

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL072715\
 Data File : VL025764.D
 Acq On : 27 Jul 2015 22:18
 Operator : SY/MD
 Sample : G3100-01DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL

Quant Time: Jul 28 01:03:47 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL070715AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 08 02:22:55 2015
 QLast Update : Wed Jul 08 02:22:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	759983	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.32	114	2074620	10.00	ppbv	-0.01
55) Chlorobenzene-d5	13.74	117	2515789	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.28	95	2189120	10.32	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

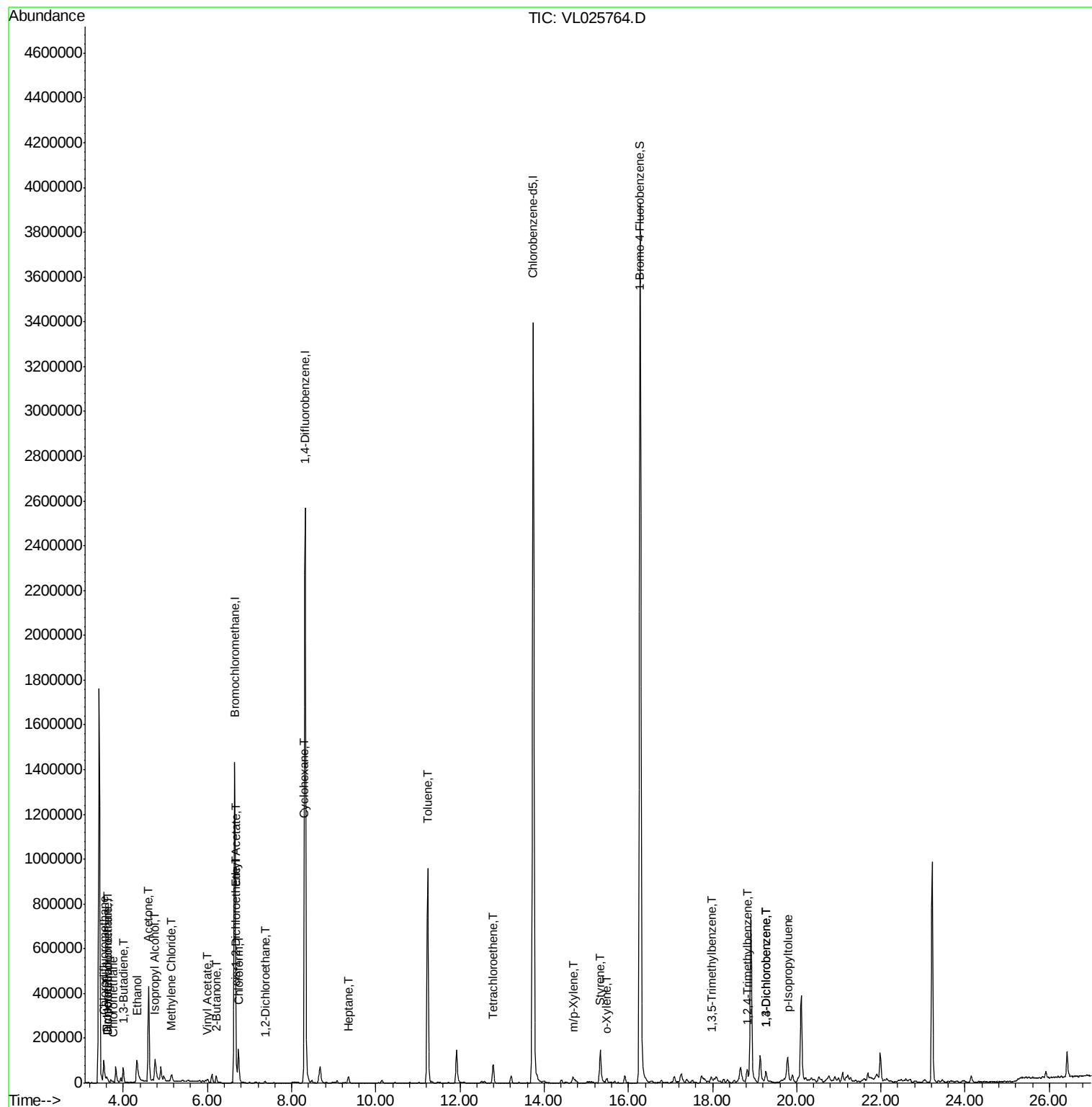
Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.64	85	10862	0.06	ppbv	98
3) Chlorodifluoromethane	3.54	51	98542	0.92	ppbv #	61
4) Chloromethane	3.76	50	4206	0.09	ppbv	89
8) Dichlorotetrafluoroethane	3.64	85	10862	0.06	ppbv #	17
9) Propene	3.60	41	3966	0.11	ppbv #	77
10) Heptane	9.35	43	15252	0.11	ppbv #	74
13) Ethanol	4.32	45	174232	31.49	ppbv	99
15) Acetone	4.60	43	307824	2.29	ppbv	91
16) 1,3-Butadiene	4.00	39	14603	0.27	ppbv #	15
19) Isopropyl Alcohol	4.76	45	161252	3.01	ppbv #	98
20) Methylene Chloride	5.15	84	11343	0.21	ppbv #	81
23) Vinyl Acetate	5.99	43	12051	0.06	ppbv #	88
25) Ethyl Acetate	6.67	43	26274	0.13	ppbv #	59
29) Chloroform	6.74	83	113963	0.60	ppbv	97
30) Cyclohexane	8.29	84	8615	0.09	ppbv #	33
31) cis-1,2-Dichloroethene	6.68	61	2984	0.03	ppbv #	27
34) 2-Butanone	6.21	43	43746	0.37	ppbv	96
37) 1,2-Dichloroethane	7.37	62	6138	0.04	ppbv #	85
52) Tetrachloroethene	12.79	164	12528	0.13	ppbv	93
53) Toluene	11.23	91	838125	3.00	ppbv	100
59) m/p-Xylene	14.69	91	33510	0.09	ppbv	97
60) o-Xylene	15.49	91	18819	0.05	ppbv	99
61) Styrene	15.32	104	8278	0.06	ppbv #	87
69) p-Isopropyltoluene	19.78	119	82885	0.14	ppbv #	90
73) 1,3,5-Trimethylbenzene	17.98	105	14409	0.03	ppbv	87
74) 1,2,4-Trimethylbenzene	18.83	105	40046	0.08	ppbv #	71
75) 1,3-Dichlorobenzene	19.27	146	25698	0.08	ppbv	92
76) 1,4-Dichlorobenzene	19.27	146	25698	0.08	ppbv	91

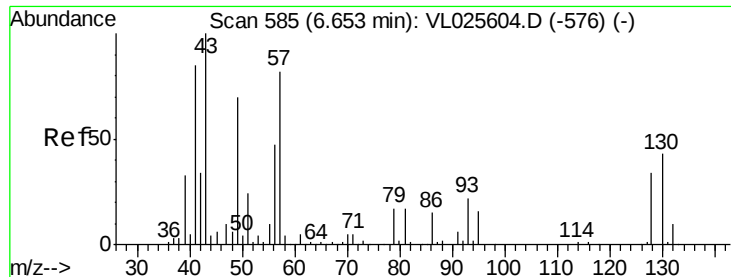
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 08 02:22:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.65 min Scan# 584

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL

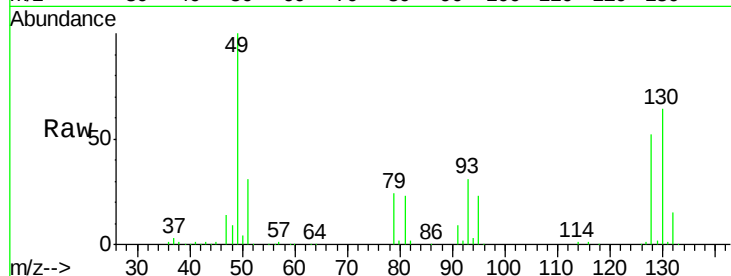
Tot Ion: 49 Resp: 759983

Ion Ratio Lower Upper

49 100

128 51.5 25.4 76.0

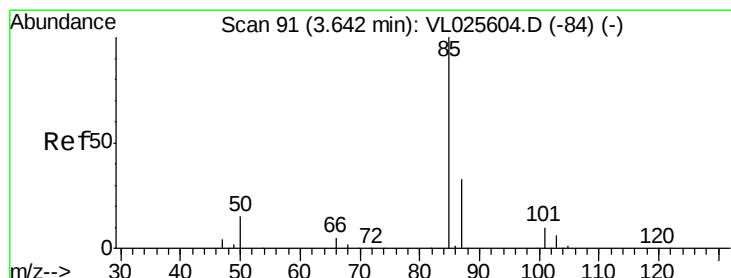
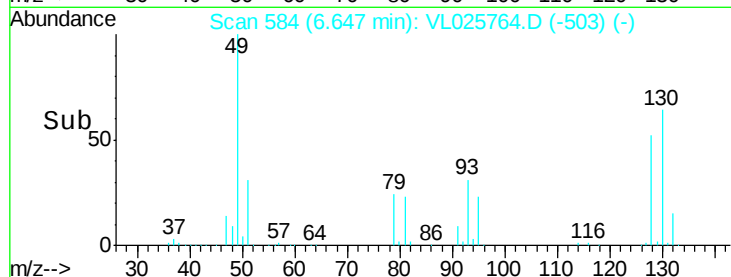
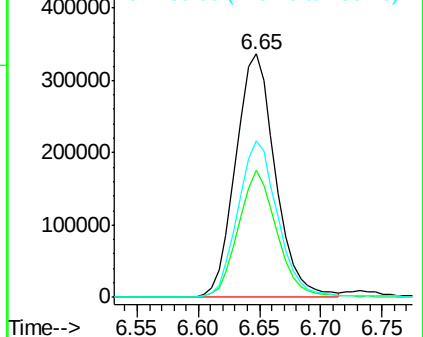
130 65.5 31.9 95.9



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: 0.06 ppbv

RT: 3.64 min Scan# 90

Delta R.T. -0.01 min

Lab File: VL025764.D

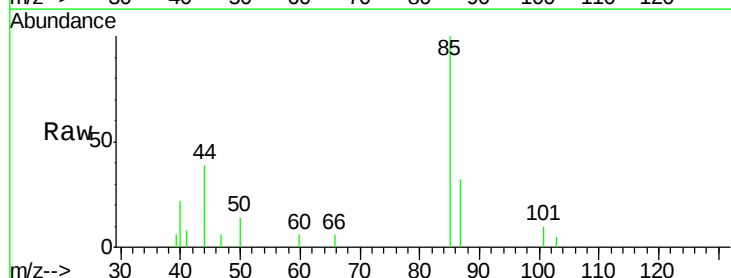
Acq: 27 Jul 2015 22:18

Tgt Ion: 85 Resp: 10862

Ion Ratio Lower Upper

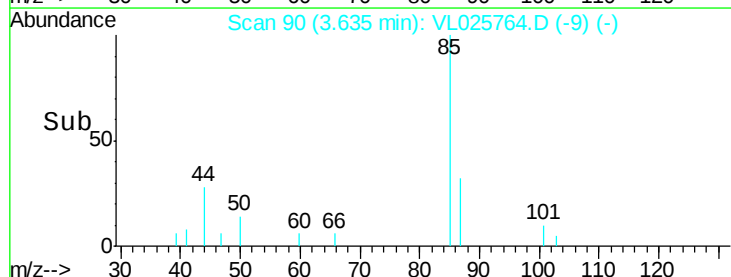
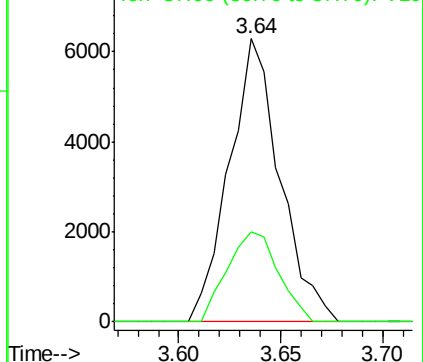
85 100

