

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL122017\
 Data File : VL031290.D
 Acq On : 21 Dec 2017 4:33
 Operator : SY/AP
 Sample : I7005-09DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-SV-8DL

Quant Time: Dec 21 08:44:31 2017
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL121317AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Dec 14 04:29:58 2017
 QLast Update : Thu Dec 14 04:29:58 2017
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.91	49	1402568	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.45	114	3435056	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.41	117	3246656	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.75	95	2578405	11.17	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	111.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.18	85	27044	0.23	ppbv #	88
3) Chlorodifluoromethane	3.16	51	9012446	56.51	ppbv #	61
4) Chloromethane	3.28	50	3901	0.05	ppbv #	85
6) Bromomethane	3.16	94	24618	0.47	ppbv #	52
9) Propene	3.14	41	163416	2.09	ppbv	97
10) Heptane	8.41	43	25130	0.11	ppbv	96
11) Trichlorofluoromethane	4.13	101	42326	0.22	ppbv	99
13) Ethanol	3.78	45	14274	0.63	ppbv #	33
15) Acetone	4.03	43	487050	2.63	ppbv #	64
16) 1,3-Butadiene	3.45	39	287055	3.60	ppbv #	15
17) tert-Butyl alcohol	4.52	59	35732	0.34	ppbv #	90
20) Methylene Chloride	4.54	84	12068	0.20	ppbv #	77
23) Vinyl Acetate	5.33	43	32417	0.11	ppbv #	48
25) Ethyl Acetate	5.92	43	33370	0.09	ppbv #	76
26) Hexane	5.93	57	51731	0.29	ppbv #	10
27) Carbon Disulfide	4.76	76	25234	0.14	ppbv #	80
30) Cyclohexane	7.40	84	6299	0.04	ppbv #	1
34) 2-Butanone	5.47	43	1625789	6.70	ppbv	99
36) Benzene	7.16	78	318407	0.87	ppbv	97
39) 1,2-Dichloropropane	7.45	63	839110	6.52	ppbv #	27
44) 2,2,4-Trimethylpentane	8.15	57	56873	0.10	ppbv #	77
51) 2-Hexanone	10.47	43	121315	0.43	ppbv #	99
52) Tetrachloroethene	11.55	164	196986	1.47	ppbv	91
53) Toluene	10.11	91	31677	0.08	ppbv #	40
58) Ethyl Benzene	13.03	91	17413	0.03	ppbv	93
59) m/p-Xylene	13.29	91	42996	0.10	ppbv	100
74) 1,2,4-Trimethylbenzene	17.09	105	14860	0.03	ppbv #	74

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

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EP1-SV-8DL

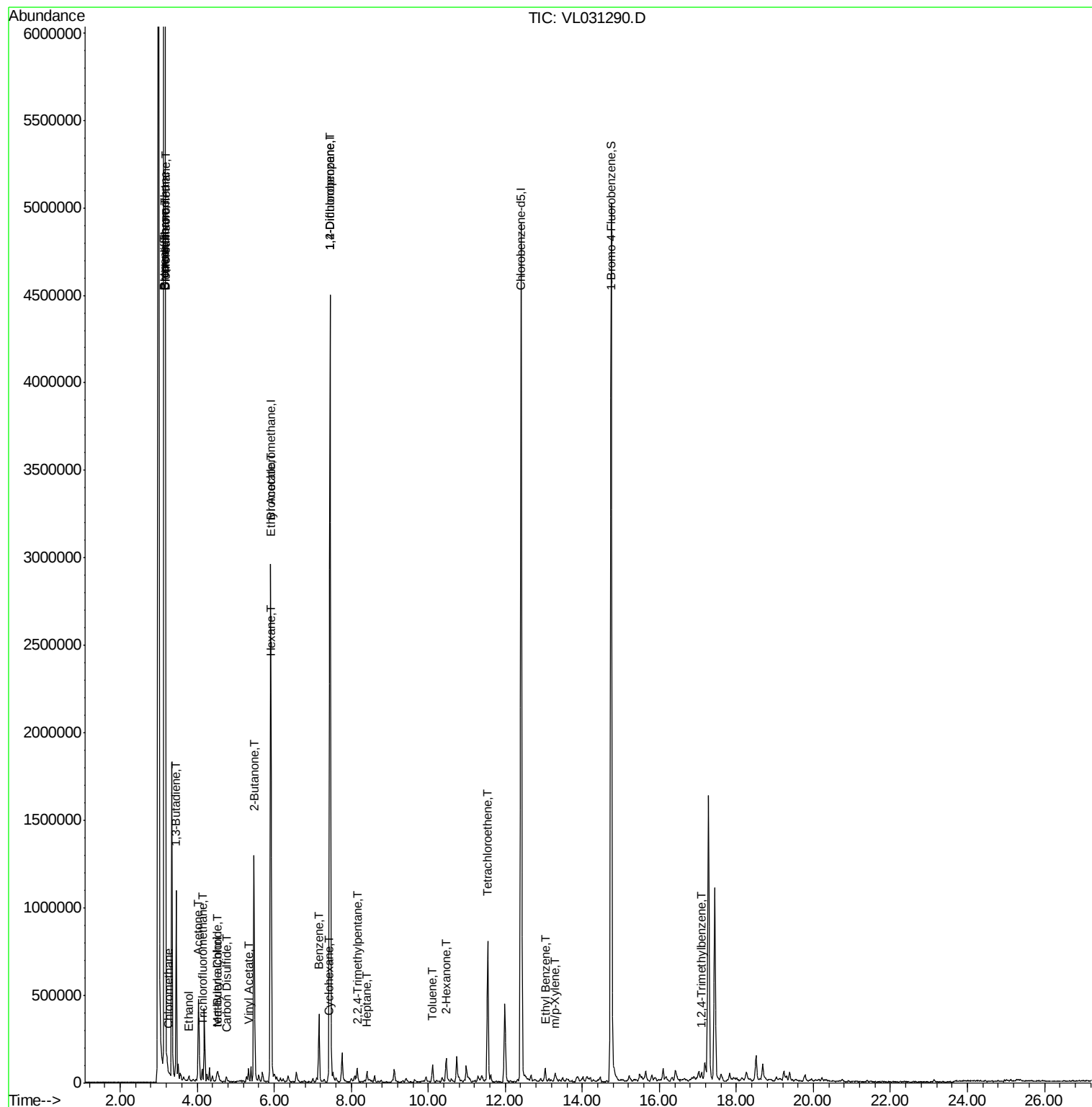
Quant Time: Dec 21 08:44:31 2017

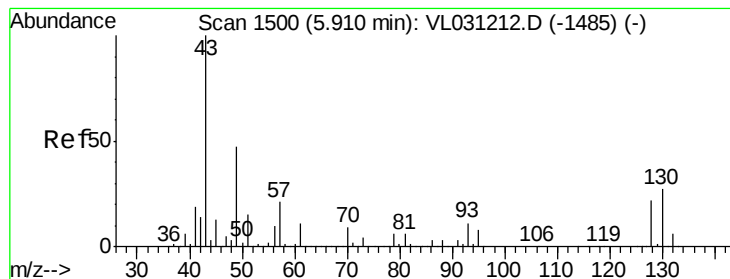
Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL121317AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Dec 14 04:29:58 2017

QLast Update : Thu Dec 14 04:29:58 2017

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.91 min Scan# 1500

Delta R.T. 0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-8DL

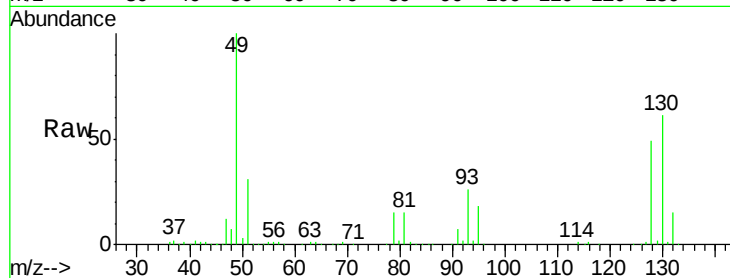
Tgt Ion: 49 Resp: 1402568

Ion Ratio Lower Upper

49 100

128 48.8 23.2 69.5

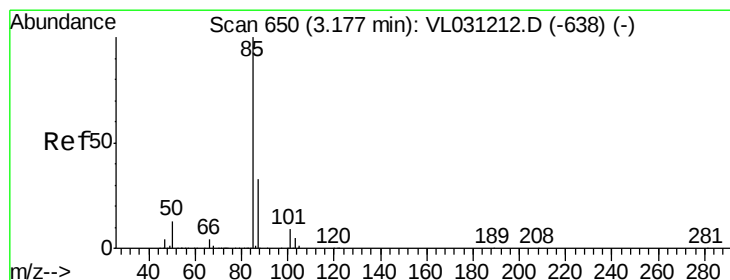
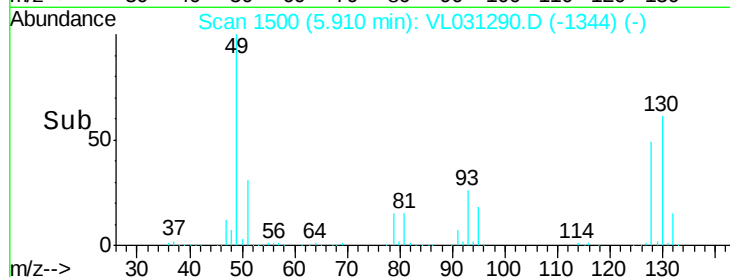
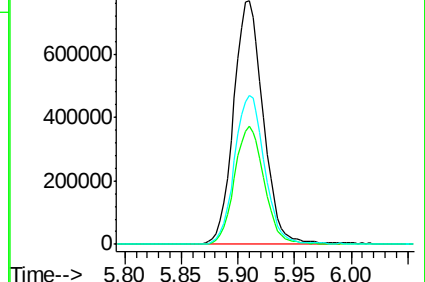
130 62.5 29.6 88.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.23 ppbv

RT: 3.18 min Scan# 652

Delta R.T. 0.01 min

Lab File: VL031290.D

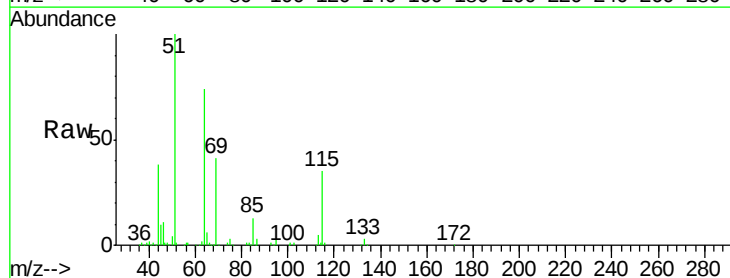
Acq: 21 Dec 2017 4:33

Tgt Ion: 85 Resp: 27044

Ion Ratio Lower Upper

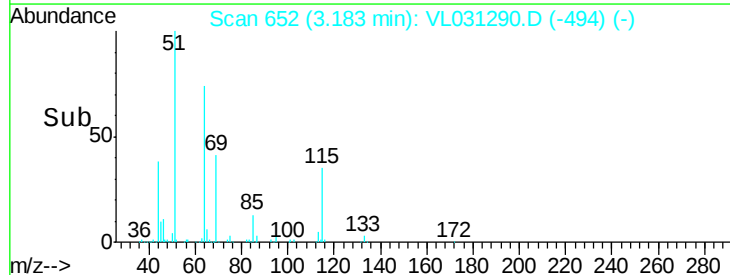
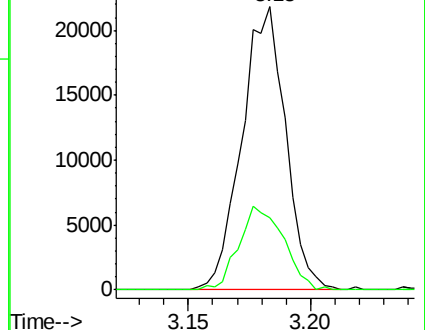
85 100

