

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL122017\
 Data File : VL031284.D
 Acq On : 21 Dec 2017 00:37
 Operator : SY/AP
 Sample : I7005-06DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-SV-5DL

Quant Time: Dec 21 08:42:04 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	1550756	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.45	114	3791363	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.41	117	3535797	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.75	95	2841053	11.30	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	113.00%

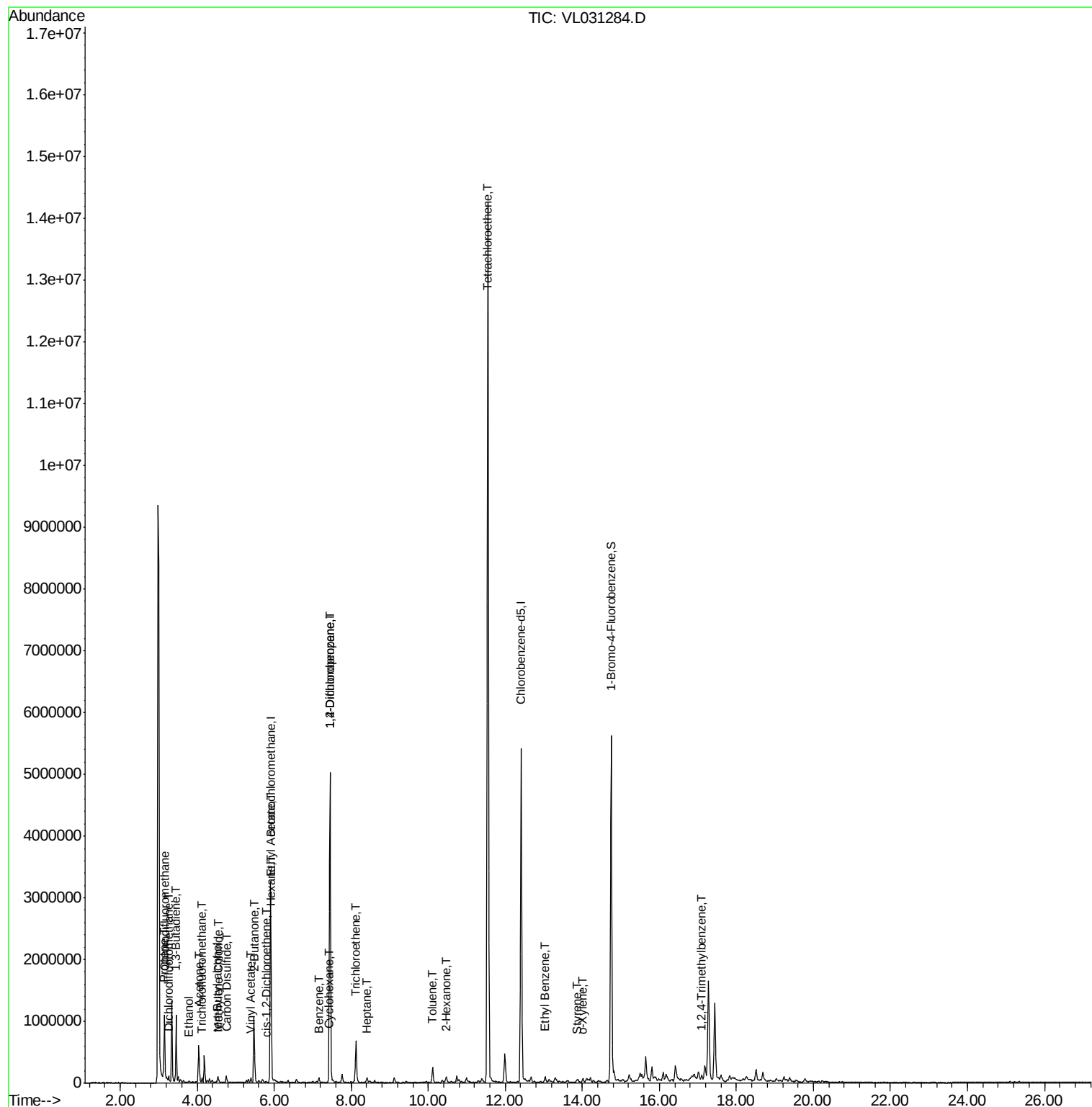
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.25	85	4460	0.03	ppbv	89
3) Chlorodifluoromethane	3.15	51	376847	2.14	ppbv #	62
9) Propene	3.14	41	193733	2.24	ppbv	97
10) Heptane	8.41	43	29252	0.11	ppbv	93
11) Trichlorofluoromethane	4.13	101	40205	0.19	ppbv	99
13) Ethanol	3.79	45	15472	0.62	ppbv	91
15) Acetone	4.03	43	444496	2.17	ppbv #	77
16) 1,3-Butadiene	3.45	39	298189	3.39	ppbv #	14
17) tert-Butyl alcohol	4.53	59	17912	0.16	ppbv #	73
20) Methylene Chloride	4.54	84	26418	0.39	ppbv	90
23) Vinyl Acetate	5.40	43	21405	0.06	ppbv #	7
25) Ethyl Acetate	5.93	43	33101	0.08	ppbv #	77
26) Hexane	5.93	57	44633	0.23	ppbv #	8
27) Carbon Disulfide	4.76	76	121390	0.61	ppbv #	92
30) Cyclohexane	7.40	84	5463	0.03	ppbv #	1
31) cis-1,2-Dichloroethene	5.78	61	9297	0.05	ppbv #	73
34) 2-Butanone	5.47	43	1343965	5.02	ppbv	98
36) Benzene	7.16	78	28957	0.07	ppbv	97
38) Trichloroethene	8.12	130	210918	1.35	ppbv	97
39) 1,2-Dichloropropane	7.45	63	945624	6.66	ppbv #	27
51) 2-Hexanone	10.47	43	84002	0.27	ppbv #	99
52) Tetrachloroethene	11.55	164	3901946	26.32	ppbv	97
53) Toluene	10.11	91	100668	0.23	ppbv #	36
58) Ethyl Benzene	13.03	91	33868	0.06	ppbv	93
60) o-Xylene	14.02	91	40427	0.09	ppbv	97
61) Styrene	13.86	104	5376	0.04	ppbv #	59
74) 1,2,4-Trimethylbenzene	17.10	105	18233	0.04	ppbv #	82

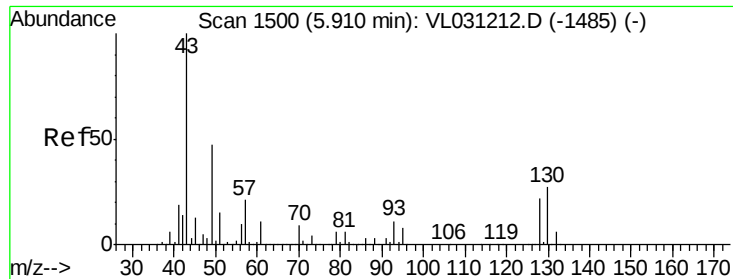
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-5DL

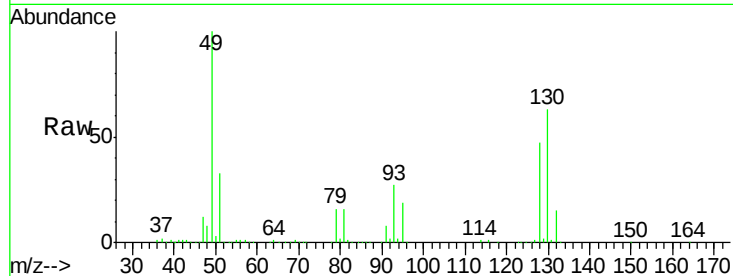
Tgt Ion: 49 Resp: 1550756

Ion Ratio Lower Upper

49 100

128 47.7 23.2 69.5

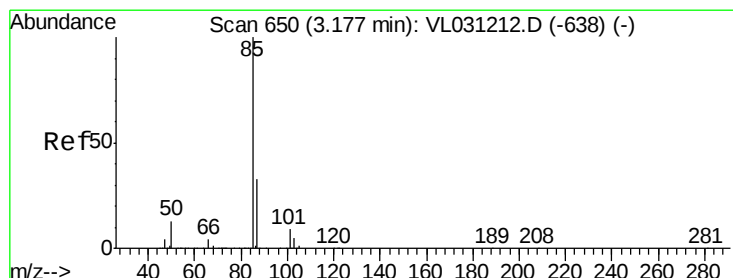
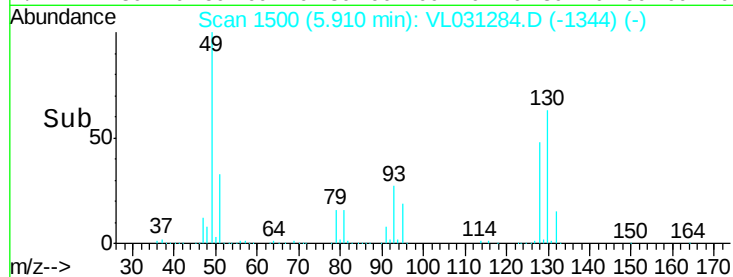
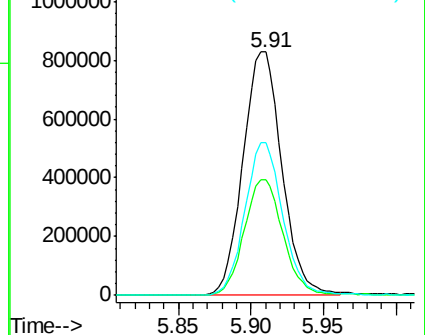
130 61.9 29.6 88.8



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: 0.03 ppbv

RT: 3.25 min Scan# 674

Delta R.T. 0.08 min

Lab File: VL031284.D

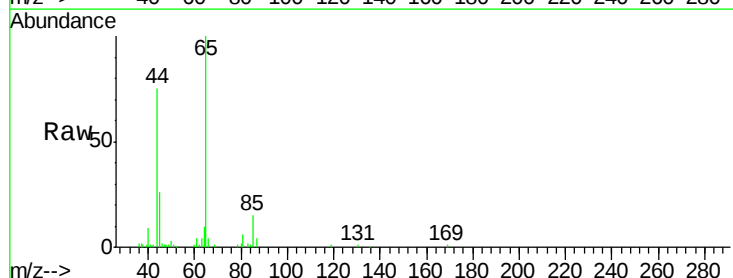
Acq: 21 Dec 2017 00:37

Tgt Ion: 85 Resp: 4460

Ion Ratio Lower Upper

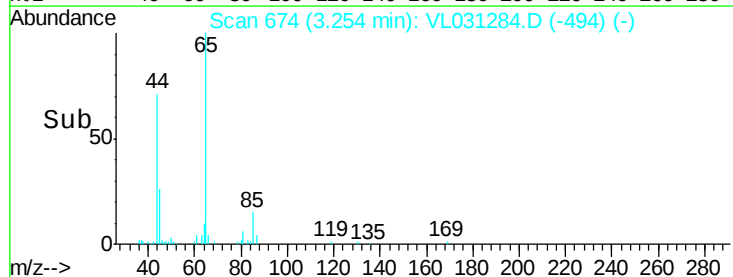
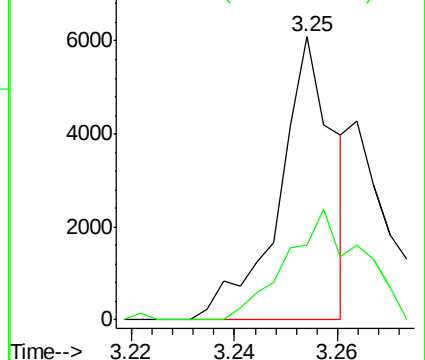
85 100