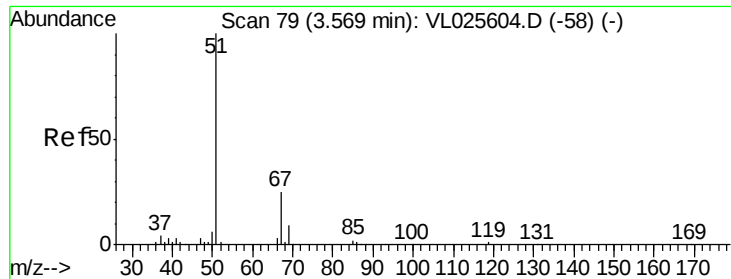
87 31.8 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

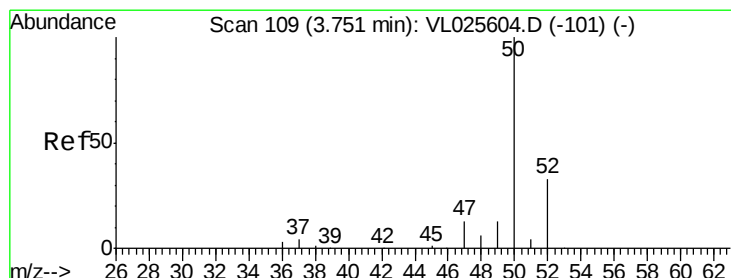
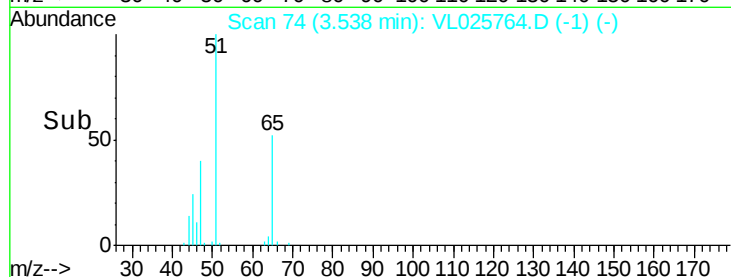
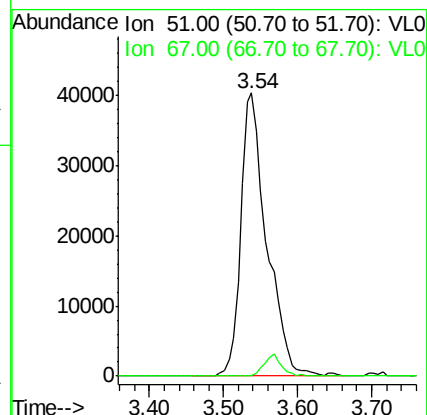
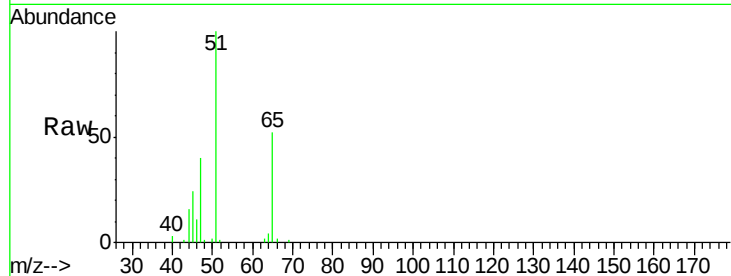




#3
 Chlorodifluoromethane
 Concen: 0.92 ppbv
 RT: 3.54 min Scan# 74
 Delta R.T. -0.03 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

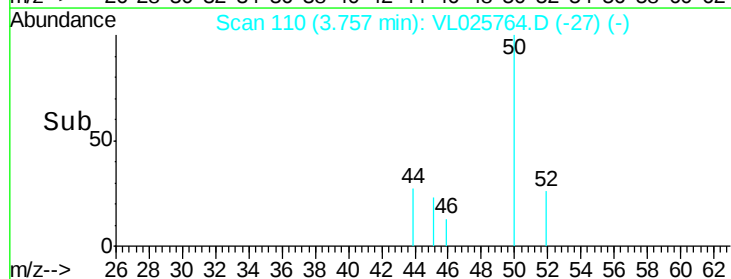
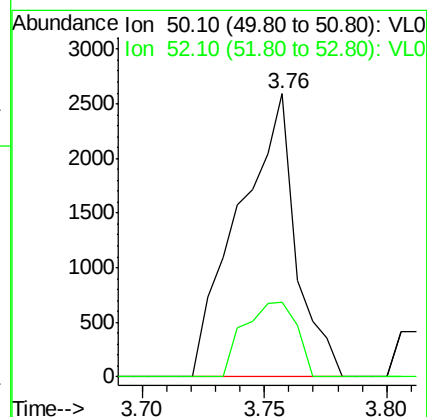
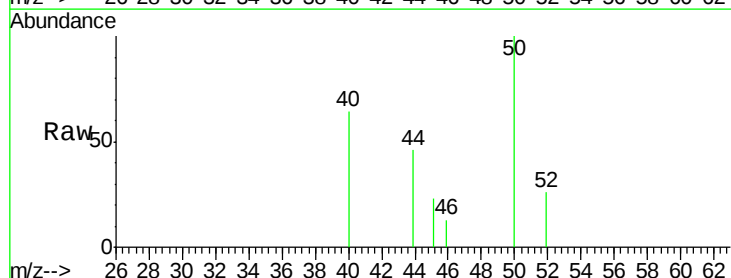
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL

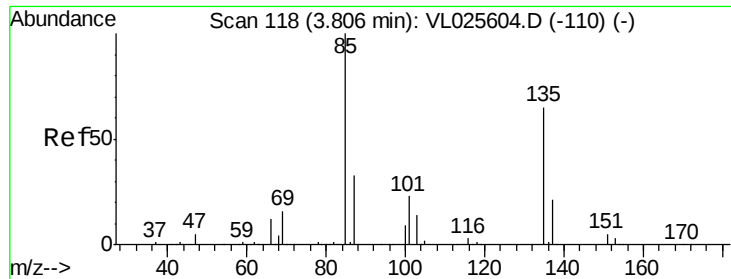
Tot Ion: 51 Resp: 98542
 Ion Ratio Lower Upper
 51 100
 67 5.2 19.5 29.3#



#4
 Chloromethane
 Concen: 0.09 ppbv
 RT: 3.76 min Scan# 110
 Delta R.T. 0.01 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

Tgt Ion: 50 Resp: 4206
 Ion Ratio Lower Upper
 50 100
 52 26.3 26.2 39.2





#8

Dichlorotetrafluoroethane

Concen: 0.06 ppbv

RT: 3.64 min Scan# 90

Delta R.T. -0.17 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

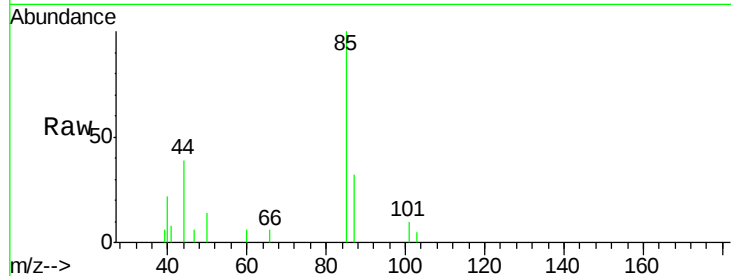
IA-1DL

Tot Ion: 85 Resp: 10862

Ion Ratio Lower Upper

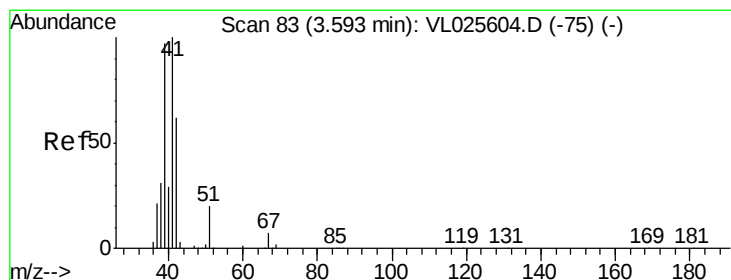
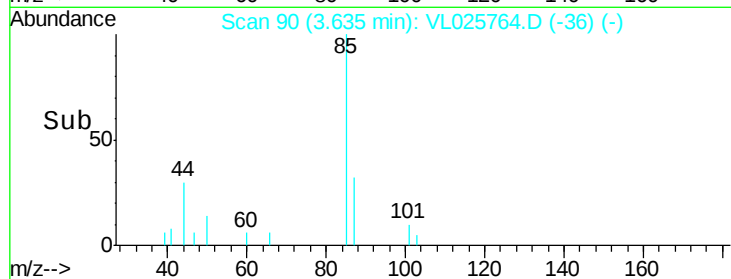
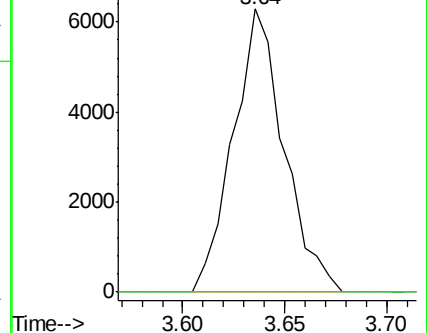
85 100

135 0.0 52.2 78.4#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): VL0



#9

Propene

Concen: 0.11 ppbv

RT: 3.60 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL025764.D

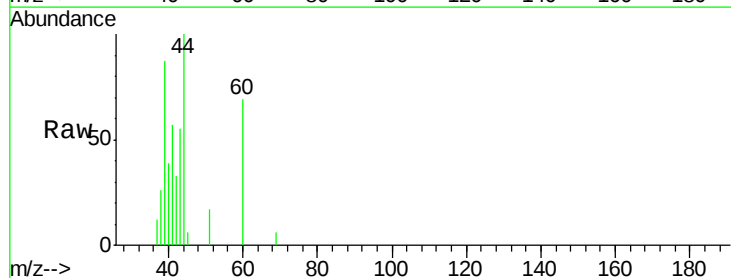
Acq: 27 Jul 2015 22:18

Tgt Ion: 41 Resp: 3966

Ion Ratio Lower Upper

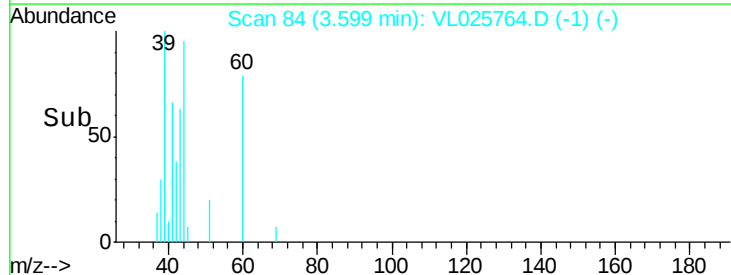
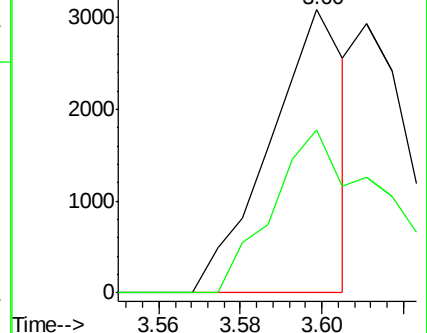
41 100

