

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL100915\
 Data File : VL026195.D
 Acq On : 10 Oct 2015 3:36
 Operator : SY/MD
 Sample : G3925-01DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Oct 12 02:08:26 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL100915AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Oct 09 16:23:14 2015
 QLast Update : Fri Oct 09 16:23:14 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	321770	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.32	114	1090198	10.00	ppbv	-0.01
55) Chlorobenzene-d5	13.74	117	1178191	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.29	95	964508	10.66	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.60%

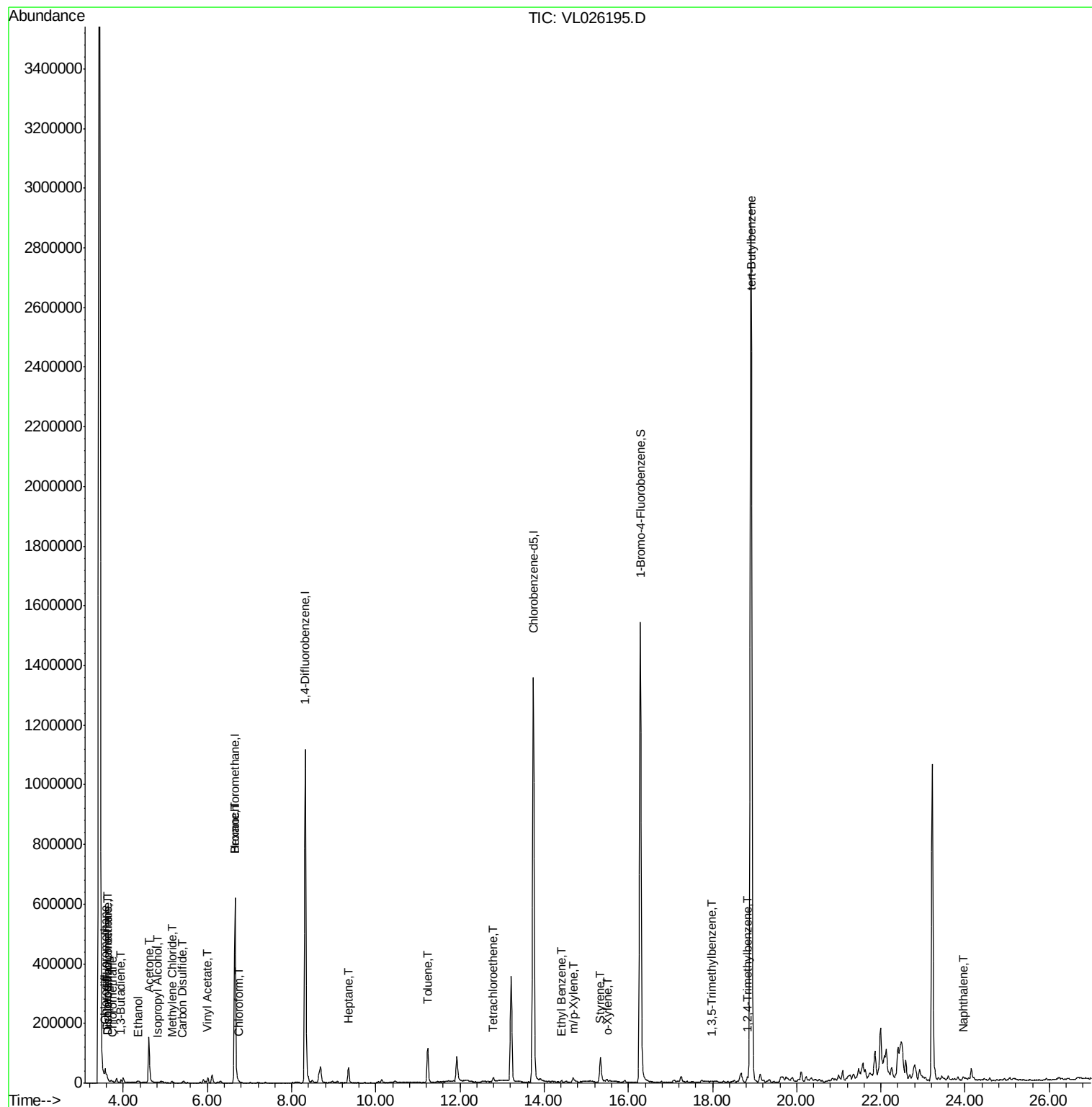
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.64	85	4027	0.07	ppbv	94
3) Chlorodifluoromethane	3.57	51	36623	0.97	ppbv	99
4) Chloromethane	3.75	50	872	0.04	ppbv #	42
8) Dichlorotetrafluoroethane	3.64	85	4027	0.08	ppbv #	15
9) Propene	3.61	41	4767	0.28	ppbv #	69
10) Heptane	9.35	43	27396	0.46	ppbv	90
13) Ethanol	4.36	45	5299	2.09	ppbv	78
15) Acetone	4.60	43	215114	5.17	ppbv	99
16) 1,3-Butadiene	3.95	39	1834	0.10	ppbv #	7
19) Isopropyl Alcohol	4.81	45	2785	0.17	ppbv #	94
20) Methylene Chloride	5.15	84	2183	0.12	ppbv #	75
23) Vinyl Acetate	6.01	43	14282	0.19	ppbv #	59
26) Hexane	6.66	57	3495	0.09	ppbv #	72
27) Carbon Disulfide	5.40	76	1850	0.04	ppbv #	22
29) Chloroform	6.74	83	1745	0.03	ppbv	94
52) Tetrachloroethene	12.79	164	4461	0.09	ppbv	92
53) Toluene	11.24	91	117483	0.87	ppbv	99
58) Ethyl Benzene	14.41	91	7462	0.04	ppbv #	88
59) m/p-Xylene	14.69	91	20228	0.15	ppbv	96
60) o-Xylene	15.49	91	7918	0.06	ppbv	88
61) Styrene	15.31	104	6376	0.11	ppbv	99
65) tert-Butylbenzene	18.91	119	49604	0.30	ppbv #	26
73) 1,3,5-Trimethylbenzene	17.98	105	4769	0.03	ppbv	95
74) 1,2,4-Trimethylbenzene	18.83	105	17110	0.11	ppbv #	70
79) Naphthalene	23.94	128	5557	0.06	ppbv #	83

