

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL041918\
 Data File : VL031885.D
 Acq On : 19 Apr 2018 19:45
 Operator : SY/AP
 Sample : J2133-14 0.06 PPBV
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LOQ-AIR-02-QT2-2018

Quant Time: Apr 20 08:00:42 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	1190194	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.42	114	2736390	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.39	117	2708289	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.73	95	2191563	10.06	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.60%

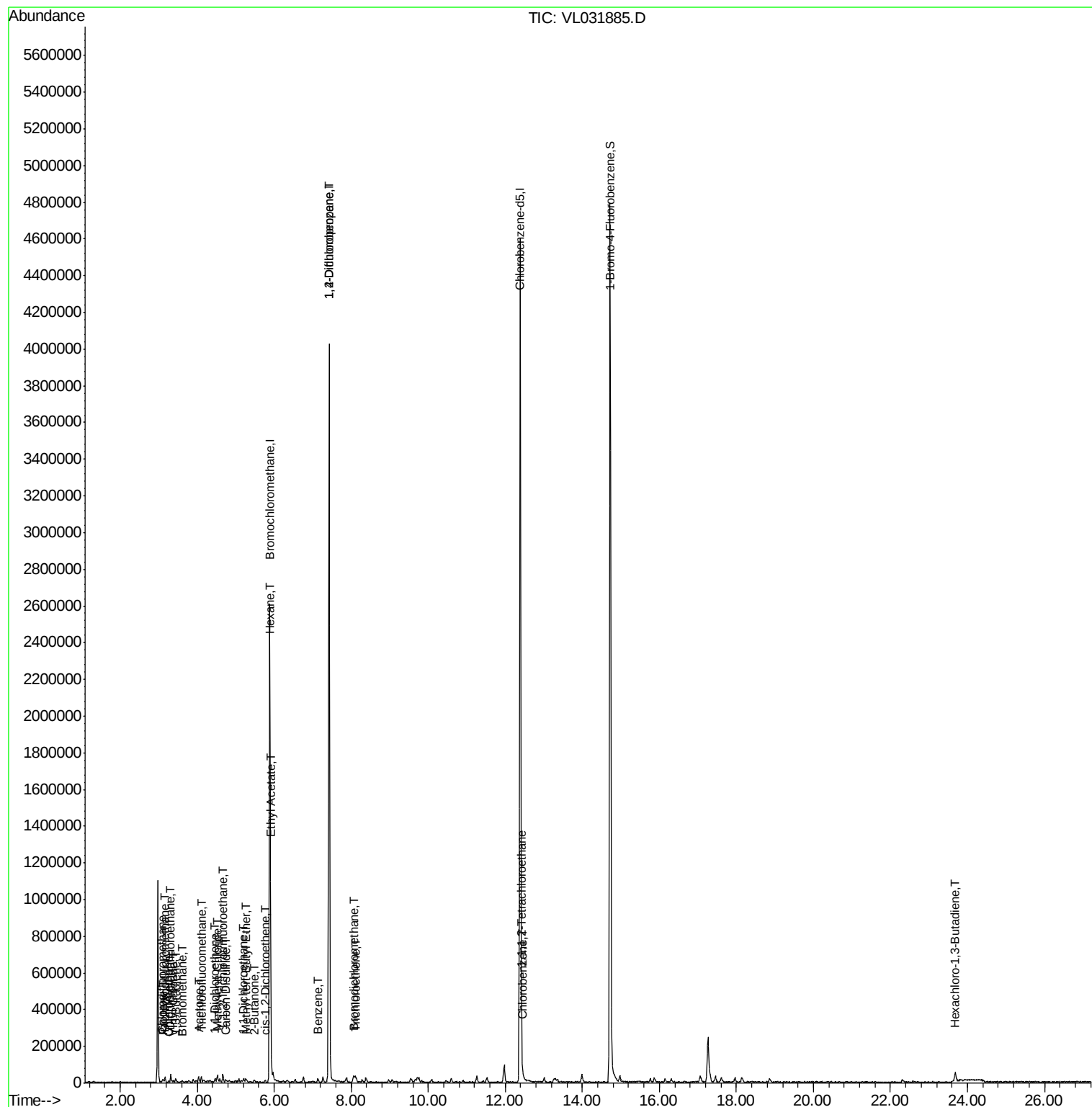
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.17	85	19994	0.08	ppbv	99
3) Chlorodifluoromethane	3.11	51	12081	0.09	ppbv	96
4) Chloromethane	3.26	50	3446	0.05	ppbv #	79
5) Vinyl Chloride	3.38	62	2708	0.03	ppbv	90
6) Bromomethane	3.61	94	1902	0.04	ppbv #	60
8) Dichlorotetrafluoroethane	3.31	85	18085	0.09	ppbv	90
9) Propene	3.12	41	1448	0.03	ppbv #	15
11) Trichlorofluoromethane	4.11	101	17629	0.07	ppbv #	72
12) 1,1,2-Trichlorotrifluoroet	4.66	101	10480	0.07	ppbv #	82
15) Acetone	4.03	43	25081	0.14	ppbv	91
16) 1,3-Butadiene	3.45	39	2505	0.04	ppbv #	10
18) 1,1-Dichloroethene	4.46	96	2508	0.04	ppbv #	41
20) Methylene Chloride	4.52	84	9969	0.15	ppbv	91
24) 1,1-Dichloroethane	5.21	63	7932	0.04	ppbv #	94
25) Ethyl Acetate	5.91	43	11346	0.04	ppbv #	70
26) Hexane	5.90	57	6026	0.05	ppbv #	1
27) Carbon Disulfide	4.74	76	8252	0.05	ppbv #	5
28) Methyl tert-Butyl Ether	5.26	73	8823	0.05	ppbv #	90
31) cis-1,2-Dichloroethene	5.76	61	6843	0.06	ppbv #	87
34) 2-Butanone	5.48	43	11921	0.06	ppbv #	85
36) Benzene	7.14	78	8762	0.04	ppbv #	87
38) Trichloroethene	8.11	130	6647	0.07	ppbv #	68
39) 1,2-Dichloropropane	7.43	63	737319	8.06	ppbv #	21
42) Bromodichloromethane	8.05	83	9941	0.05	ppbv #	95
56) 1,1,1,2-Tetrachloroethane	12.43	131	4557	0.04	ppbv #	1
57) Chlorobenzene	12.45	112	14781	0.06	ppbv #	86
78) Hexachloro-1,3-Butadiene	23.67	225	3086	0.04	ppbv #	1

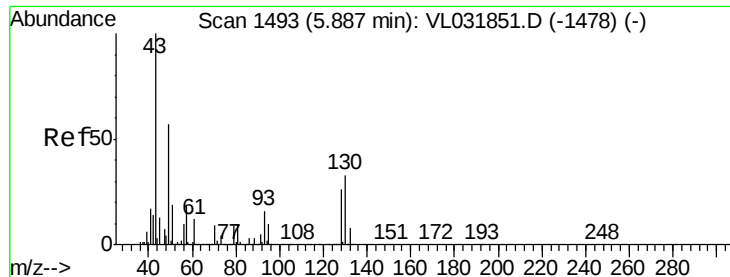
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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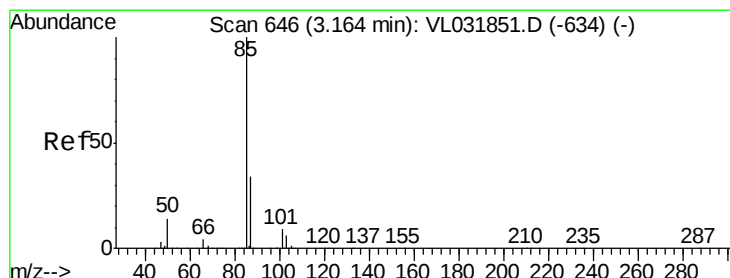
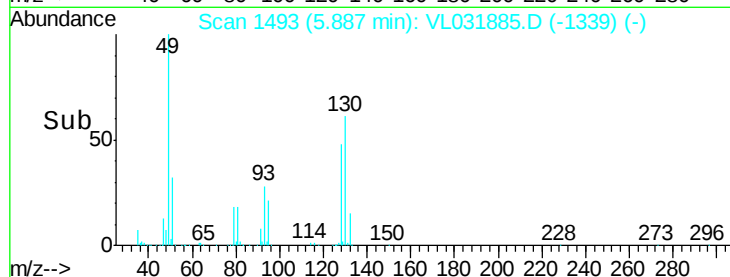
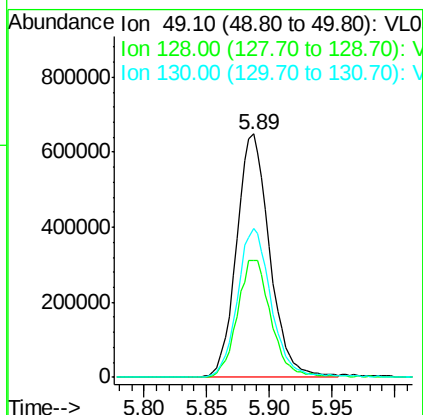
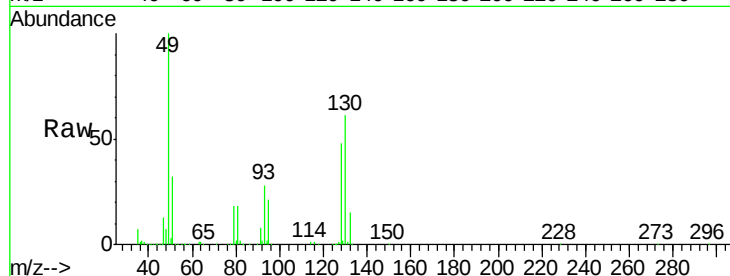




#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.89 min Scan# 1493
 Delta R.T. -0.00 min
 Lab File: VL031885.D
 Acq: 19 Apr 2018 19:45

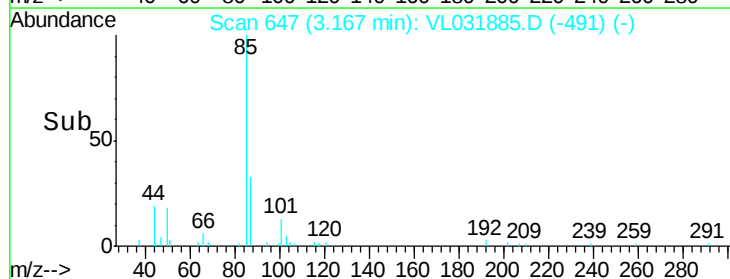
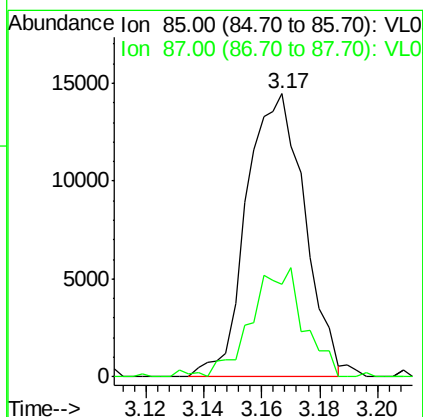
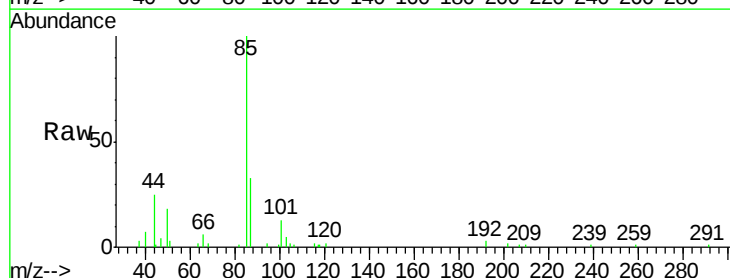
Instrument :
 MSVOA_L
 ClientSampleId :
 LOQ-AIR-02-QT2-2018