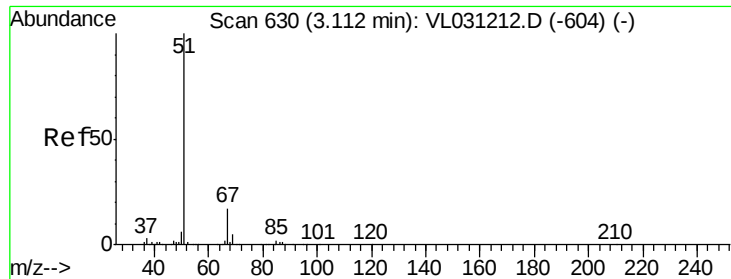
87 26.4 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.14 ppbv

RT: 3.15 min Scan# 643

Delta R.T. 0.04 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

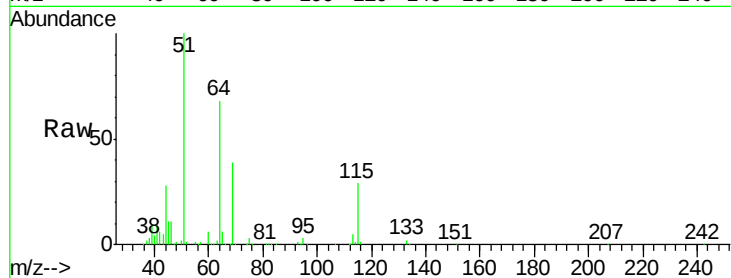
EP1-SV-5DL

Tgt Ion: 51 Resp: 376847

Ion Ratio Lower Upper

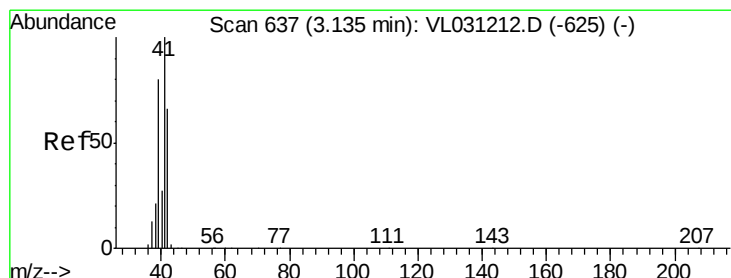
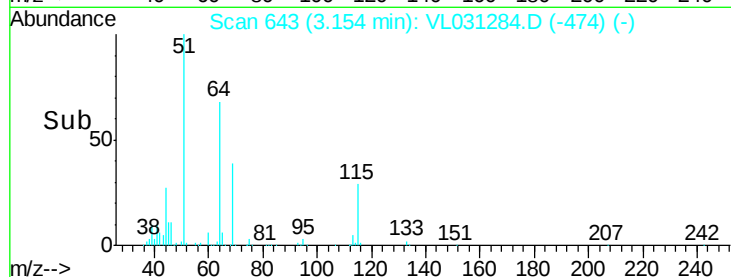
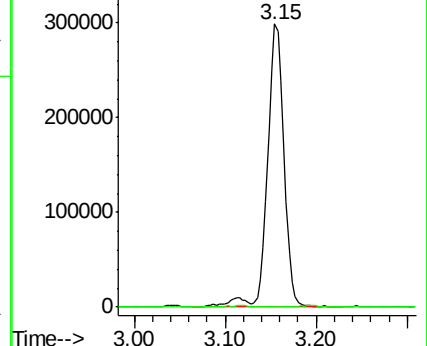
51 100

67 0.5 13.8 20.6#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 2.24 ppbv

RT: 3.14 min Scan# 638

Delta R.T. 0.00 min

Lab File: VL031284.D

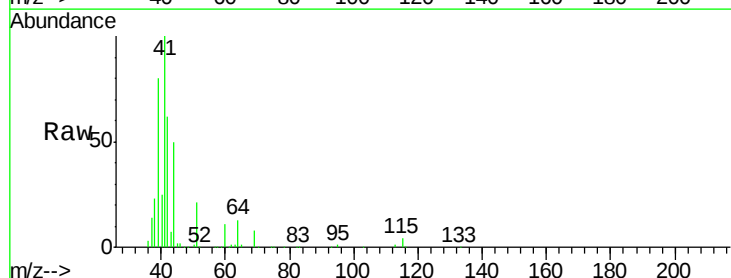
Acq: 21 Dec 2017 00:37

Tgt Ion: 41 Resp: 193733

Ion Ratio Lower Upper

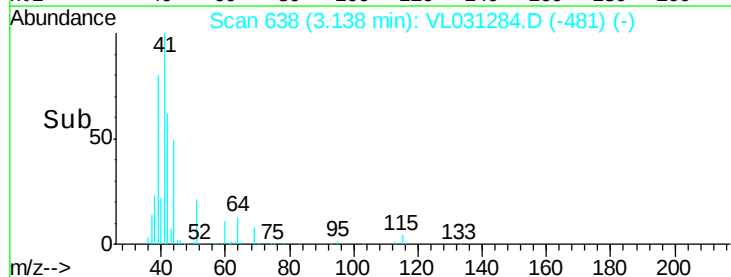
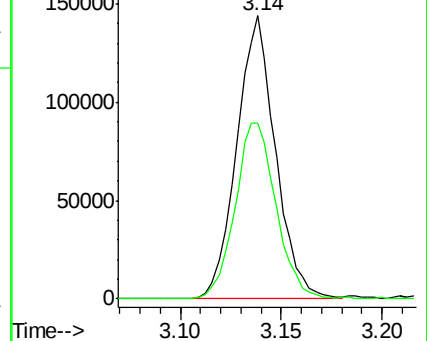
41 100

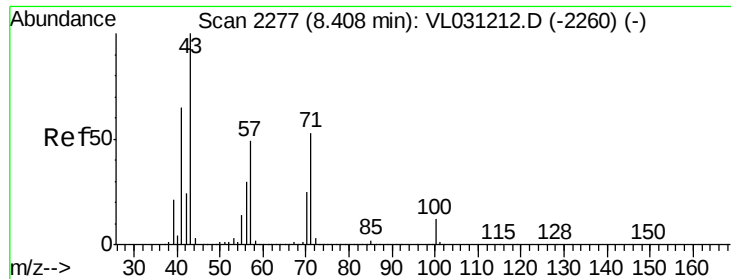
42 65.8 54.3 81.5



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# 2277

Delta R.T. 0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

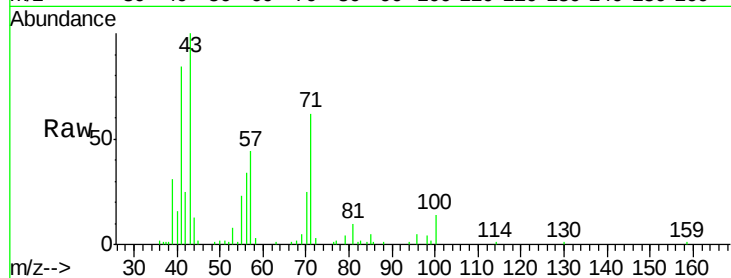
EP1-SV-5DL

Tgt Ion: 43 Resp: 29252

Ion Ratio Lower Upper

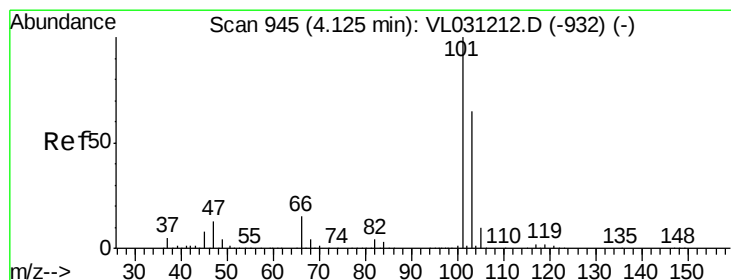
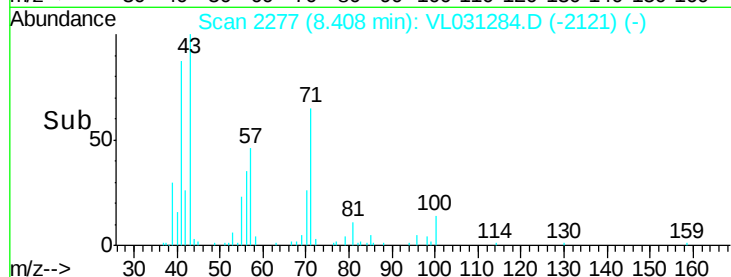
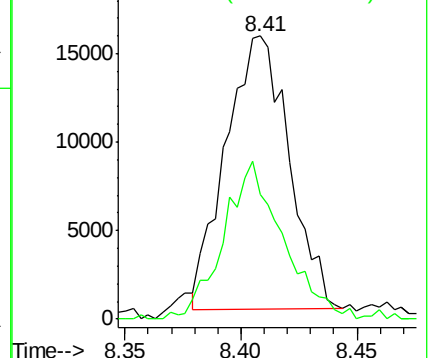
43 100

57 54.9 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: 0.19 ppbv

RT: 4.13 min Scan# 945

Delta R.T. 0.00 min

Lab File: VL031284.D

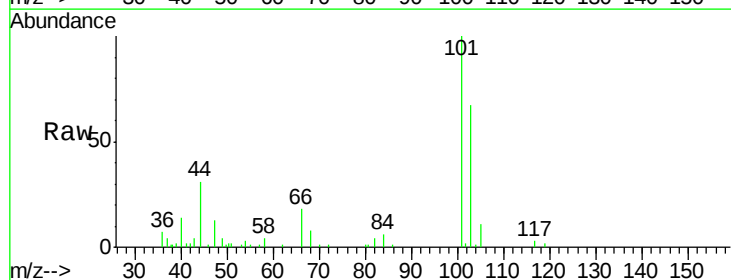
Acq: 21 Dec 2017 00:37

Tgt Ion: 101 Resp: 40205

Ion Ratio Lower Upper

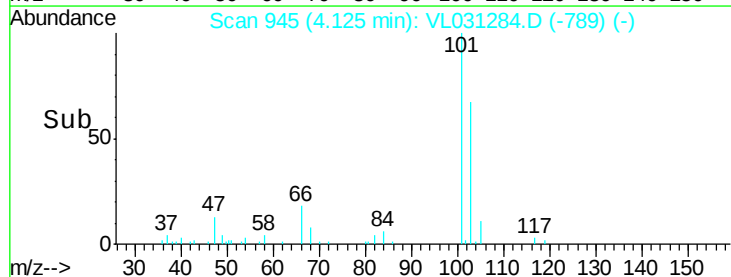
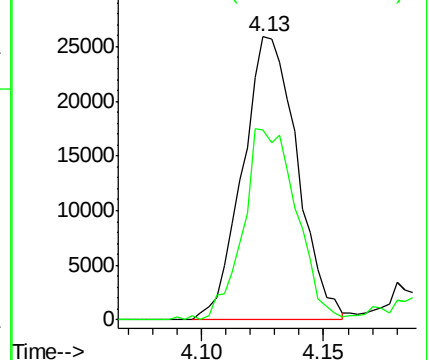
101 100

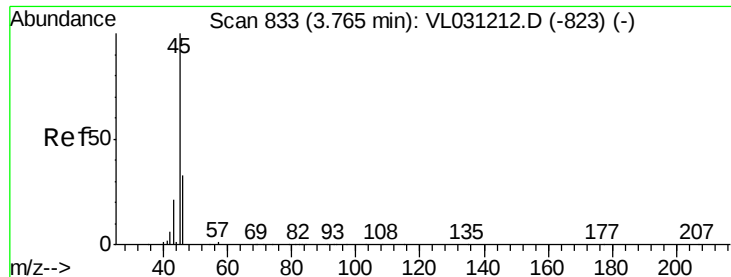
103 65.9 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 0.62 ppbv

