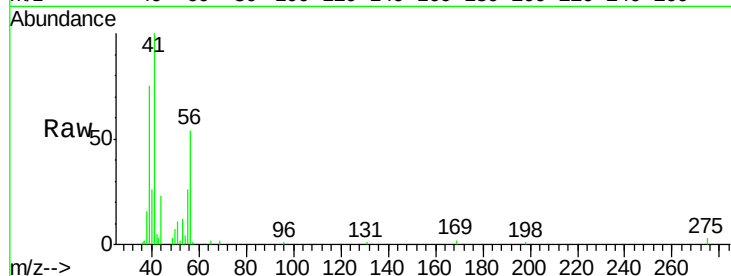




#16
 1,3-Butadiene
 Concen: 0.13 ppbv
 RT: 3.44 min Scan# 732
 Delta R.T. -0.02 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

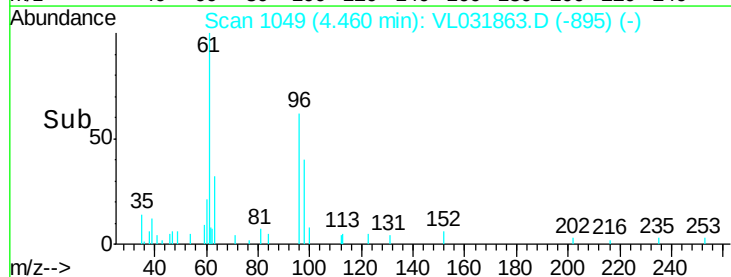
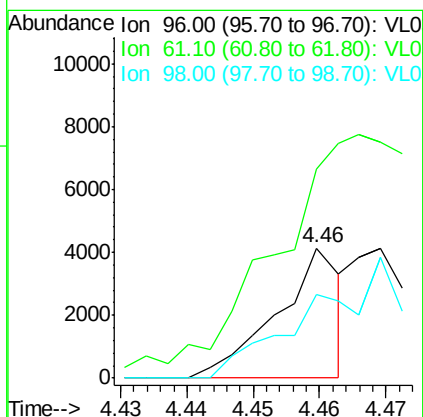
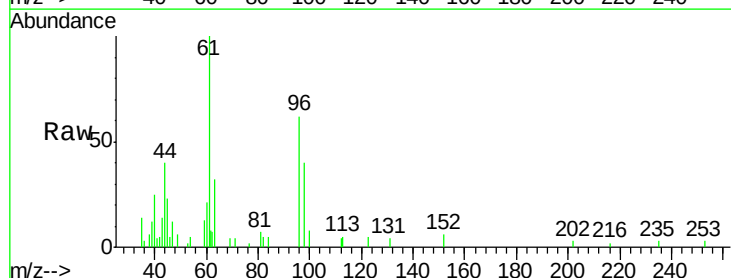
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-040218DUP

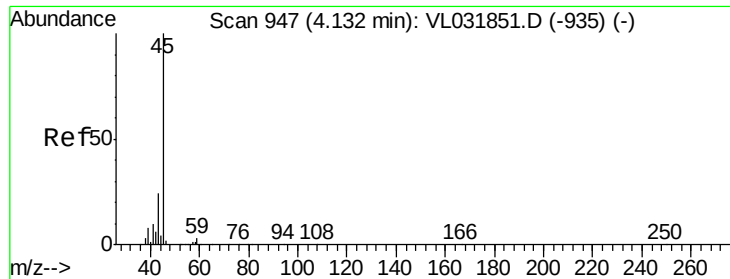
Tgt Ion: 39 Resp: 8190
 Ion Ratio Lower Upper
 39 100
 54 38.7 63.3 94.9#



#18
 1,1-Dichloroethene
 Concen: 0.04 ppbv
 RT: 4.46 min Scan# 1049
 Delta R.T. -0.00 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

Tgt Ion: 96 Resp: 2750
 Ion Ratio Lower Upper
 96 100
 61 148.1 161.0 241.6#
 98 63.9 52.7 79.1





#19

Isopropyl Alcohol

Concen: 0.21 ppbv

RT: 4.14 min Scan# 949

Delta R.T. 0.01 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

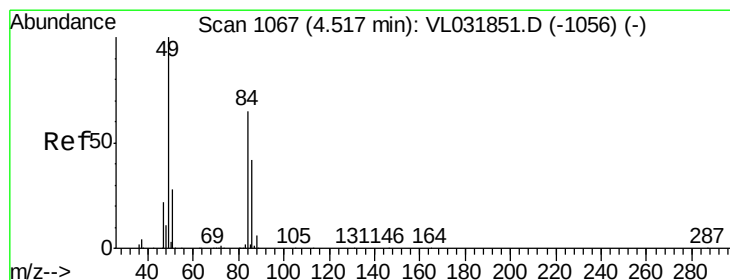
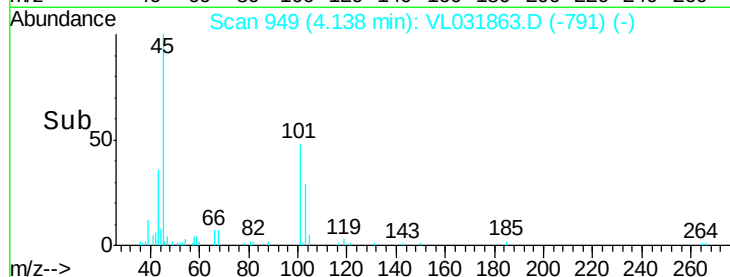
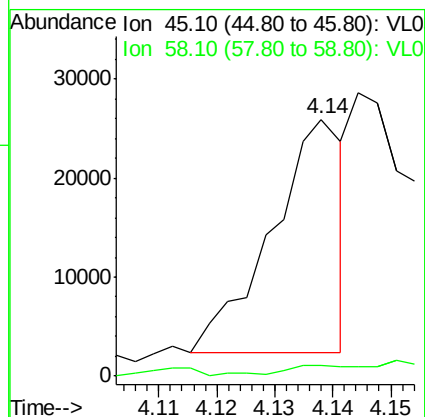
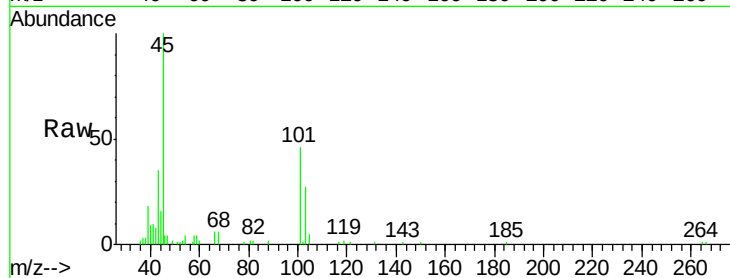
GAC-EFF-040218DUP