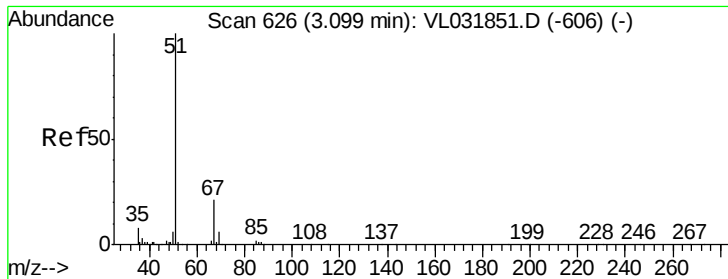
Tgt Ion: 49 Resp: 1190194
 Ion Ratio Lower Upper
 49 100
 128 49.4 23.9 71.7
 130 62.8 30.9 92.7



#2
 Dichlorodifluoromethane
 Concen: 0.08 ppbv
 RT: 3.17 min Scan# 647
 Delta R.T. 0.00 min
 Lab File: VL031885.D
 Acq: 19 Apr 2018 19:45

Tgt Ion: 85 Resp: 19994
 Ion Ratio Lower Upper
 85 100
 87 32.8 25.9 38.9





#3

Chlorodifluoromethane

Concen: 0.09 ppbv

RT: 3.11 min Scan# 628

Delta R.T. 0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

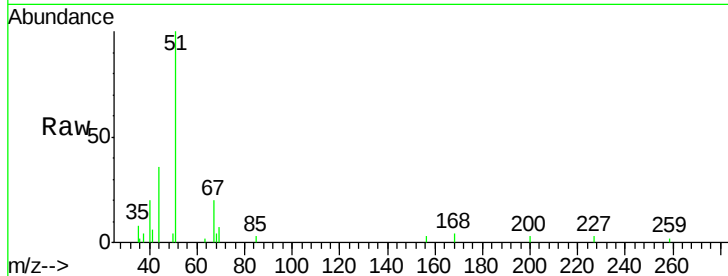
LOQ-AIR-02-QT2-2018

Tgt Ion: 51 Resp: 12081

Ion Ratio Lower Upper

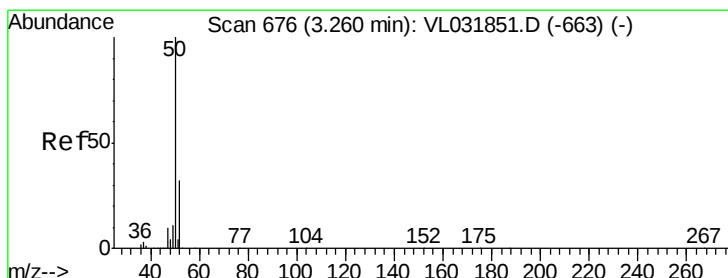
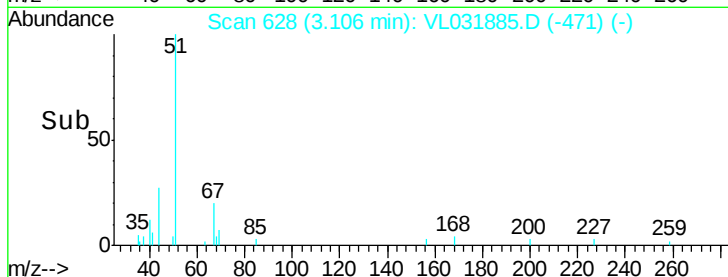
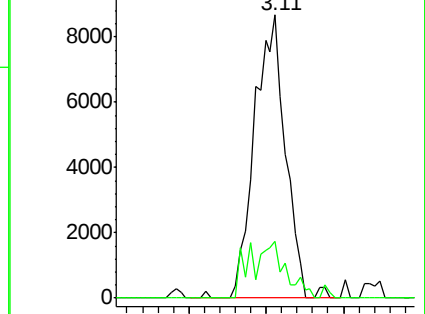
51 100

67 24.0 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: 0.05 ppbv

RT: 3.26 min Scan# 676

Delta R.T. -0.00 min

Lab File: VL031885.D

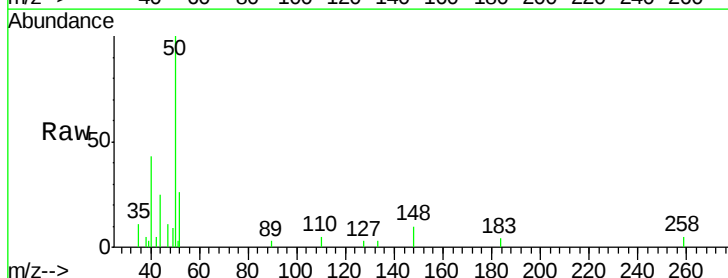
Acq: 19 Apr 2018 19:45

Tgt Ion: 50 Resp: 3446

Ion Ratio Lower Upper

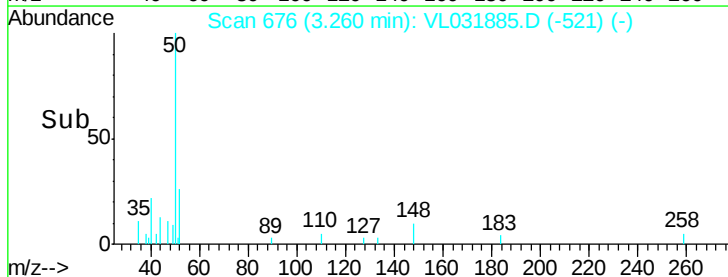
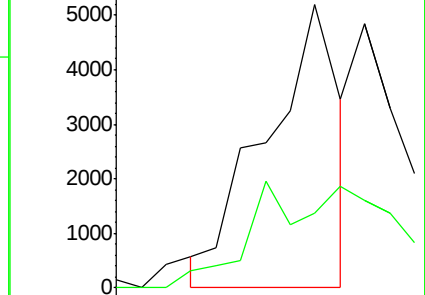
50 100

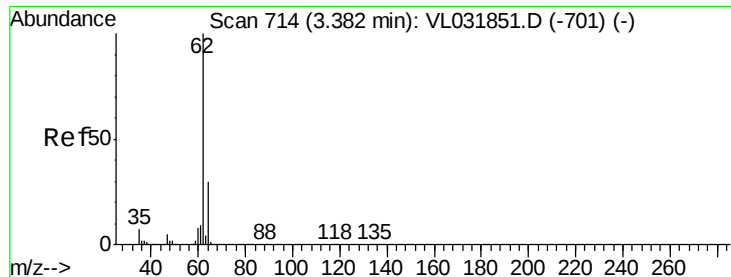
52 22.9 28.1 42.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.03 ppbv

RT: 3.38 min Scan# 714

Delta R.T. -0.00 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

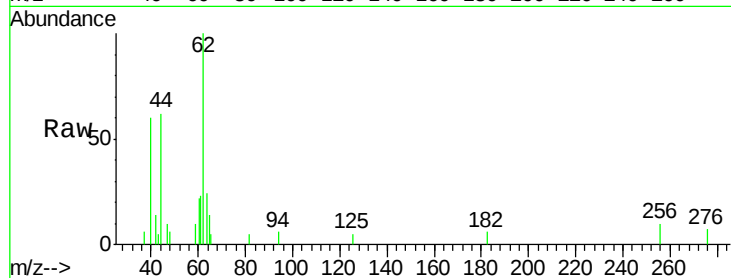
LOQ-AIR-02-QT2-2018

Tgt Ion: 62 Resp: 2708

Ion Ratio Lower Upper

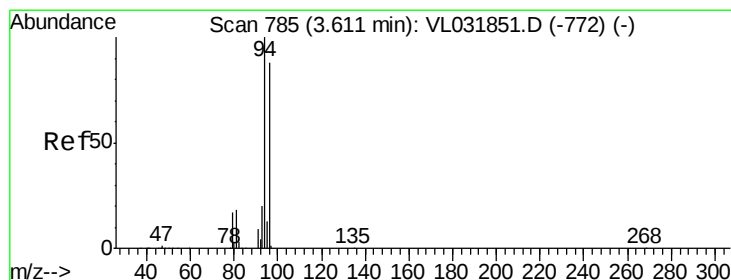
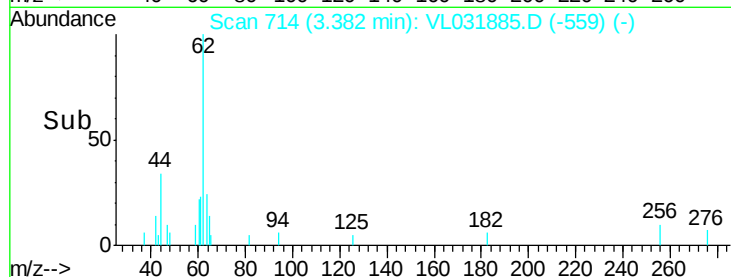
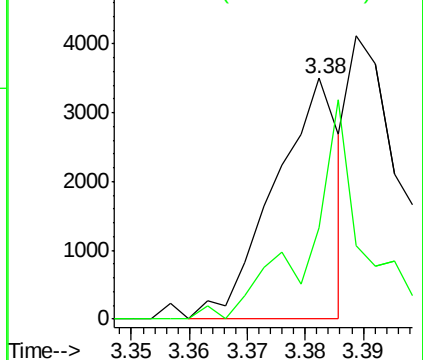
62 100

64 38.2 25.9 38.9



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 0.04 ppbv

RT: 3.61 min Scan# 785

Delta R.T. -0.00 min

Lab File: VL031885.D

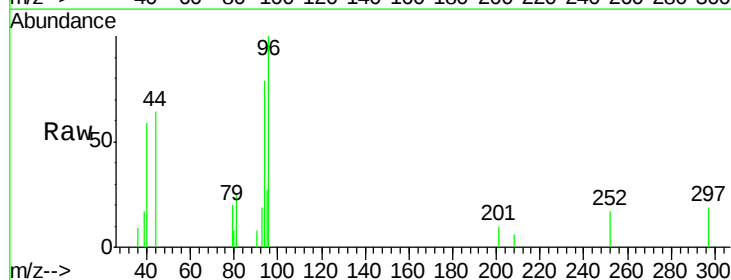
Acq: 19 Apr 2018 19:45

Tgt Ion: 94 Resp: 1902

Ion Ratio Lower Upper

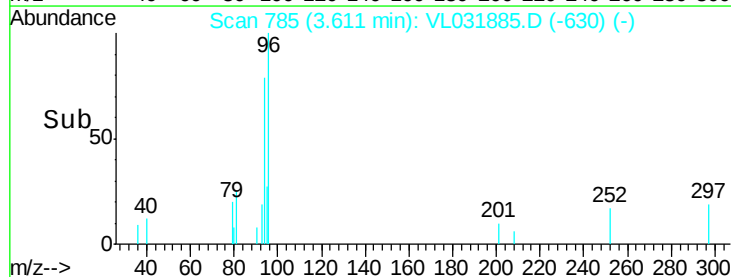
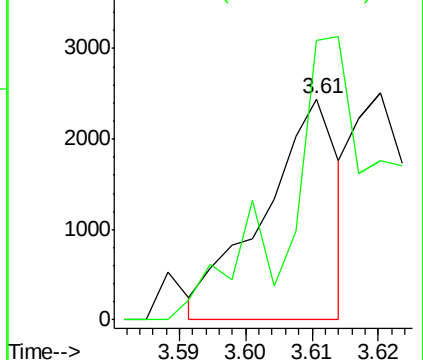
94 100