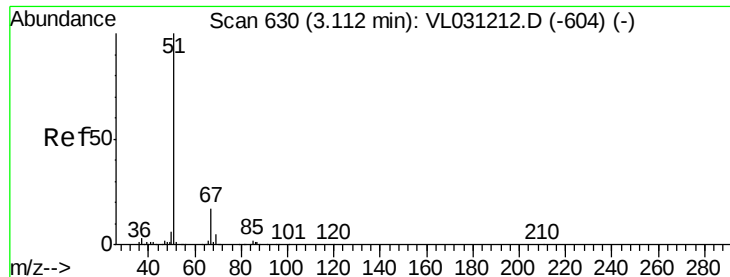
87 25.7 26.2 39.2#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 56.51 ppbv

RT: 3.16 min Scan# 644

Delta R.T. 0.05 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

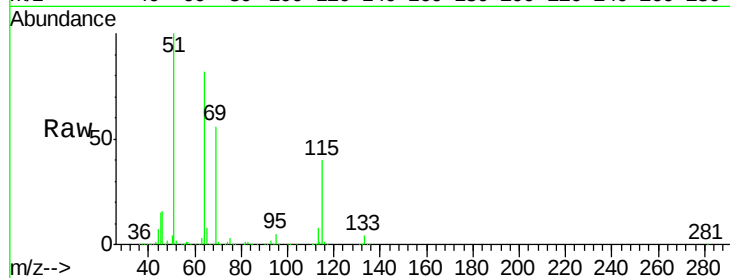
EP1-SV-8DL

Tgt Ion: 51 Resp: 9012446

Ion Ratio Lower Upper

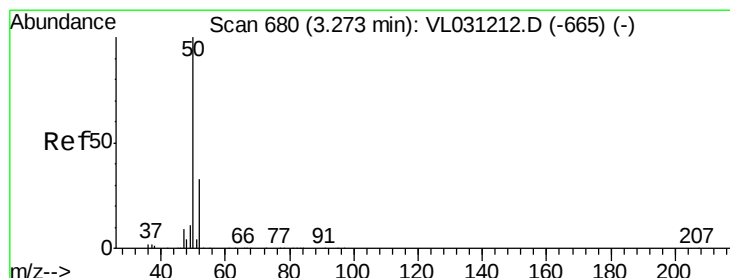
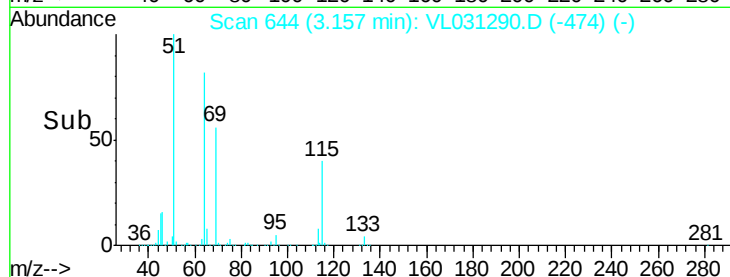
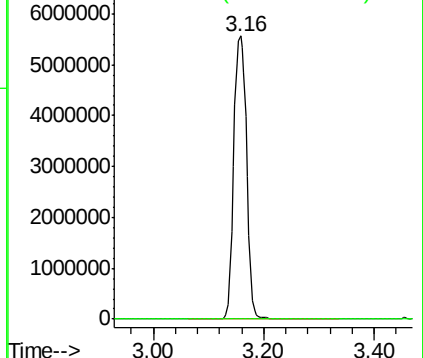
51 100

67 0.0 13.8 20.6#



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: 3.28 min Scan# 681

Delta R.T. 0.00 min

Lab File: VL031290.D

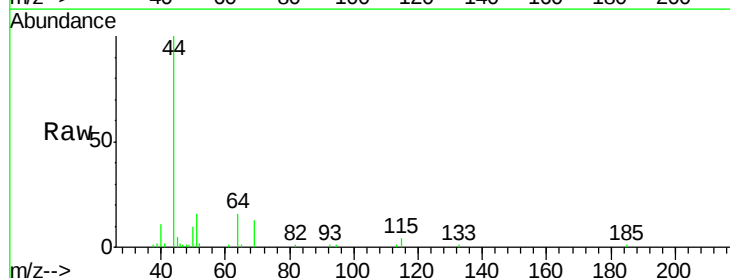
Acq: 21 Dec 2017 4:33

Tgt Ion: 50 Resp: 3901

Ion Ratio Lower Upper

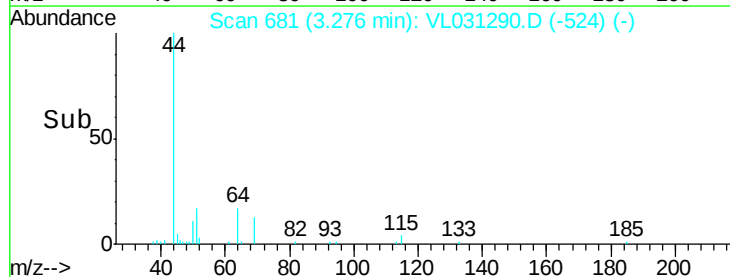
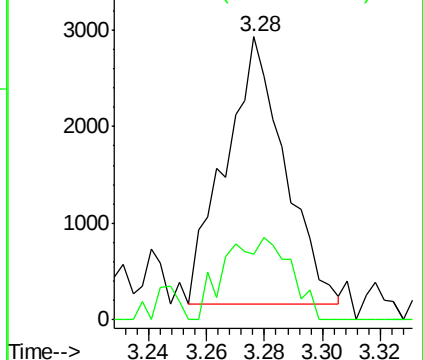
50 100

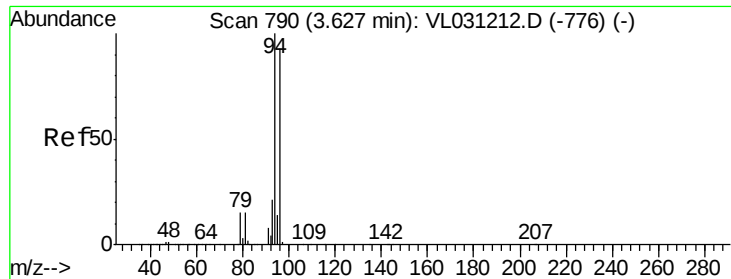
52 24.9 26.5 39.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 0.47 ppbv

RT: 3.16 min Scan# 644

Delta R.T. -0.47 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

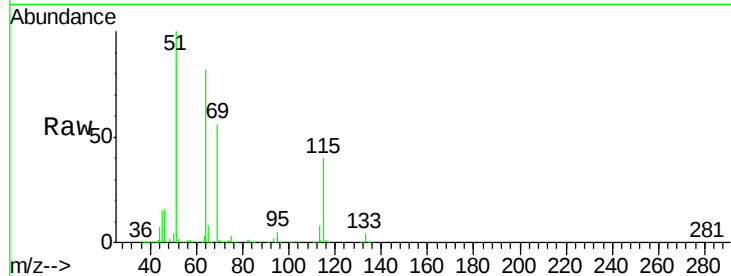
EP1-SV-8DL

Tgt Ion: 94 Resp: 24618

Ion Ratio Lower Upper

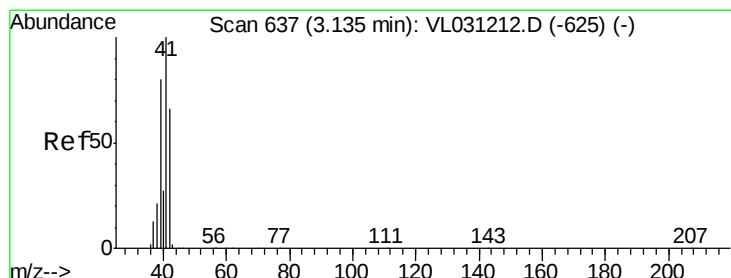
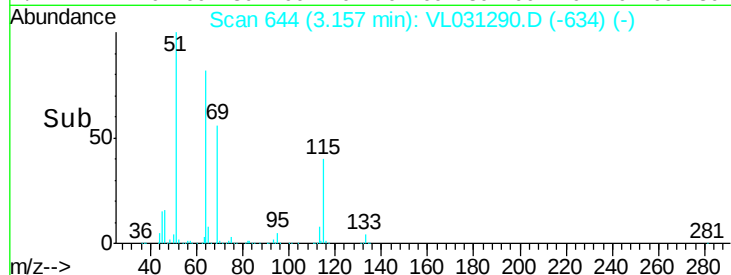
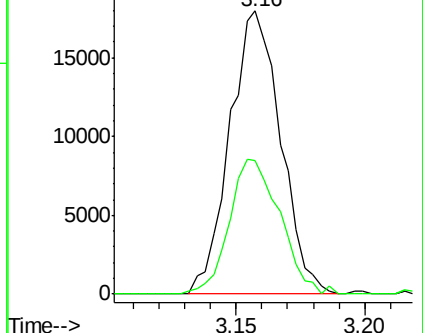
94 100

96 47.3 74.4 111.6#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0



#9

Propene

Concen: 2.09 ppbv

RT: 3.14 min Scan# 638

Delta R.T. 0.00 min

Lab File: VL031290.D

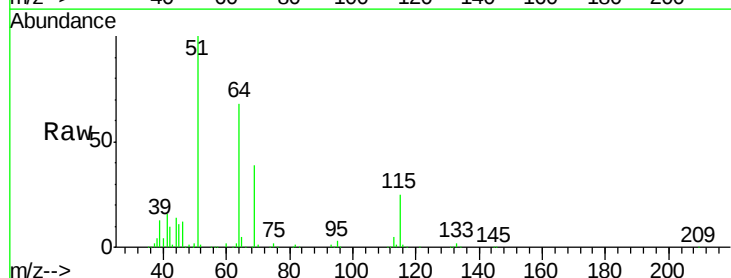
Acq: 21 Dec 2017 4:33

Tgt Ion: 41 Resp: 163416

Ion Ratio Lower Upper

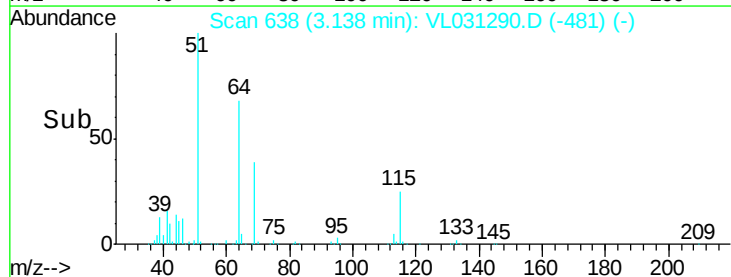
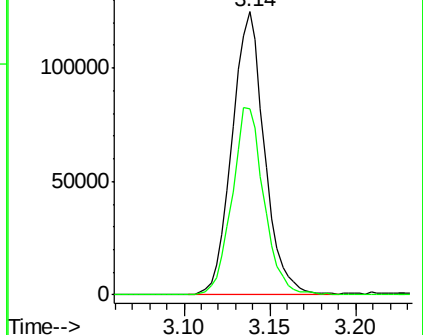
41 100