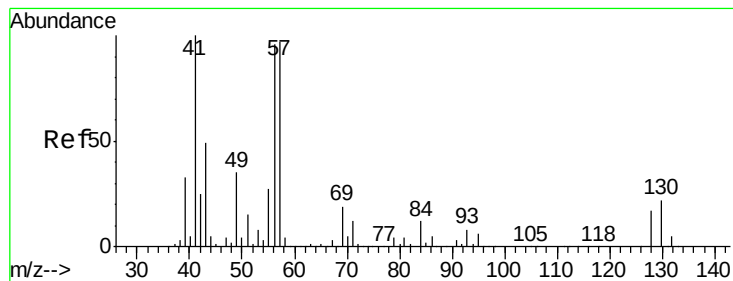
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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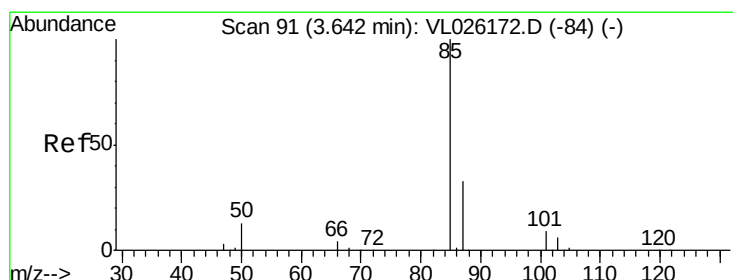
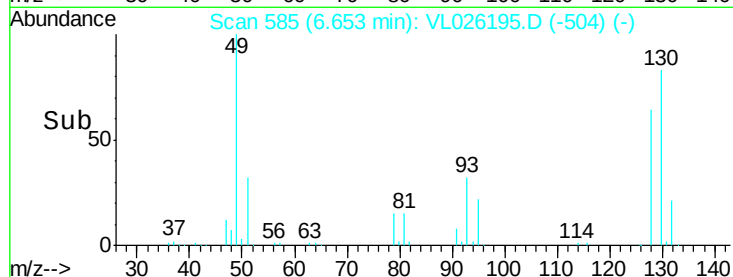
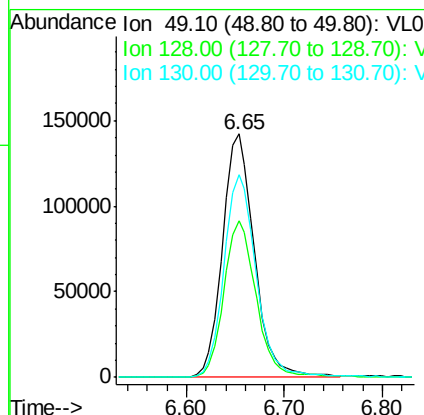
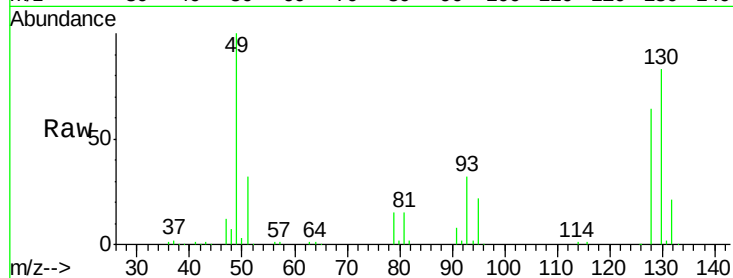