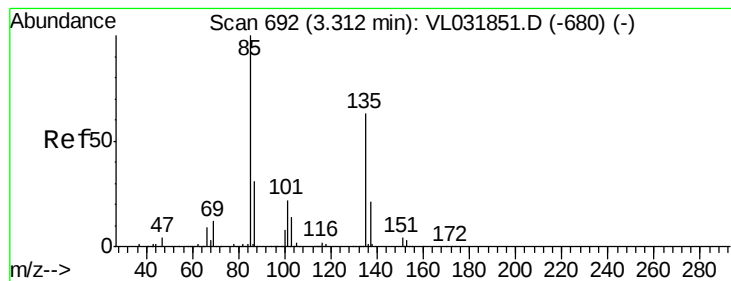
96 130.7 73.8 110.6#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#8

Dichlorotetrafluoroethane

Concen: 0.09 ppbv

RT: 3.31 min Scan# 692

Delta R.T. -0.00 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

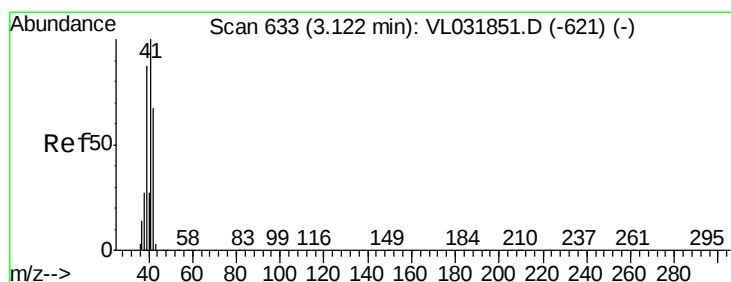
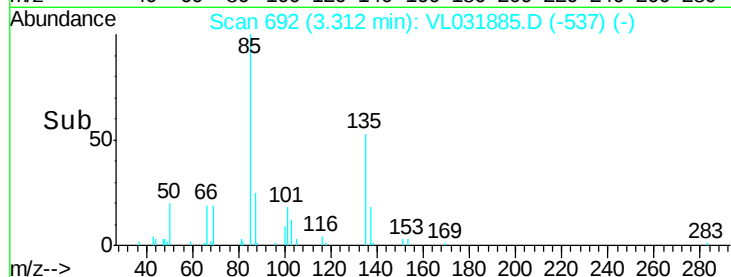
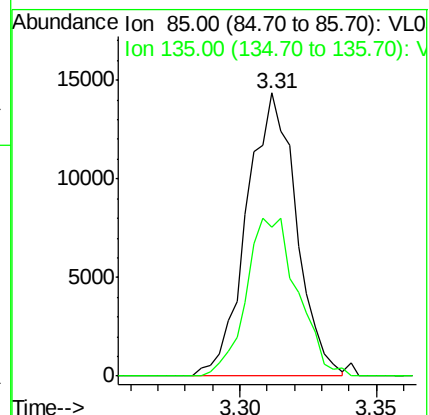
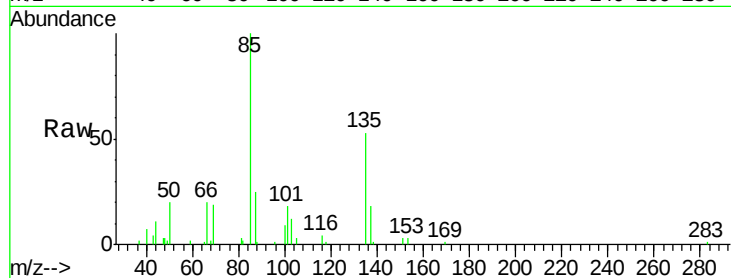
LOQ-AIR-02-QT2-2018

Tgt Ion: 85 Resp: 18085

Ion Ratio Lower Upper

85 100

135 57.8 52.7 79.1



#9

Propene

Concen: 0.03 ppbv

RT: 3.12 min Scan# 633

Delta R.T. -0.00 min

Lab File: VL031885.D

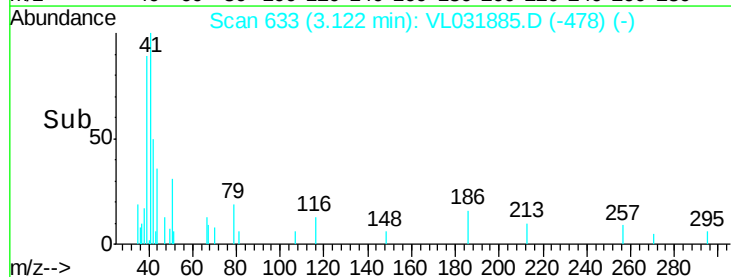
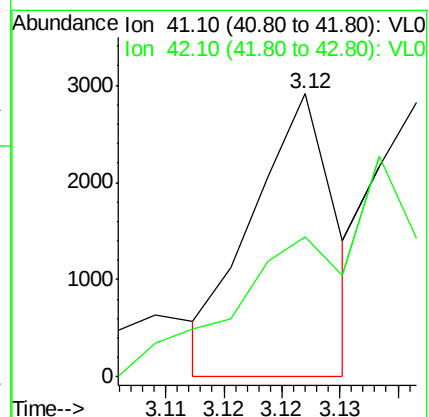
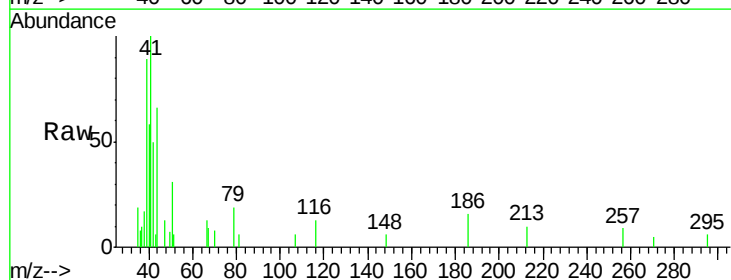
Acq: 19 Apr 2018 19:45

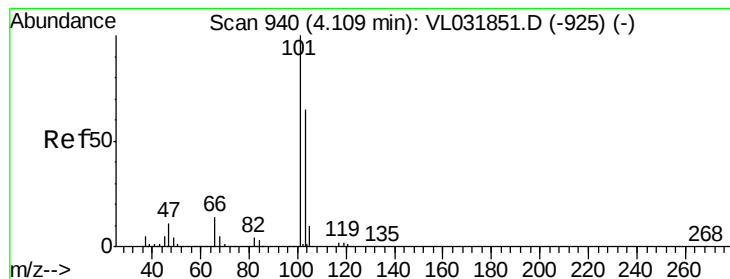
Tgt Ion: 41 Resp: 1448

Ion Ratio Lower Upper

41 100

42 0.0 55.0 82.4#





#11

Trichlorofluoromethane

Concen: 0.07 ppbv

RT: 4.11 min Scan# 940

Delta R.T. -0.00 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

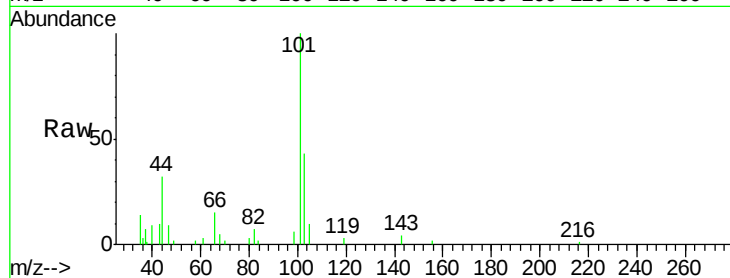
LOQ-AIR-02-QT2-2018

Tgt Ion:101 Resp: 17629

Ion Ratio Lower Upper

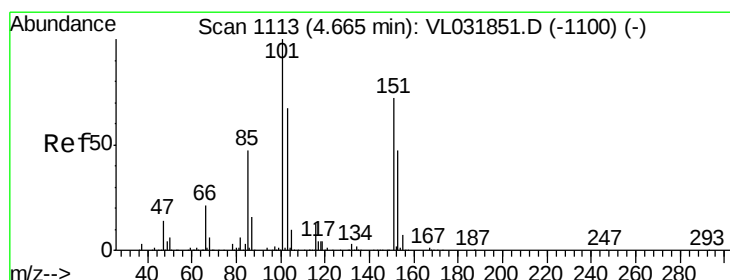
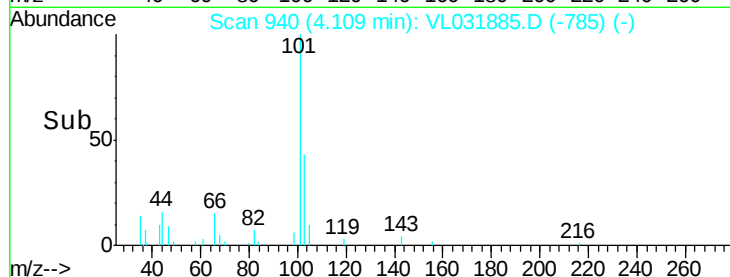
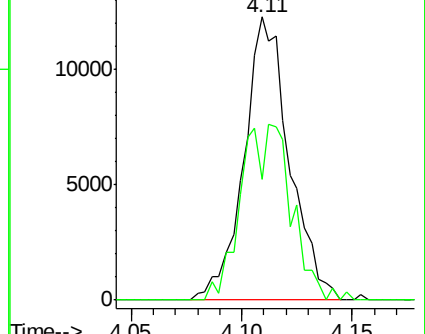
101 100

103 42.6 51.8 77.8#



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: 0.07 ppbv

RT: 4.66 min Scan# 1112

Delta R.T. -0.00 min

Lab File: VL031885.D

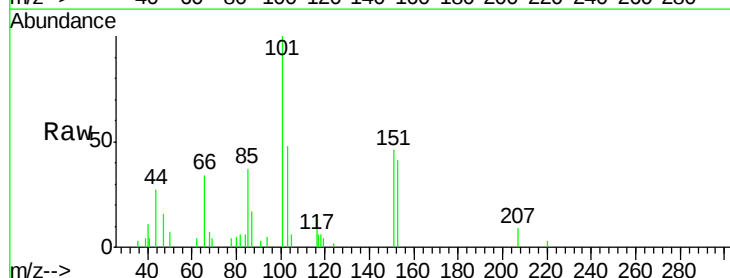
Acq: 19 Apr 2018 19:45

Tgt Ion:101 Resp: 10480

Ion Ratio Lower Upper

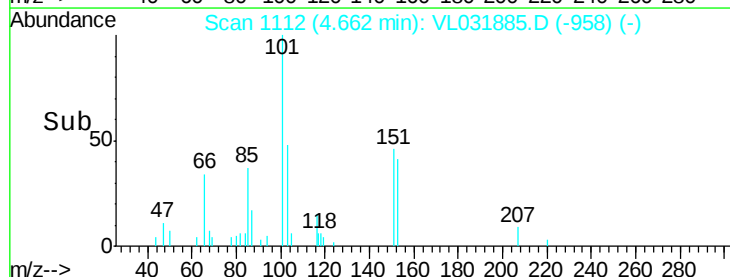
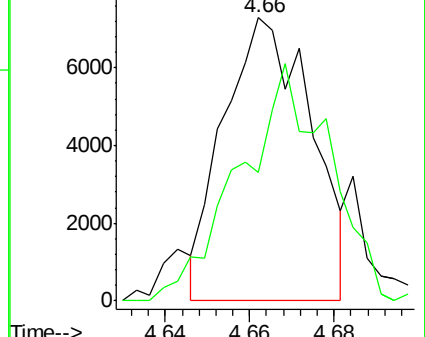
101 100