Tgt Ion: 45 Resp: 20215

Ion Ratio Lower Upper

45 100

58 11.9 1.7 2.5#



#20

Methylene Chloride

Concen: 4.30 ppbv

RT: 4.52 min Scan# 1068

Delta R.T. -0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Tgt Ion: 84 Resp: 273983

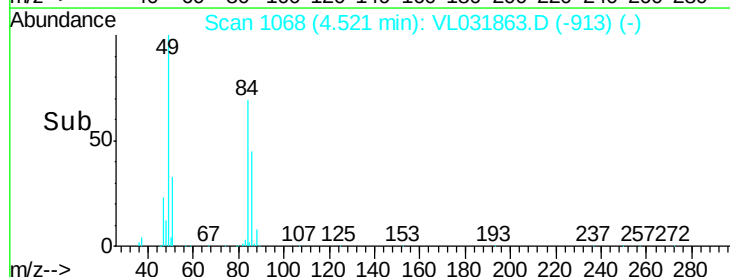
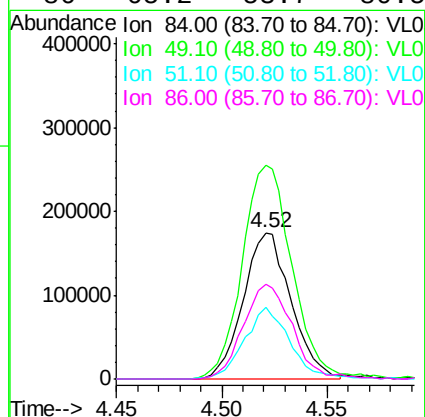
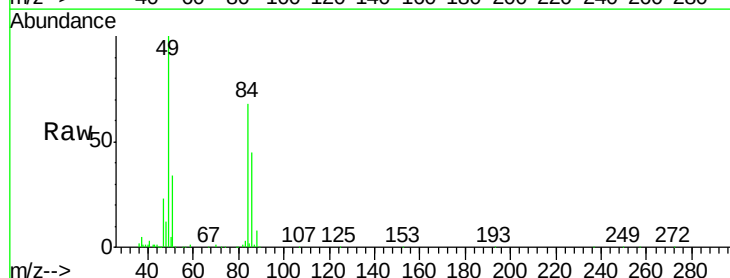
Ion Ratio Lower Upper

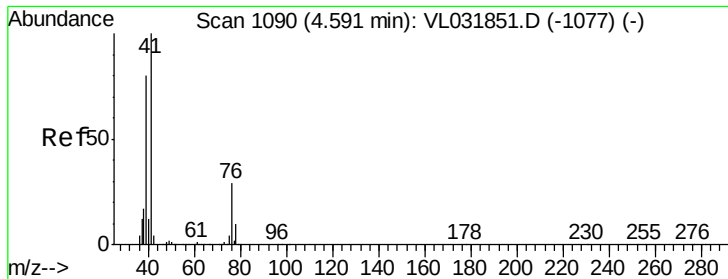
84 100

49 146.1 125.6 188.4

51 48.8 36.4 54.6

86 65.2 53.7 80.5

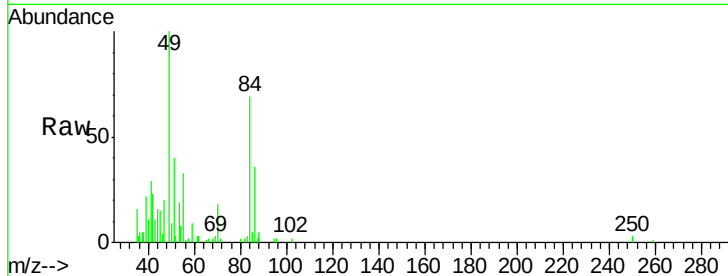




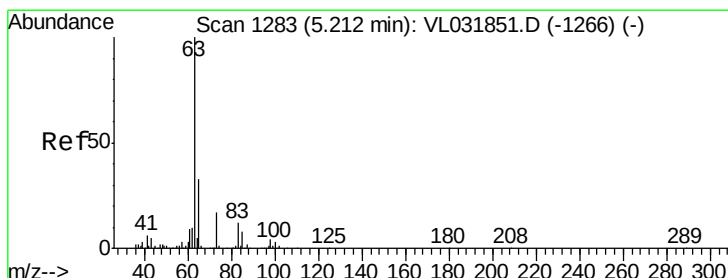
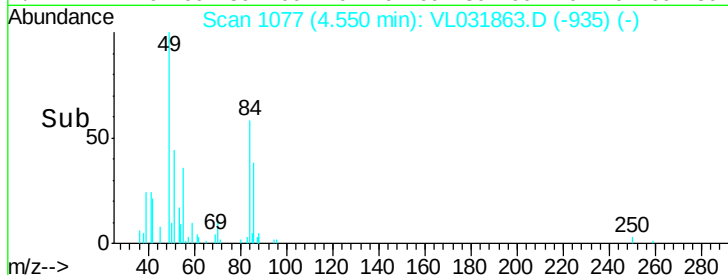
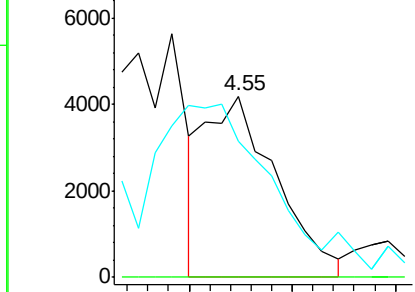
#21
 Allyl Chloride
 Concen: 0.04 ppbv
 RT: 4.55 min Scan# 1077
 Delta R.T. -0.04 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-040218DUP