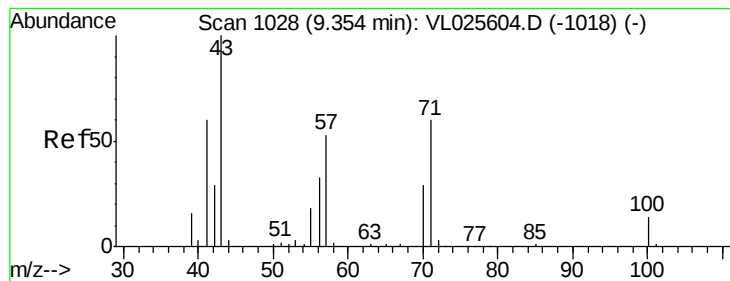
42 83.9 52.4 78.6#



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: 9.35 min Scan# 1027

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

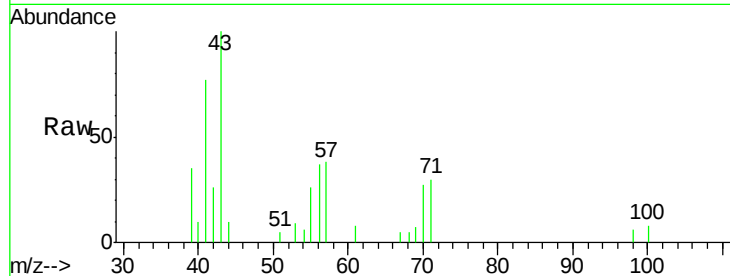
IA-1DL

Tot Ion: 43 Resp: 15252

Ion Ratio Lower Upper

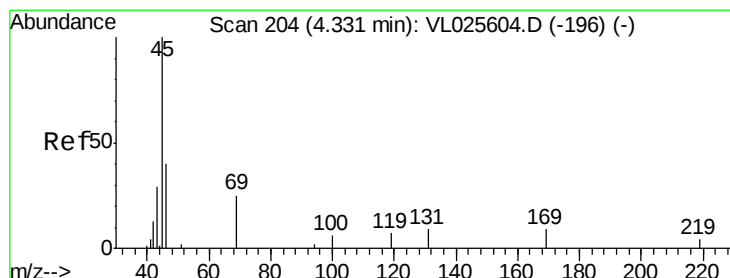
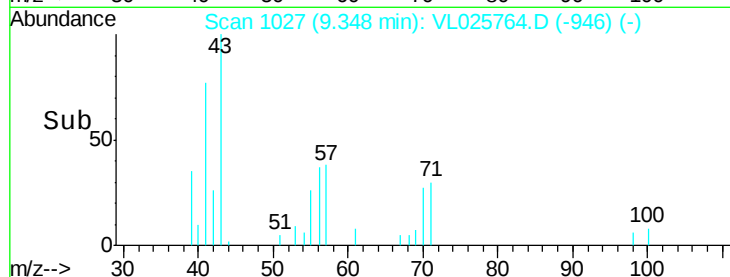
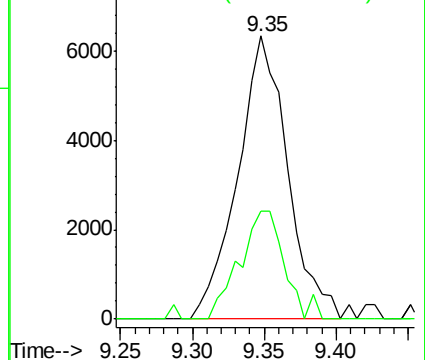
43 100

57 34.9 42.6 64.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#13

Ethanol

Concen: 31.49 ppbv

RT: 4.32 min Scan# 203

Delta R.T. -0.01 min

Lab File: VL025764.D

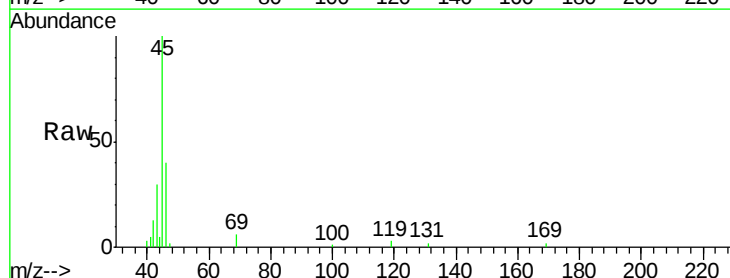
Acq: 27 Jul 2015 22:18

Tgt Ion: 45 Resp: 174232

Ion Ratio Lower Upper

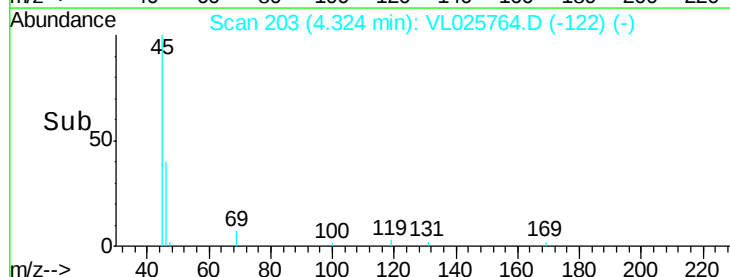
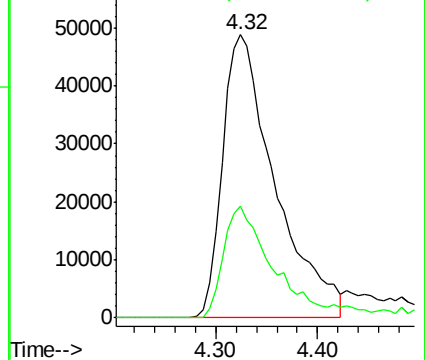
45 100

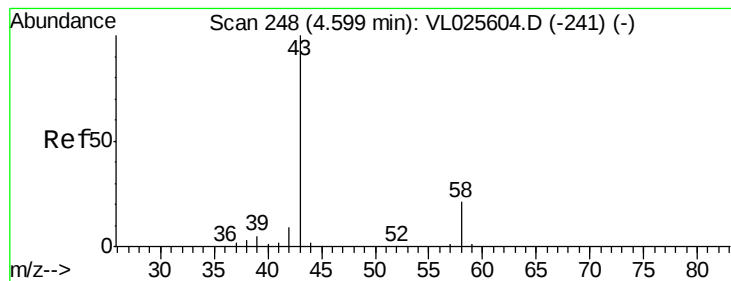
46 39.2 16.0 64.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 2.29 ppbv

RT: 4.60 min Scan# 249

Delta R.T. 0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

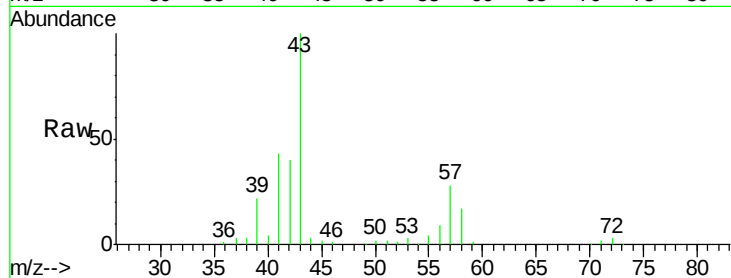
IA-1DL

Tot Ion: 43 Resp: 307824

Ion Ratio Lower Upper

43 100

58 17.5 17.2 25.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

150000

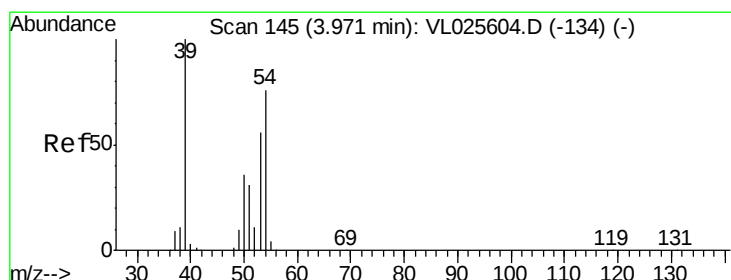
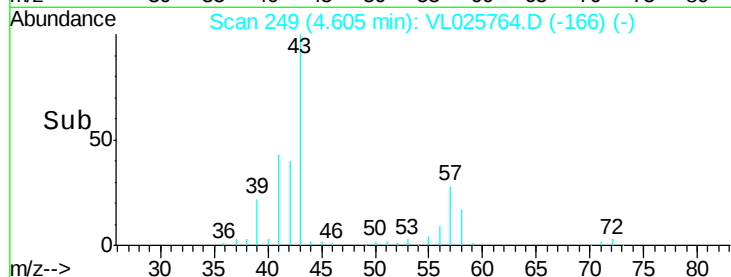
100000

50000

0

4.50 4.55 4.60 4.65 4.70

Time-->



#16

1,3-Butadiene

Concen: 0.27 ppbv

RT: 4.00 min Scan# 150

Delta R.T. 0.03 min

Lab File: VL025764.D

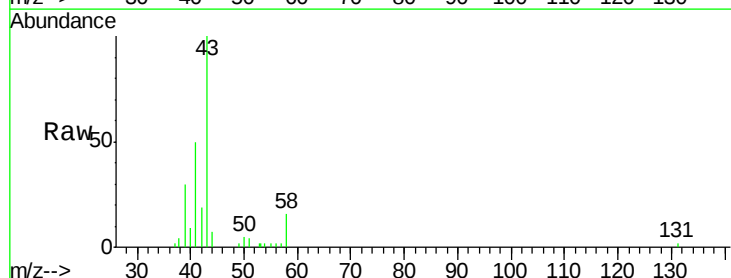
Acq: 27 Jul 2015 22:18

Tgt Ion: 39 Resp: 14603

Ion Ratio Lower Upper

39 100

54 2.1 59.3 88.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

8000

6000

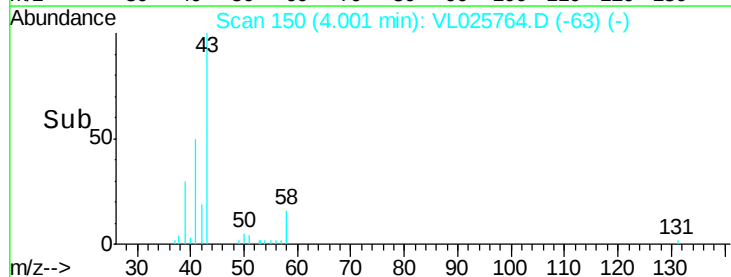
4000

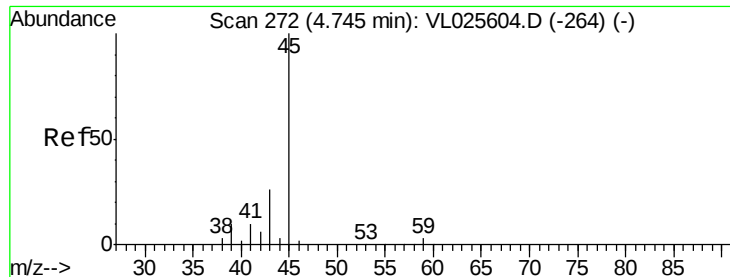
2000

0

3.95 4.00 4.05

Time-->





#19

Isopropyl Alcohol

Concen: 3.01 ppbv

RT: 4.76 min Scan# 274

Delta R.T. 0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

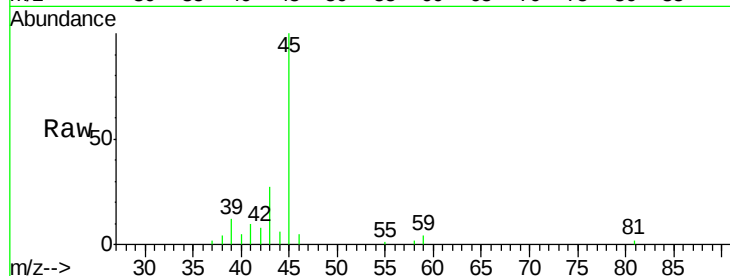
IA-1DL

Tot Ion: 45 Resp: 161252

Ion Ratio Lower Upper

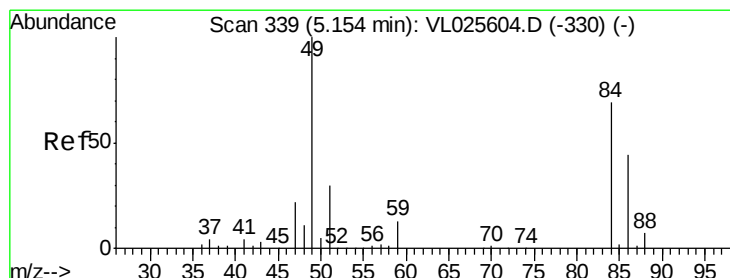
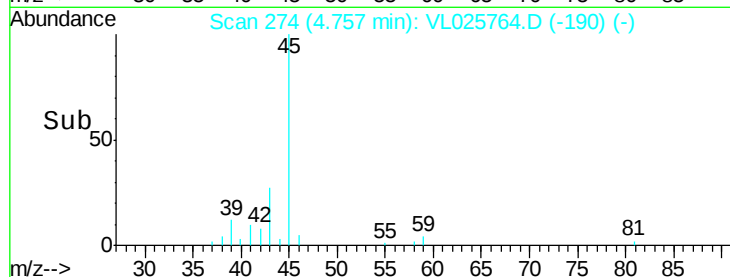
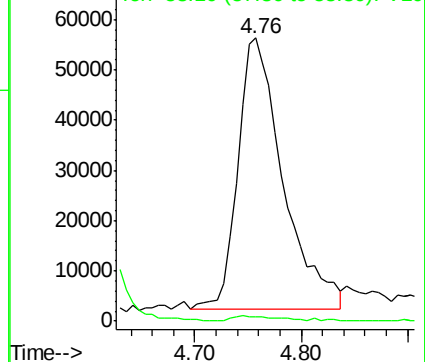
45 100