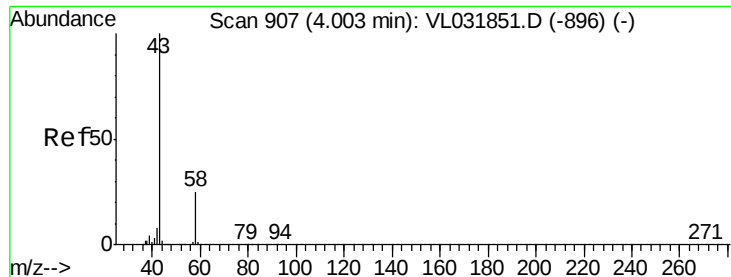
151 86.4 57.0 85.6#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#15

Acetone

Concen: 0.14 ppbv

RT: 4.03 min Scan# 916

Delta R.T. 0.03 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

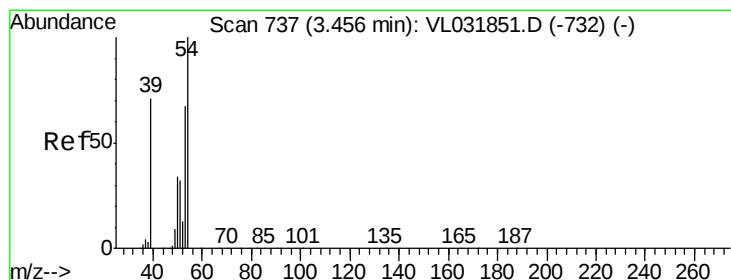
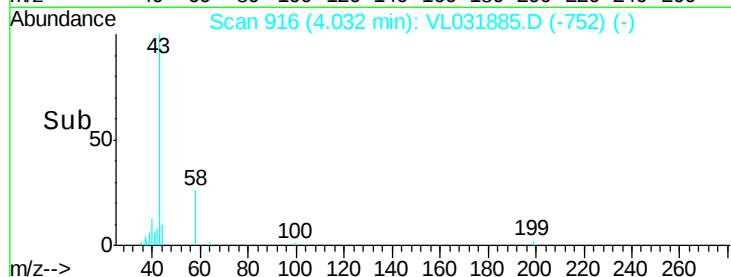
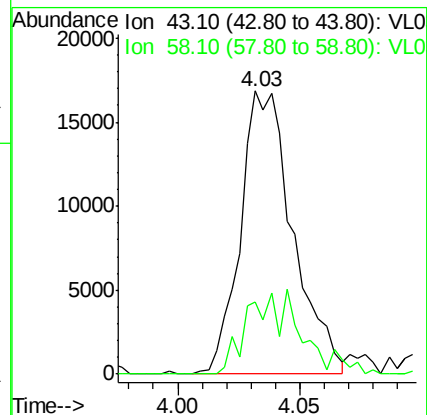
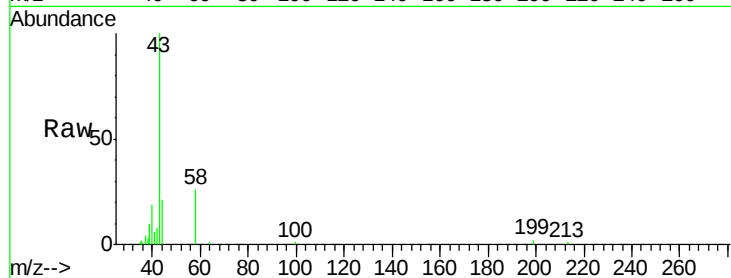
LOQ-AIR-02-QT2-2018

Tgt Ion: 43 Resp: 25081

Ion Ratio Lower Upper

43 100

58 30.6 20.9 31.3



#16

1,3-Butadiene

Concen: 0.04 ppbv

RT: 3.45 min Scan# 735

Delta R.T. -0.01 min

Lab File: VL031885.D

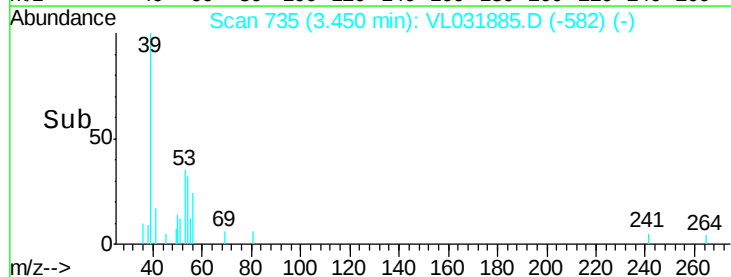
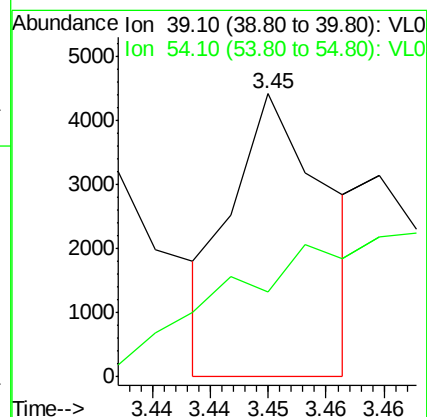
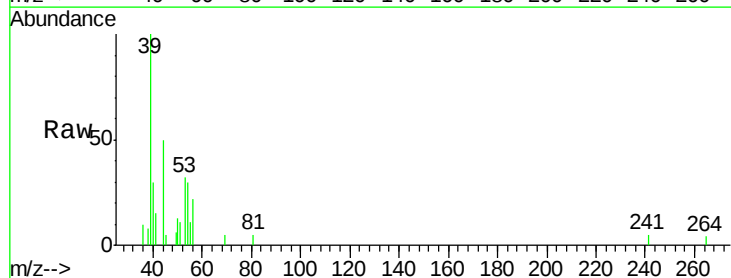
Acq: 19 Apr 2018 19:45

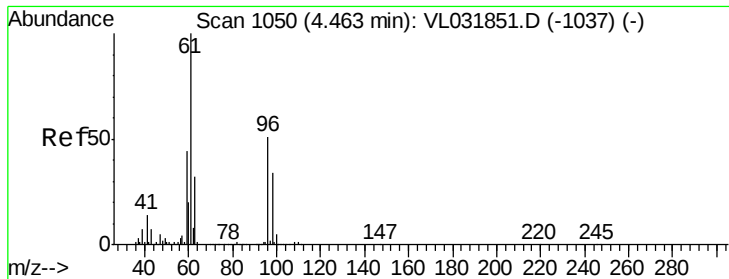
Tgt Ion: 39 Resp: 2505

Ion Ratio Lower Upper

39 100

54 0.0 63.3 94.9#

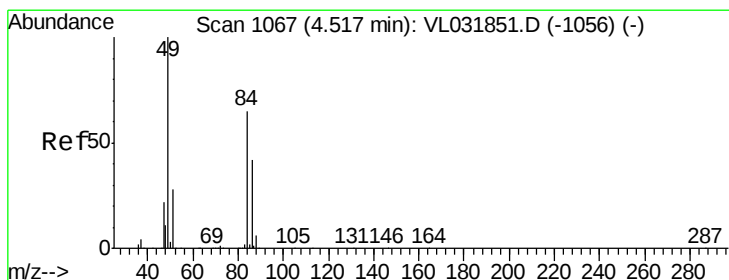
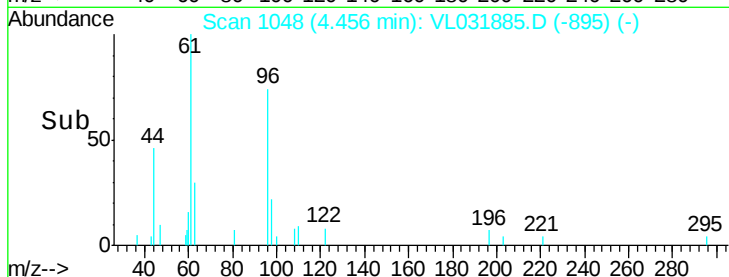
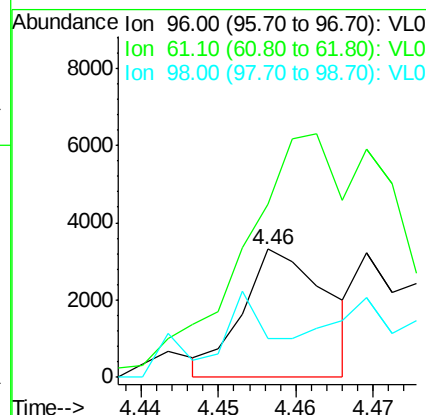
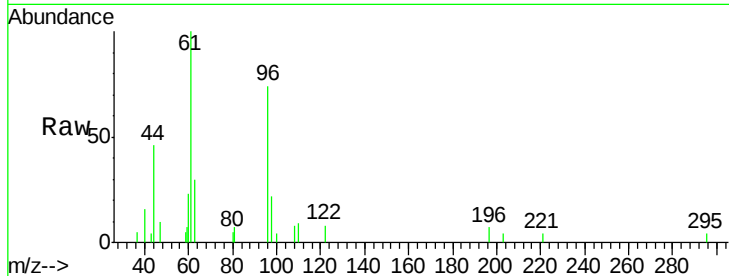




#18
 1,1-Dichloroethene
 Concen: 0.04 ppbv
 RT: 4.46 min Scan# 1048
 Delta R.T. -0.01 min
 Lab File: VL031885.D
 Acq: 19 Apr 2018 19:45

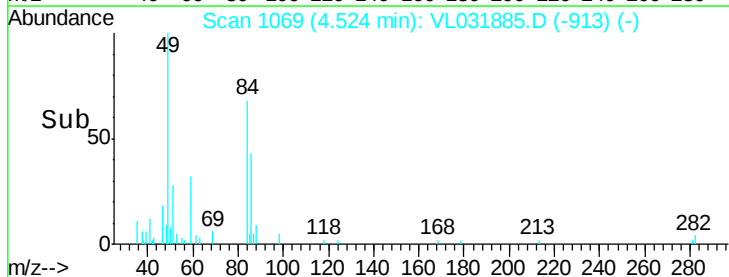
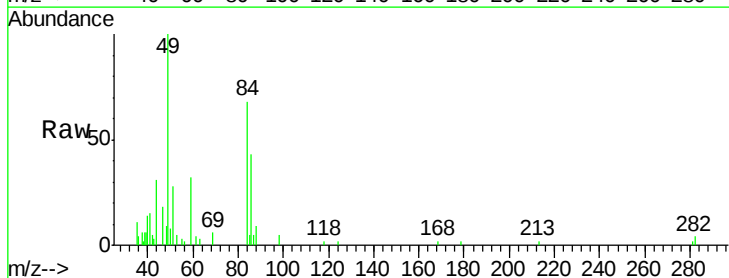
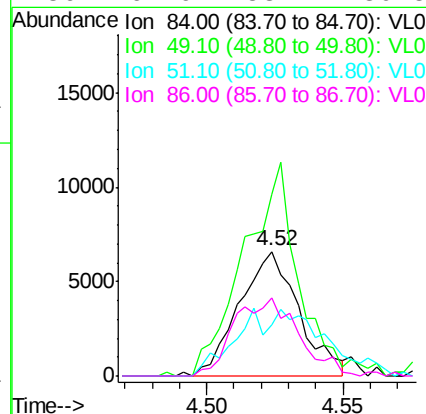
Instrument :
 MSVOA_L
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 LOQ-AIR-02-QT2-2018

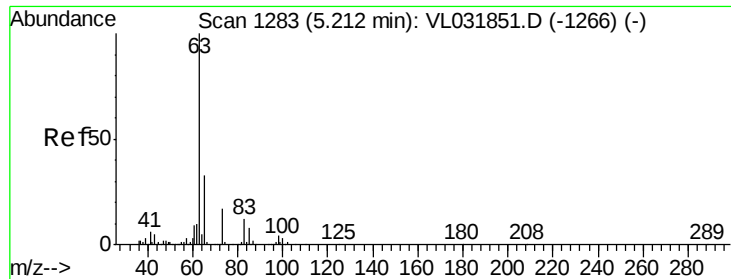
Tgt Ion: 96 Resp: 2508
 Ion Ratio Lower Upper
 96 100
 61 112.0 161.0 241.6#
 98 19.4 52.7 79.1#