RT: 3.79 min Scan# 840

Delta R.T. 0.02 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

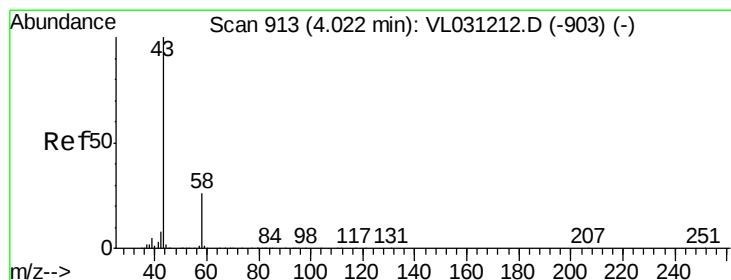
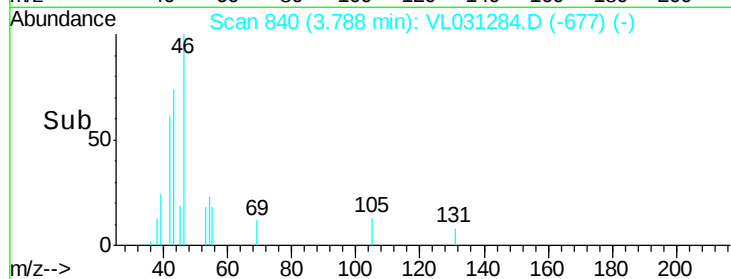
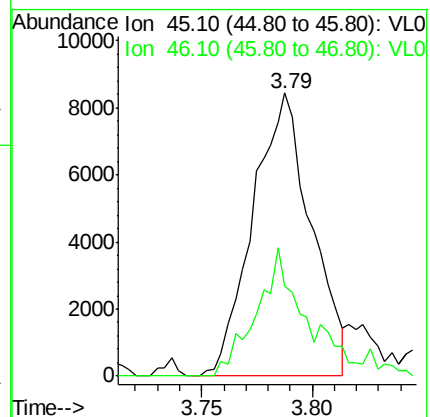
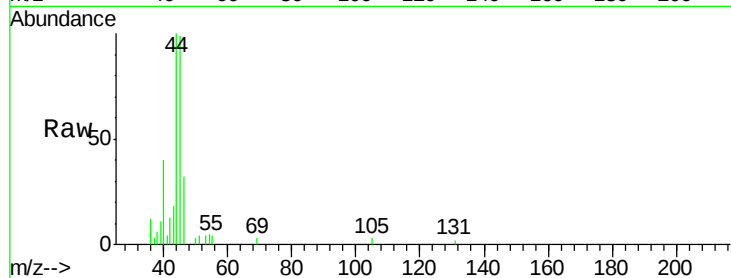
EP1-SV-5DL

Tgt Ion: 45 Resp: 15472

Ion Ratio Lower Upper

45 100

46 42.0 14.6 58.4



#15

Acetone

Concen: 2.17 ppbv

RT: 4.03 min Scan# 915

Delta R.T. 0.01 min

Lab File: VL031284.D

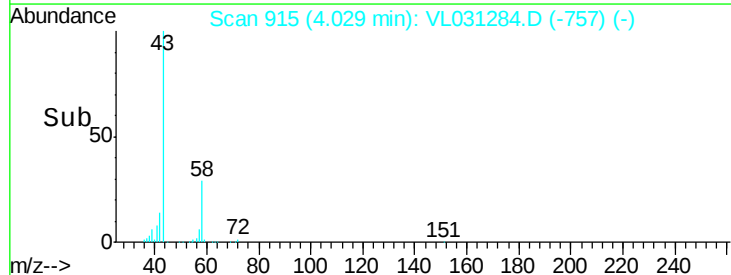
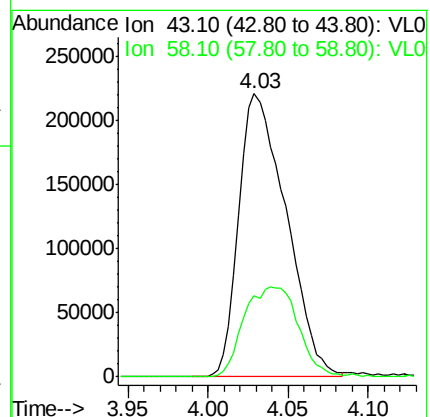
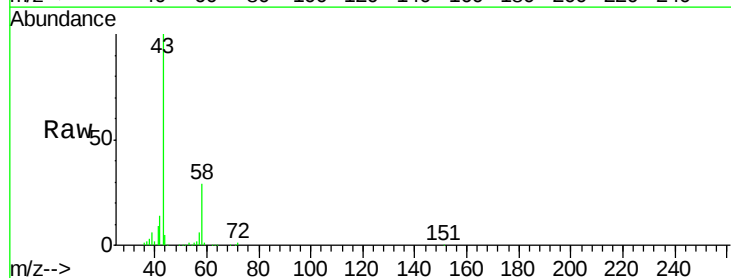
Acq: 21 Dec 2017 00:37

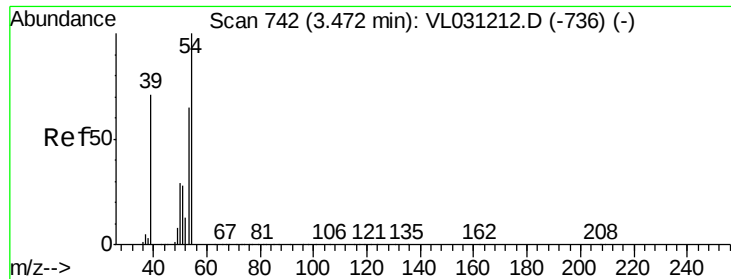
Tgt Ion: 43 Resp: 444496

Ion Ratio Lower Upper

43 100

58 37.2 20.3 30.5#





#16

1,3-Butadiene

Concen: 3.39 ppbv

RT: 3.45 min Scan# 736

Delta R.T. -0.02 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

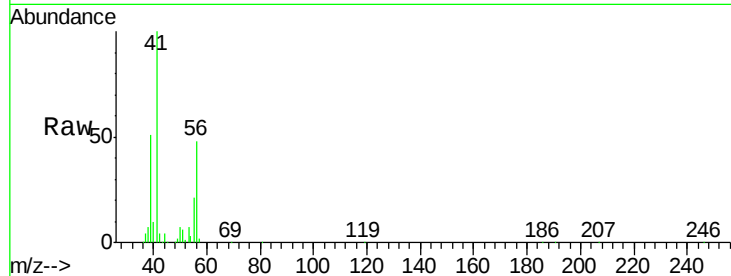
EP1-SV-5DL

Tgt Ion: 39 Resp: 298189

Ion Ratio Lower Upper

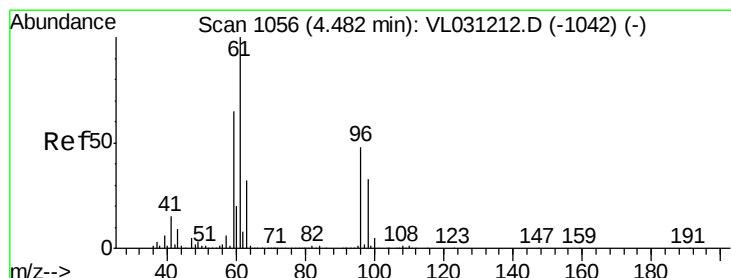
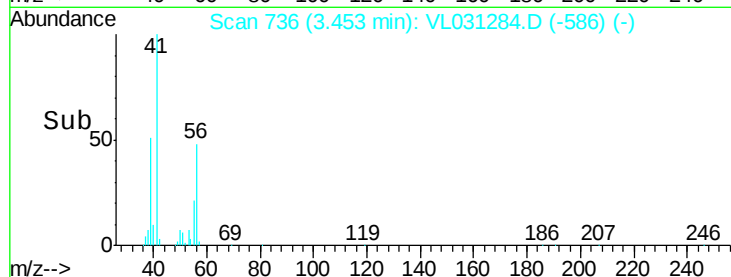
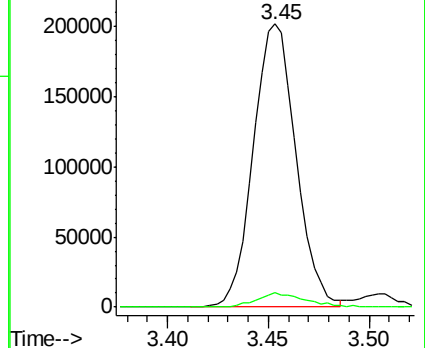
39 100

54 5.9 66.4 99.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0



#17

tert-Butyl alcohol

Concen: 0.16 ppbv

RT: 4.53 min Scan# 1070

Delta R.T. 0.05 min

Lab File: VL031284.D

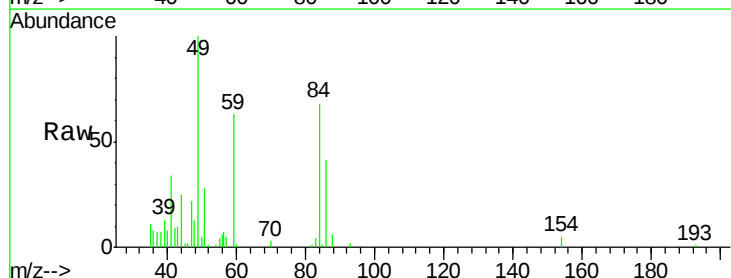
Acq: 21 Dec 2017 00:37

Tgt Ion: 59 Resp: 17912

Ion Ratio Lower Upper

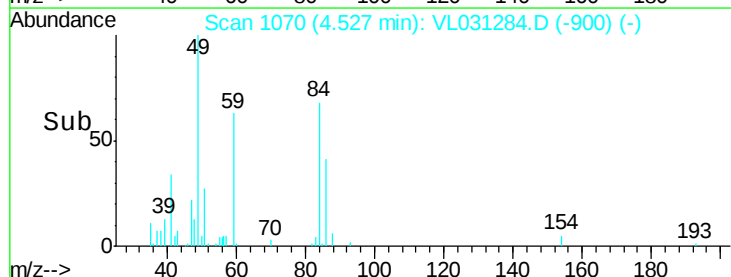
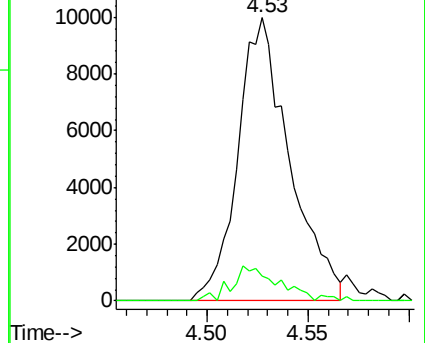
59 100

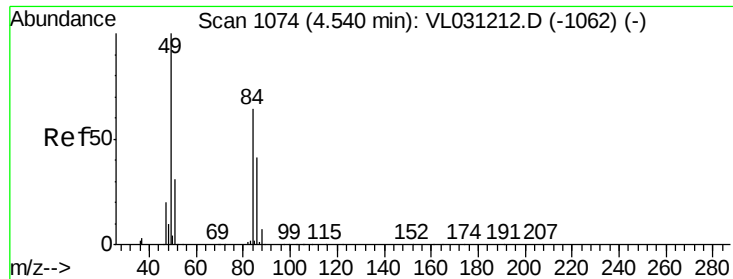
57 0.0 8.2 12.2#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