58 2.1 1.1 1.7#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.21 ppbv

RT: 5.15 min Scan# 339

Delta R.T. -0.00 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Tgt Ion: 84 Resp: 11343

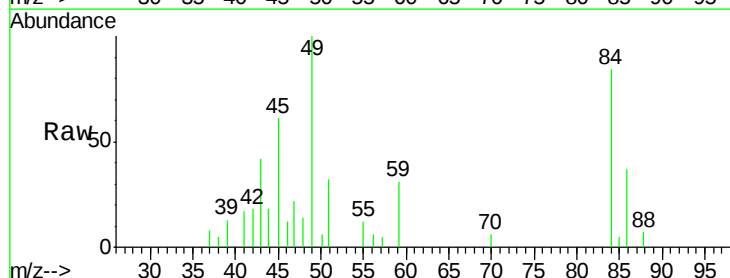
Ion Ratio Lower Upper

84 100

49 119.4 115.2 172.8

51 38.0 35.0 52.6

86 43.9 50.6 76.0#

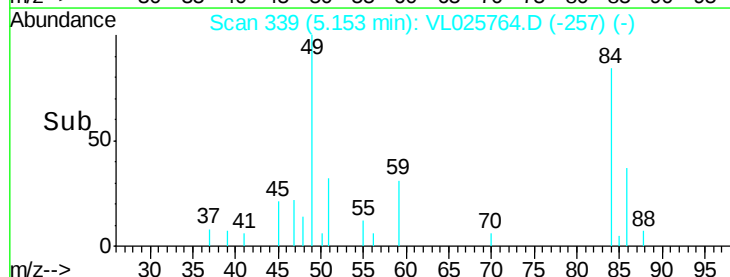
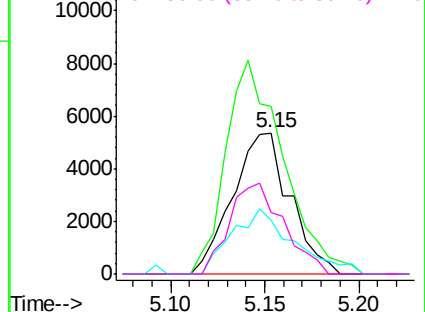


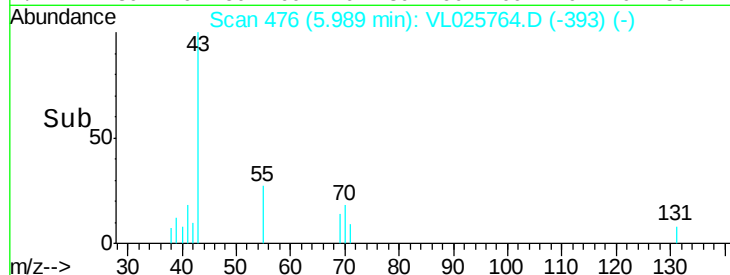
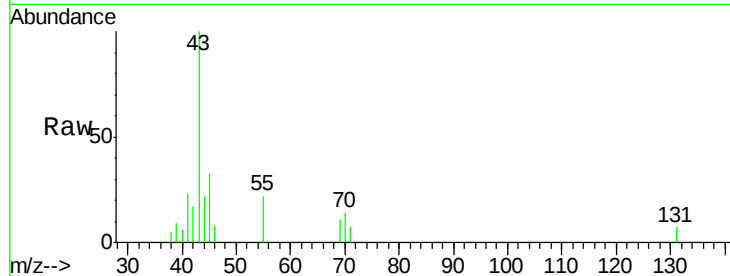
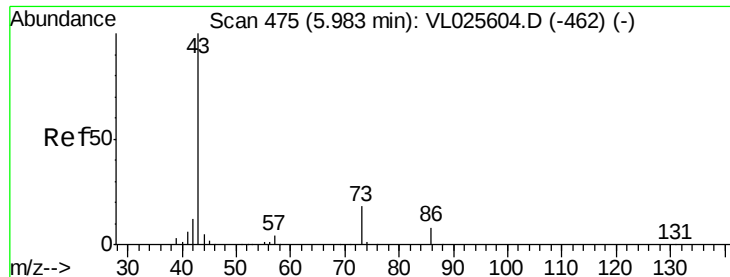
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

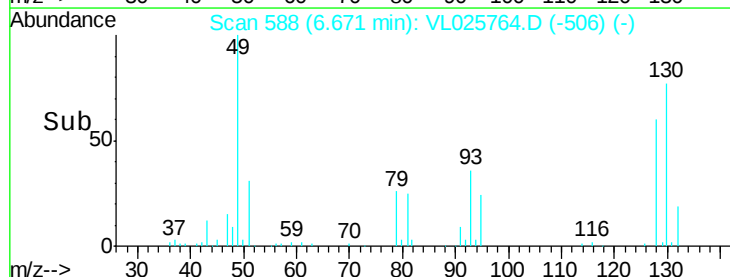
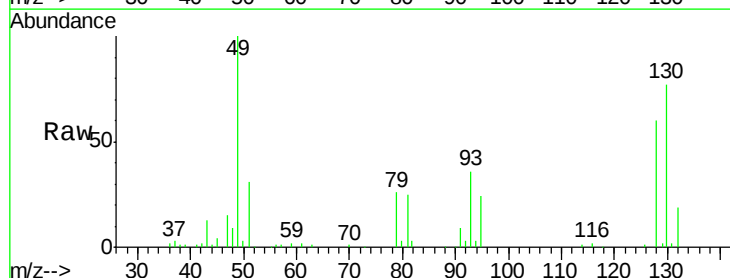
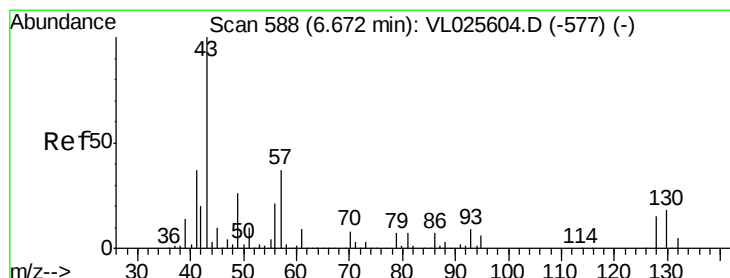
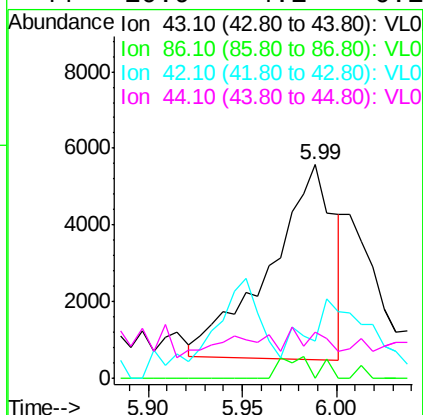




#23
 Vinyl Acetate
 Concen: 0.06 ppbv
 RT: 5.99 min Scan# 476
 Delta R.T. 0.01 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

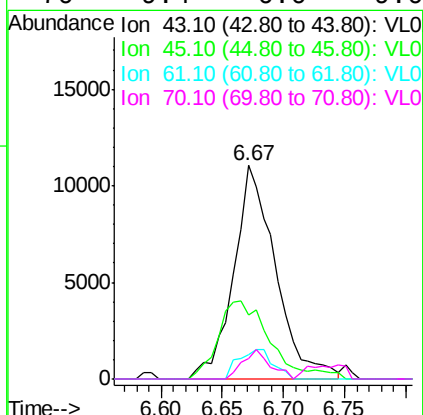
Instrument :
 MSVOA_L
 ClientSampleID :
 IA-1DL

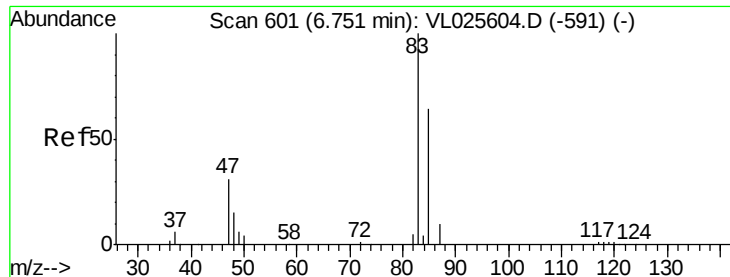
Tot Ion:	43	Resp:	12051
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.7	10.1#
42	11.6	9.8	14.6
44	10.9	4.1	6.1#



#25
 Ethyl Acetate
 Concen: 0.13 ppbv
 RT: 6.67 min Scan# 588
 Delta R.T. -0.00 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

Tgt Ion:	43	Resp:	26274
Ion	Ratio	Lower	Upper
43	100		
45	45.3	7.5	11.3#
61	11.4	6.6	10.0#
70	9.4	6.0	9.0#

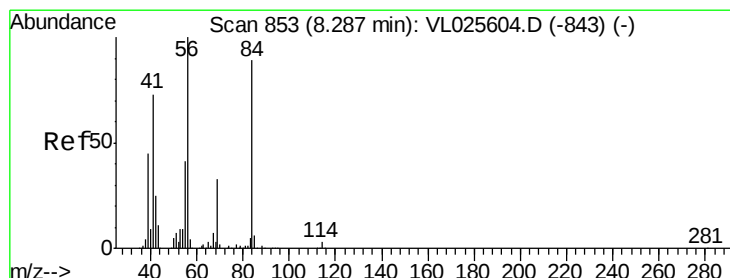
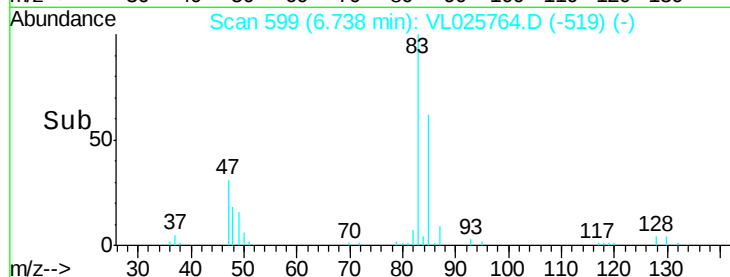
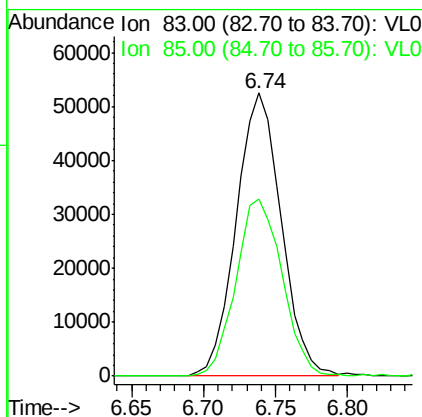
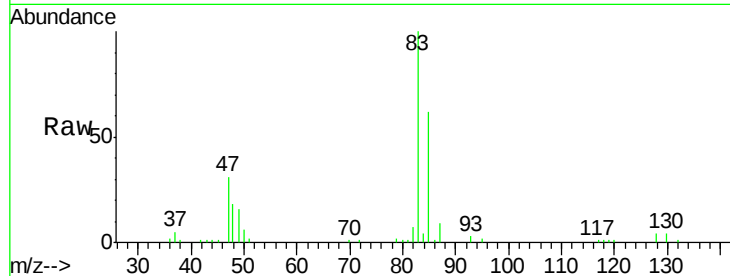