#20
 Methylene Chloride
 Concen: 0.15 ppbv
 RT: 4.52 min Scan# 1069
 Delta R.T. 0.00 min
 Lab File: VL031885.D
 Acq: 19 Apr 2018 19:45

Tgt Ion: 84 Resp: 9969
 Ion Ratio Lower Upper
 84 100
 49 141.1 125.6 188.4
 51 41.2 36.4 54.6
 86 62.9 53.7 80.5





#24

1,1-Dichloroethane

Concen: 0.04 ppbv

RT: 5.21 min Scan# 1281

Delta R.T. -0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

LOQ-AIR-02-QT2-2018

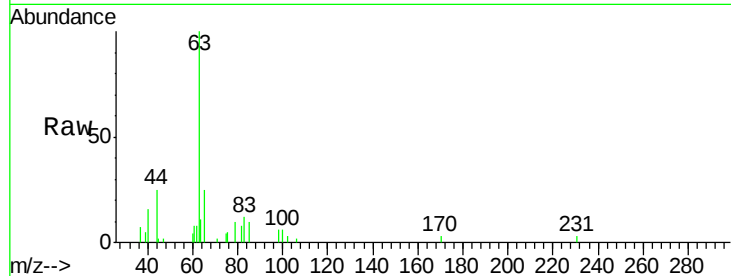
Tgt Ion: 63 Resp: 7932

Ion Ratio Lower Upper

63 100

98 6.2 2.4 7.2

100 6.3 1.5 4.4#

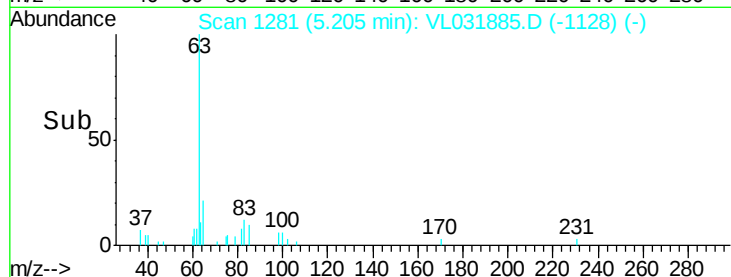


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

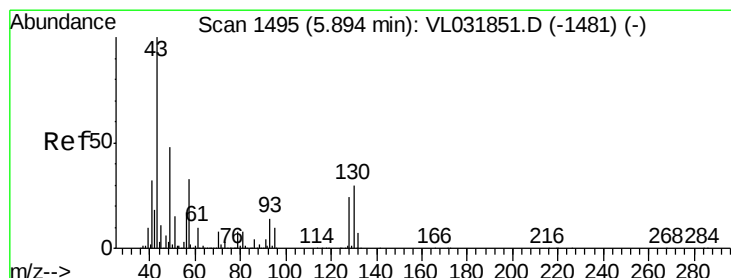
Ion 100.00 (99.70 to 100.70): VL0

Time-->



Abundance

Time-->



#25

Ethyl Acetate

Concen: 0.04 ppbv

RT: 5.91 min Scan# 1501

Delta R.T. 0.02 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Tgt Ion: 43 Resp: 11346

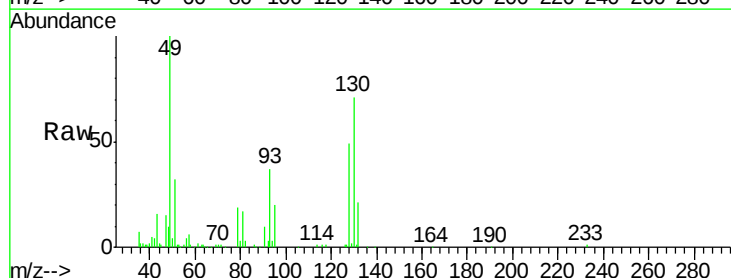
Ion Ratio Lower Upper

43 100

45 27.5 7.8 11.8#

61 18.9 7.2 10.8#

70 10.6 5.8 8.8#



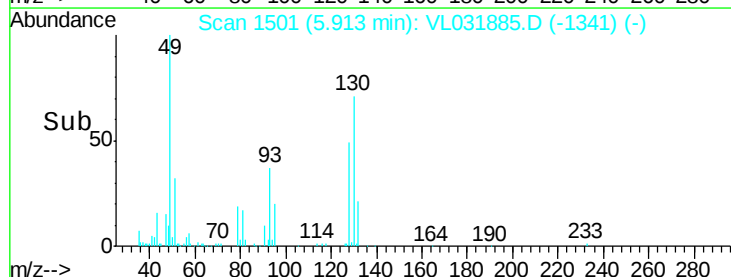
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

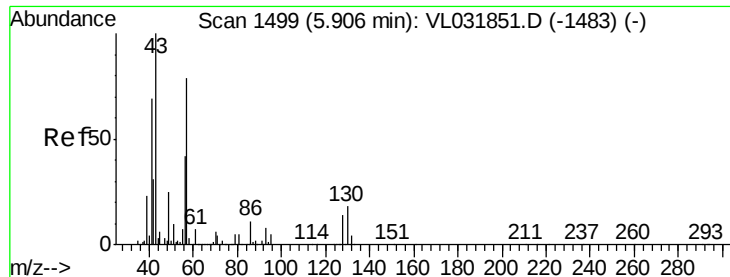
Ion 70.10 (69.80 to 70.80): VL0

Time-->



Abundance

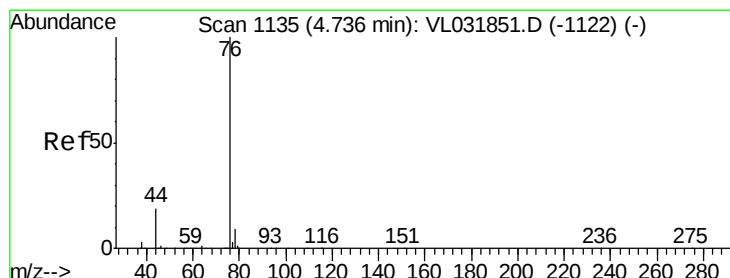
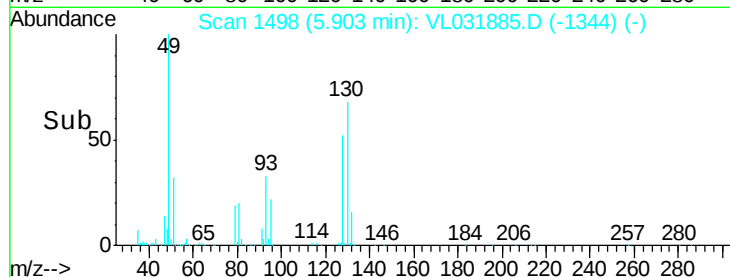
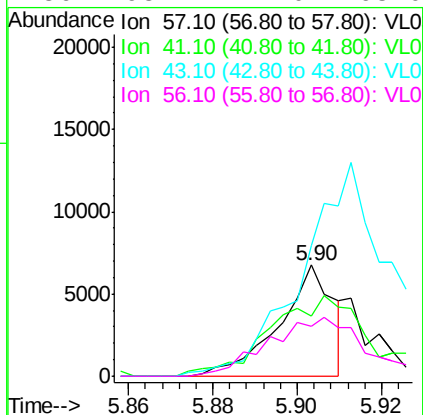
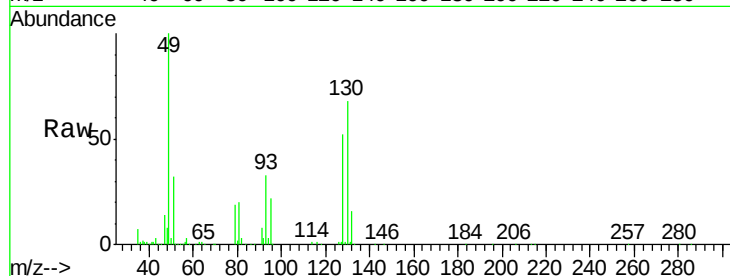
Time-->



#26
Hexane
Concen: 0.05 ppbv
RT: 5.90 min Scan# 1498
Delta R.T. -0.00 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

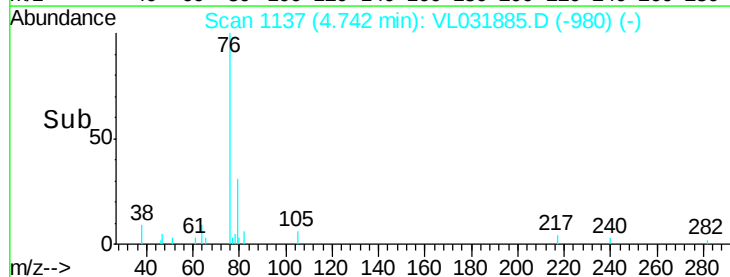
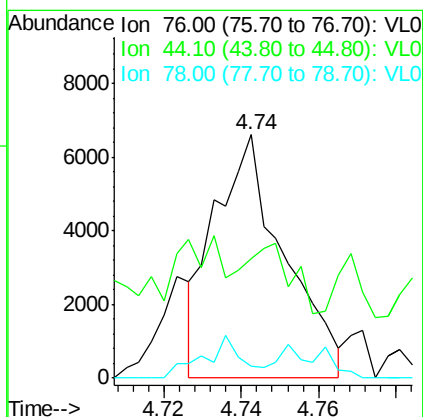
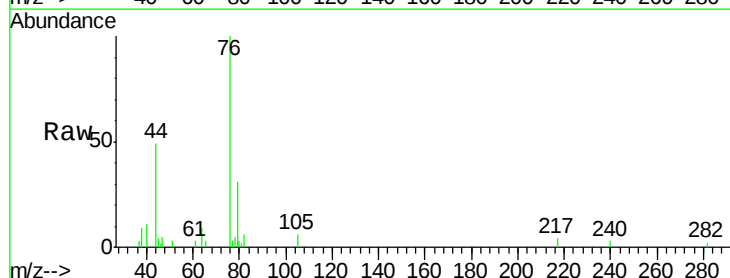
Instrument :
MSVOA_L
ClientSampleId :
LOQ-AIR-02-QT2-2018

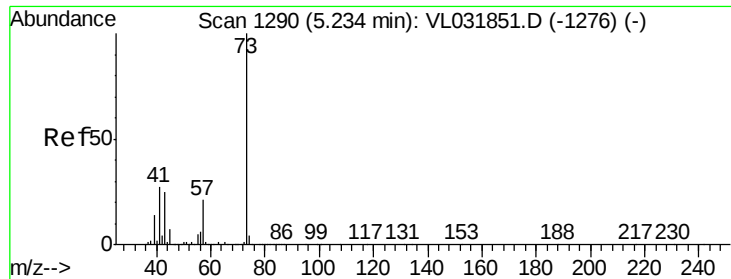
Tgt Ion: 57 Resp: 6026
Ion Ratio Lower Upper
57 100
41 138.6 72.0 108.0#
43 0.0 169.8 254.8#
56 95.1 42.0 63.0#



#27
Carbon Disulfide
Concen: 0.05 ppbv
RT: 4.74 min Scan# 1137
Delta R.T. 0.01 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

Tgt Ion: 76 Resp: 8252
Ion Ratio Lower Upper
76 100
44 78.6 15.6 23.4#
78 17.9 7.6 11.4#