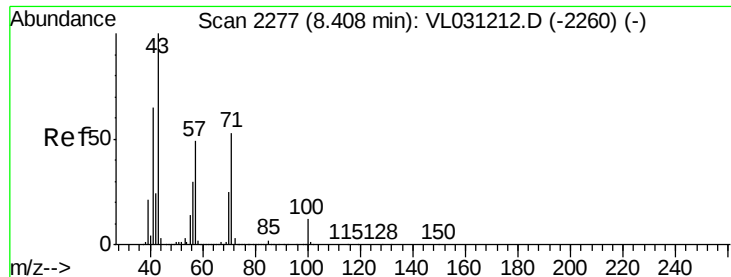
42 65.8 54.3 81.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.11 ppbv

RT: 8.41 min Scan# 2278

Delta R.T. 0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

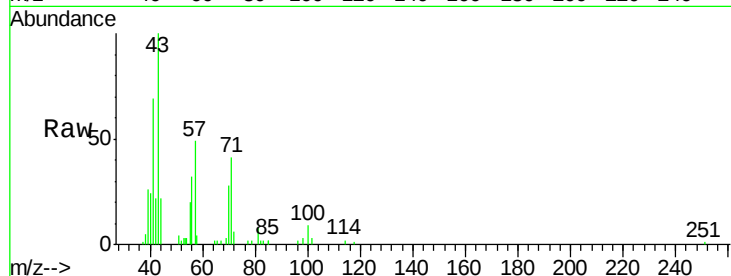
EP1-SV-8DL

Tgt Ion: 43 Resp: 25130

Ion Ratio Lower Upper

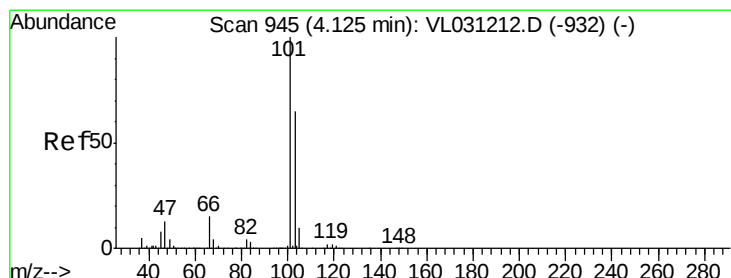
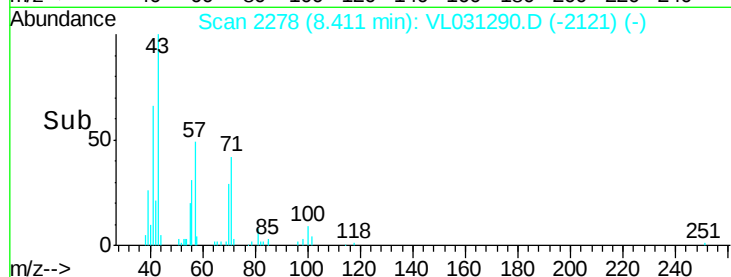
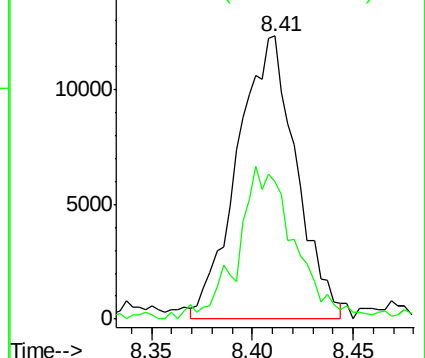
43 100

57 52.4 39.8 59.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.22 ppbv

RT: 4.13 min Scan# 946

Delta R.T. 0.00 min

Lab File: VL031290.D

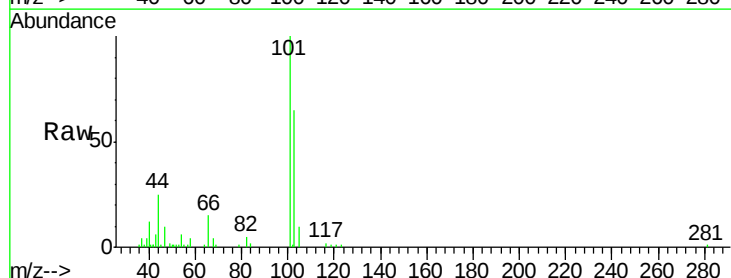
Acq: 21 Dec 2017 4:33

Tgt Ion: 101 Resp: 42326

Ion Ratio Lower Upper

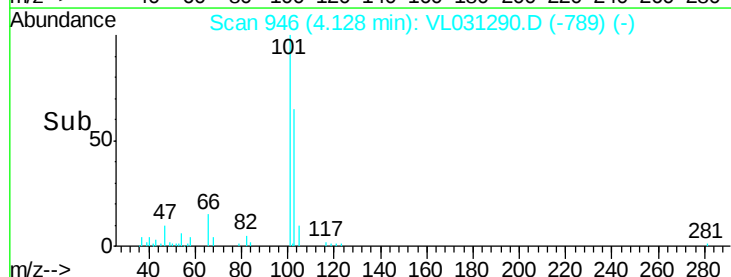
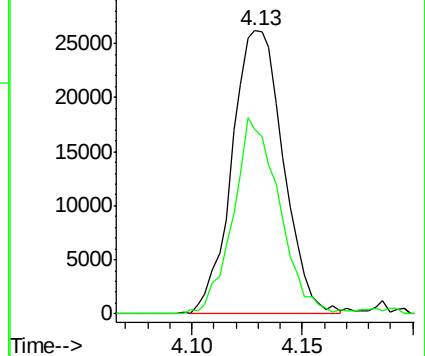
101 100

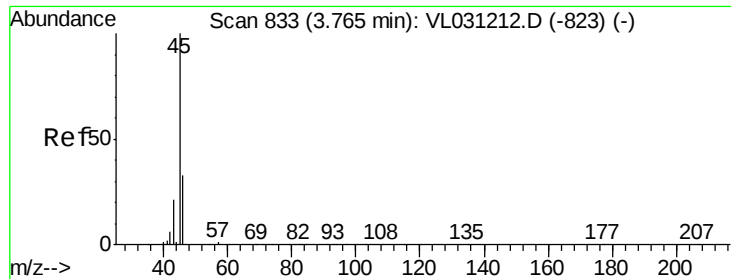
103 63.9 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 0.63 ppbv

RT: 3.78 min Scan# 839

Delta R.T. 0.02 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

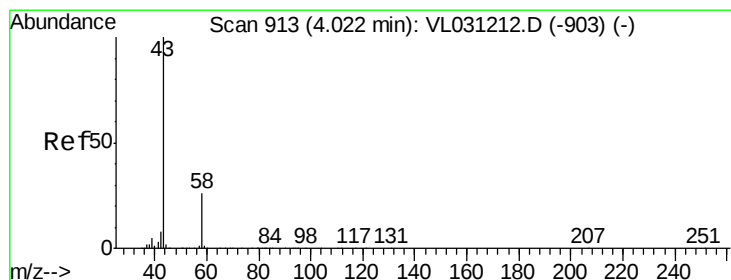
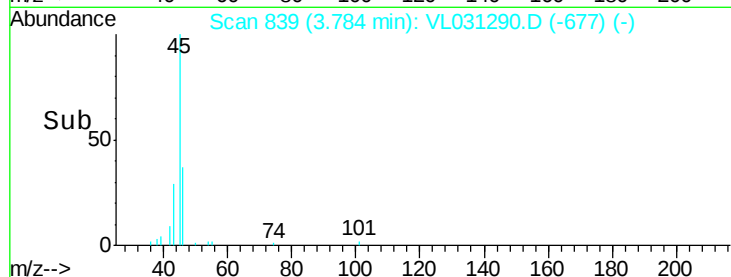
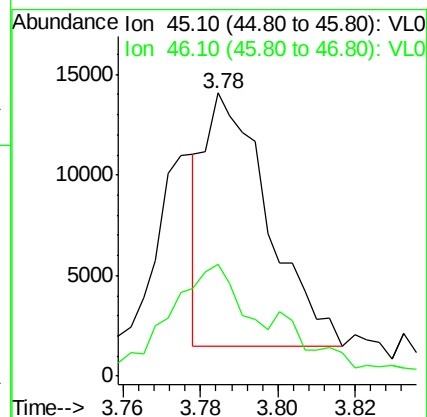
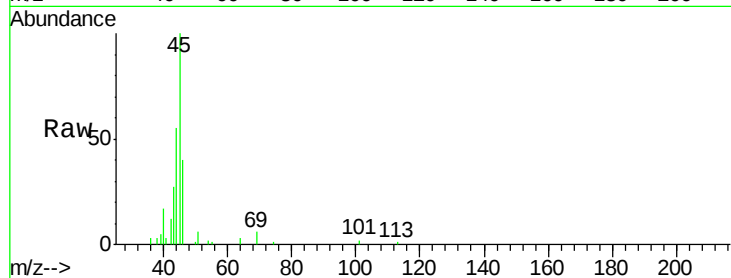
EP1-SV-8DL

Tgt Ion: 45 Resp: 14274

Ion Ratio Lower Upper

45 100

46 76.1 14.6 58.4#



#15

Acetone

Concen: 2.63 ppbv

RT: 4.03 min Scan# 915

Delta R.T. 0.01 min

Lab File: VL031290.D

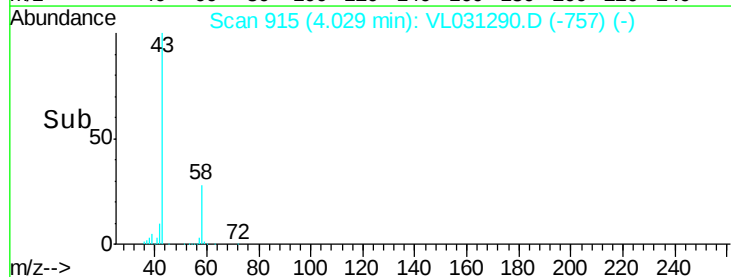
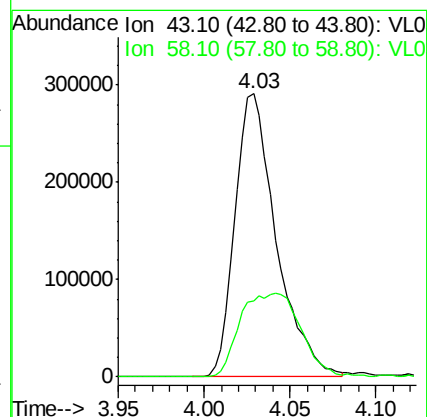
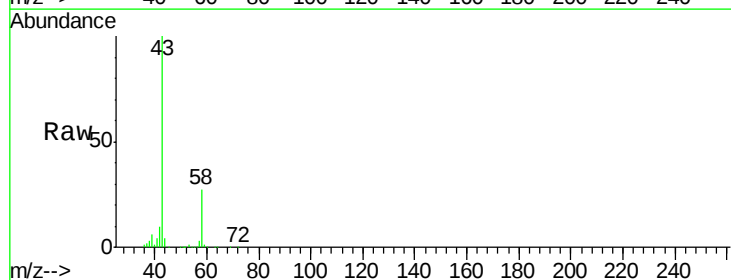
Acq: 21 Dec 2017 4:33