Tgt Ion: 41 Resp: 4001
 Ion Ratio Lower Upper
 41 100
 76 0.0 23.4 35.2#
 39 173.2 67.6 101.4#

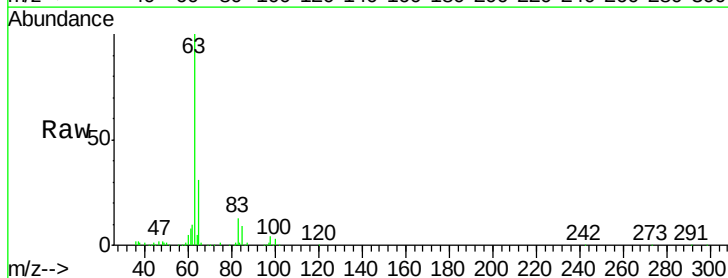


Abundance Ion 41.10 (40.80 to 41.80): VL0
 Ion 76.10 (75.80 to 76.80): VL0
 Ion 39.10 (38.80 to 39.80): VL0

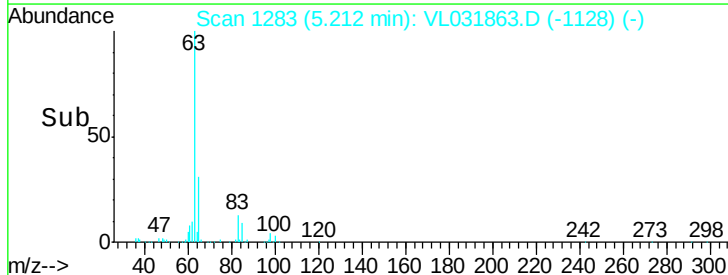
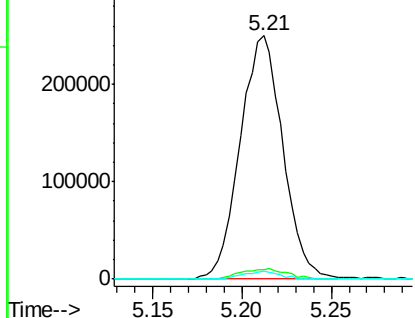


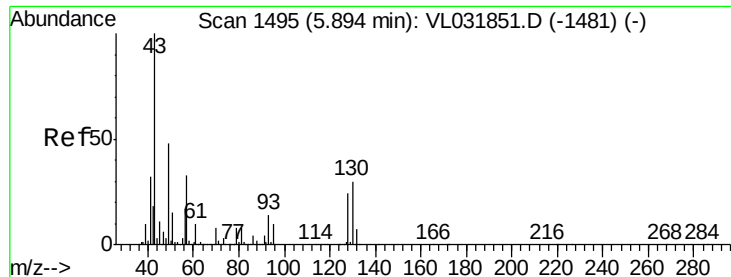
#24
 1,1-Dichloroethane
 Concen: 2.36 ppbv
 RT: 5.21 min Scan# 1283
 Delta R.T. -0.00 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

Tgt Ion: 63 Resp: 416655
 Ion Ratio Lower Upper
 63 100
 98 3.9 2.4 7.2
 100 3.5 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

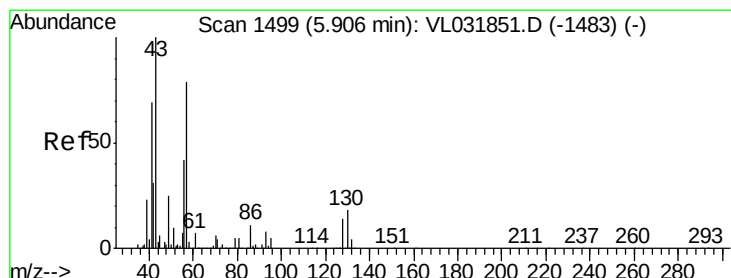
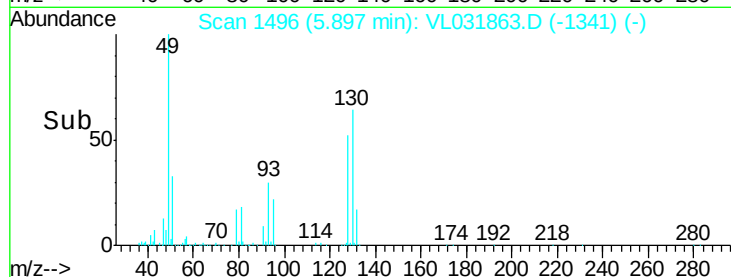
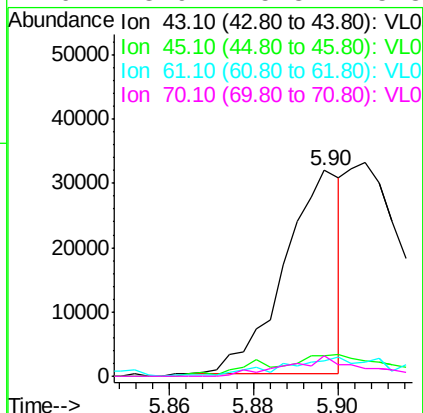
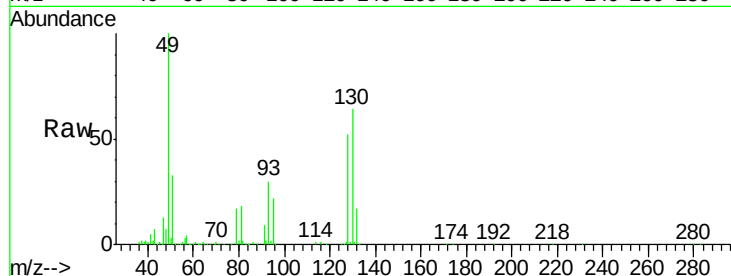