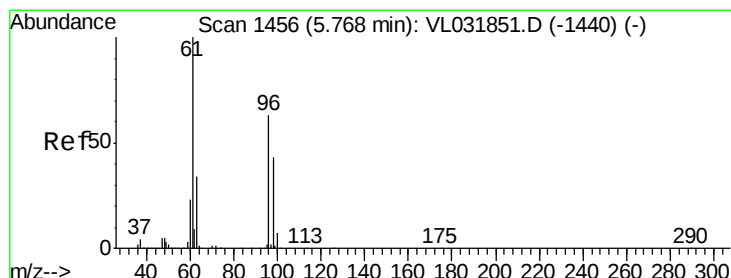
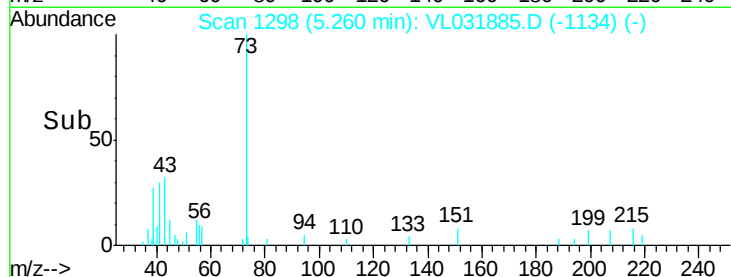
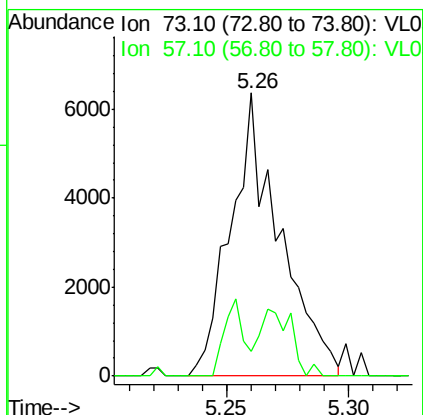
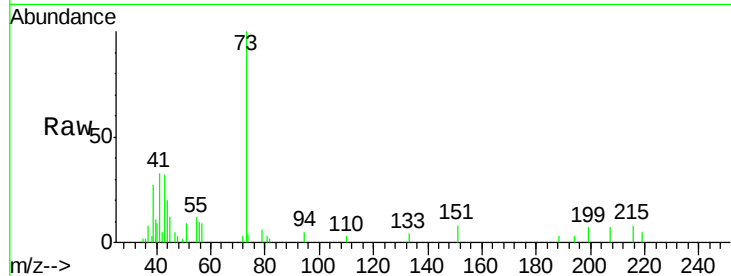




#28
Methyl tert-Butyl Ether
Concen: 0.05 ppbv
RT: 5.26 min Scan# 1298
Delta R.T. 0.03 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

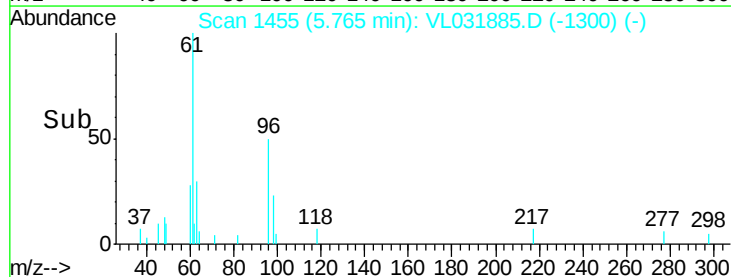
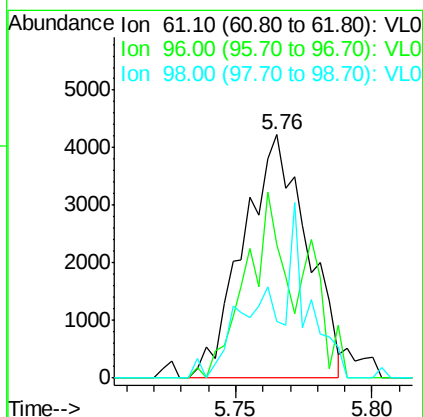
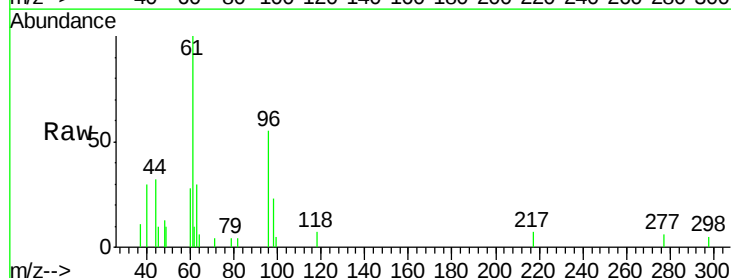
Instrument :
MSVOA_L
ClientSampleId :
LOQ-AIR-02-QT2-2018

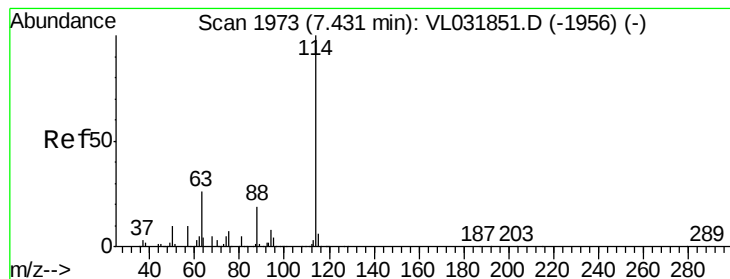
Tgt Ion: 73 Resp: 8823
Ion Ratio Lower Upper
73 100
57 26.7 17.6 26.4#



#31
cis-1,2-Dichloroethene
Concen: 0.06 ppbv
RT: 5.76 min Scan# 1455
Delta R.T. -0.00 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

Tgt Ion: 61 Resp: 6843
Ion Ratio Lower Upper
61 100
96 54.7 47.6 71.4
98 23.1 30.3 45.5#





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.42 min Scan# 1971

Delta R.T. -0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

LOQ-AIR-02-QT2-2018

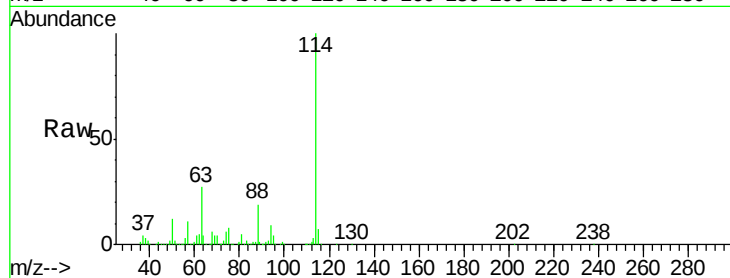
Tgt Ion:114 Resp: 2736390

Ion Ratio Lower Upper

114 100

63 27.2 21.8 32.6

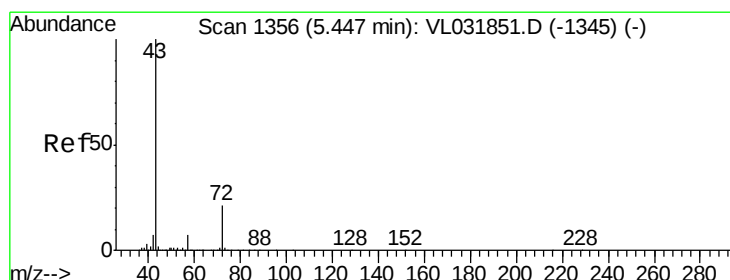
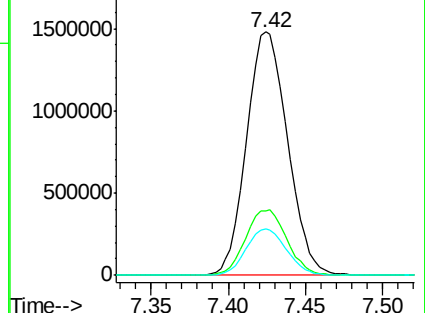
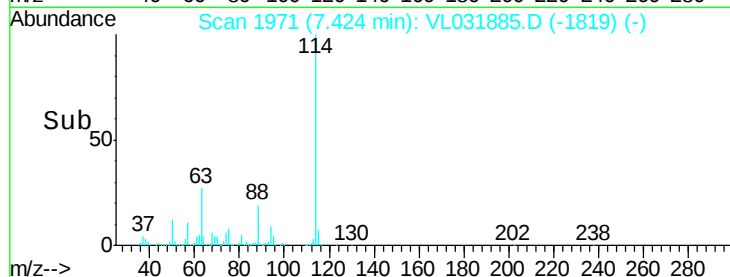
88 18.7 14.6 22.0



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.06 ppbv

RT: 5.48 min Scan# 1367

Delta R.T. 0.03 min

Lab File: VL031885.D

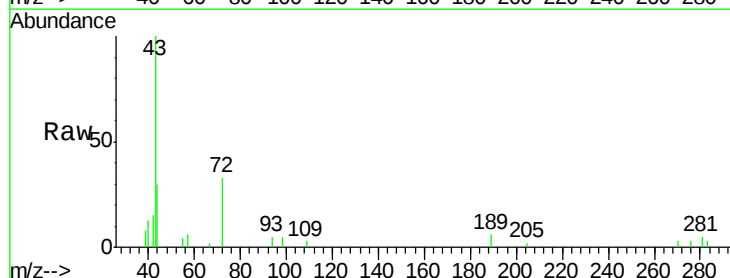
Acq: 19 Apr 2018 19:45

Tgt Ion: 43 Resp: 11921

Ion Ratio Lower Upper

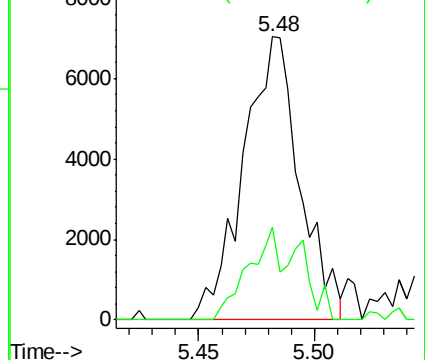
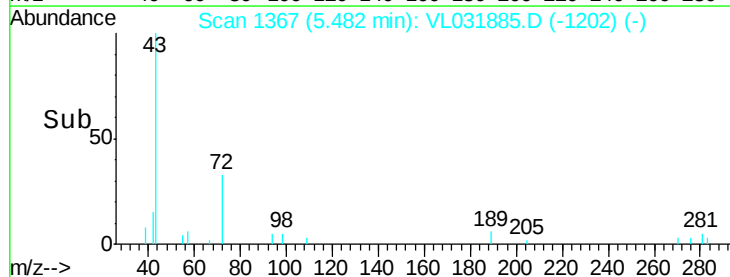
43 100

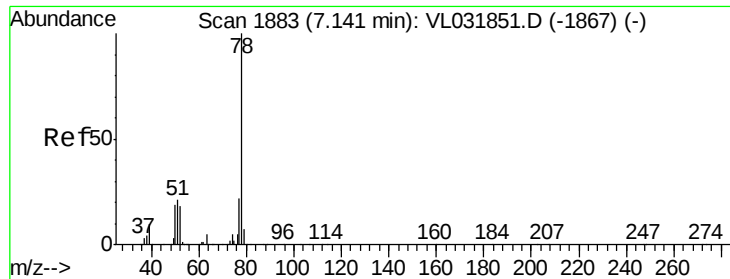
72 30.6 18.6 27.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.04 ppbv