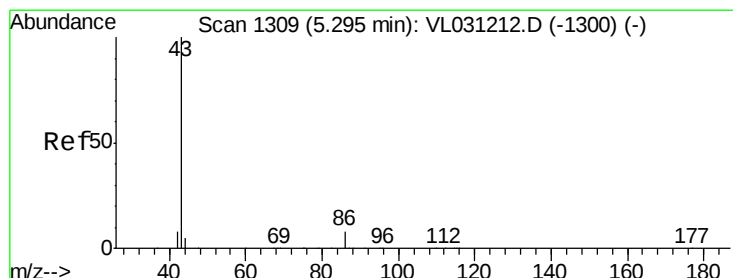
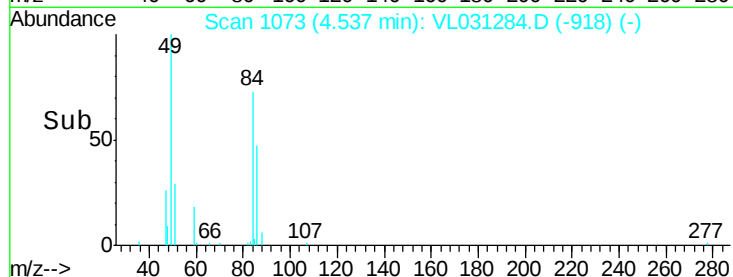
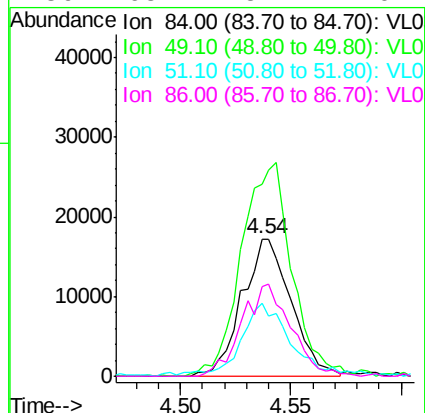
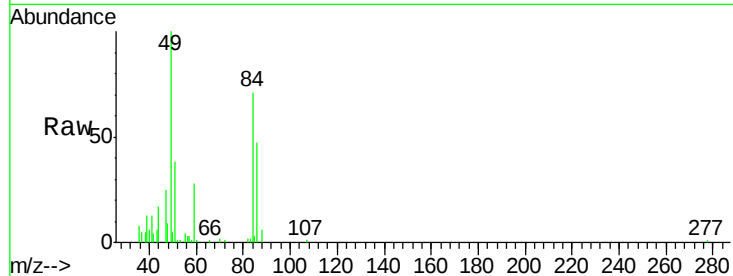




#20
Methylene Chloride
Concen: 0.39 ppbv
RT: 4.54 min Scan# 1073
Delta R.T. -0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

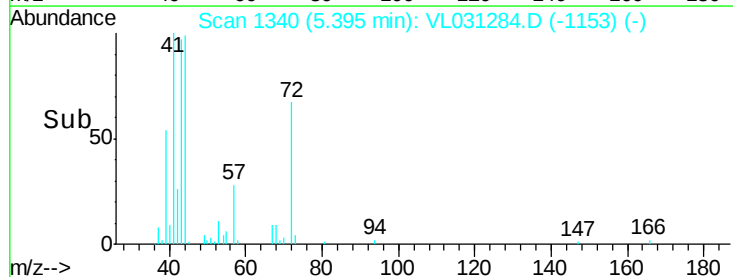
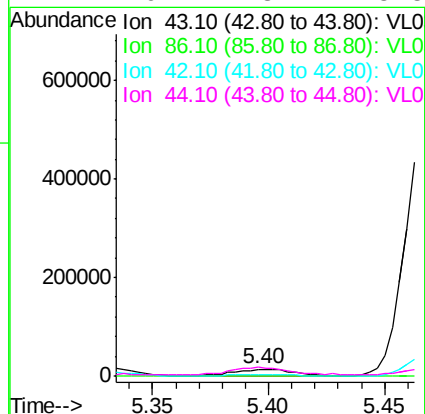
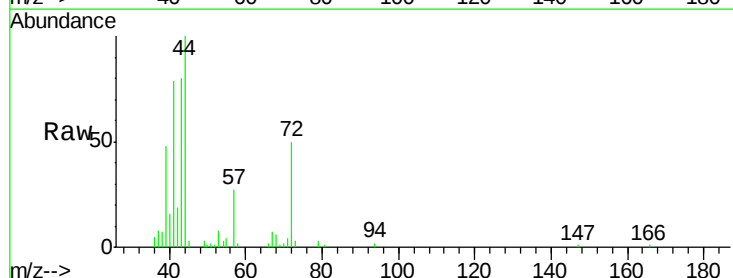
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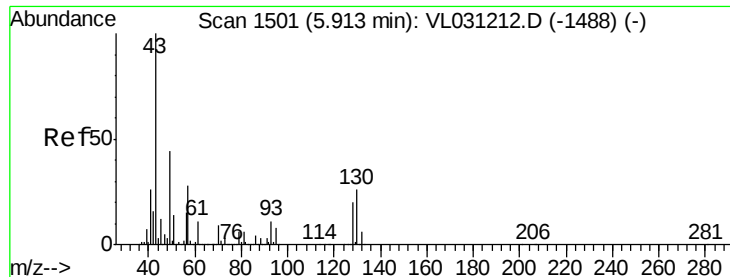
Tgt Ion:	84	Resp:	26418
Ion	Ratio	Lower	Upper
84	100		
49	138.0	125.8	188.6
51	52.4	39.3	58.9
86	65.2	51.1	76.7



#23
Vinyl Acetate
Concen: 0.06 ppbv
RT: 5.40 min Scan# 1340
Delta R.T. 0.10 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

Tgt Ion:	43	Resp:	21405
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.9	8.9#
42	22.6	7.3	10.9#
44	110.1	3.7	5.5#

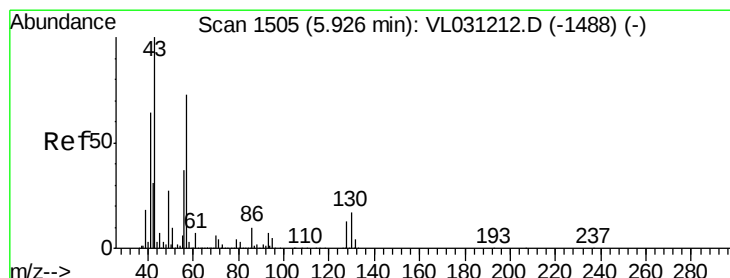
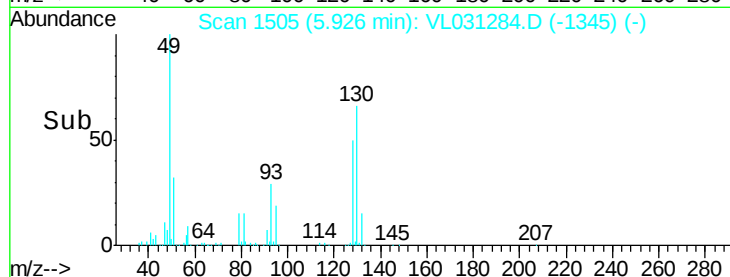
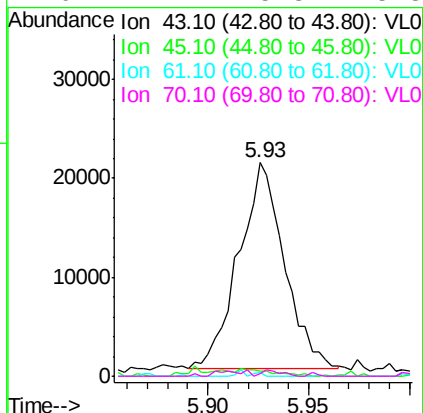
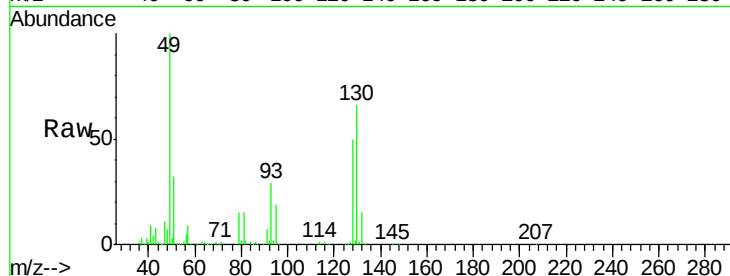




#25
Ethyl Acetate
Concen: 0.08 ppbv
RT: 5.93 min Scan# 1505
Delta R.T. 0.01 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

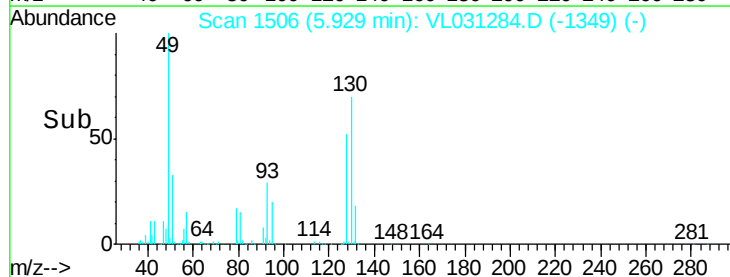
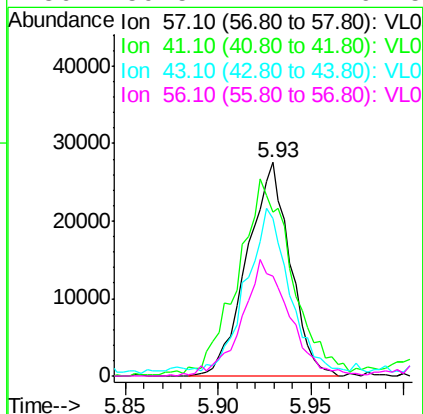
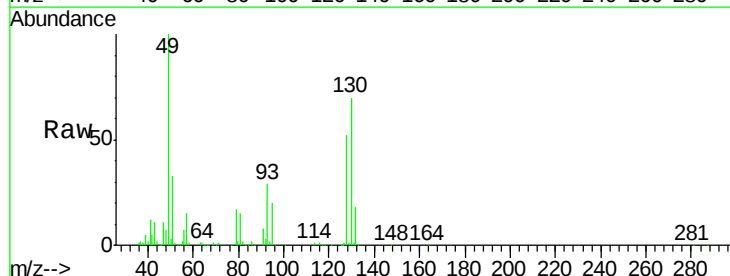
Instrument :
MSVOA_L
ClientSampleId :
EP1-SV-5DL

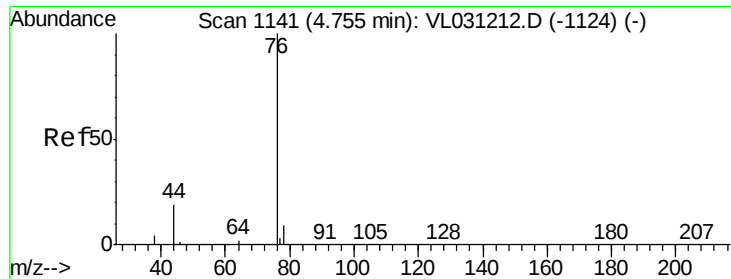
Tgt Ion:	43	Resp:	33101
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.0	12.0#
61	0.0	7.4	11.0#
70	1.7	5.8	8.8#



#26
Hexane
Concen: 0.23 ppbv
RT: 5.93 min Scan# 1506
Delta R.T. 0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