#25
Ethyl Acetate
Concen: 0.11 ppbv
RT: 5.90 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

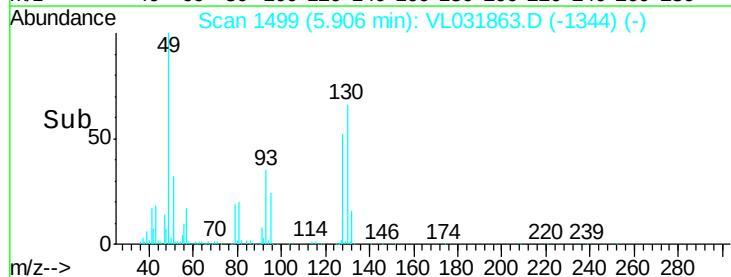
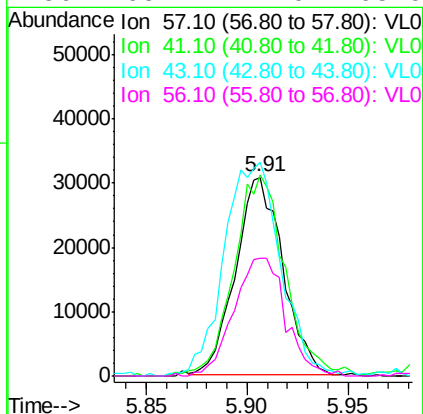
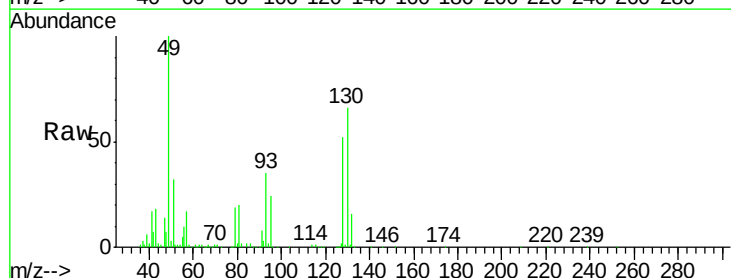
Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-040218DUP

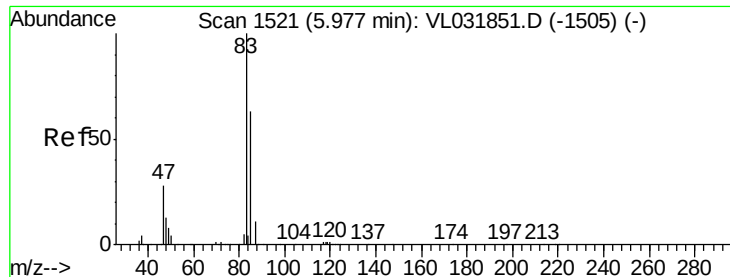
Tgt Ion:	43	Resp:	29310
Ion	Ratio	Lower	Upper
43	100		
45	24.0	7.8	11.8#
61	0.0	7.2	10.8#
70	13.9	5.8	8.8#



#26
Hexane
Concen: 0.40 ppbv
RT: 5.91 min Scan# 1499
Delta R.T. -0.00 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

Tgt Ion:	57	Resp:	50635
Ion	Ratio	Lower	Upper
57	100		
41	109.9	72.0	108.0#
43	129.3	169.8	254.8#
56	65.2	42.0	63.0#





#29

Chloroform

Concen: 0.64 ppbv

RT: 5.97 min Scan# 1520

Delta R.T. -0.01 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

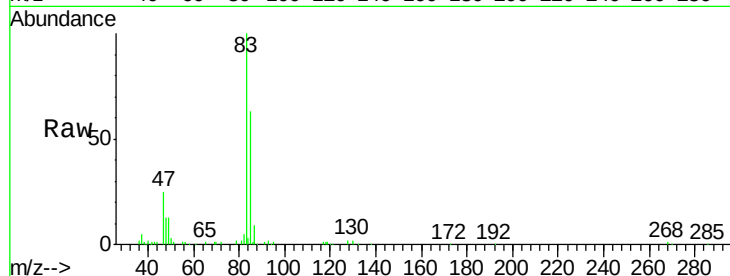
GAC-EFF-040218DUP

Tgt Ion: 83 Resp: 137885

Ion Ratio Lower Upper

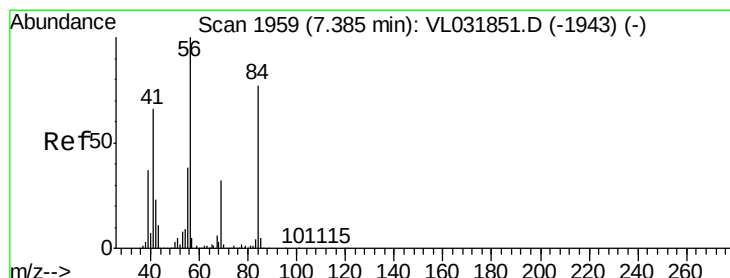
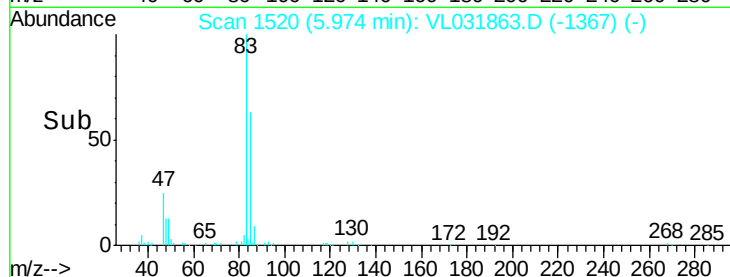
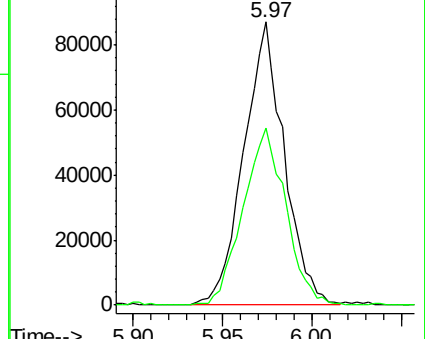
83 100