RT: 7.14 min Scan# 1882

Delta R.T. -0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

LOQ-AIR-02-QT2-2018

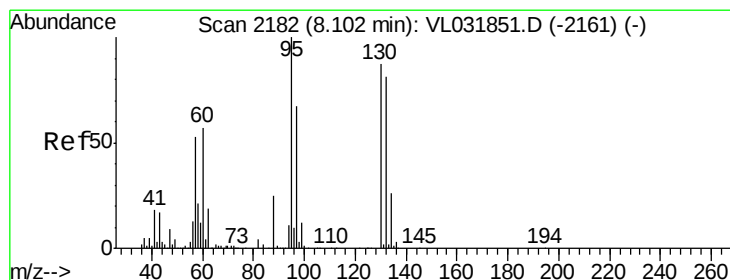
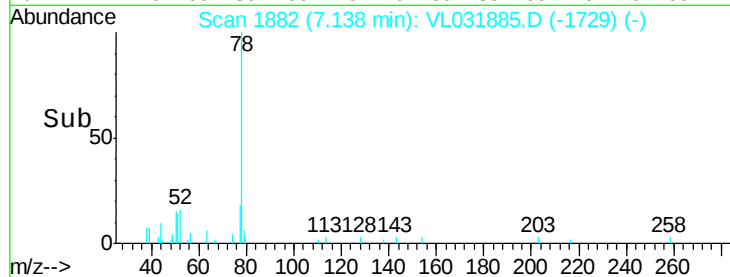
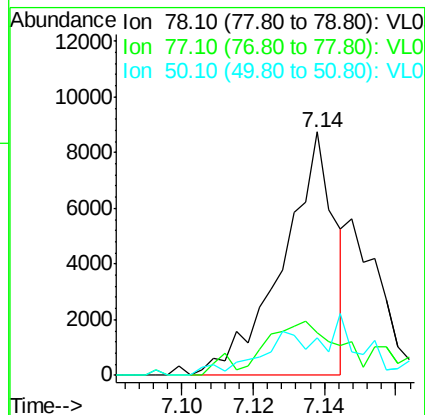
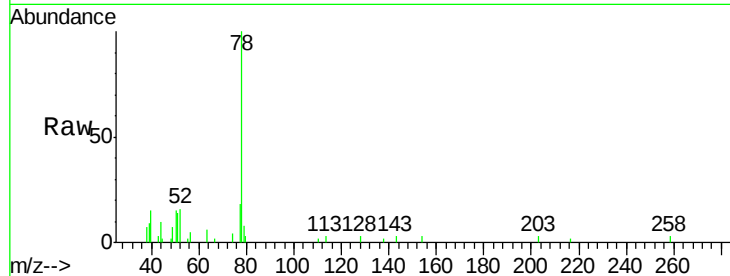
Tgt Ion: 78 Resp: 8762

Ion Ratio Lower Upper

78 100

77 17.5 19.2 28.8#

50 15.3 16.7 25.1#



#38

Trichloroethene

Concen: 0.07 ppbv

RT: 8.11 min Scan# 2183

Delta R.T. 0.00 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Tgt Ion: 130 Resp: 6647

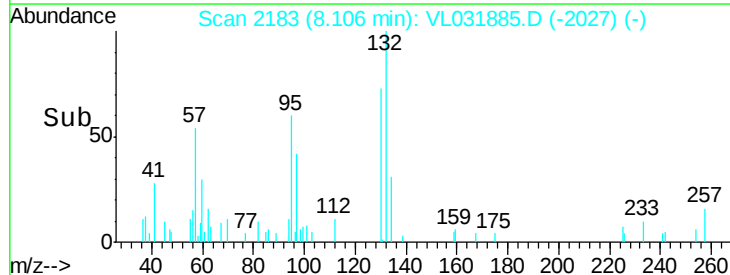
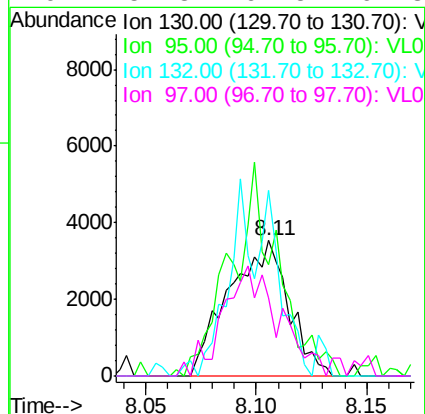
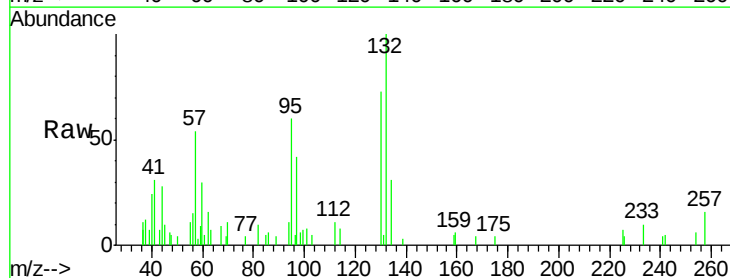
Ion Ratio Lower Upper

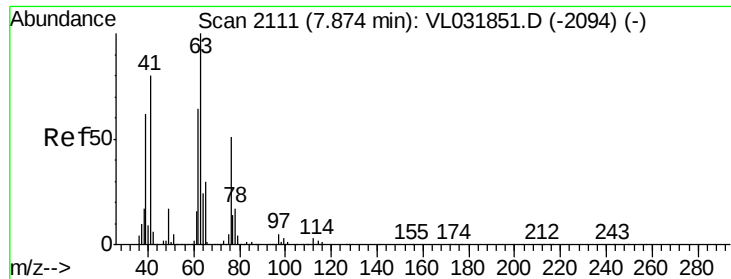
130 100

95 82.8 96.6 144.8#

132 137.3 79.1 118.7#

97 57.8 61.5 92.3#





#39

1,2-Dichloropropane

Concen: 8.06 ppbv

RT: 7.43 min Scan# 1972

Delta R.T. -0.45 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

LOQ-AIR-02-QT2-2018

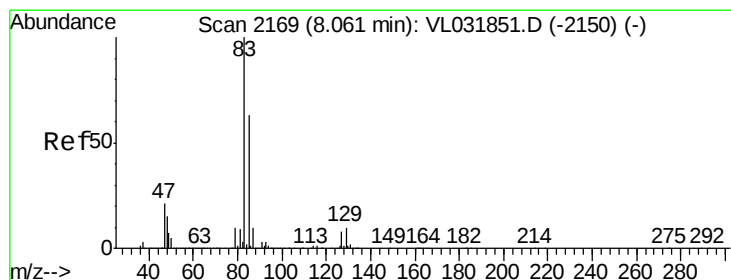
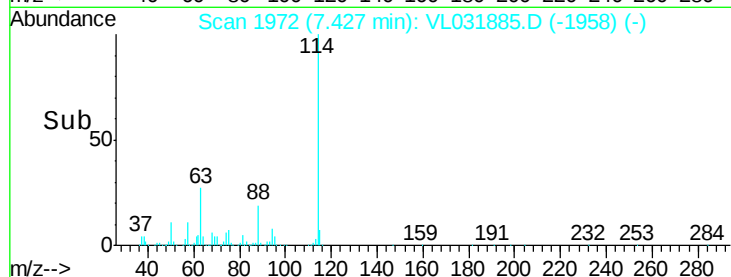
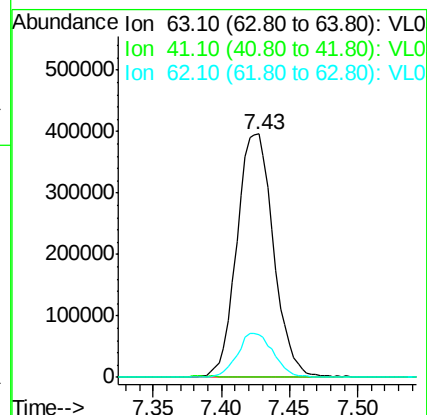
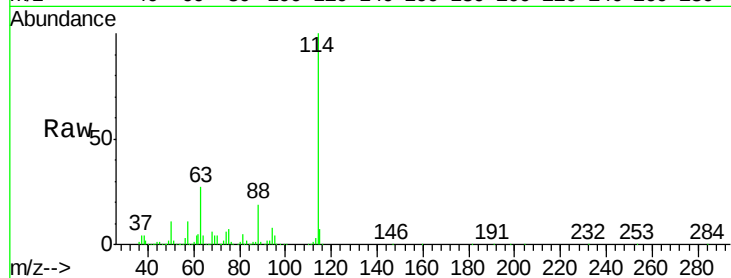
Tgt Ion: 63 Resp: 737319

Ion Ratio Lower Upper

63 100

41 0.0 65.8 98.6#

62 17.5 55.0 82.6#



#42

Bromodichloromethane

Concen: 0.05 ppbv

RT: 8.05 min Scan# 2167

Delta R.T. -0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

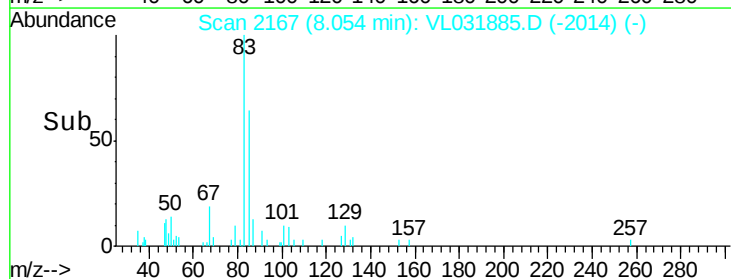
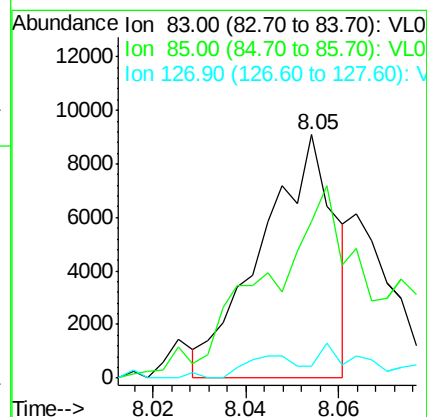
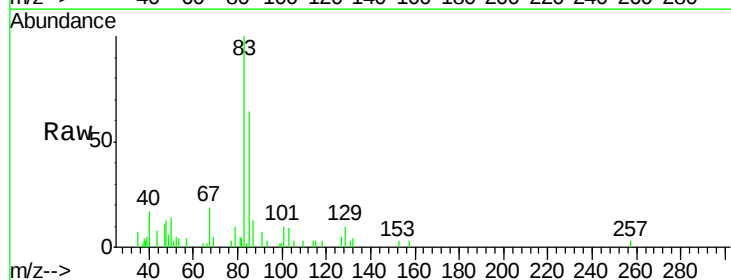
Tgt Ion: 83 Resp: 9941

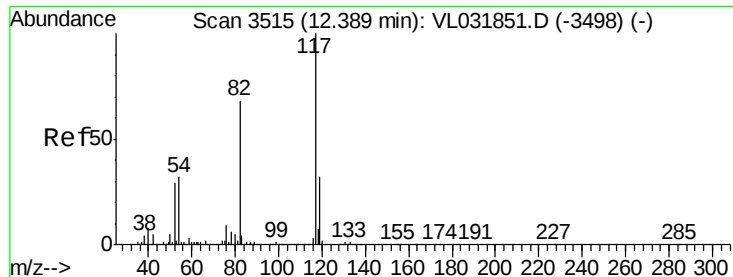
Ion Ratio Lower Upper

83 100

85 66.3 50.5 75.7

127 3.1 6.0 9.0#





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.39 min Scan# 3514

Delta R.T. -0.01 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

Instrument :

MSVOA_L

ClientSampleId :