Tgt Ion:	57	Resp:	44633
Ion	Ratio	Lower	Upper
57	100		
41	117.8	70.3	105.5#
43	0.0	173.8	260.8#
56	59.5	41.7	62.5

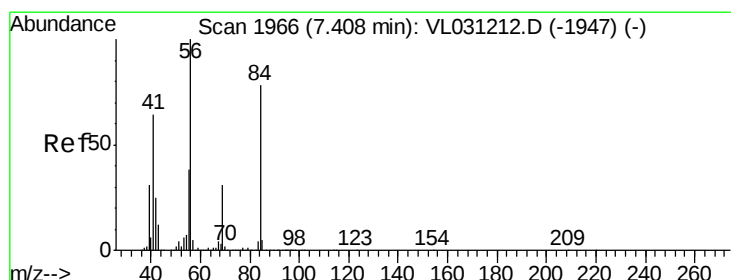
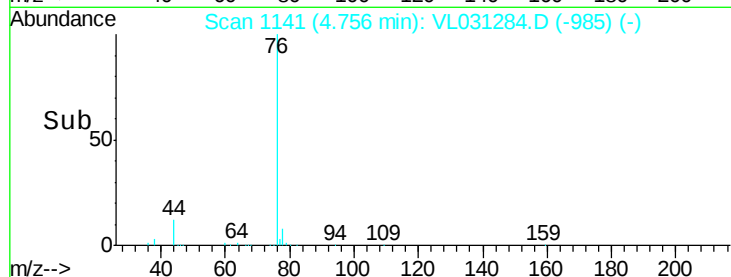
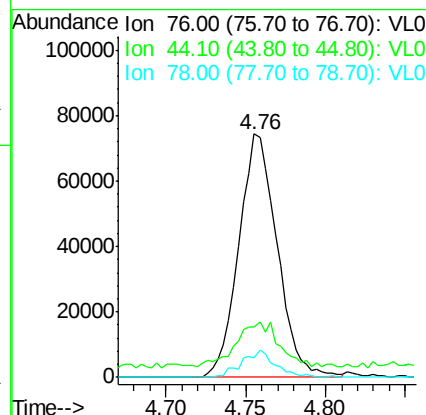
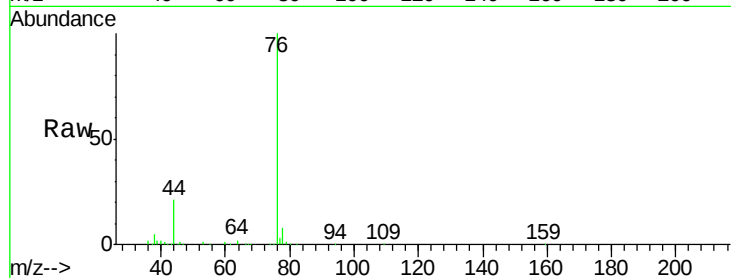




#27
Carbon Disulfide
Concen: 0.61 ppbv
RT: 4.76 min Scan# 1141
Delta R.T. 0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

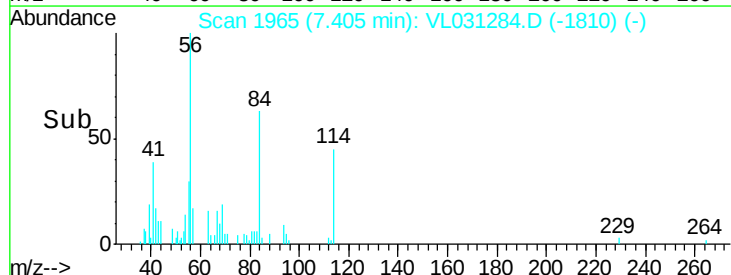
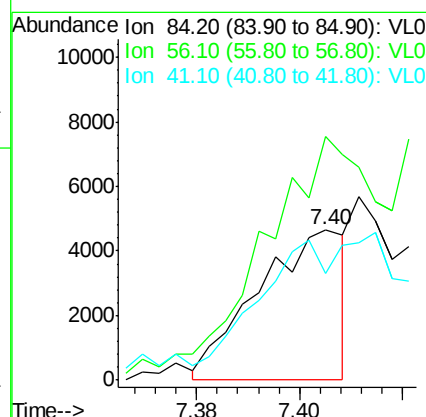
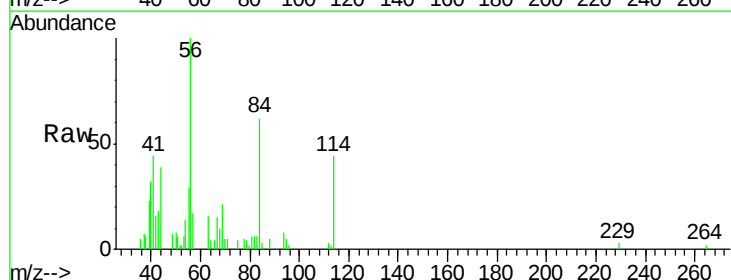
Instrument :
MSVOA_L
ClientSampleId :
EP1-SV-5DL

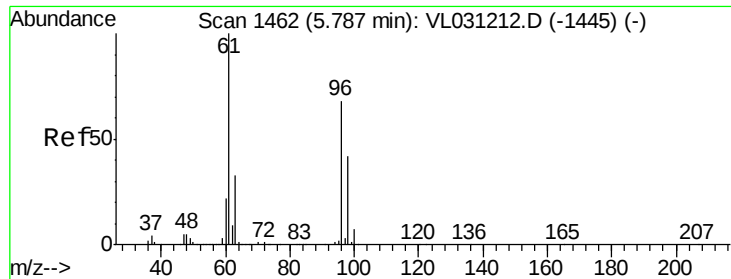
Tgt Ion: 76 Resp: 121390
Ion Ratio Lower Upper
76 100
44 24.8 16.0 24.0#
78 10.2 7.5 11.3



#30
Cyclohexane
Concen: 0.03 ppbv
RT: 7.40 min Scan# 1965
Delta R.T. -0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

Tgt Ion: 84 Resp: 5463
Ion Ratio Lower Upper
84 100
56 0.0 108.0 162.0#
41 0.0 66.2 99.4#





#31

cis-1,2-Dichloroethene

Concen: 0.05 ppbv

RT: 5.78 min Scan# 1461

Delta R.T. -0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-5DL

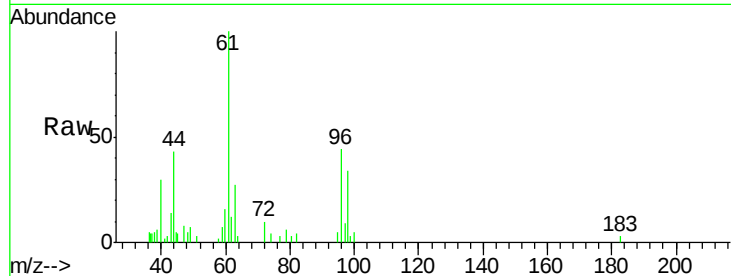
Tgt Ion: 61 Resp: 9297

Ion Ratio Lower Upper

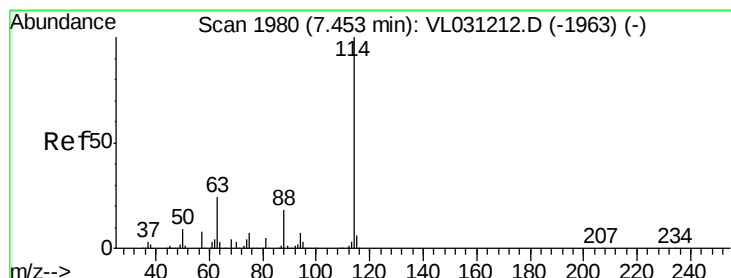
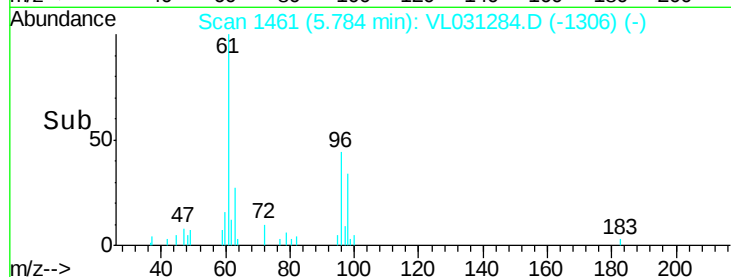
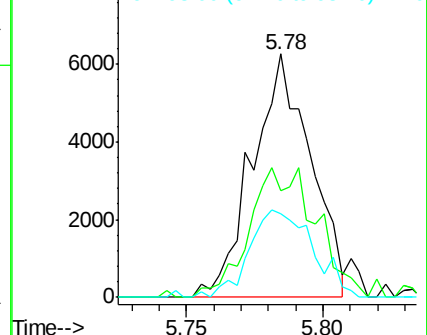
61 100

96 39.2 54.4 81.6#

98 33.8 33.6 50.4



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



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.45 min Scan# 1979

Delta R.T. -0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

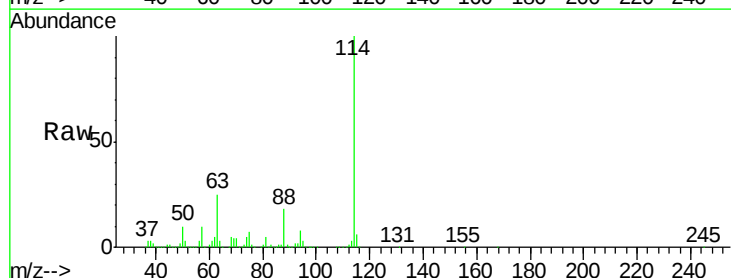
Tgt Ion: 114 Resp: 3791363

Ion Ratio Lower Upper

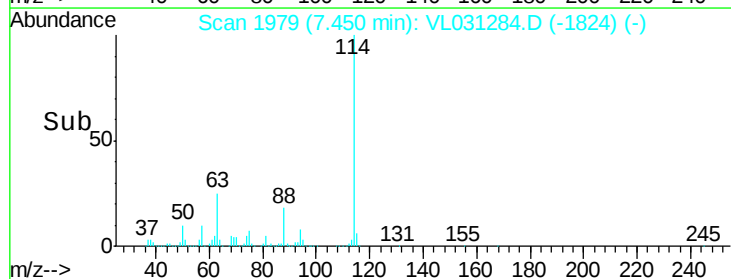
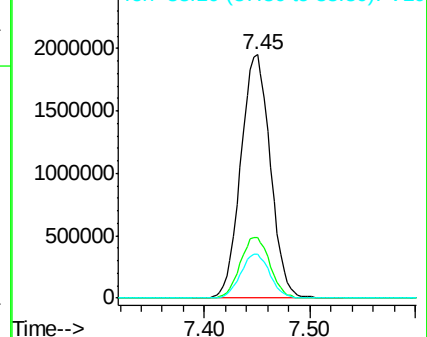
114 100