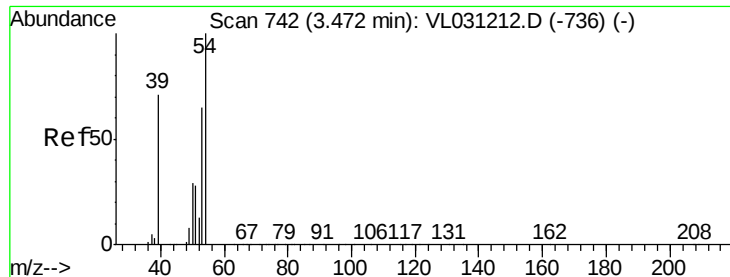
Tgt Ion: 43 Resp: 487050

Ion Ratio Lower Upper

43 100

58 43.4 20.3 30.5#

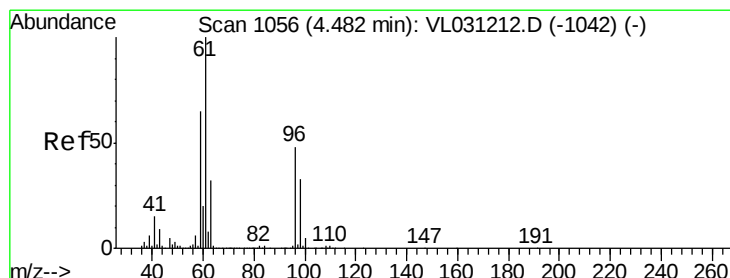
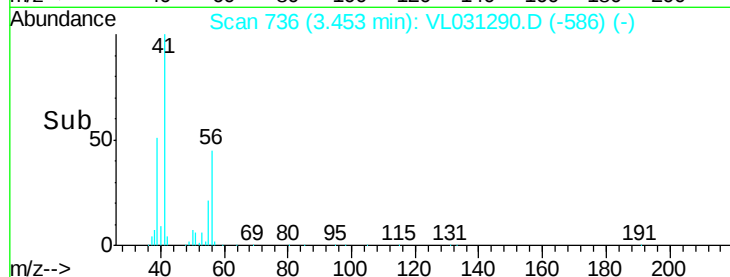
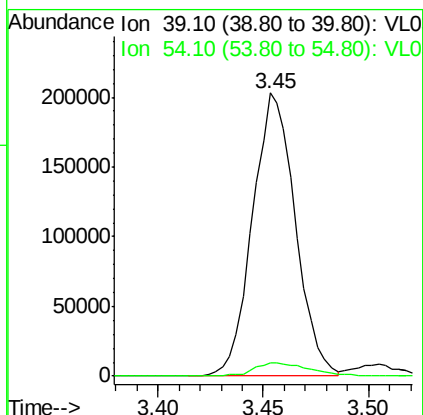
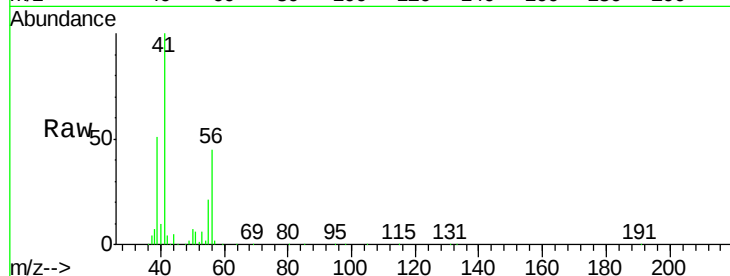




#16
1,3-Butadiene
Concen: 3.60 ppbv
RT: 3.45 min Scan# 736
Delta R.T. -0.02 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

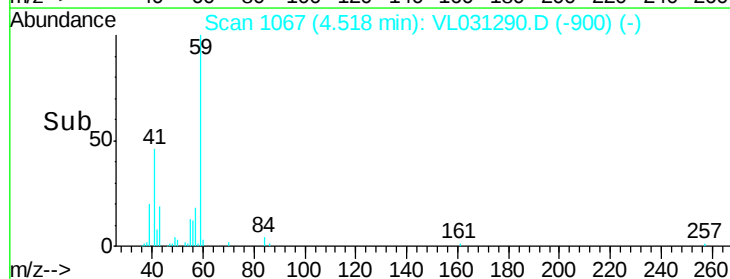
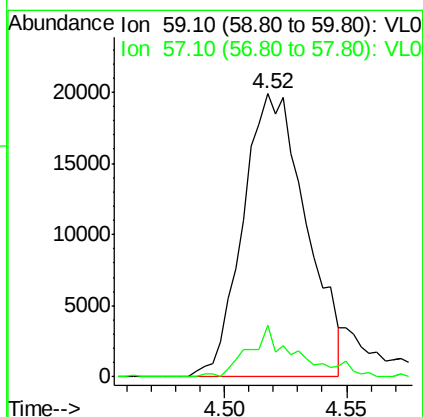
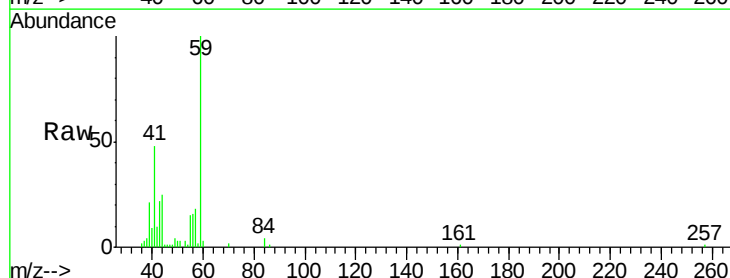
Instrument :
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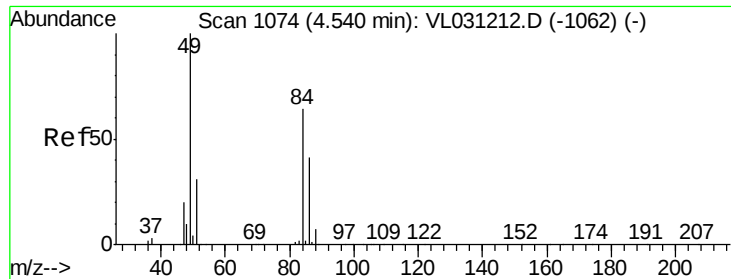
Tgt Ion: 39 Resp: 287055
Ion Ratio Lower Upper
39 100
54 6.2 66.4 99.6#



#17
tert-Butyl alcohol
Concen: 0.34 ppbv
RT: 4.52 min Scan# 1067
Delta R.T. 0.04 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

Tgt Ion: 59 Resp: 35732
Ion Ratio Lower Upper
59 100
57 13.8 8.2 12.2#

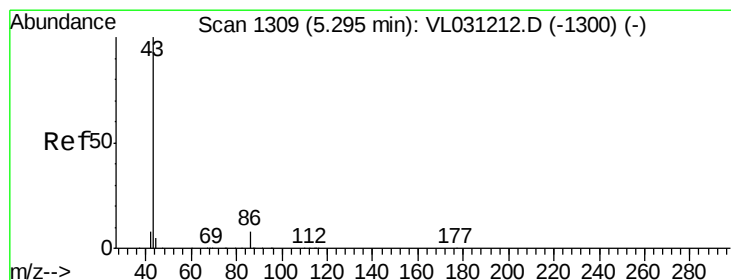
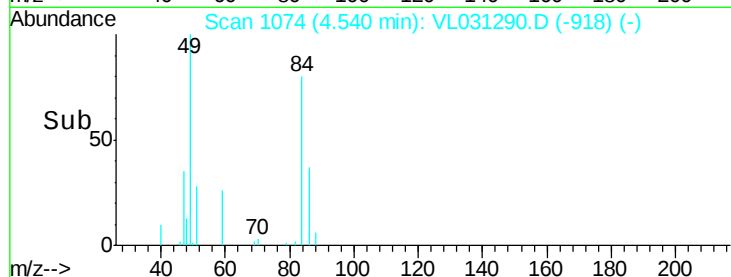
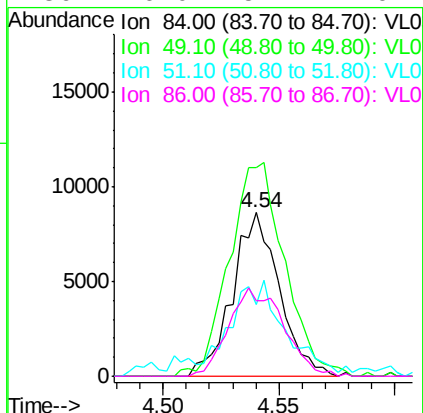
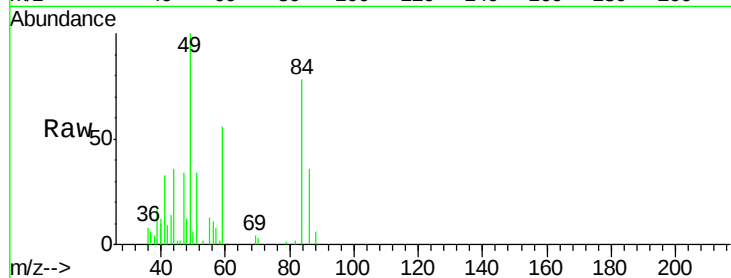




#20
Methylene Chloride
Concen: 0.20 ppbv
RT: 4.54 min Scan# 1074
Delta R.T. 0.00 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

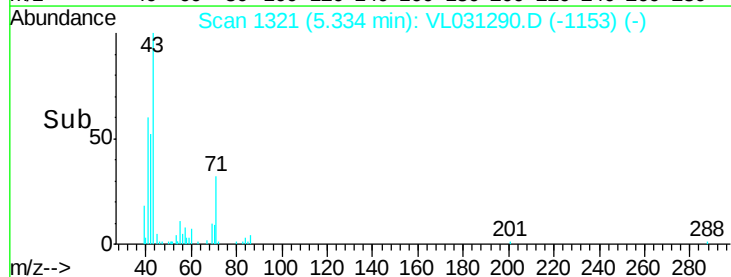
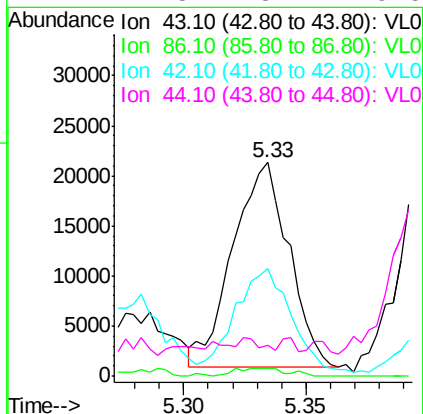
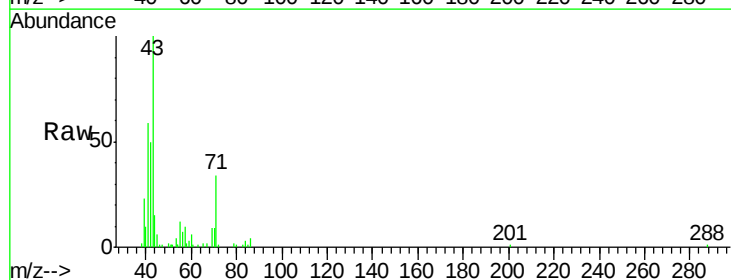
Instrument :
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EP1-SV-8DL

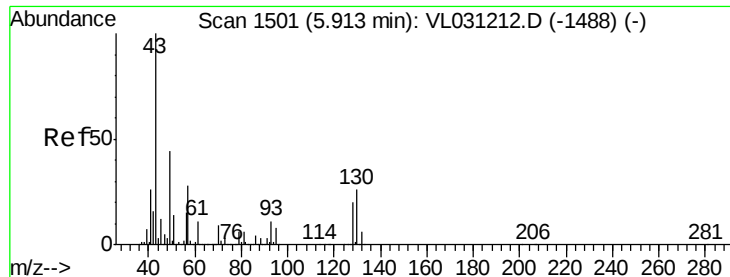
Tgt Ion: 84 Resp: 12068
Ion Ratio Lower Upper
84 100
49 123.0 125.8 188.6#
51 41.3 39.3 58.9
86 46.0 51.1 76.7#