LOQ-AIR-02-QT2-2018

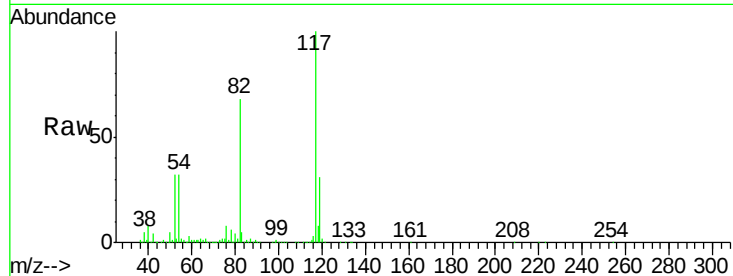
Tgt Ion:117 Resp: 2708289

Ion Ratio Lower Upper

117 100

82 69.6 54.6 81.8

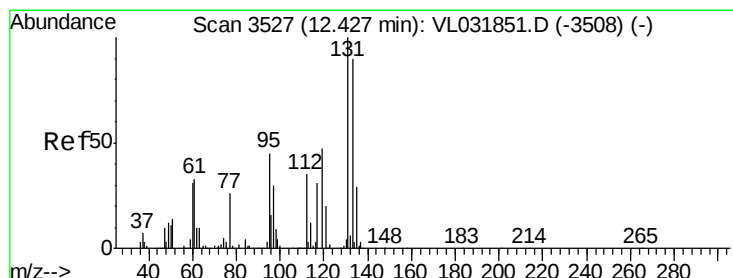
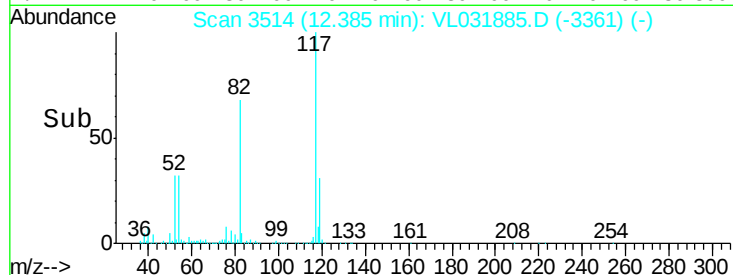
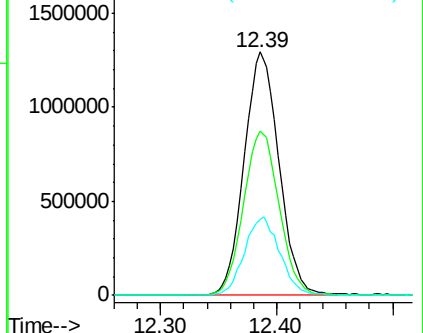
119 32.8 26.0 39.0



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VLO

Ion 119.10 (118.80 to 119.80): V



#56

1,1,1,2-Tetrachloroethane

Concen: 0.04 ppbv

RT: 12.43 min Scan# 3528

Delta R.T. -0.00 min

Lab File: VL031885.D

Acq: 19 Apr 2018 19:45

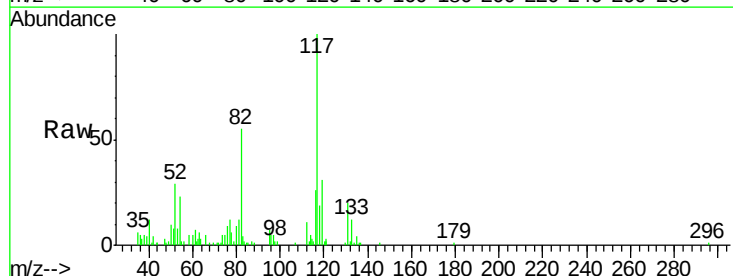
Tgt Ion:131 Resp: 4557

Ion Ratio Lower Upper

131 100

133 0.0 76.1 114.1#

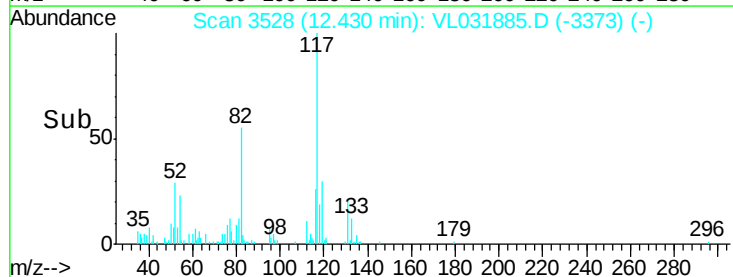
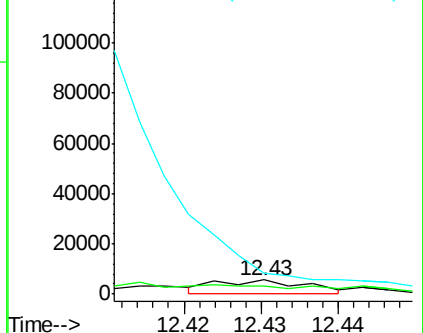
119 0.0 106.3 159.5#

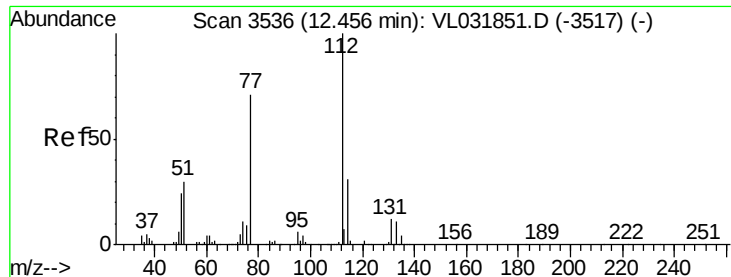


Abundance Ion 131.00 (130.70 to 131.70): V

Ion 133.00 (132.70 to 133.70): V

Ion 119.00 (118.70 to 119.70): V

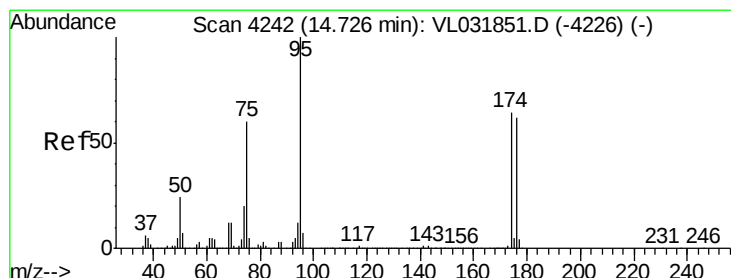
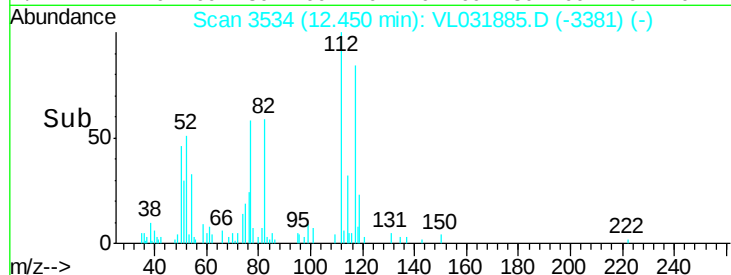
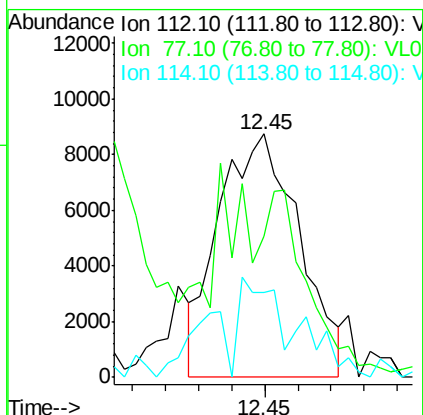
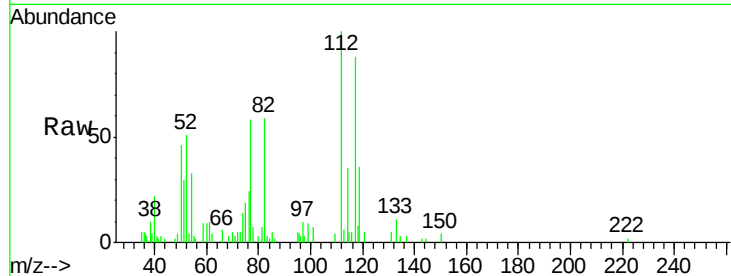




#57
Chlorobenzene
Concen: 0.06 ppbv
RT: 12.45 min Scan# 3534
Delta R.T. -0.01 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

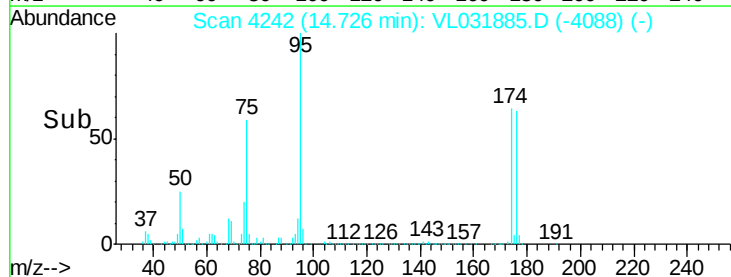
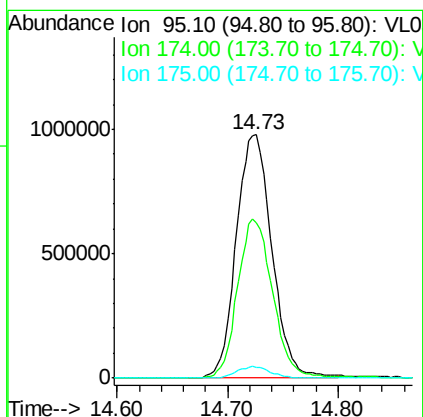
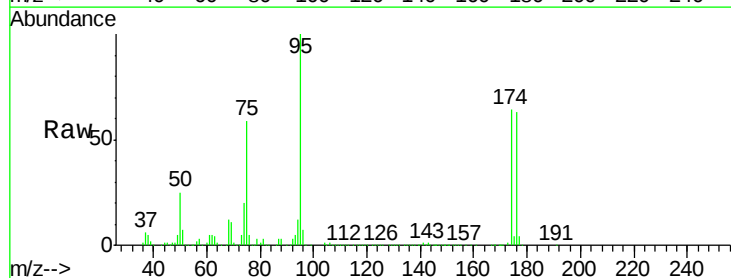
Instrument :
MSVOA_L
ClientSampleId :
LOQ-AIR-02-QT2-2018

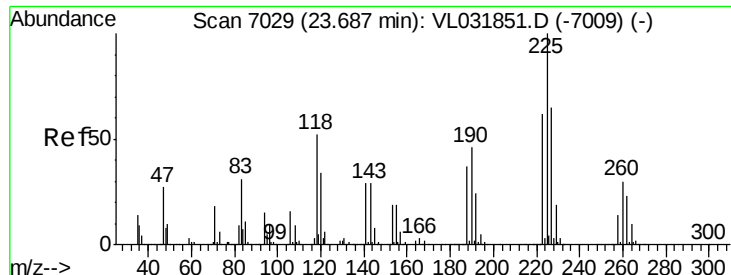
Tgt Ion: 112 Resp: 14781
Ion Ratio Lower Upper
112 100
77 58.4 57.0 85.6
114 38.2 28.5 34.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.06 ppbv
RT: 14.73 min Scan# 4242
Delta R.T. -0.00 min
Lab File: VL031885.D
Acq: 19 Apr 2018 19:45

Tgt Ion: 95 Resp: 2191563
Ion Ratio Lower Upper
95 100
174 64.9 52.3 78.5
175 4.6 3.9 5.9





#78
 Hexachloro-1,3-Butadiene
 Concen: 0.04 ppbv
 RT: 23.67 min Scan# 7024
 Delta R.T. -0.01 min
 Lab File: VL031885.D
 Acq: 19 Apr 2018 19:45

Instrument :
 MSVOA_L
 ClientSampleId :
 LOQ-AIR-02-QT2-2018

Tgt Ion: 225 Resp: 3086
 Ion Ratio Lower Upper
 225 100
 223 242.3 50.6 76.0#
 227 0.0 52.2 78.4#