85 62.4 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: 0.03 ppbv

RT: 7.38 min Scan# 1958

Delta R.T. -0.01 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

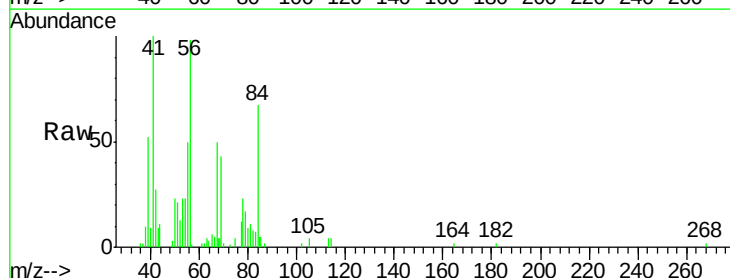
Tgt Ion: 84 Resp: 2912

Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

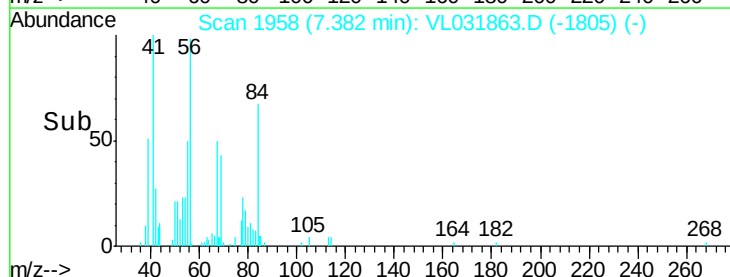
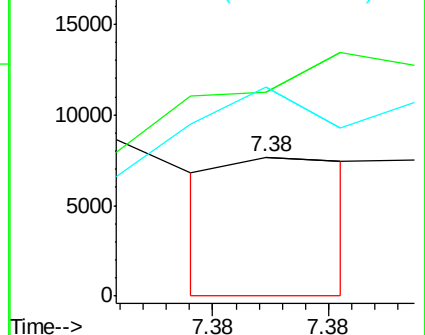
41 775.8 68.2 102.2#

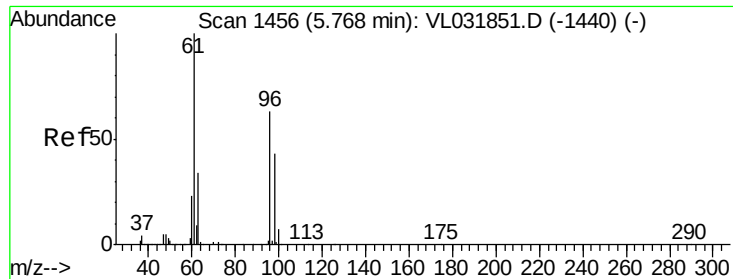


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 1.86 ppbv

RT: 5.76 min Scan# 1455

Delta R.T. -0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-040218DUP

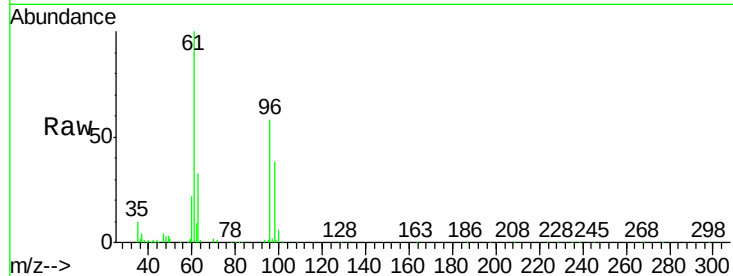
Tgt Ion: 61 Resp: 214399

Ion Ratio Lower Upper

61 100

96 58.0 47.6 71.4

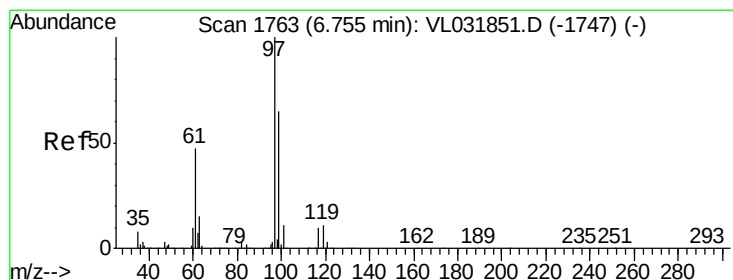
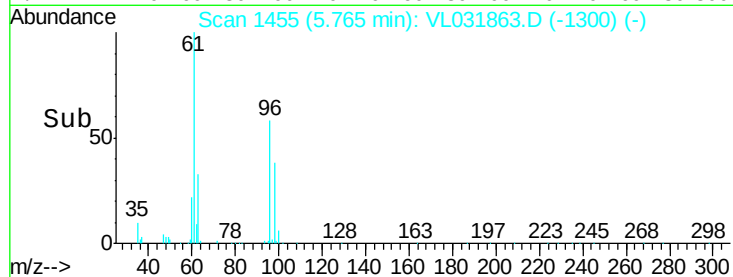
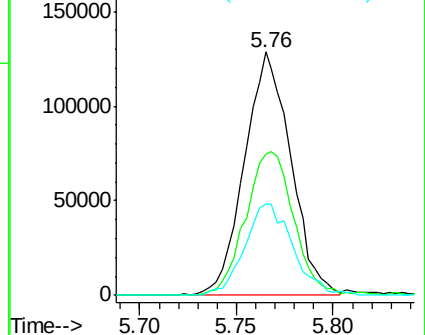
98 37.4 30.3 45.5