#29
Chloroform
Concen: 0.60 ppbv
RT: 6.74 min Scan# 599
Delta R.T. -0.01 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

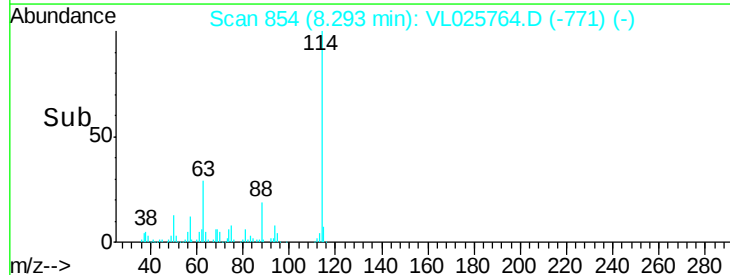
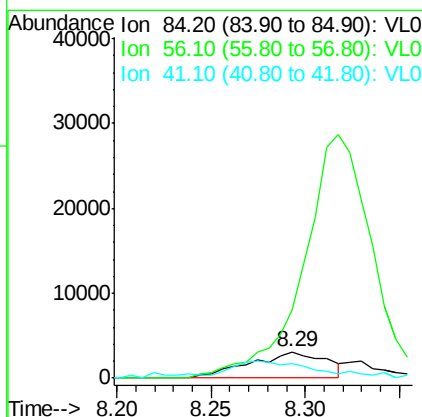
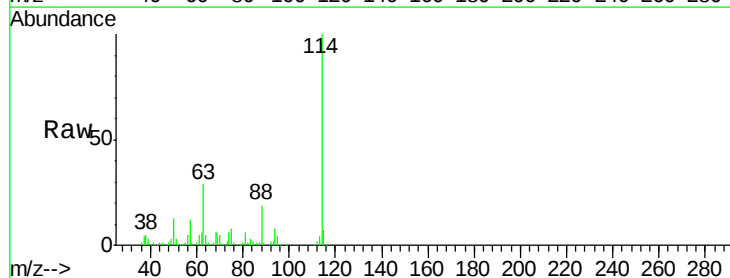
Instrument :
MSVOA_L
ClientSampleId :
IA-1DL

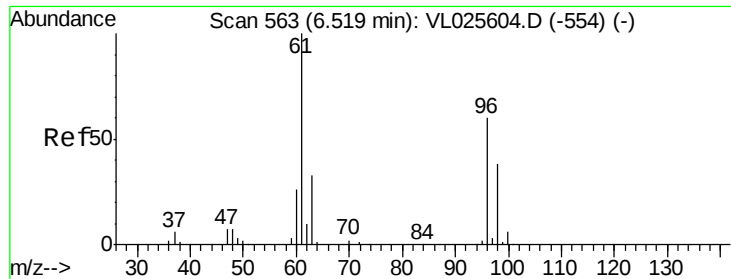
Tot Ion: 83 Resp: 113963
Ion Ratio Lower Upper
83 100
85 62.4 51.6 77.4



#30
Cyclohexane
Concen: 0.09 ppbv
RT: 8.29 min Scan# 854
Delta R.T. 0.01 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

Tgt Ion: 84 Resp: 8615
Ion Ratio Lower Upper
84 100
56 0.0 97.5 146.3#
41 85.9 65.4 98.2





#31

cis-1,2-Dichloroethene

Concen: 0.03 ppbv

RT: 6.68 min Scan# 590

Delta R.T. 0.16 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL

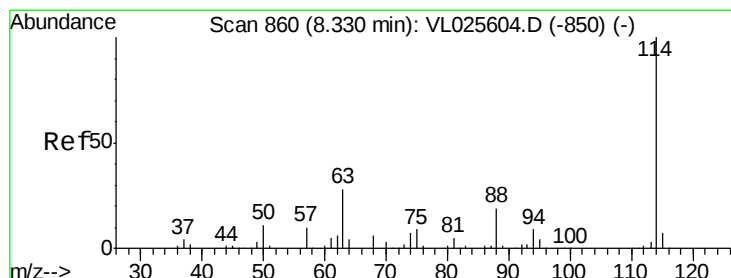
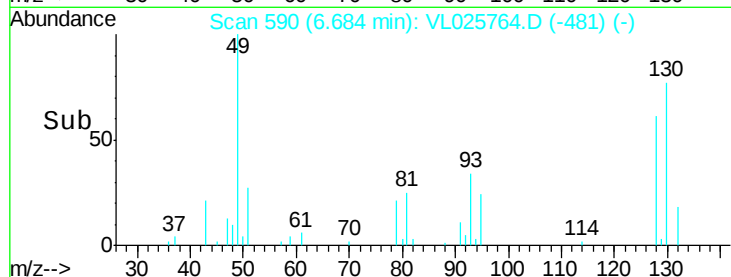
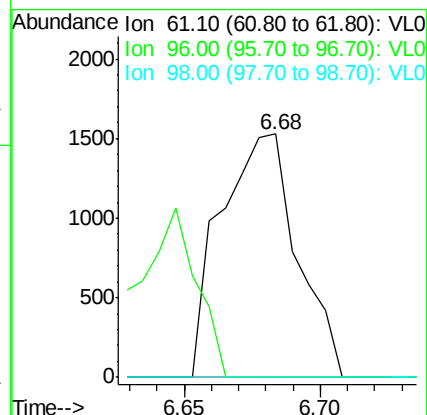
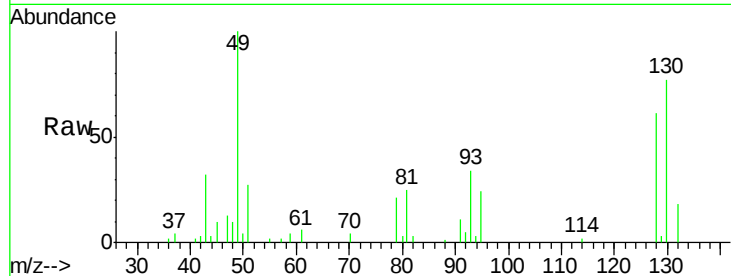
Tot Ion: 61 Resp: 2984

Ion Ratio Lower Upper

61 100

96 0.0 48.1 72.1#

98 0.0 30.7 46.1#



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 8.32 min Scan# 858

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

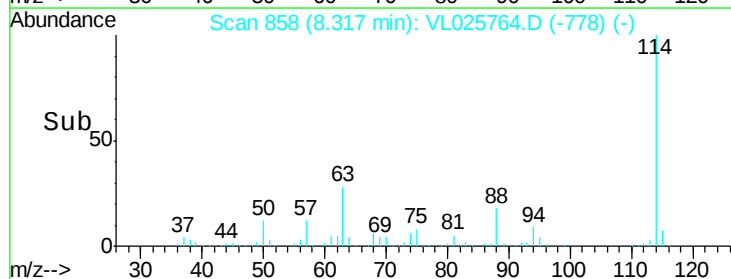
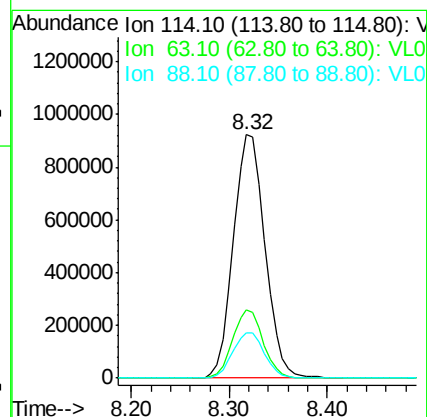
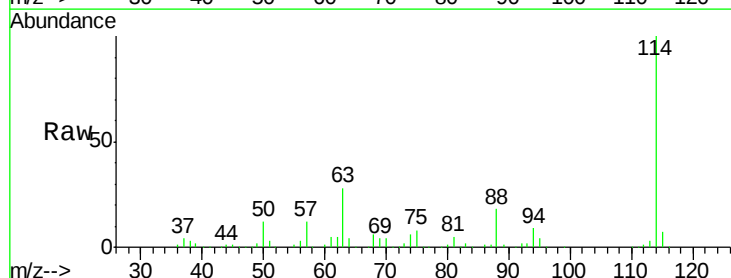
Tgt Ion: 114 Resp: 2074620

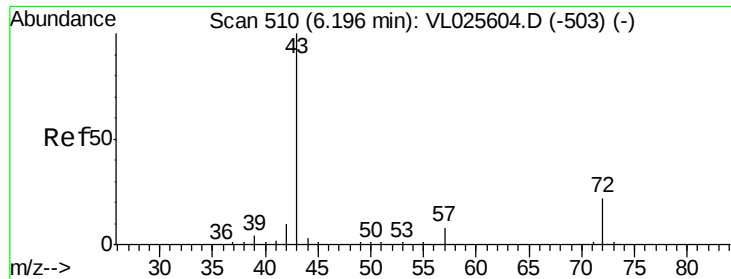
Ion Ratio Lower Upper

114 100

63 27.2 22.4 33.6

88 18.6 15.0 22.4

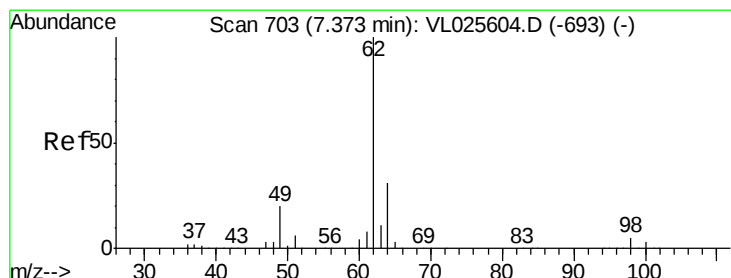
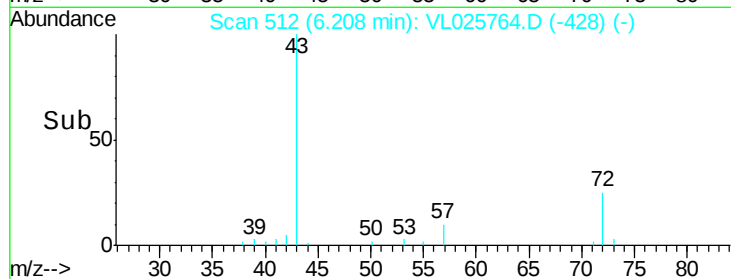
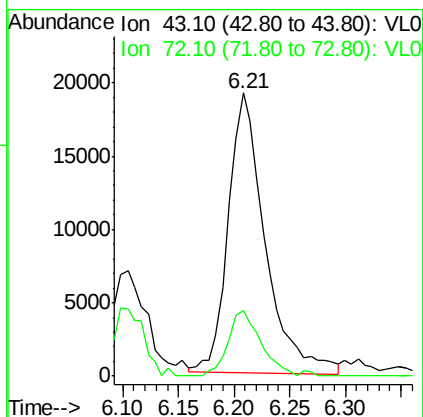
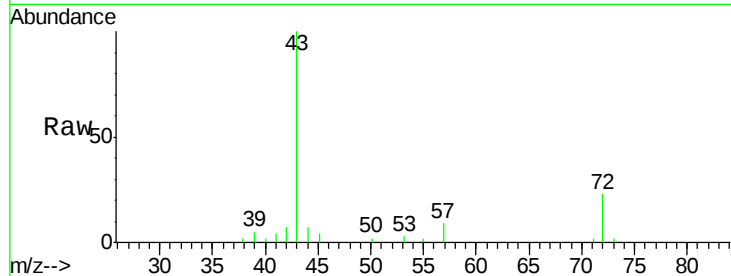