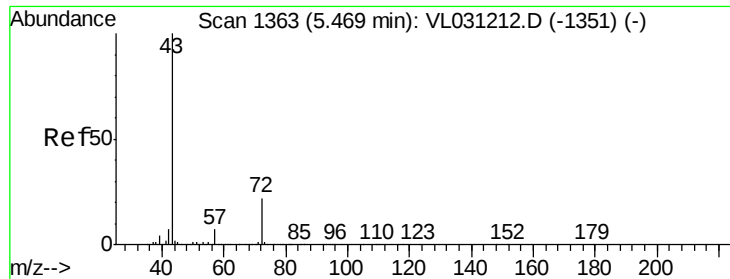
63 25.2 19.8 29.8

88 18.0 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

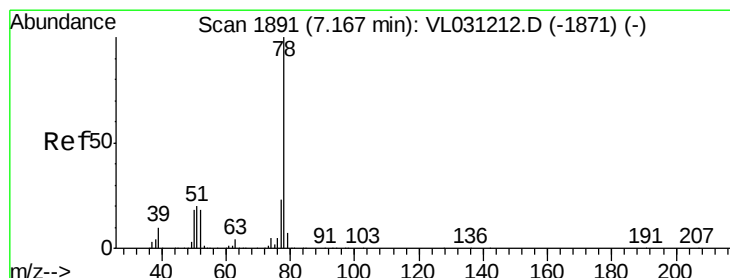
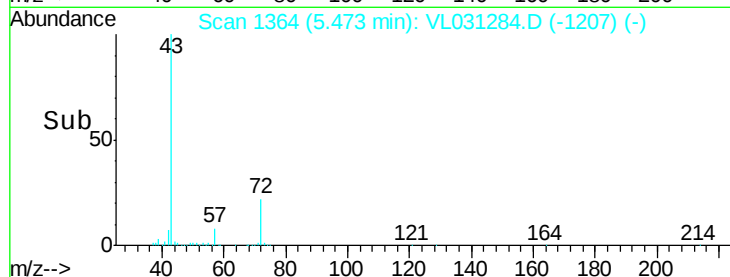
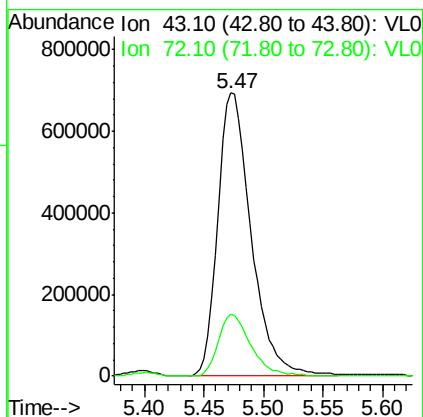
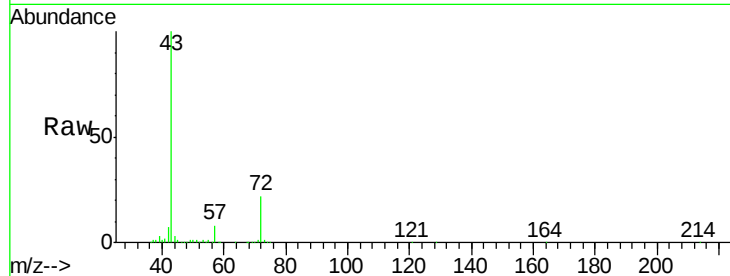




#34
2-Butanone
Concen: 5.02 ppbv
RT: 5.47 min Scan# 1364
Delta R.T. 0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

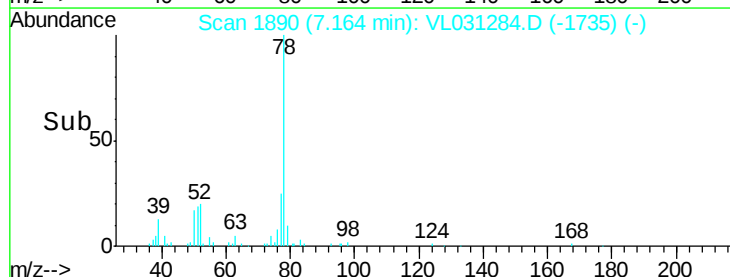
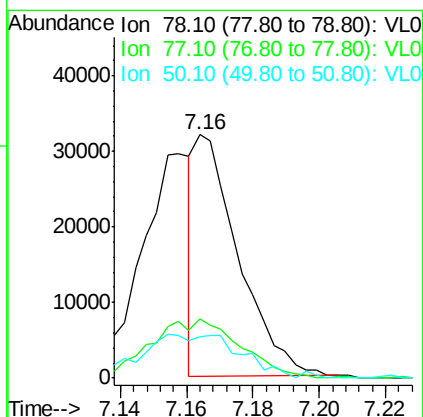
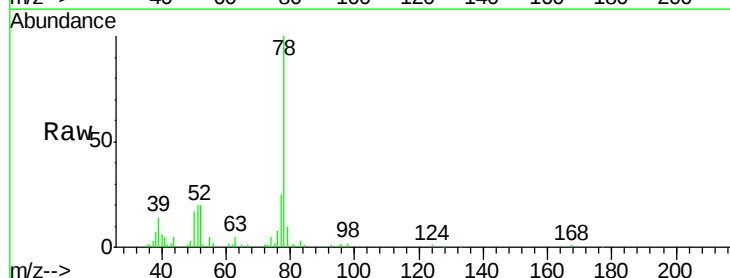
Instrument :
MSVOA_L
ClientSampleId :
EP1-SV-5DL

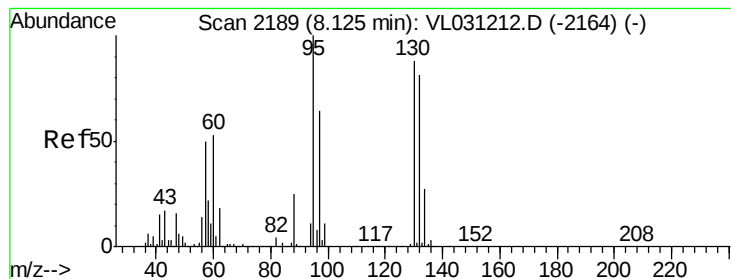
Tgt Ion: 43 Resp: 1343965
Ion Ratio Lower Upper
43 100
72 21.5 18.1 27.1



#36
Benzene
Concen: 0.07 ppbv
RT: 7.16 min Scan# 1890
Delta R.T. -0.00 min
Lab File: VL031284.D
Acq: 21 Dec 2017 00:37

Tgt Ion: 78 Resp: 28957
Ion Ratio Lower Upper
78 100
77 24.2 18.1 27.1
50 17.0 14.6 21.8





#38

Trichloroethene

Concen: 1.35 ppbv

RT: 8.12 min Scan# 2188

Delta R.T. -0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-5DL

Tgt Ion: 130 Resp: 210918

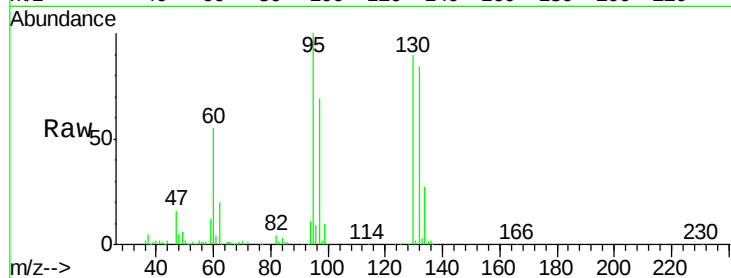
Ion Ratio Lower Upper

130 100

95 110.9 90.6 135.8

132 93.2 73.5 110.3

97 76.4 57.8 86.8

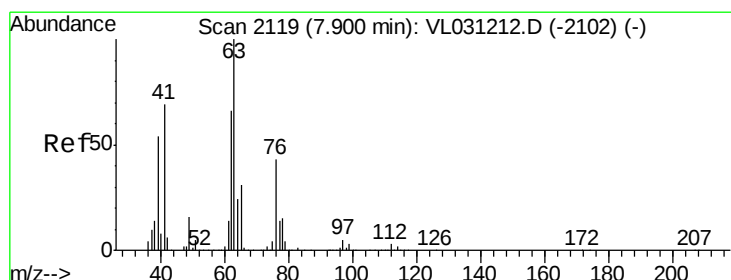
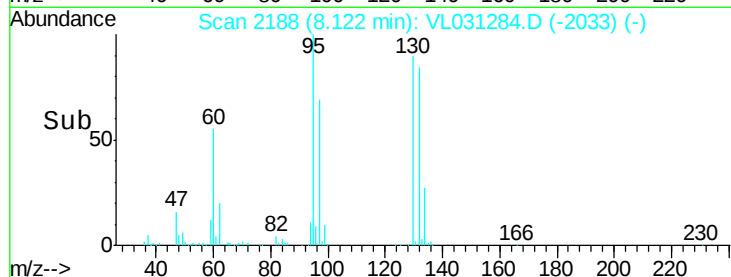
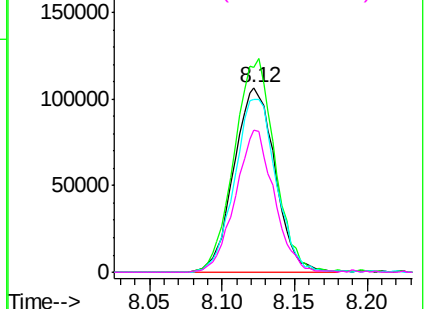


Abundance Ion 130.00 (129.70 to 130.70): V

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: 6.66 ppbv

RT: 7.45 min Scan# 1978

Delta R.T. -0.45 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

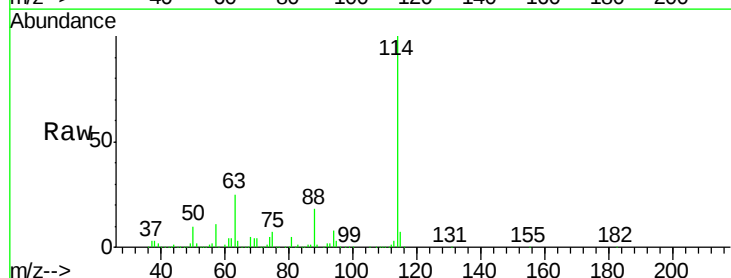
Tgt Ion: 63 Resp: 945624

Ion Ratio Lower Upper

63 100

41 0.0 55.2 82.8#

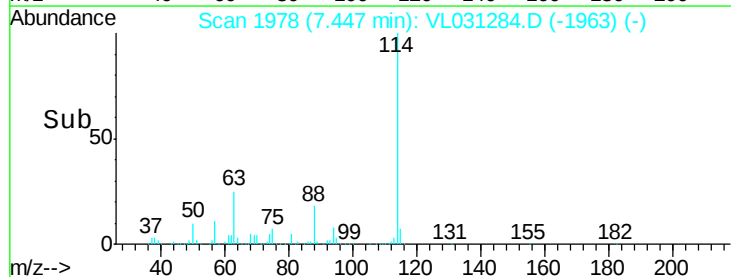
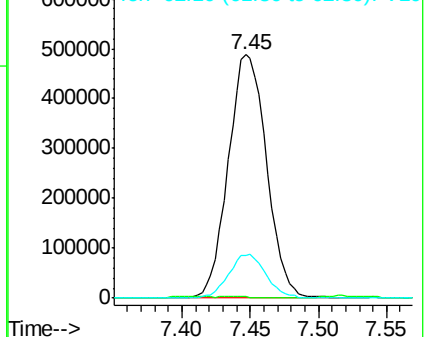
62 17.8 53.0 79.4#