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 4.25 ppbv

RT: 6.75 min Scan# 1762

Delta R.T. -0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

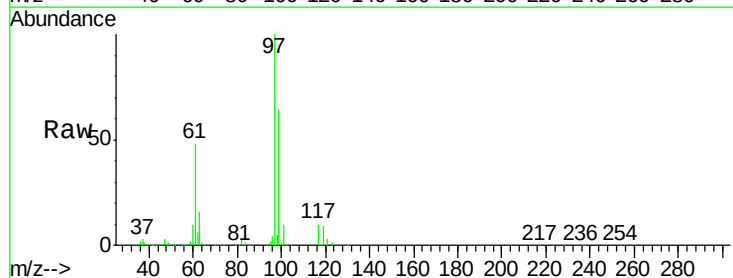
Tgt Ion: 97 Resp: 891201

Ion Ratio Lower Upper

97 100

99 64.3 51.5 77.3

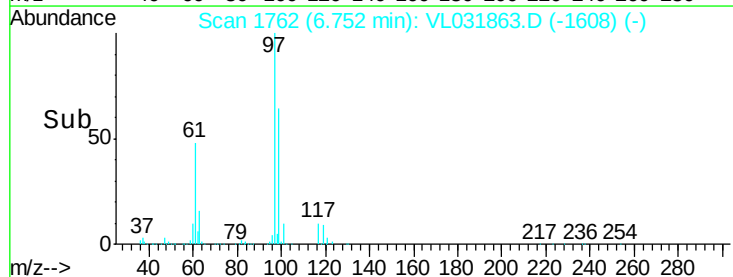
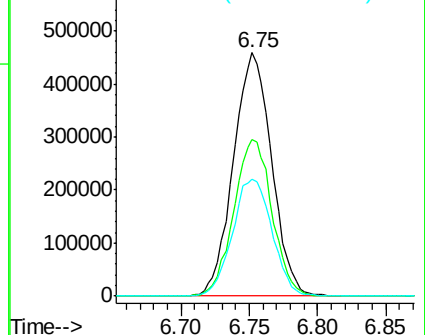
61 50.0 40.0 60.0

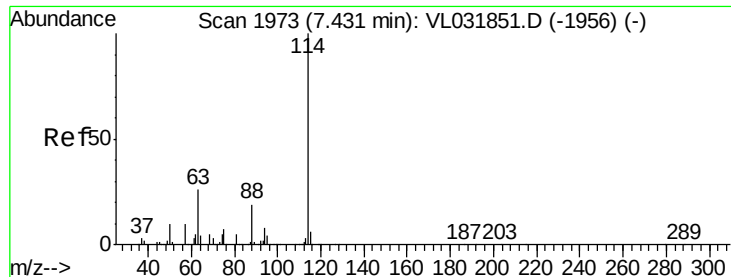


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

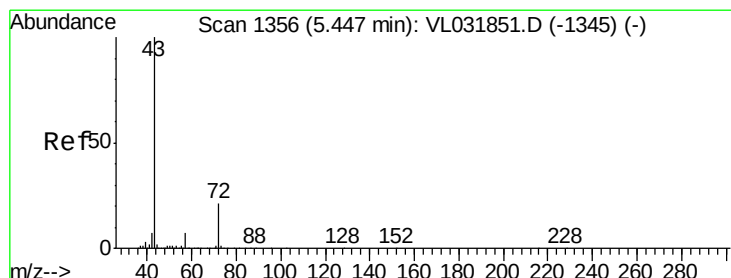
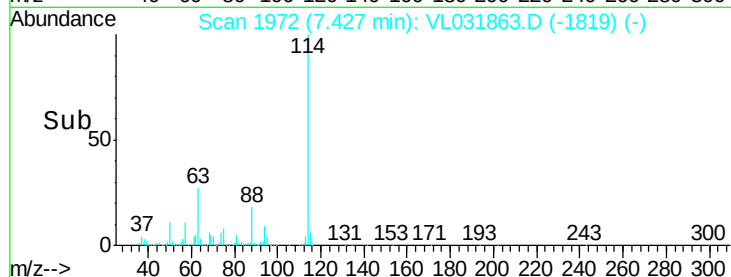
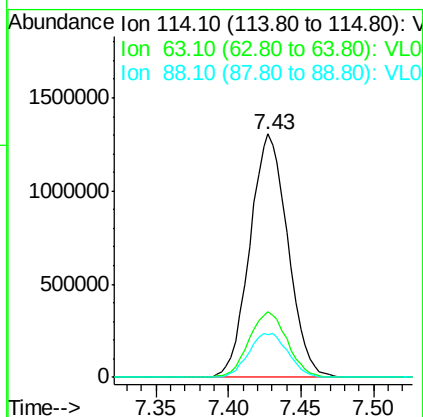
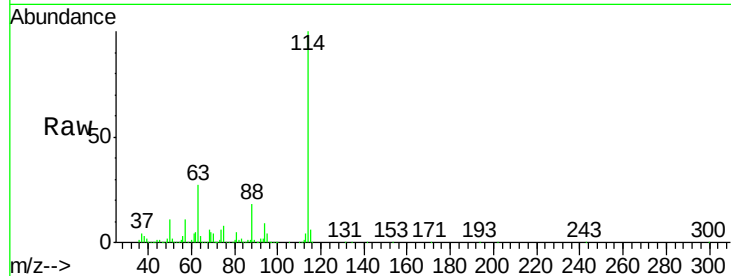




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.43 min Scan# 1972
 Delta R.T. -0.01 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