#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 6.65 min Scan# 585
 Delta R.T. -0.01 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

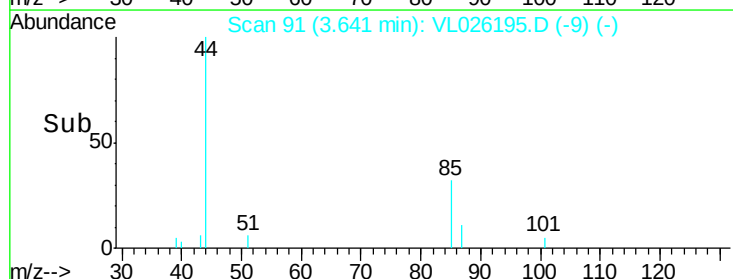
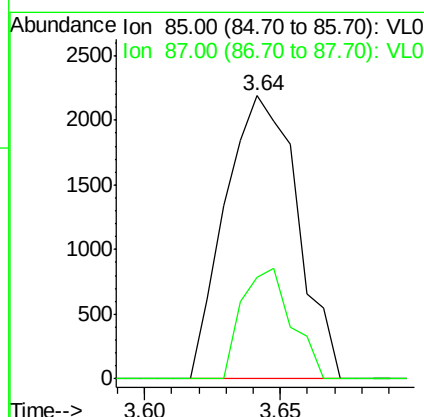
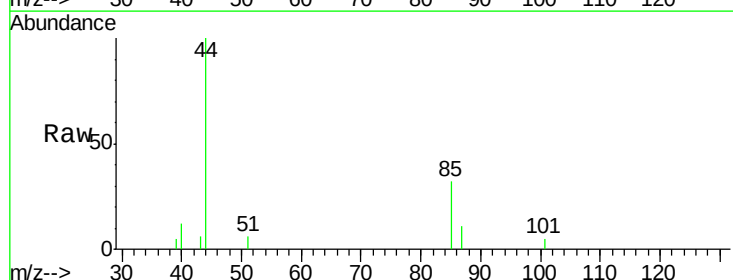
Instrument :
 MSVOA_L
 ClientSampleId :

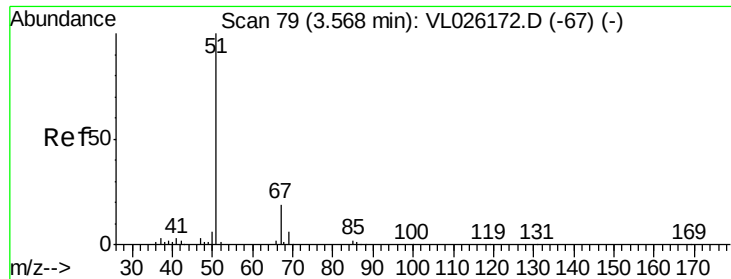
Tot Ion: 49 Resp: 321770
 Ion Ratio Lower Upper
 49 100
 128 65.7 26.3 78.8
 130 85.0 34.2 102.5