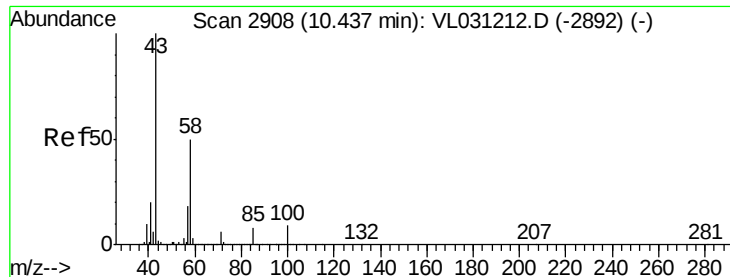


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#51

2-Hexanone

Concen: 0.27 ppbv

RT: 10.47 min Scan# 2917

Delta R.T. 0.03 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-5DL

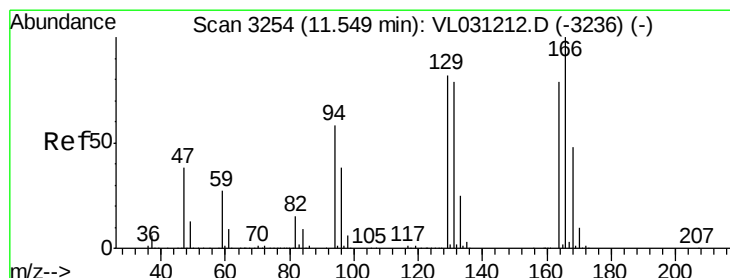
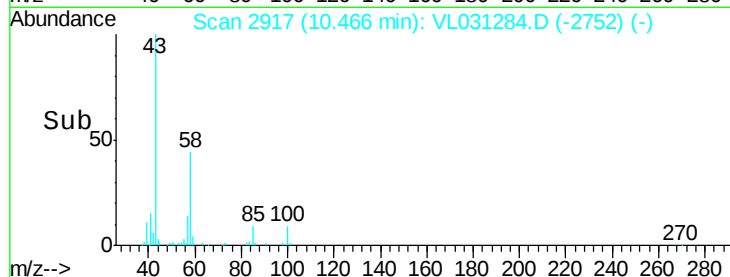
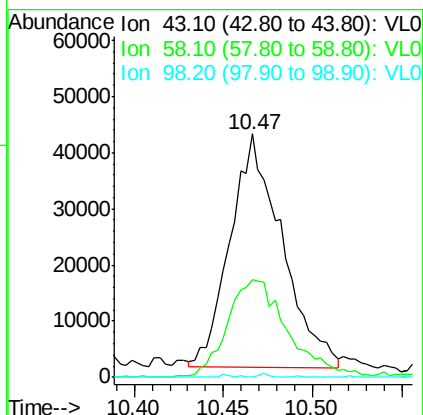
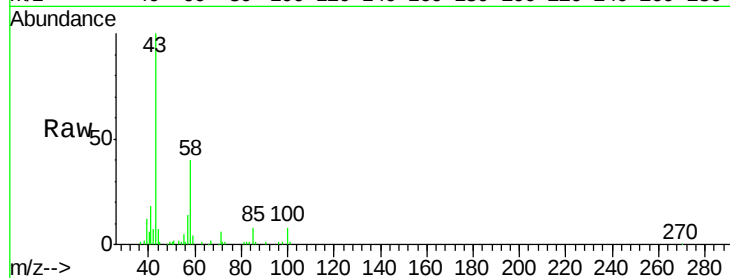
Tgt Ion: 43 Resp: 84002

Ion Ratio Lower Upper

43 100

58 48.9 39.8 59.6

98 0.7 0.0 0.0#



#52

Tetrachloroethene

Concen: 26.32 ppbv

RT: 11.55 min Scan# 3254

Delta R.T. 0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Tgt Ion: 164 Resp: 3901946

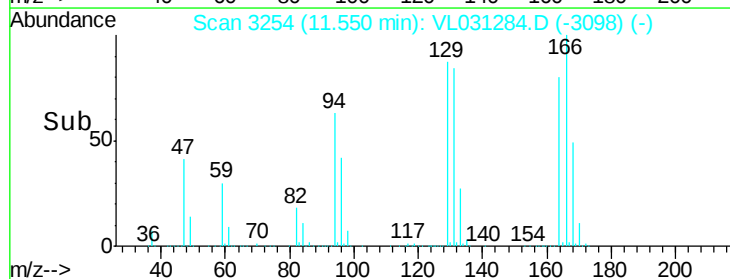
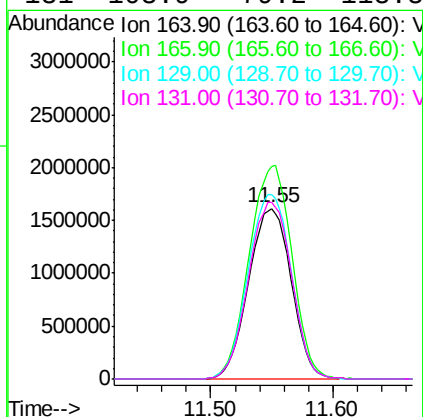
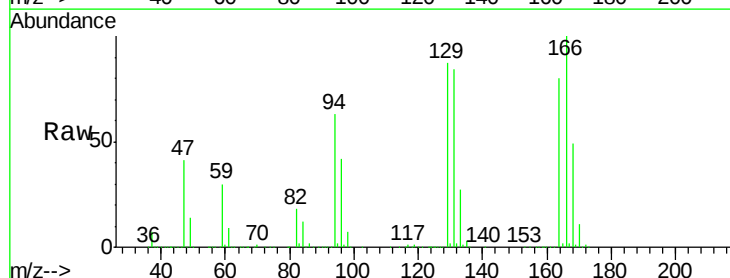
Ion Ratio Lower Upper

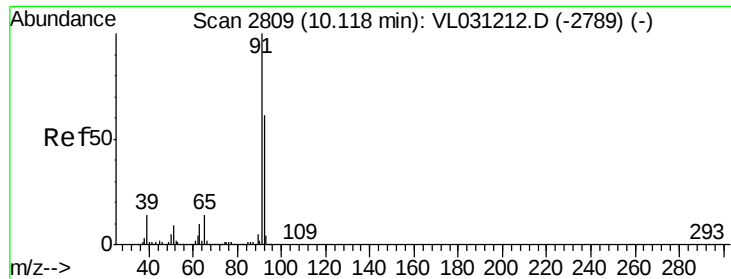
164 100

166 124.4 100.6 151.0

129 107.7 82.9 124.3

131 103.9 79.2 118.8





#53

Toluene

Concen: 0.23 ppbv

RT: 10.11 min Scan# 2806

Delta R.T. -0.01 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

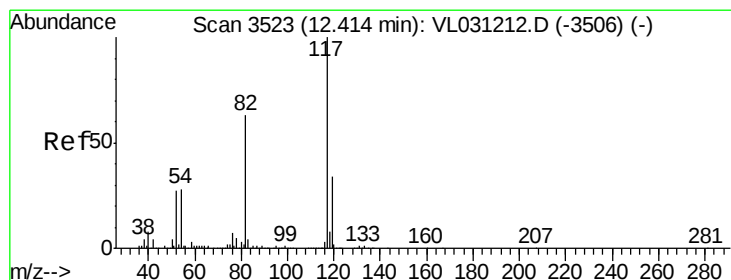
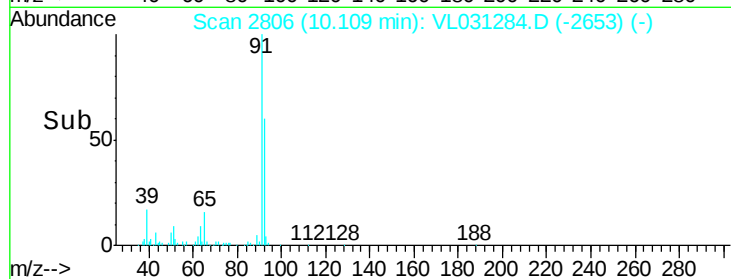
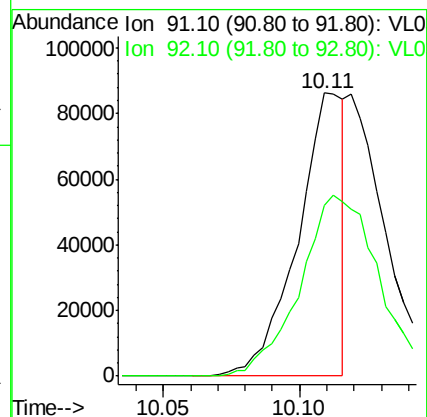
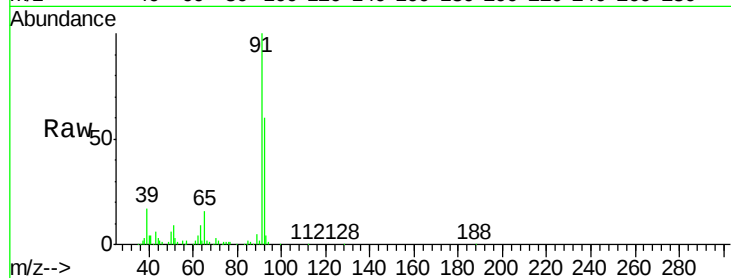
EP1-SV-5DL

Tgt Ion: 91 Resp: 100668

Ion Ratio Lower Upper

91 100

92 110.1 49.1 73.7#



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.41 min Scan# 3522

Delta R.T. -0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

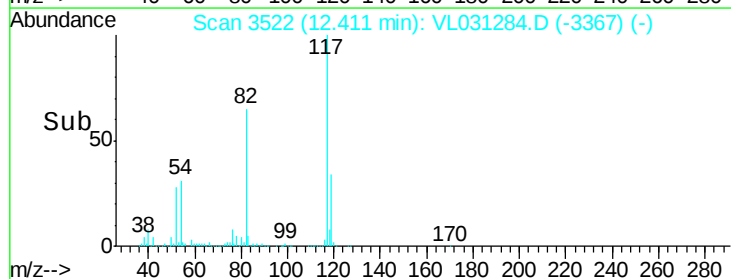
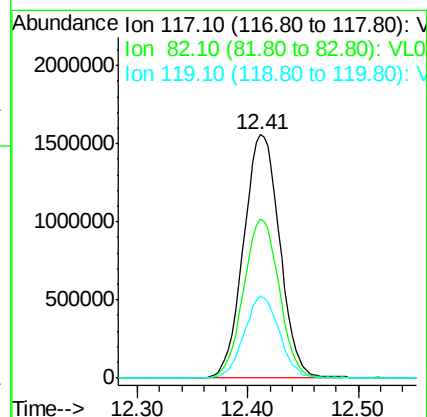
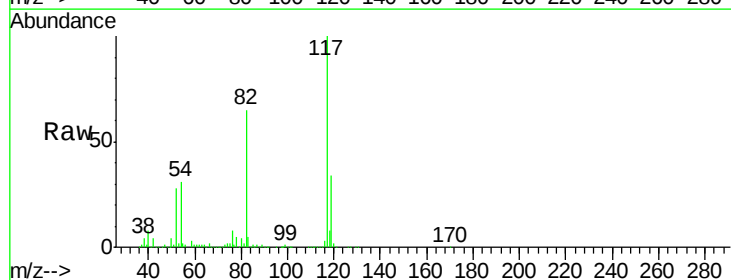
Tgt Ion: 117 Resp: 3535797