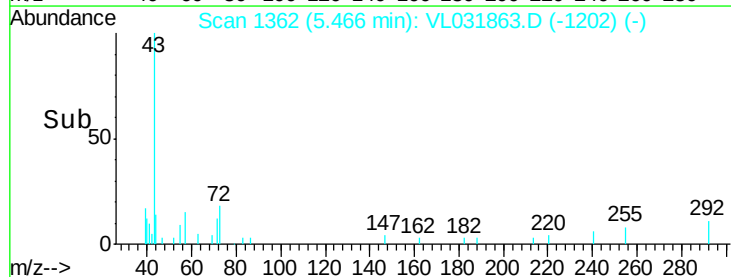
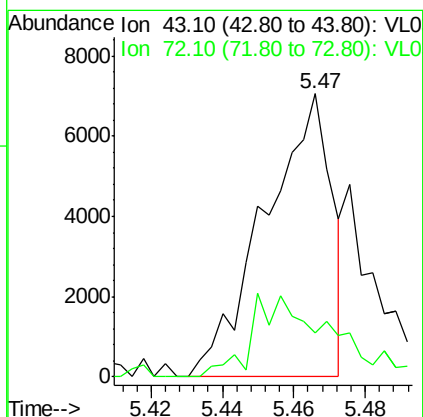
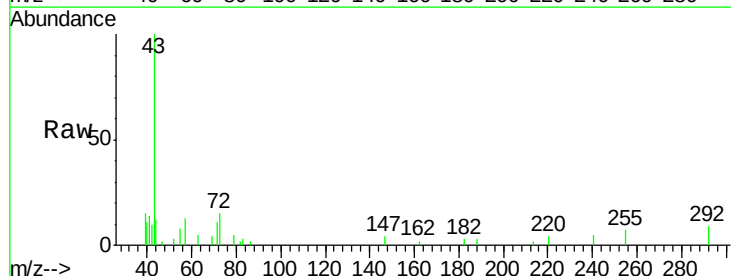
Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-040218DUP

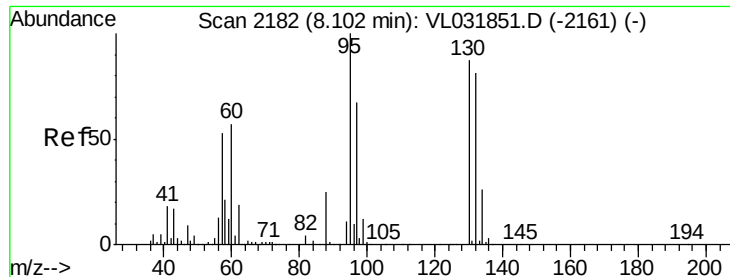
Tgt Ion:114 Resp: 2377672
 Ion Ratio Lower Upper
 114 100
 63 27.4 21.8 32.6
 88 18.9 14.6 22.0



#34
 2-Butanone
 Concen: 0.06 ppbv
 RT: 5.47 min Scan# 1362
 Delta R.T. 0.02 min
 Lab File: VL031863.D
 Acq: 12 Apr 2018 12:20

Tgt Ion: 43 Resp: 9138
 Ion Ratio Lower Upper
 43 100
 72 34.0 18.6 27.8#





#38

Trichloroethene

Concen: 17.79 ppbv

RT: 8.10 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-040218DUP

Tgt Ion:130 Resp: 1544316

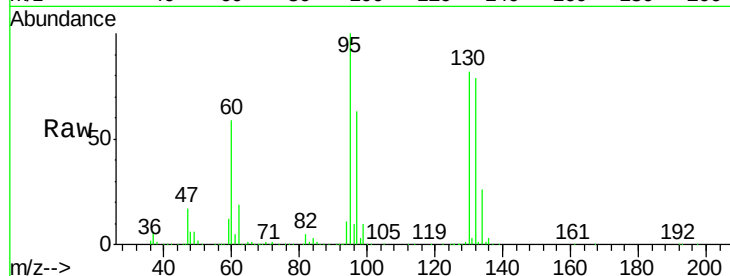
Ion Ratio Lower Upper

130 100

95 122.2 96.6 144.8

132 95.9 79.1 118.7

97 76.5 61.5 92.3

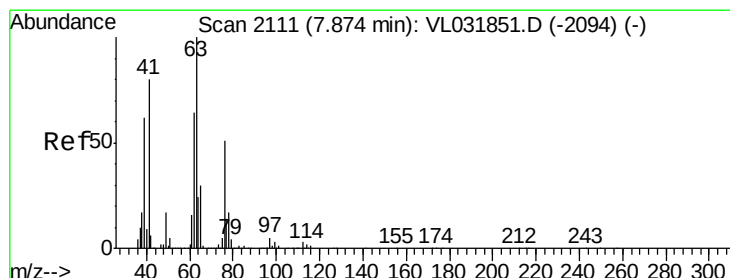
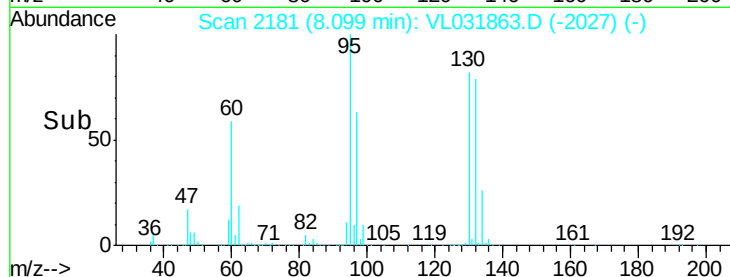
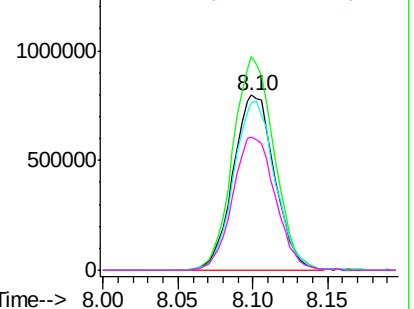