#34
 2-Butanone
 Concen: 0.37 ppbv
 RT: 6.21 min Scan# 512
 Delta R.T. 0.01 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

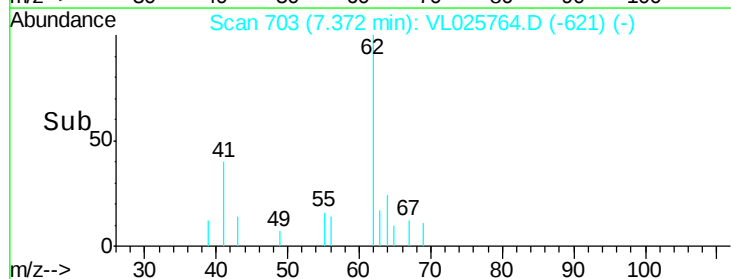
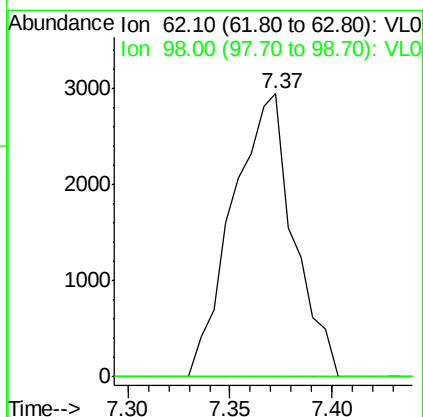
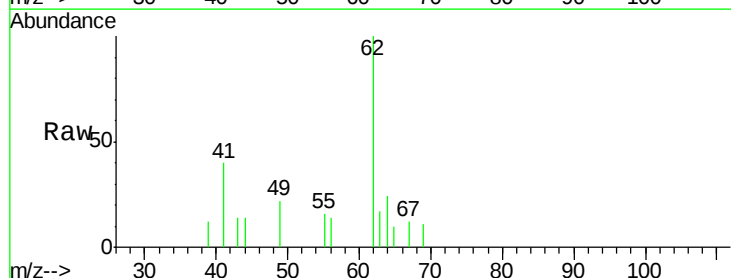
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL

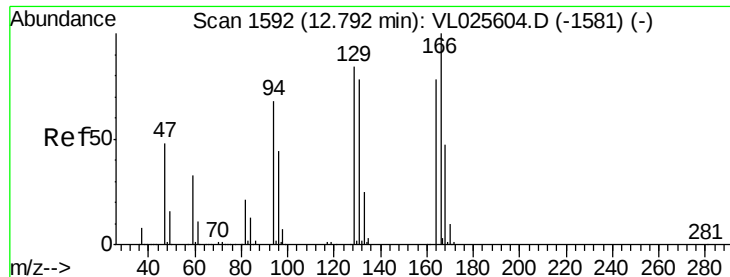
Tot Ion: 43 Resp: 43746
 Ion Ratio Lower Upper
 43 100
 72 21.5 18.6 28.0



#37
 1,2-Dichloroethane
 Concen: 0.04 ppbv
 RT: 7.37 min Scan# 703
 Delta R.T. -0.00 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

Tgt Ion: 62 Resp: 6138
 Ion Ratio Lower Upper
 62 100
 98 0.0 4.1 6.1#





#52

Tetrachloroethene

Concen: 0.13 ppbv

RT: 12.79 min Scan# 1592

Delta R.T. -0.00 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL

Tot Ion:164 Resp: 12528

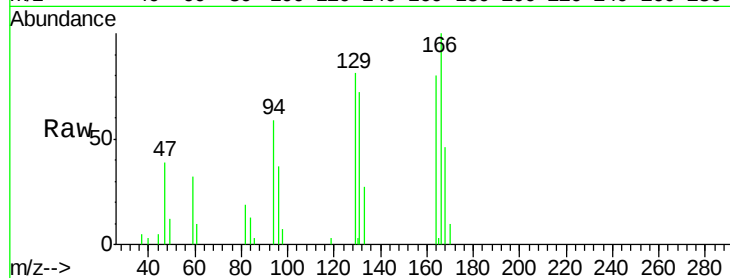
Ion Ratio Lower Upper

164 100

166 124.6 102.3 153.5

129 100.4 86.2 129.4

131 89.6 80.3 120.5

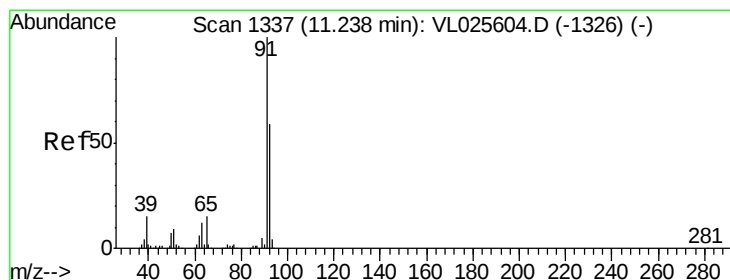
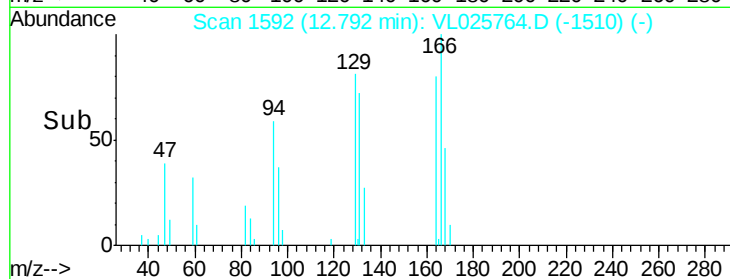
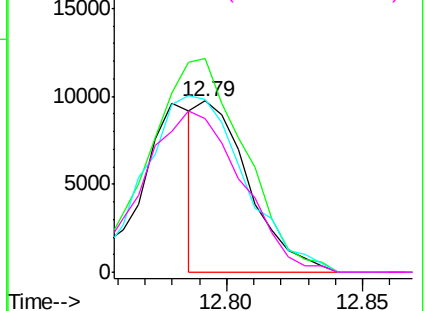


Abundance Ion 163.90 (163.60 to 164.60): V

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: 3.00 ppbv

RT: 11.23 min Scan# 1336

Delta R.T. -0.01 min

Lab File: VL025764.D

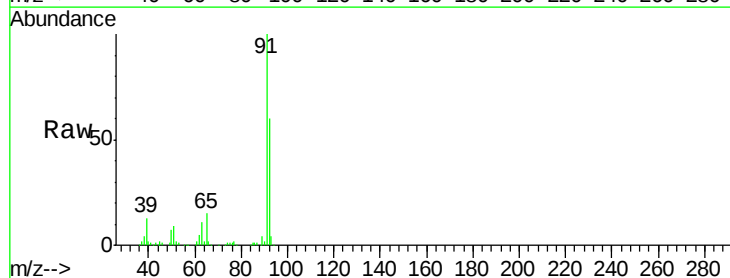
Acq: 27 Jul 2015 22:18

Tgt Ion: 91 Resp: 838125

Ion Ratio Lower Upper

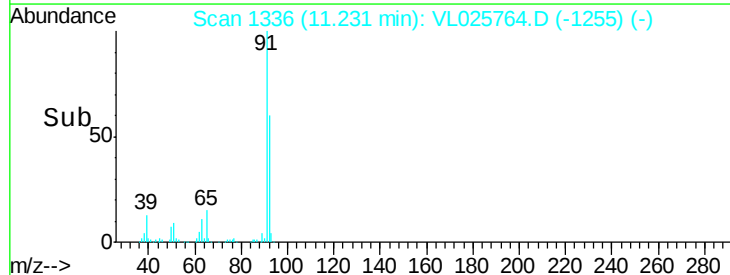
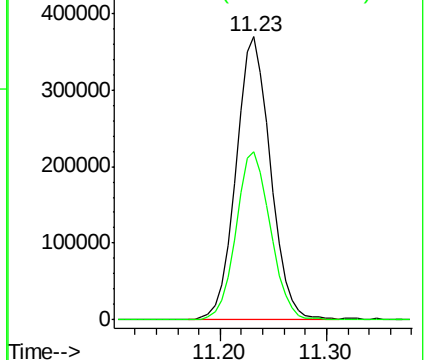
91 100

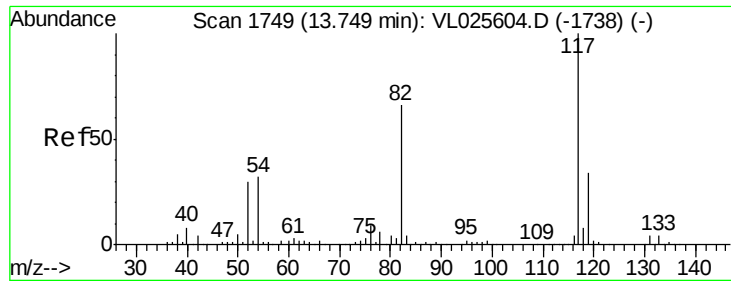
92 59.9 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

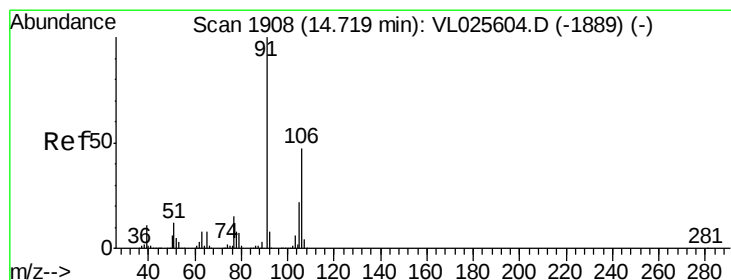
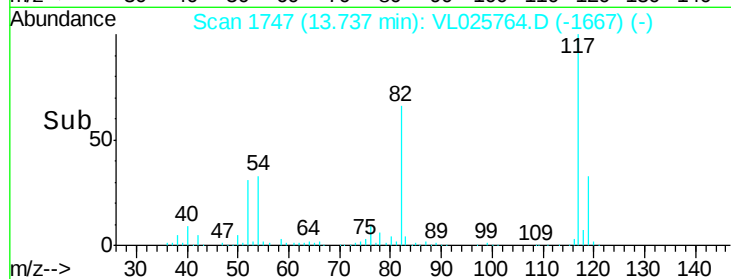
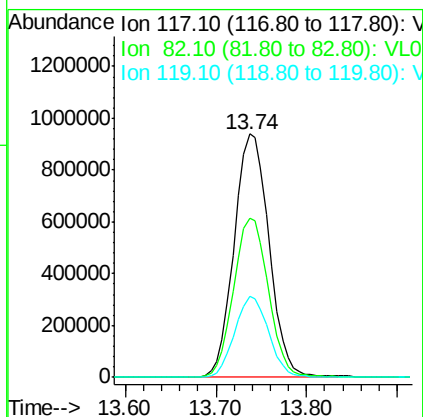
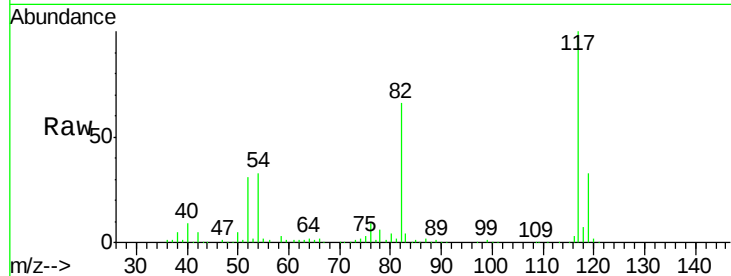




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.74 min Scan# 1747
Delta R.T. -0.01 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