#2
 Dichlorodifluoromethane
 Concen: 0.07 ppbv
 RT: 3.64 min Scan# 91
 Delta R.T. -0.00 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Tgt Ion: 85 Resp: 4027
 Ion Ratio Lower Upper
 85 100
 87 36.1 26.2 39.4





#3

Chlorodifluoromethane

Concen: 0.97 ppbv

RT: 3.57 min Scan# 80

Delta R.T. 0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

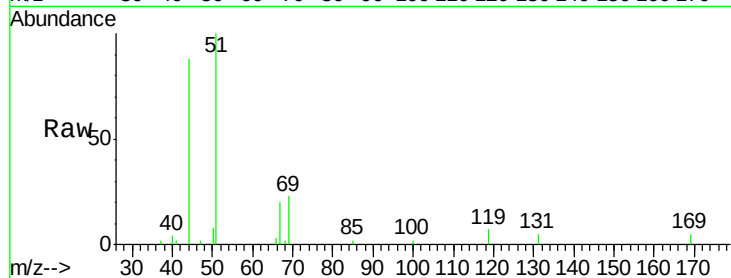
ClientSampleId :

Tot Ion: 51 Resp: 36623

Ion Ratio Lower Upper

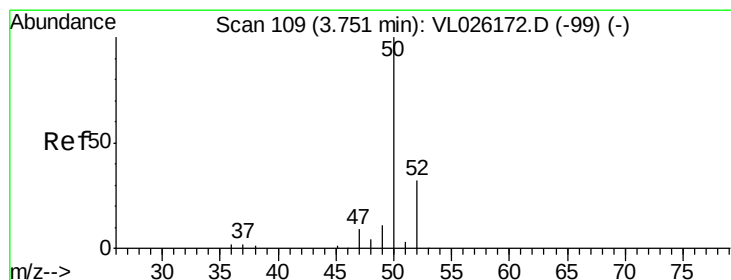
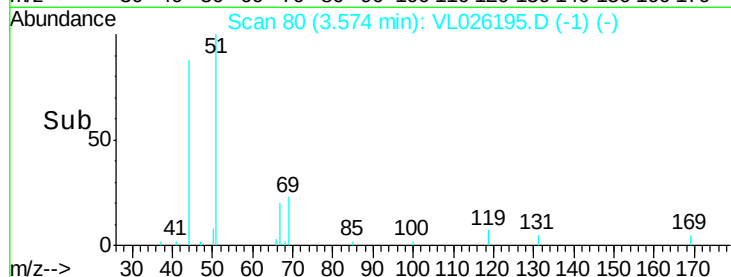
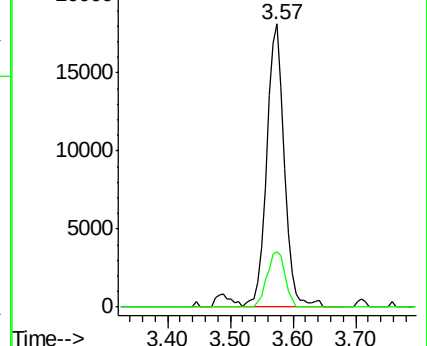
51 100