#23
Vinyl Acetate
Concen: 0.11 ppbv
RT: 5.33 min Scan# 1321
Delta R.T. 0.04 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

Tgt Ion: 43 Resp: 32417
Ion Ratio Lower Upper
43 100
86 3.9 5.9 8.9#
42 49.3 7.3 10.9#
44 4.8 3.7 5.5

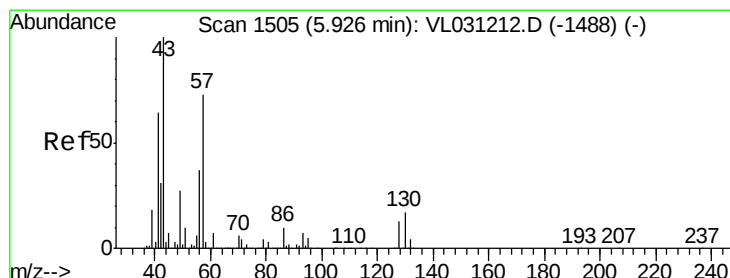
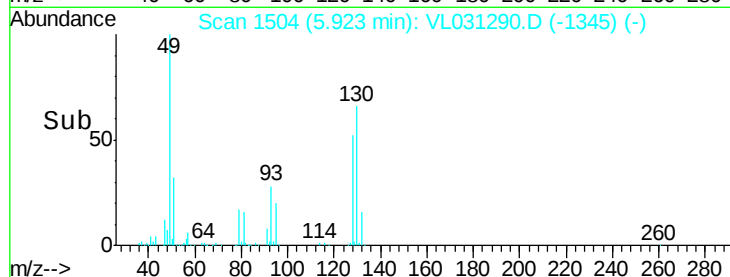
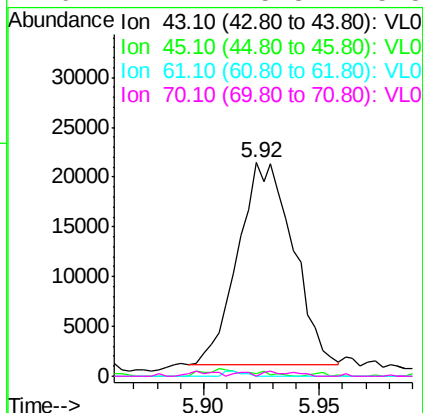
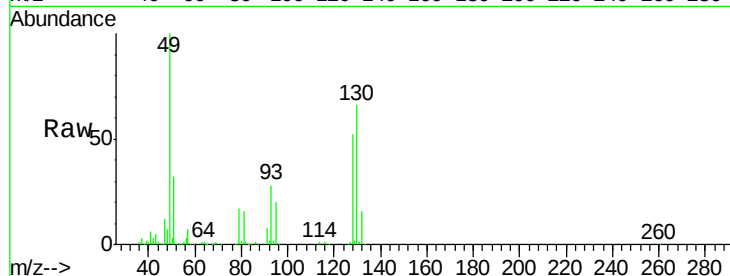




#25
Ethyl Acetate
Concen: 0.09 ppbv
RT: 5.92 min Scan# 1504
Delta R.T. 0.01 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

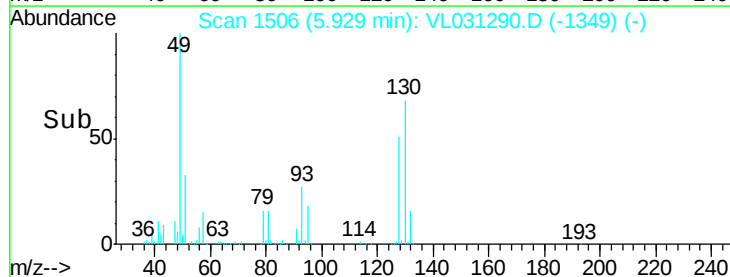
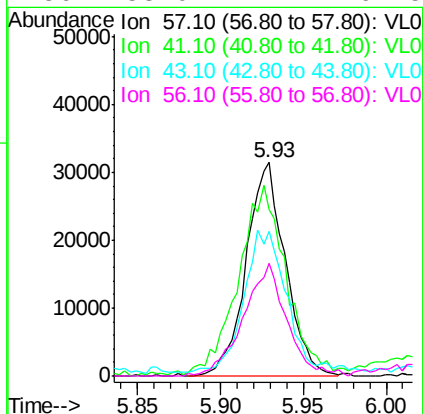
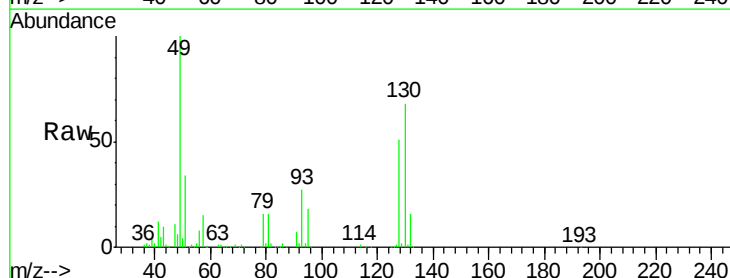
Instrument :
MSVOA_L
ClientSampleId :
EP1-SV-8DL

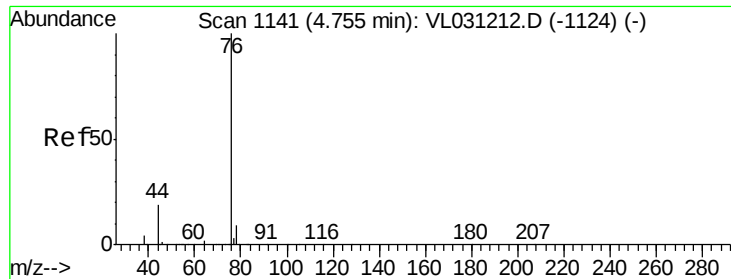
Tgt Ion: 43 Resp: 33370
Ion Ratio Lower Upper
43 100
45 0.0 8.0 12.0#
61 0.0 7.4 11.0#
70 1.4 5.8 8.8#



#26
Hexane
Concen: 0.29 ppbv
RT: 5.93 min Scan# 1506
Delta R.T. 0.00 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

Tgt Ion: 57 Resp: 51731
Ion Ratio Lower Upper
57 100
41 111.0 70.3 105.5#
43 0.0 173.8 260.8#
56 58.0 41.7 62.5





#27

Carbon Disulfide

Concen: 0.14 ppbv

RT: 4.76 min Scan# 1142

Delta R.T. 0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-8DL

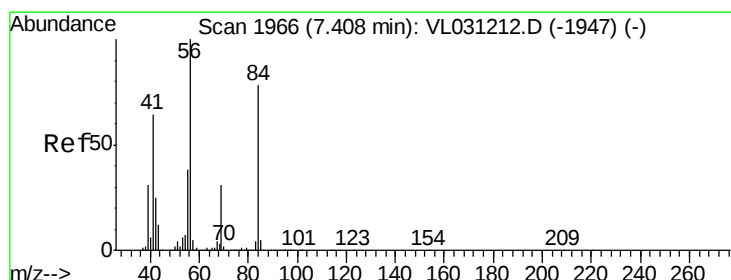
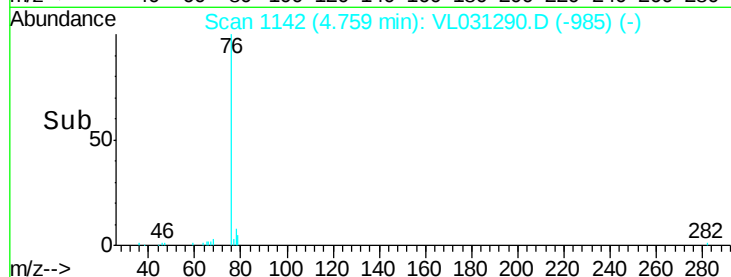
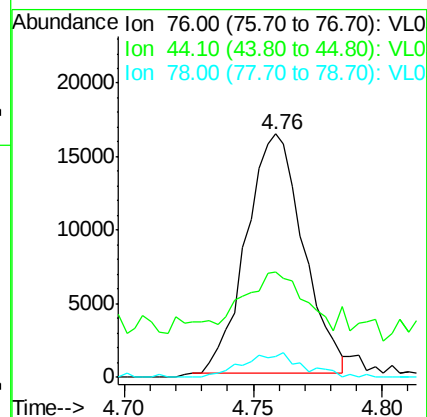
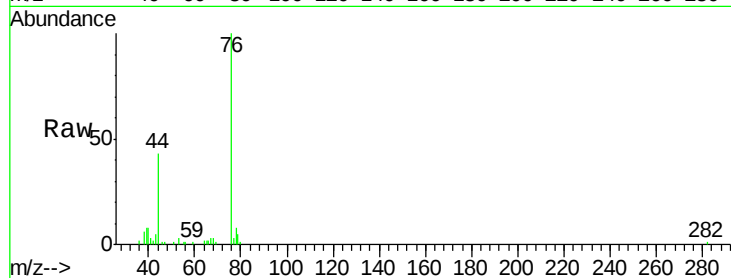
Tgt Ion: 76 Resp: 25234

Ion Ratio Lower Upper

76 100

44 33.0 16.0 24.0#

78 10.7 7.5 11.3



#30

Cyclohexane

Concen: 0.04 ppbv

RT: 7.40 min Scan# 1965

Delta R.T. -0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

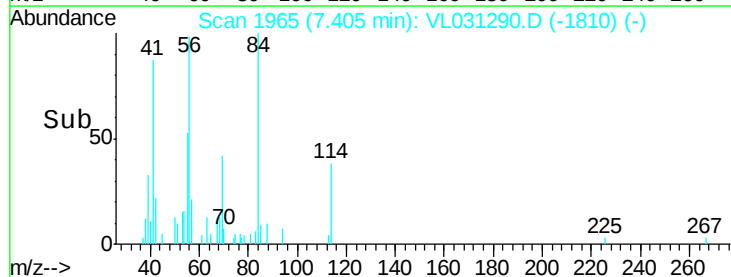
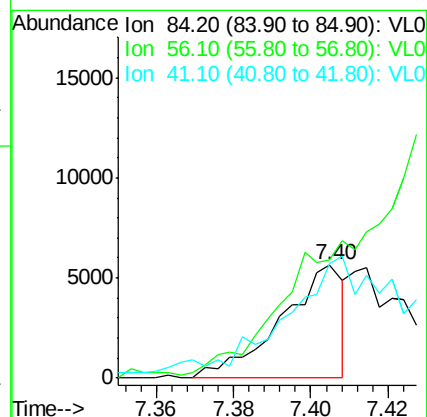
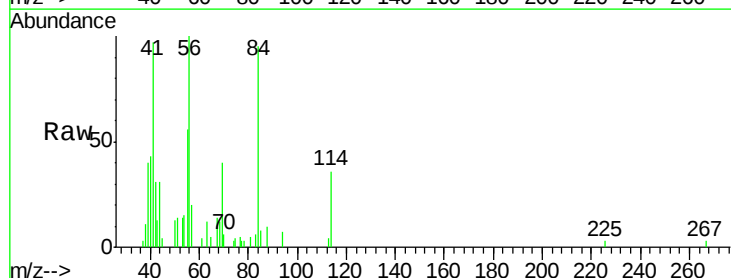
Tgt Ion: 84 Resp: 6299