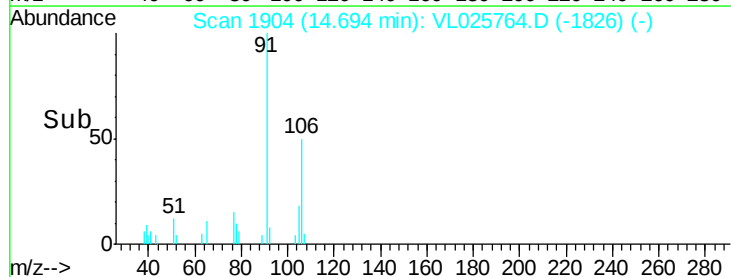
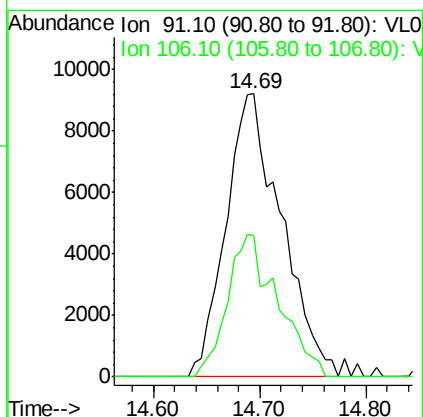
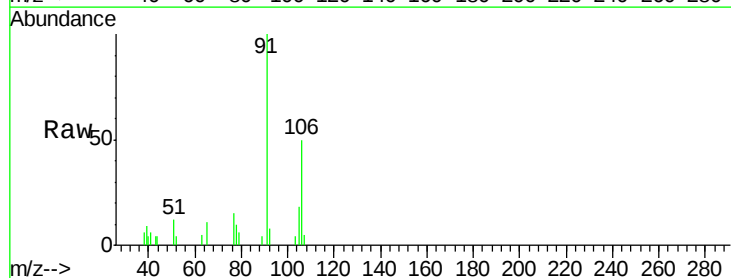
Instrument :
MSVOA_L
ClientSampleId :
IA-1DL

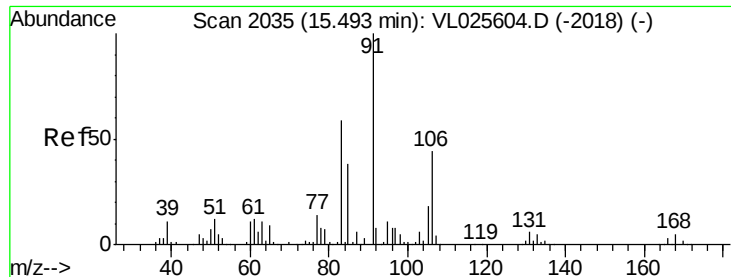
Tot Ion:117 Resp: 2515789
Ion Ratio Lower Upper
117 100
82 65.8 50.5 75.7
119 32.7 45.1 67.7#



#59
m/p-Xylene
Concen: 0.09 ppbv
RT: 14.69 min Scan# 1904
Delta R.T. -0.02 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

Tgt Ion: 91 Resp: 33510
Ion Ratio Lower Upper
91 100
106 45.6 37.9 56.9

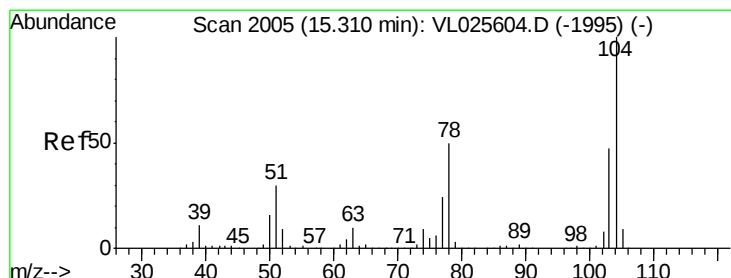
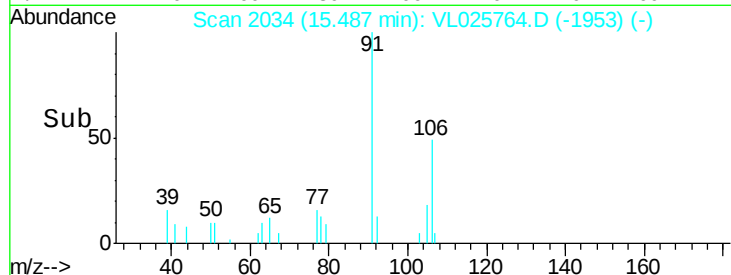
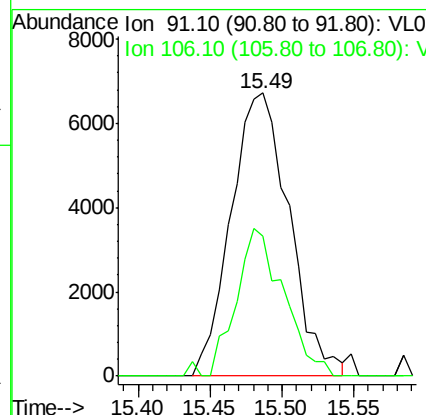
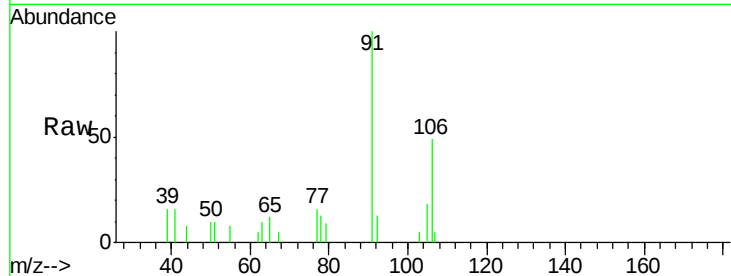




#60
o-Xylene
Concen: 0.05 ppbv
RT: 15.49 min Scan# 2034
Delta R.T. -0.01 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

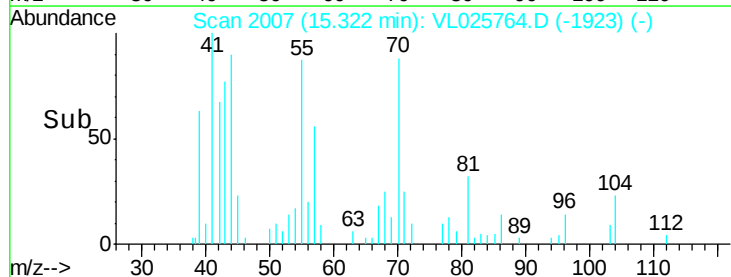
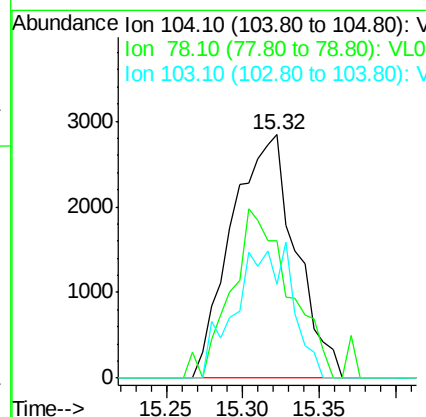
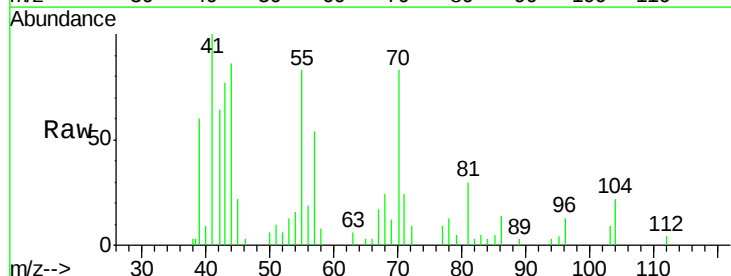
Instrument :
MSVOA_L
ClientSampled :
IA-1DL

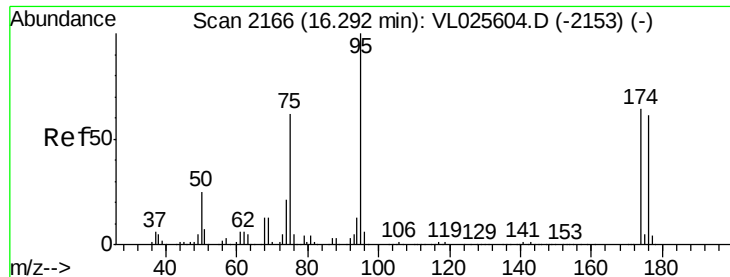
Tot Ion: 91 Resp: 18819
Ion Ratio Lower Upper
91 100
106 43.2 22.1 66.1



#61
Styrene
Concen: 0.06 ppbv
RT: 15.32 min Scan# 2007
Delta R.T. 0.01 min
Lab File: VL025764.D
Acq: 27 Jul 2015 22:18

Tgt Ion: 104 Resp: 8278
Ion Ratio Lower Upper
104 100
78 65.4 40.2 60.4#
103 48.7 37.4 56.2

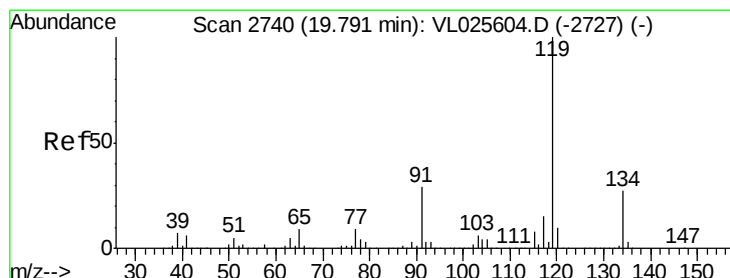
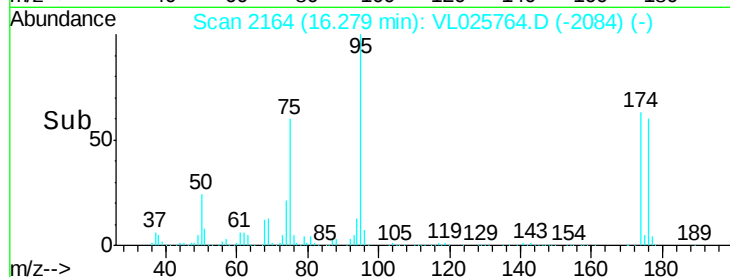
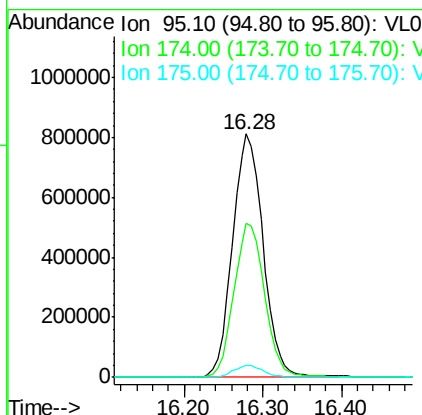
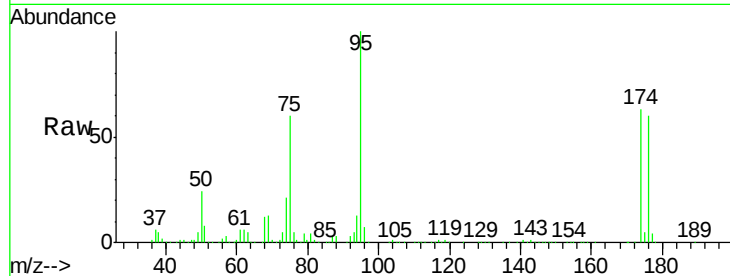




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.32 ppbv
 RT: 16.28 min Scan# 2164
 Delta R.T. -0.01 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