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 8.12 ppbv

RT: 7.43 min Scan# 1972

Delta R.T. -0.45 min

Lab File: VL031863.D

Acq: 12 Apr 2018 12:20

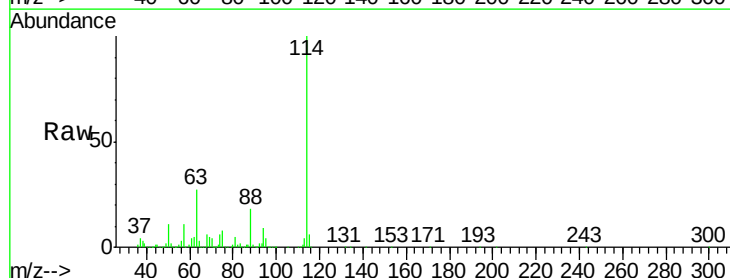
Tgt Ion: 63 Resp: 645602

Ion Ratio Lower Upper

63 100

41 0.1 65.8 98.6#

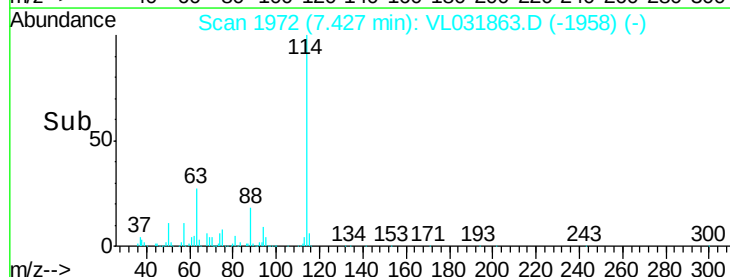
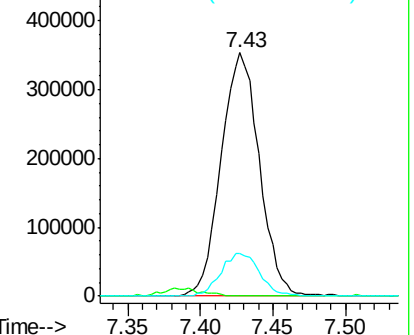
62 17.4 55.0 82.6#

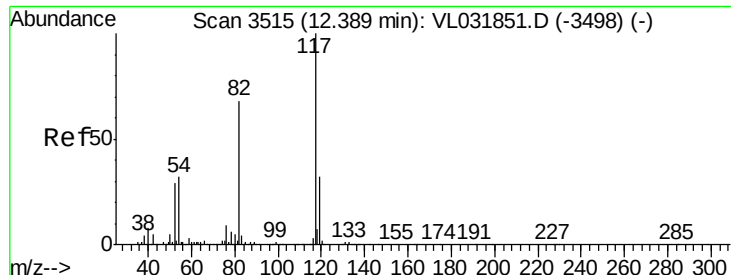


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

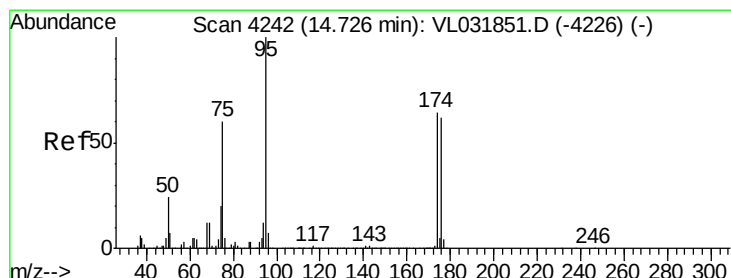
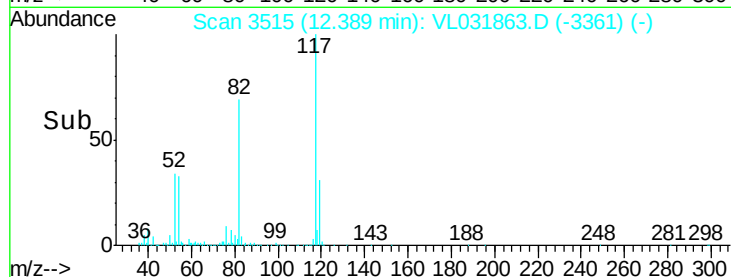
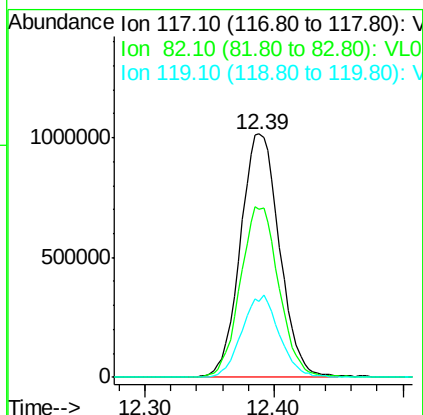
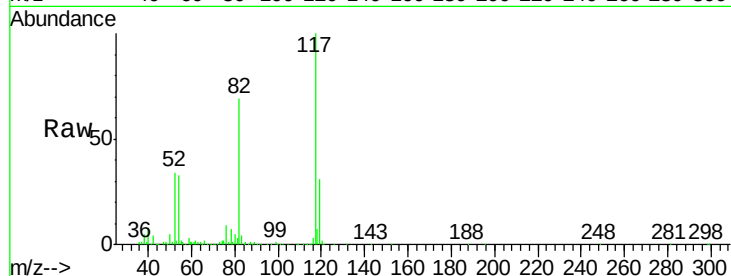




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.39 min Scan# 3515
Delta R.T. -0.00 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-040218DUP

Tgt Ion: 117 Resp: 2141245
Ion Ratio Lower Upper
117 100
82 70.0 54.6 81.8
119 32.5 26.0 39.0



#68
1-Bromo-4-Fluorobenzene
Concen: 9.99 ppbv
RT: 14.72 min Scan# 4241
Delta R.T. -0.01 min
Lab File: VL031863.D
Acq: 12 Apr 2018 12:20

Tgt Ion: 95 Resp: 1719347
Ion Ratio Lower Upper
95 100
174 64.6 52.3 78.5
175 4.5 3.9 5.9