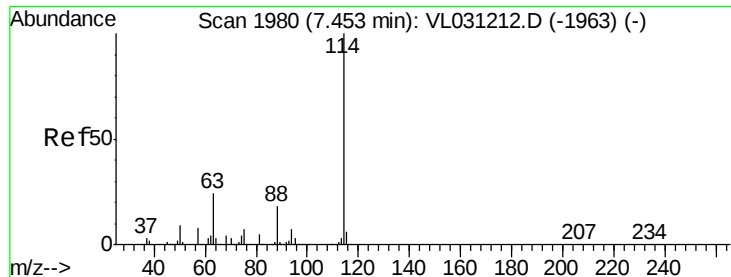
Ion Ratio Lower Upper

84 100

56 0.0 108.0 162.0#

41 277.1 66.2 99.4#

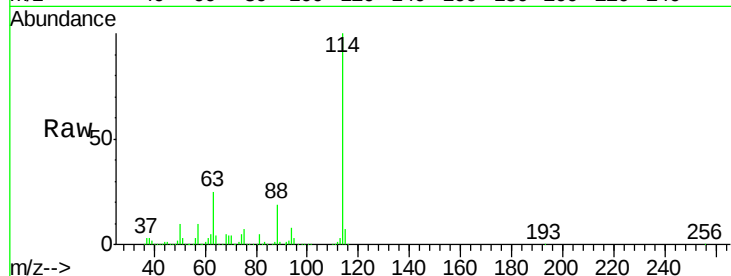




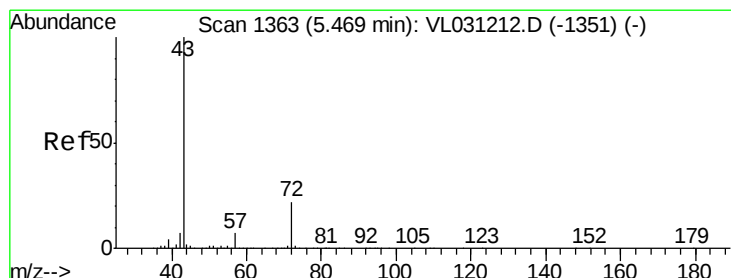
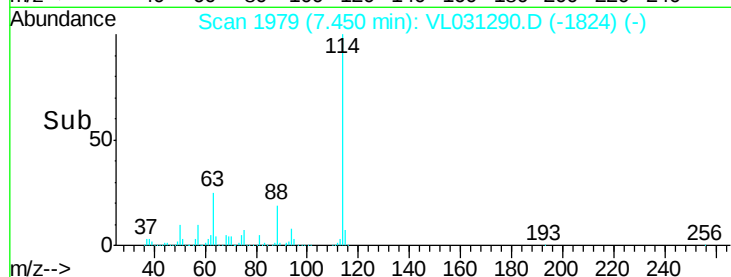
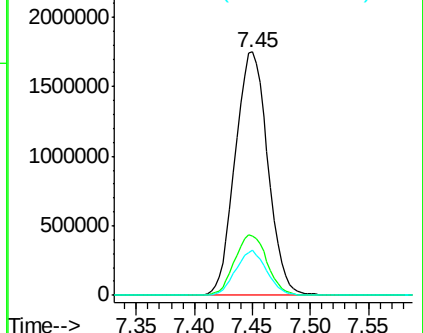
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.45 min Scan# 1979
 Delta R.T. -0.00 min
 Lab File: VL031290.D
 Acq: 21 Dec 2017 4:33

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-SV-8DL

Tgt Ion:114 Resp: 3435056
 Ion Ratio Lower Upper
 114 100
 63 24.7 19.8 29.8
 88 17.6 14.2 21.4

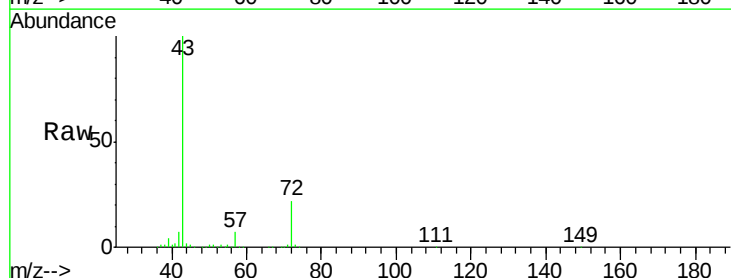


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

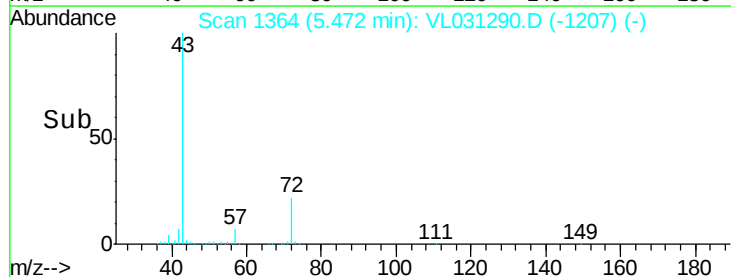
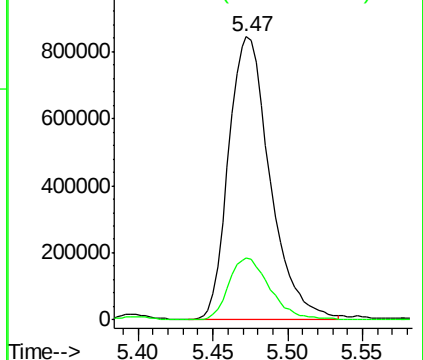


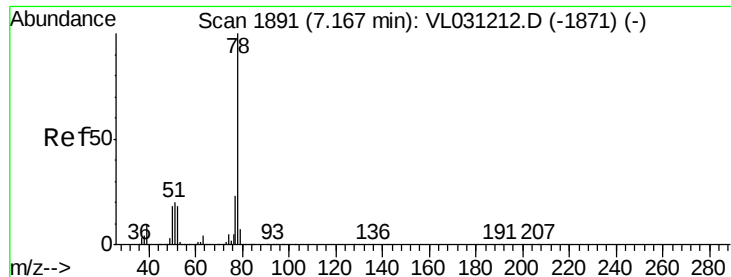
#34
 2-Butanone
 Concen: 6.70 ppbv
 RT: 5.47 min Scan# 1364
 Delta R.T. 0.00 min
 Lab File: VL031290.D
 Acq: 21 Dec 2017 4:33

Tgt Ion: 43 Resp: 1625789
 Ion Ratio Lower Upper
 43 100
 72 21.9 18.1 27.1



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.87 ppbv

RT: 7.16 min Scan# 1890

Delta R.T. -0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

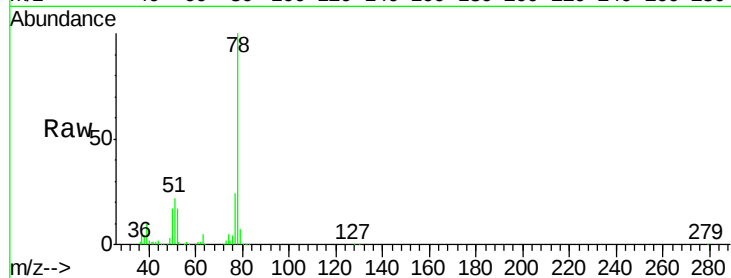
MSVOA_L

ClientSampleId :

EP1-SV-8DL

Tgt Ion: 78 Resp: 318407

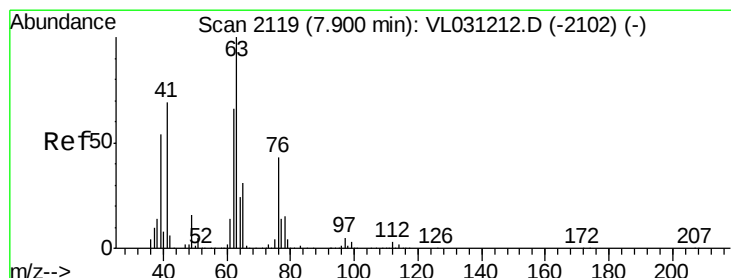
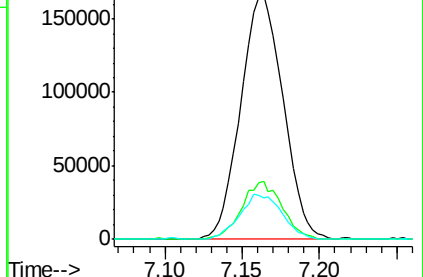
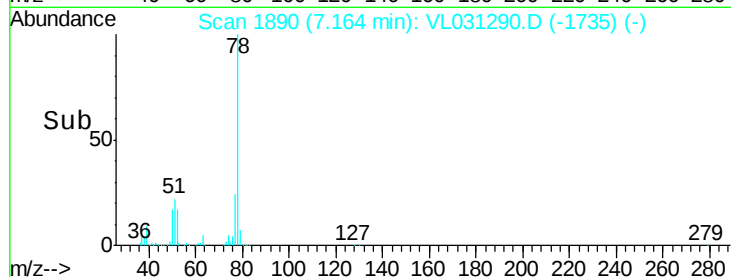
Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.1	27.1
50	16.7	14.6	21.8



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 6.52 ppbv

RT: 7.45 min Scan# 1978

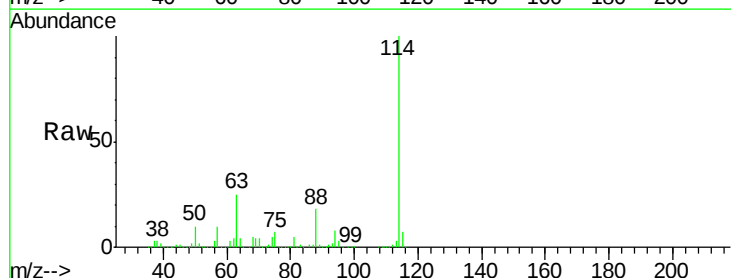
Delta R.T. -0.45 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Tgt Ion: 63 Resp: 839110

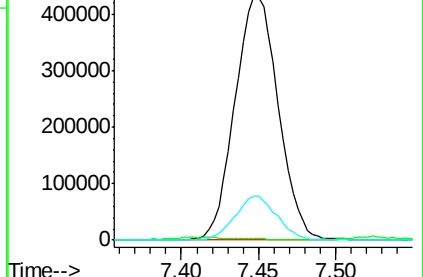
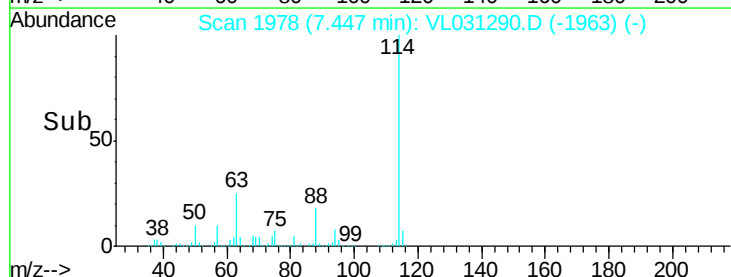
Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.2	82.8#
62	18.1	53.0	79.4#