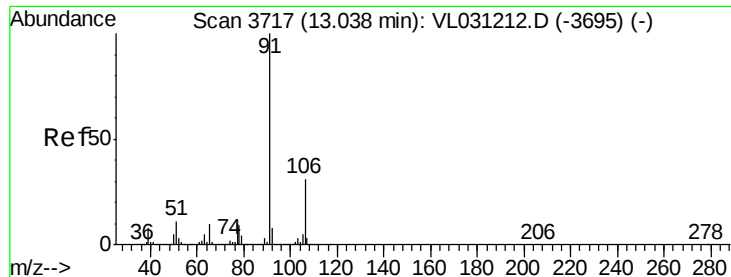
Ion Ratio Lower Upper

117 100

82 64.5 48.1 72.1

119 32.9 23.1 34.7





#58

Ethyl Benzene

Concen: 0.06 ppbv

RT: 13.03 min Scan# 3716

Delta R.T. -0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

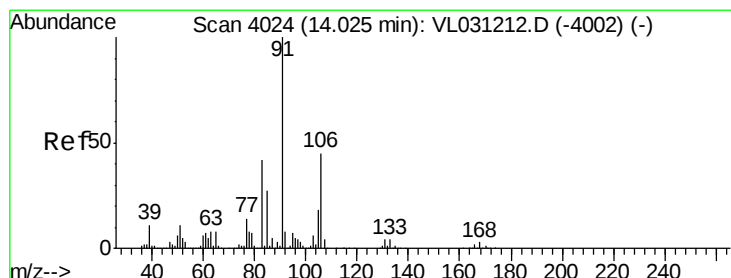
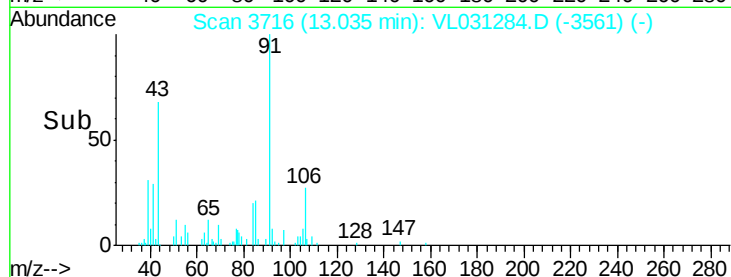
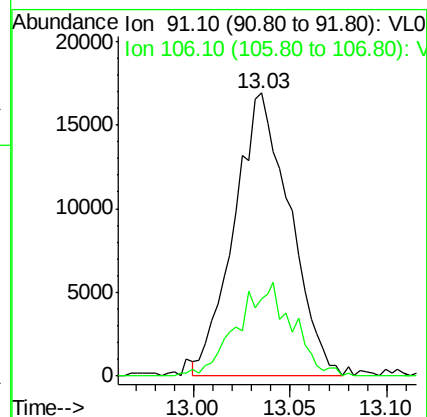
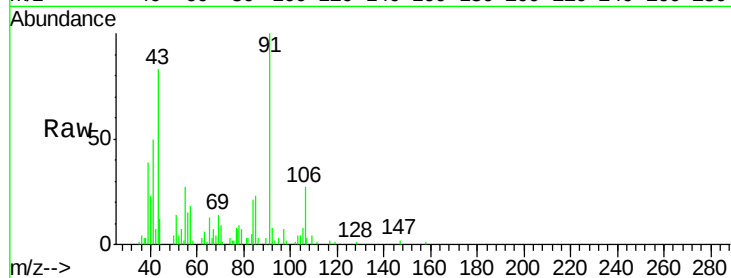
EP1-SV-5DL

Tgt Ion: 91 Resp: 33868

Ion Ratio Lower Upper

91 100

106 27.3 25.1 37.7



#60

o-Xylene

Concen: 0.09 ppbv

RT: 14.02 min Scan# 4021

Delta R.T. -0.01 min

Lab File: VL031284.D

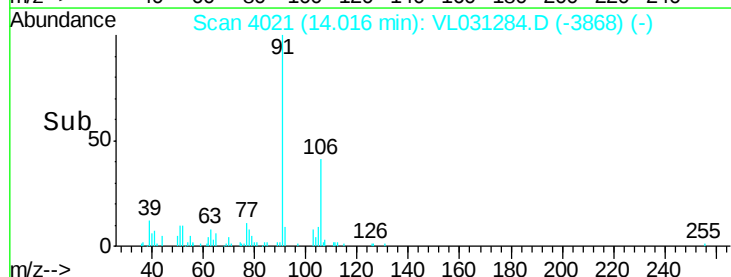
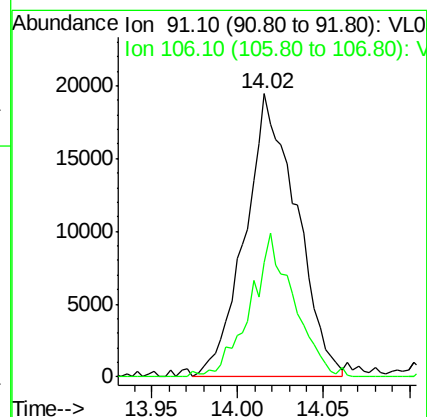
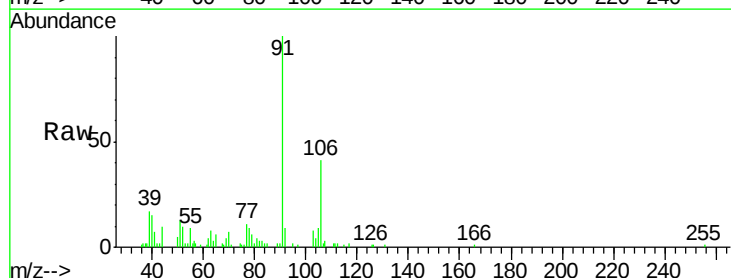
Acq: 21 Dec 2017 00:37

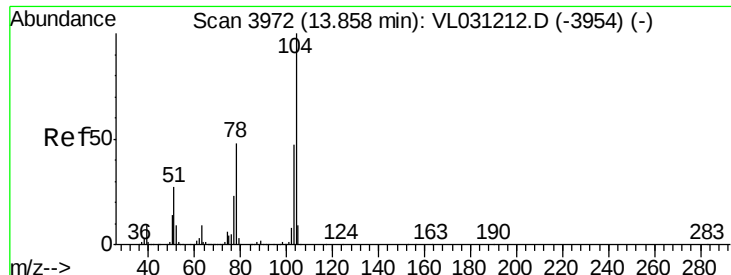
Tgt Ion: 91 Resp: 40427

Ion Ratio Lower Upper

91 100

106 43.2 22.7 68.1





#61

Styrene

Concen: 0.04 ppbv

RT: 13.86 min Scan# 3972

Delta R.T. 0.00 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

Instrument :

MSVOA_L

ClientSampleId :

EP1-SV-5DL

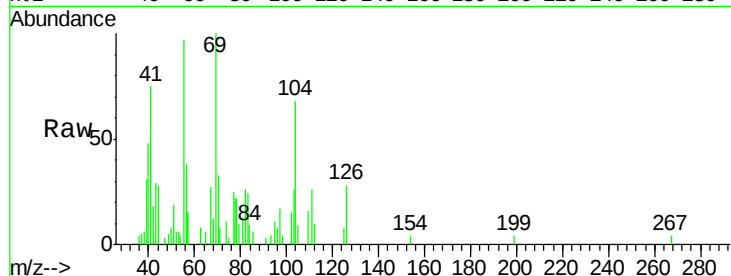
Tgt Ion: 104 Resp: 5376

Ion Ratio Lower Upper

104 100

78 87.1 39.1 58.7#

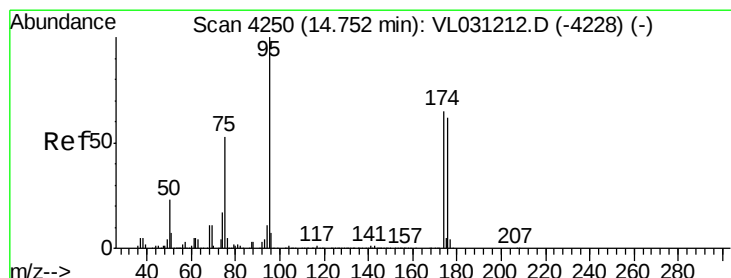
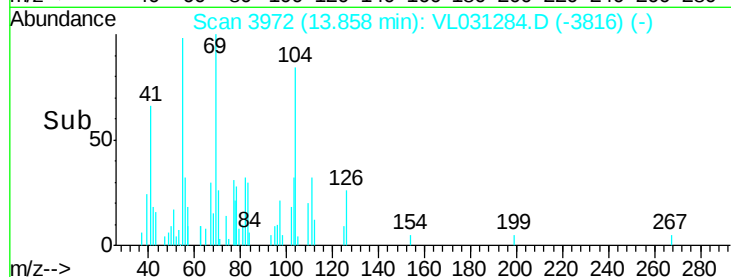
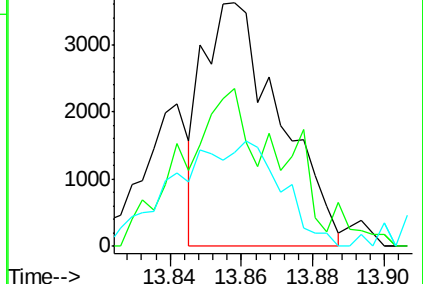
103 64.0 37.3 55.9#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 11.30 ppbv

RT: 14.75 min Scan# 4248

Delta R.T. -0.01 min

Lab File: VL031284.D

Acq: 21 Dec 2017 00:37

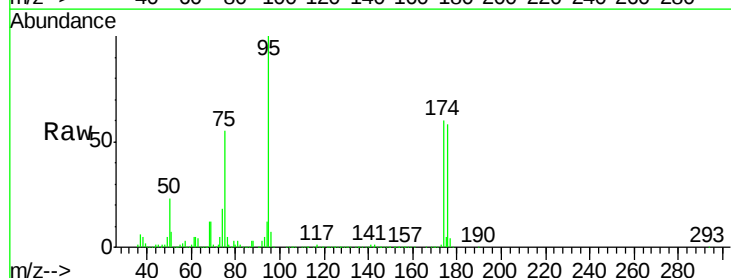
Tgt Ion: 95 Resp: 2841053

Ion Ratio Lower Upper

95 100

174 61.3 52.5 78.7

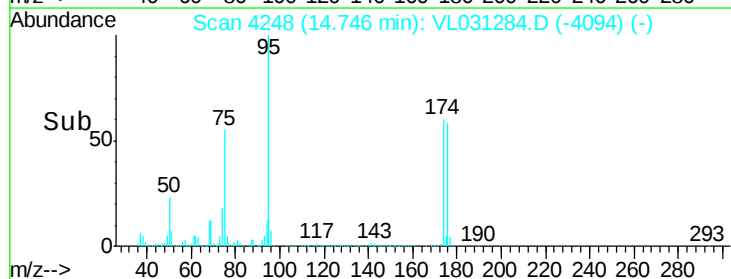
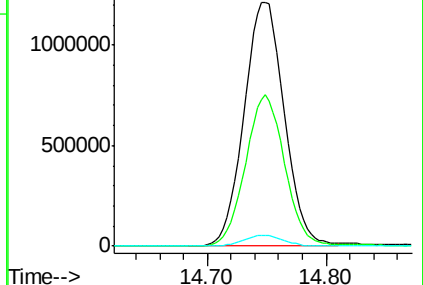
175 4.5 4.1 6.1

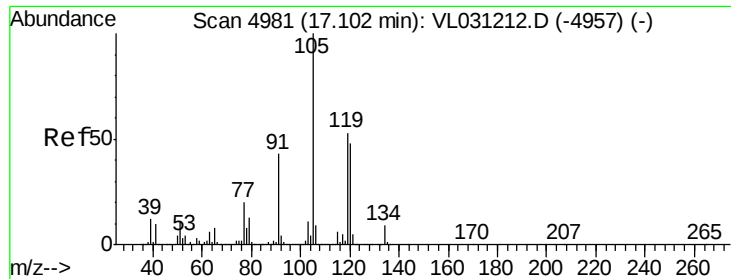


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.04 ppbv
 RT: 17.10 min Scan# 4979
 Delta R.T. -0.01 min
 Lab File: VL031284.D
 Acq: 21 Dec 2017 00:37

Instrument :
 MSVOA_L
 ClientSampleId :
 EP1-SV-5DL

Tgt Ion:	105	Resp:	18233
Ion	Ratio	Lower	Upper
105	100		
120	57.4	38.6	58.0
91	28.7	34.2	51.4#
77	10.4	16.1	24.1#