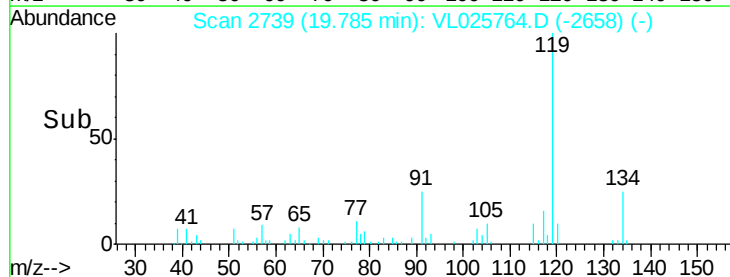
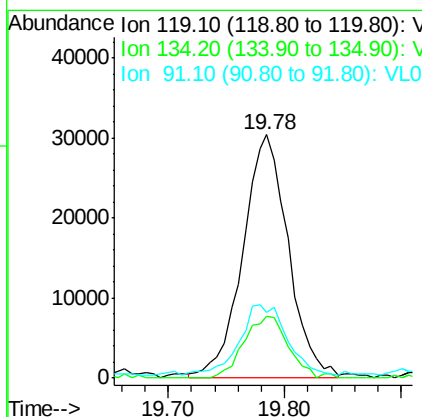
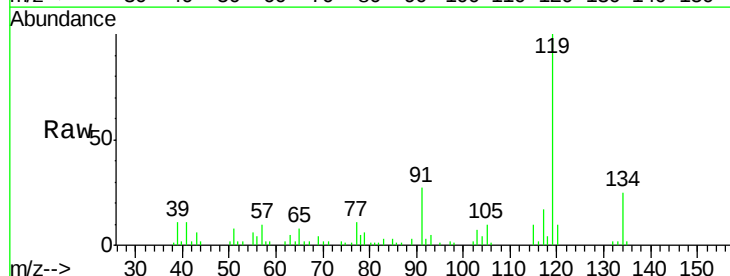
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL

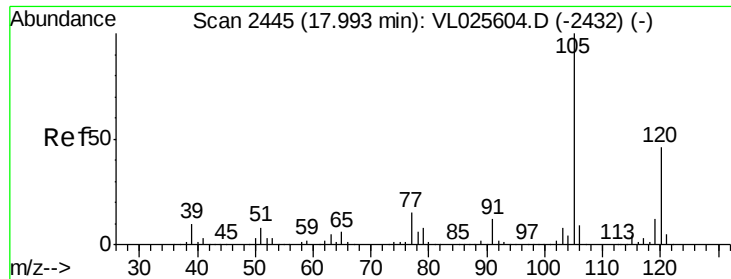
Tot Ion: 95 Resp: 2189120
 Ion Ratio Lower Upper
 95 100
 174 64.1 52.0 78.0
 175 4.9 3.9 5.9



#69
 p-Isopropyltoluene
 Concen: 0.14 ppbv
 RT: 19.78 min Scan# 2739
 Delta R.T. -0.01 min
 Lab File: VL025764.D
 Acq: 27 Jul 2015 22:18

Tgt Ion: 119 Resp: 82885
 Ion Ratio Lower Upper
 119 100
 134 24.7 20.7 31.1
 91 37.6 22.6 34.0#





#73

1,3,5-Trimethylbenzene

Concen: 0.03 ppbv

RT: 17.98 min Scan# 2443

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

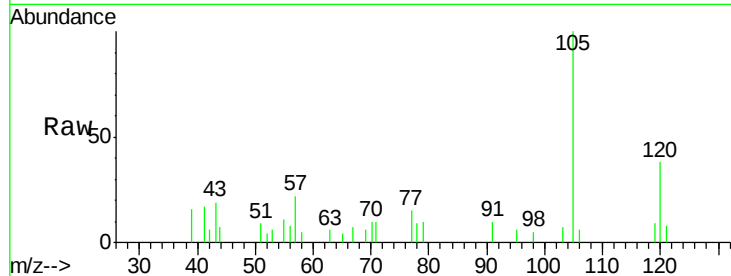
IA-1DL

Tot Ion:105 Resp: 14409

Ion Ratio Lower Upper

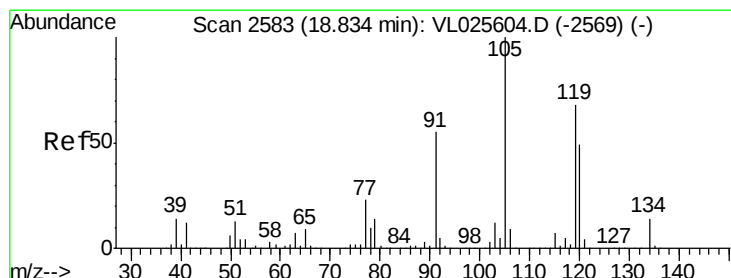
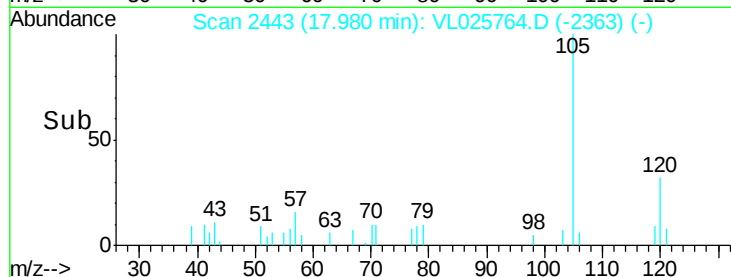
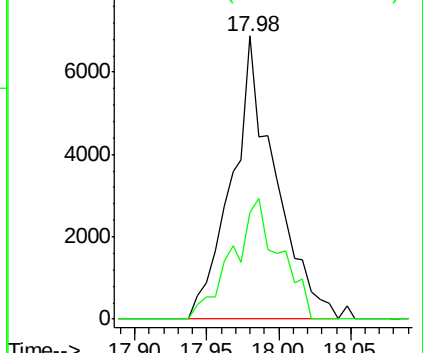
105 100

120 37.9 37.0 55.4



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.08 ppbv

RT: 18.83 min Scan# 2582

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Tgt Ion:105 Resp: 40046

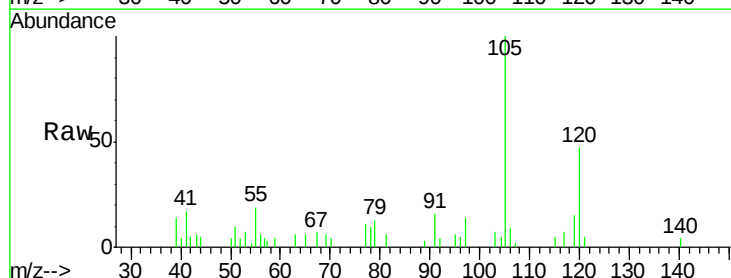
Ion Ratio Lower Upper

105 100

120 46.6 39.3 58.9

91 16.4 43.8 65.6#

77 10.8 18.3 27.5#

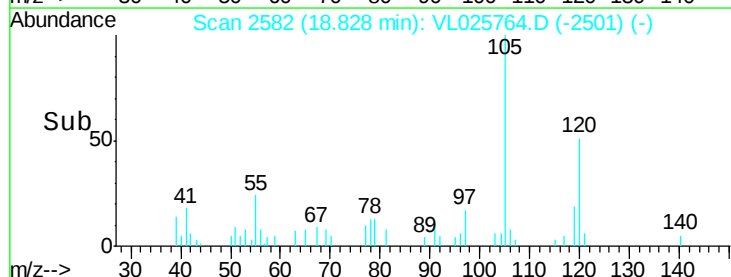
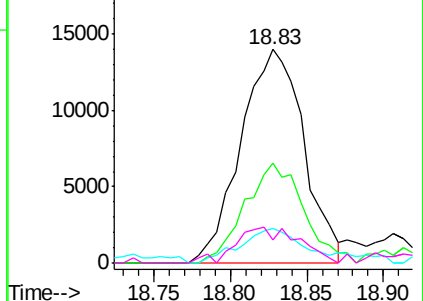


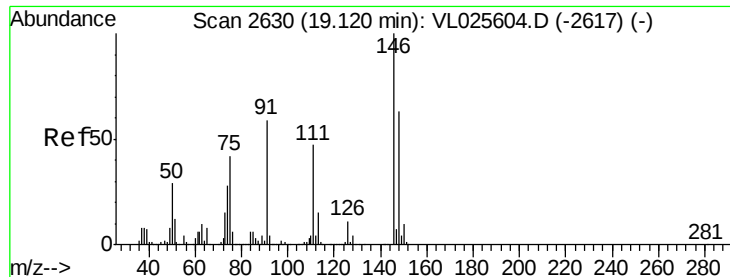
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#75

1,3-Dichlorobenzene

Concen: 0.08 ppbv

RT: 19.27 min Scan# 2654

Delta R.T. 0.15 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL

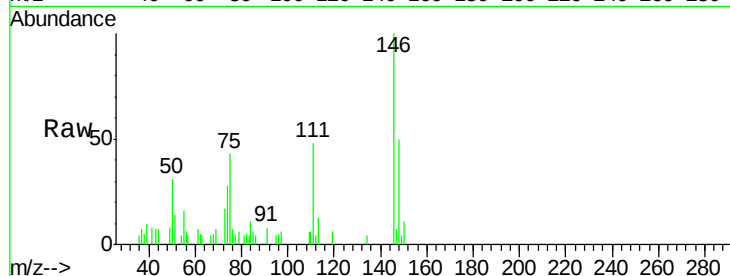
Tot Ion:146 Resp: 25698

Ion Ratio Lower Upper

146 100

111 54.4 22.7 68.1

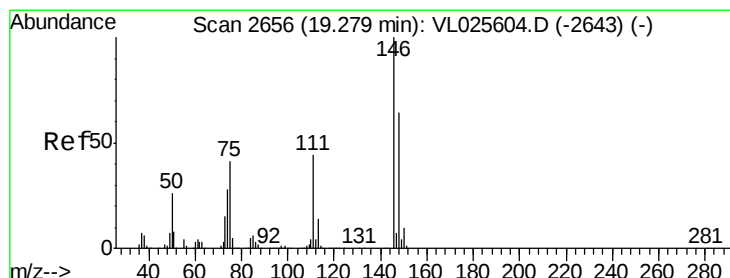
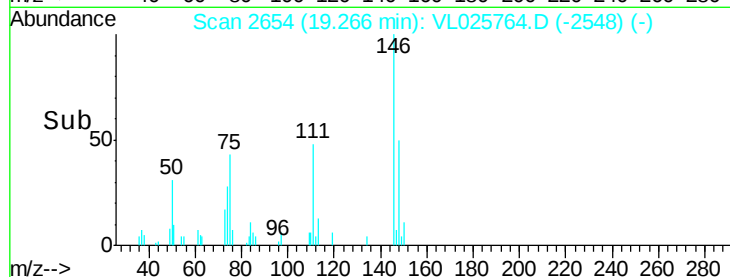
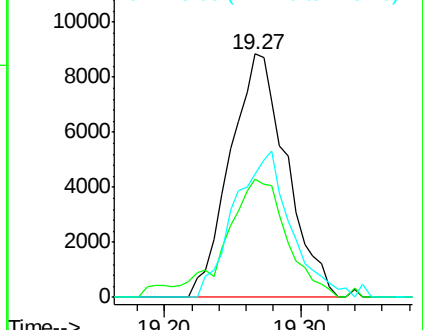
148 60.3 31.8 95.3



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 0.08 ppbv

RT: 19.27 min Scan# 2654

Delta R.T. -0.01 min

Lab File: VL025764.D

Acq: 27 Jul 2015 22:18

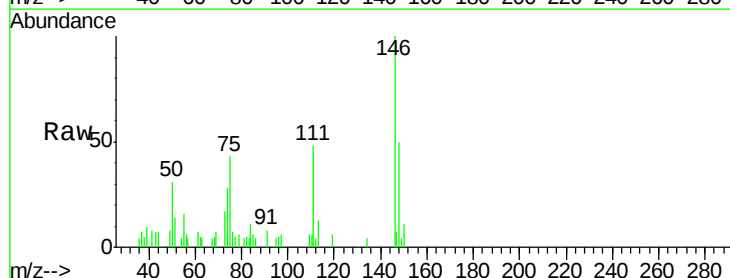
Tgt Ion:146 Resp: 25698

Ion Ratio Lower Upper

146 100

111 54.4 22.1 66.1

148 60.3 31.9 95.9



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