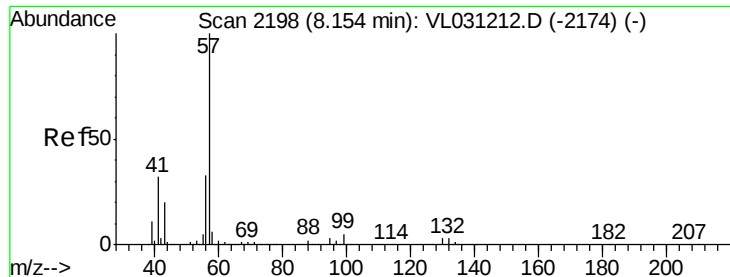


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.10 ppbv

RT: 8.15 min Scan# 2198

Delta R.T. 0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-8DL

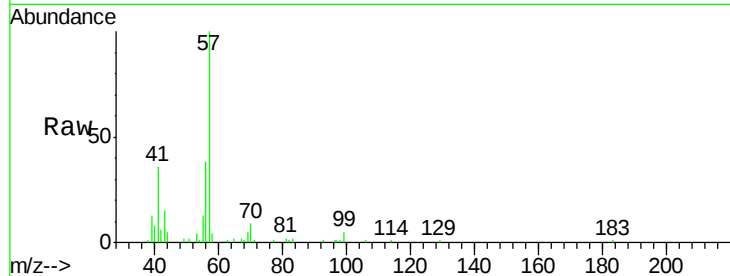
Tgt Ion: 57 Resp: 56873

Ion Ratio Lower Upper

57 100

41 41.9 25.5 38.3#

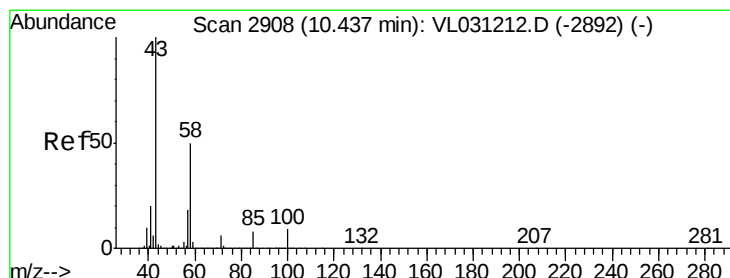
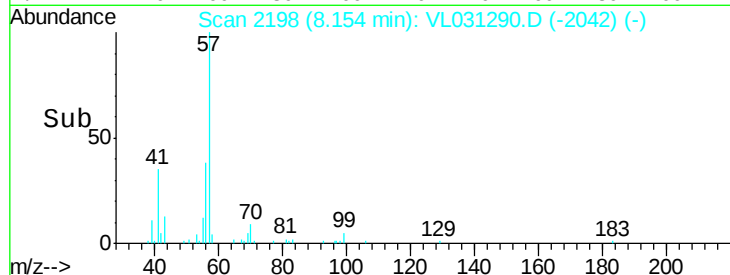
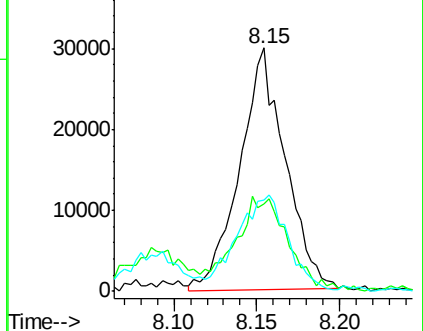
56 47.1 25.0 37.6#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#51

2-Hexanone

Concen: 0.43 ppbv

RT: 10.47 min Scan# 2917

Delta R.T. 0.03 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

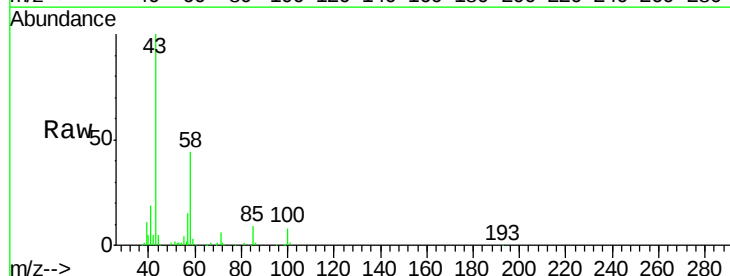
Tgt Ion: 43 Resp: 121315

Ion Ratio Lower Upper

43 100

58 50.5 39.8 59.6

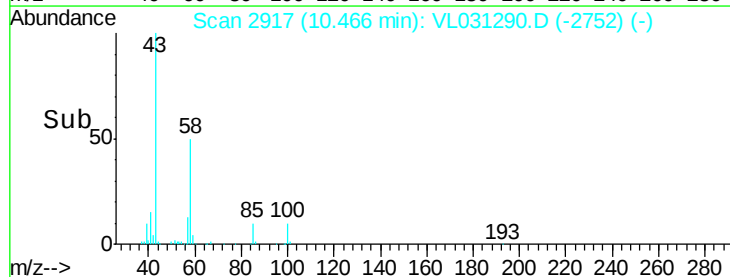
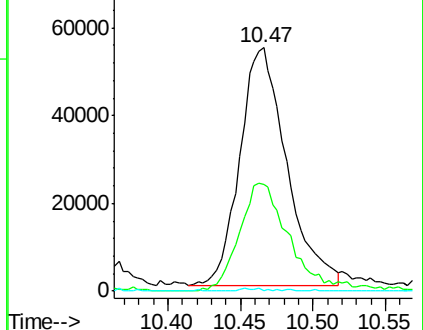
98 0.7 0.0 0.0#

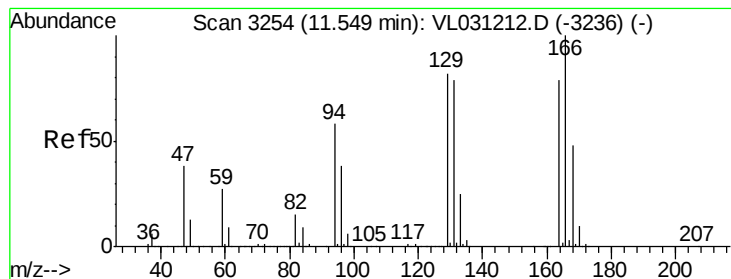


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 1.47 ppbv

RT: 11.55 min Scan# 3253

Delta R.T. -0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-8DL

Tgt Ion: 164 Resp: 196986

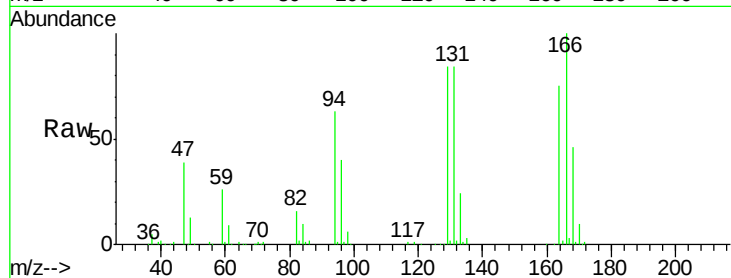
Ion Ratio Lower Upper

164 100

166 133.6 100.6 151.0

129 111.5 82.9 124.3

131 111.6 79.2 118.8

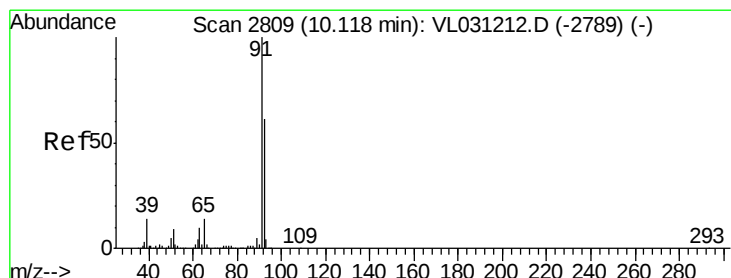
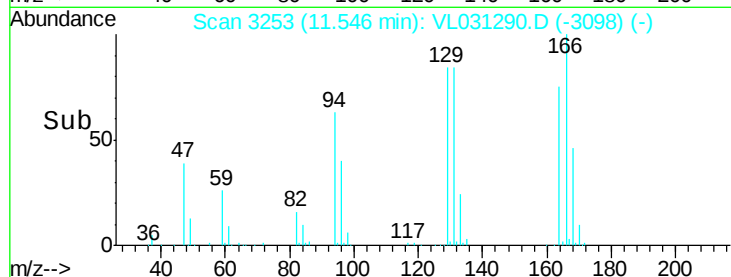
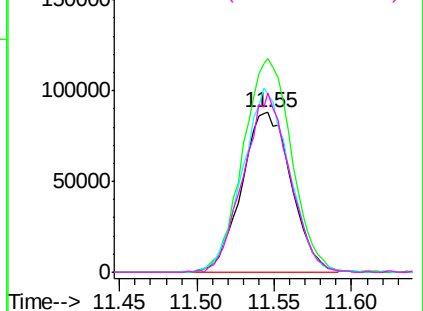


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.08 ppbv

RT: 10.11 min Scan# 2807

Delta R.T. -0.01 min

Lab File: VL031290.D

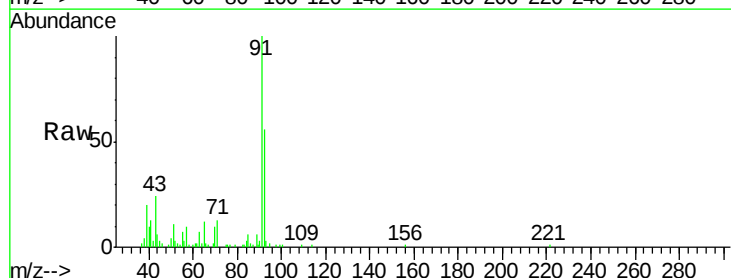
Acq: 21 Dec 2017 4:33

Tgt Ion: 91 Resp: 31677

Ion Ratio Lower Upper

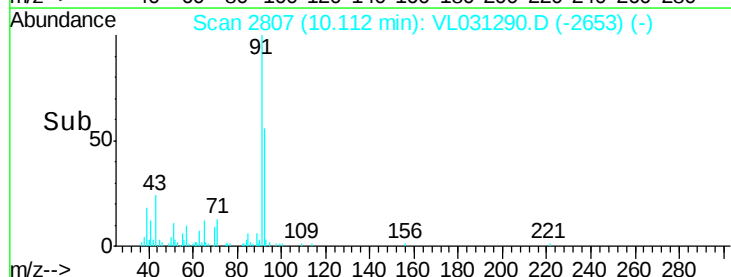
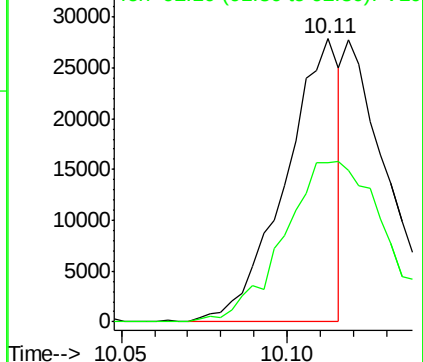
91 100

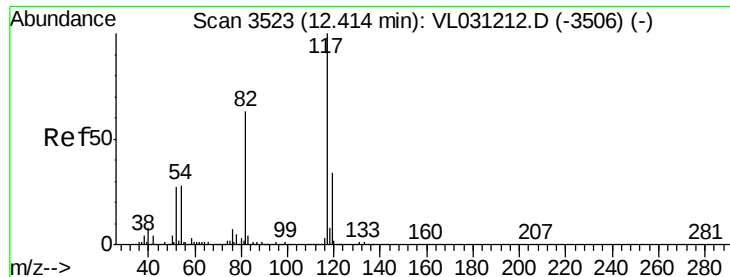
92 107.0 49.1 73.7#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.41 min Scan# 3522

Delta R.T. -0.00 min

Lab File: VL031290.D

Acq: 21 Dec 2017 4:33

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-8DL

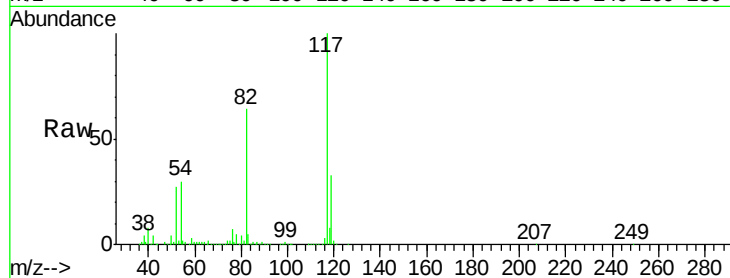
Tgt Ion:117 Resp: 3246656

Ion Ratio Lower Upper

117 100

82 64.3 48.1 72.1

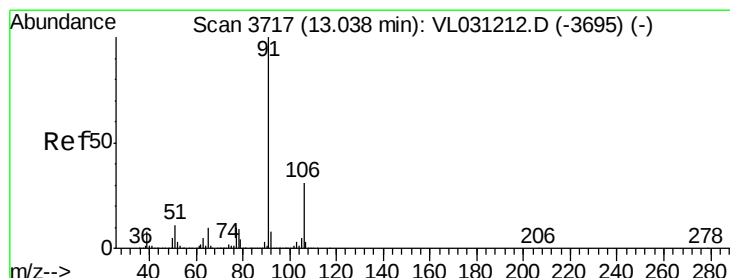
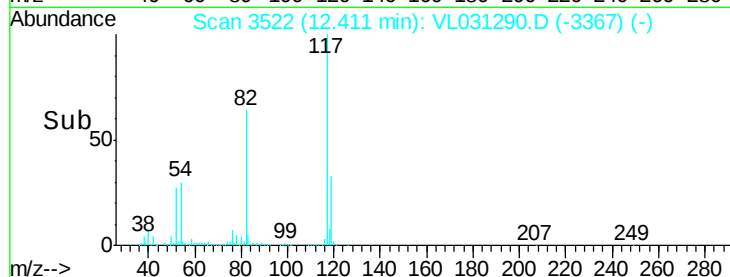
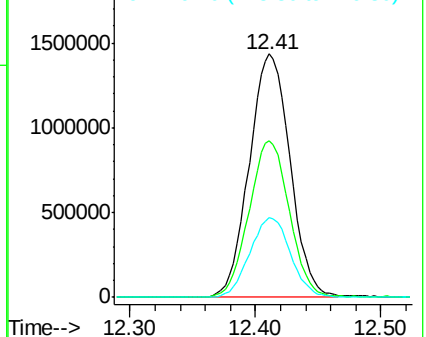
119 32.8 23.1 34.7



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



#58

Ethyl Benzene

Concen: 0.03 ppbv

RT: 13.03 min Scan# 3716

Delta R.T. -0.00 min

Lab File: VL031290.D

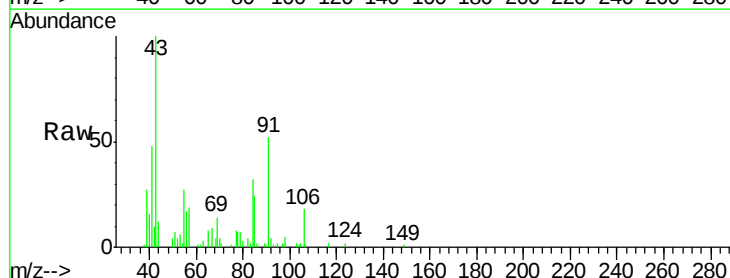
Acq: 21 Dec 2017 4:33

Tgt Ion: 91 Resp: 17413

Ion Ratio Lower Upper

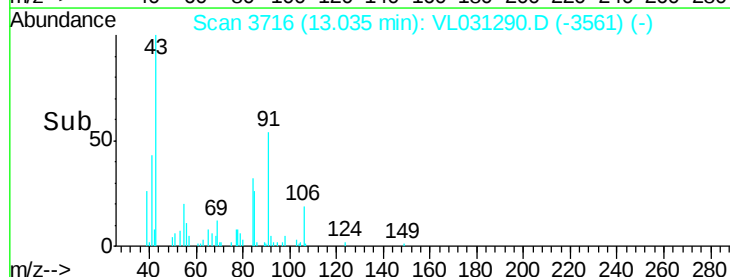
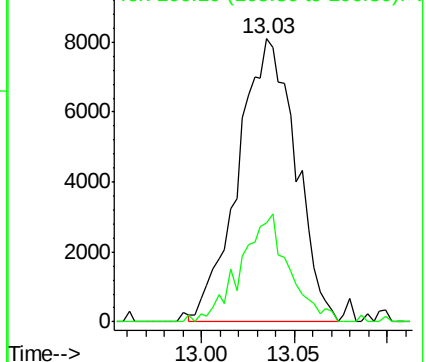
91 100

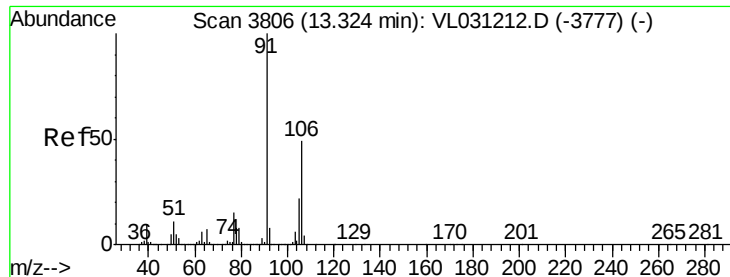
106 35.1 25.1 37.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

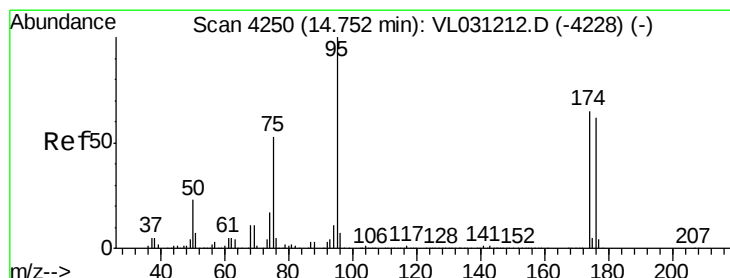
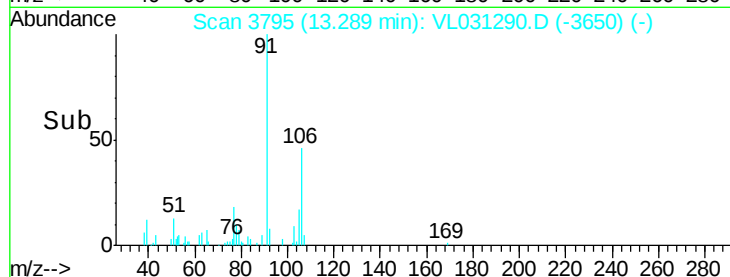
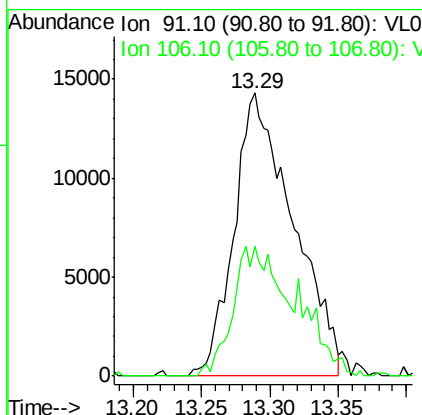
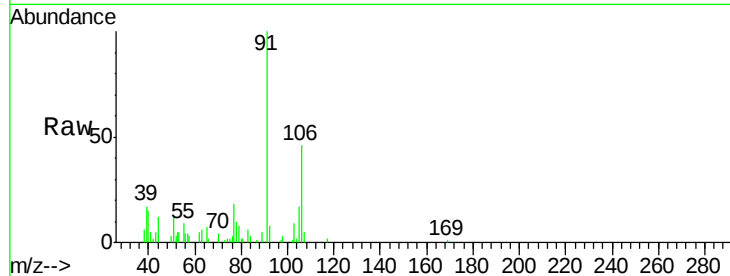




#59
m/p-Xylene
Concen: 0.10 ppbv
RT: 13.29 min Scan# 3795
Delta R.T. -0.04 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

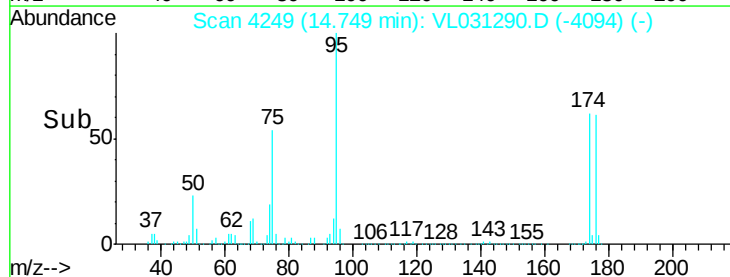
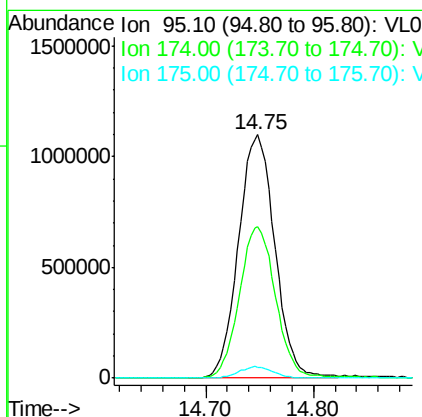
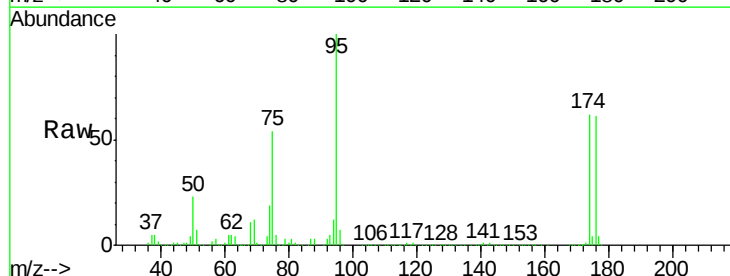
Instrument :
MSVOA_L
ClientSampleId :
EP1-SV-8DL

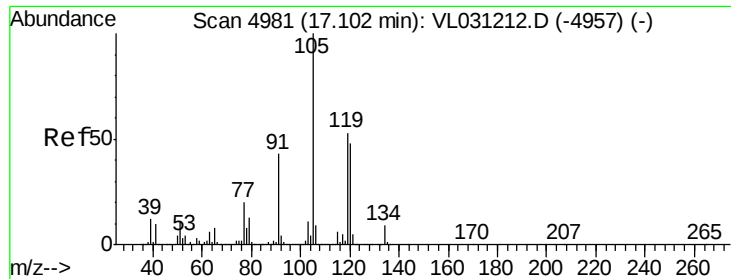
Tgt Ion: 91 Resp: 42996
Ion Ratio Lower Upper
91 100
106 48.4 38.5 57.7



#68
1-Bromo-4-Fluorobenzene
Concen: 11.17 ppbv
RT: 14.75 min Scan# 4249
Delta R.T. -0.00 min
Lab File: VL031290.D
Acq: 21 Dec 2017 4:33

Tgt Ion: 95 Resp: 2578405
Ion Ratio Lower Upper
95 100
174 62.8 52.5 78.7
175 4.6 4.1 6.1





#74
 1,2,4-Trimethylbenzene
 Concen: 0.03 ppbv
 RT: 17.09 min Scan# 4978
 Delta R.T. -0.01 min
 Lab File: VL031290.D
 Acq: 21 Dec 2017 4:33

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-SV-8DL

Tgt Ion:	105	Resp:	14860
Ion	Ratio	Lower	Upper
105	100		
120	34.8	38.6	58.0#
91	15.3	34.2	51.4#
77	22.6	16.1	24.1