67 19.1 14.9 22.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.04 ppbv

RT: 3.75 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL026195.D

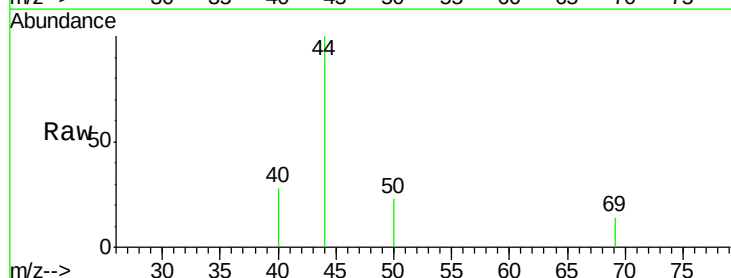
Acq: 10 Oct 2015 3:36

Tgt Ion: 50 Resp: 872

Ion Ratio Lower Upper

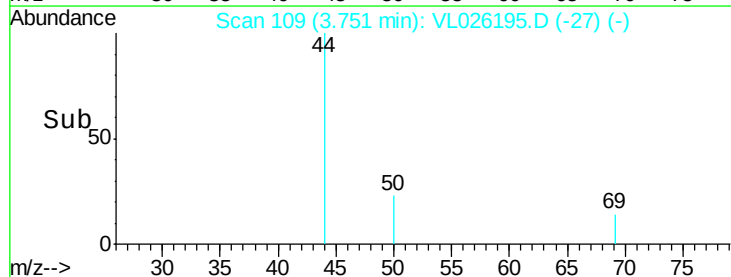
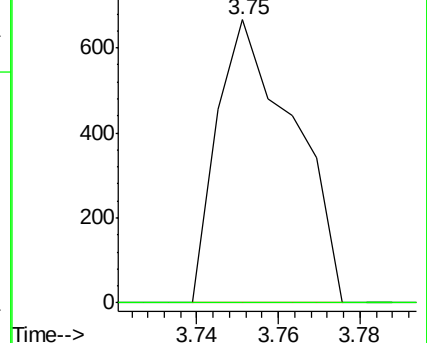
50 100

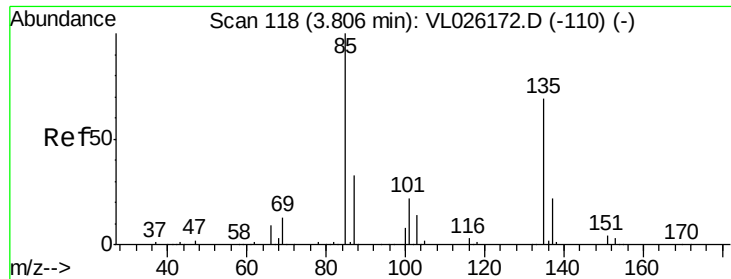
52 0.0 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 0.08 ppbv

RT: 3.64 min Scan# 91

Delta R.T. -0.16 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

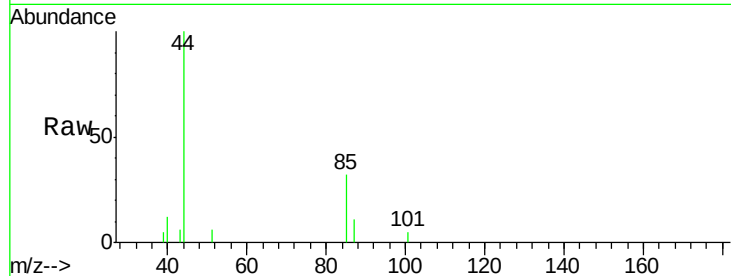
ClientSampleId :

Tot Ion: 85 Resp: 4027

Ion Ratio Lower Upper

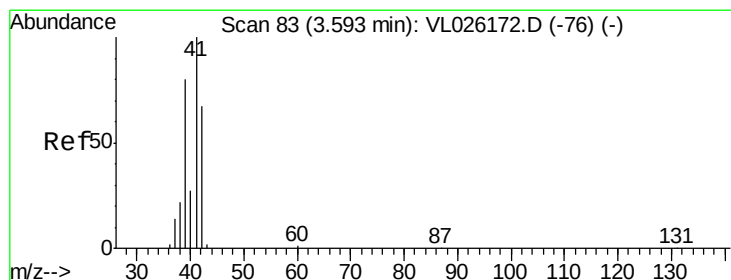
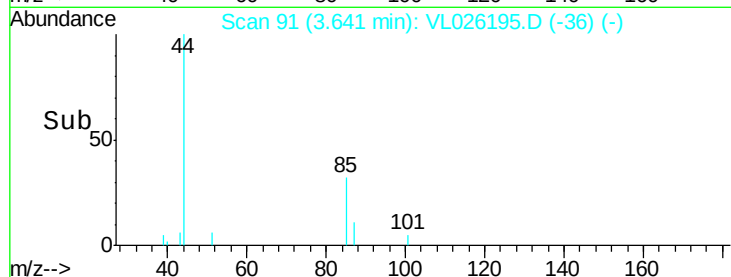
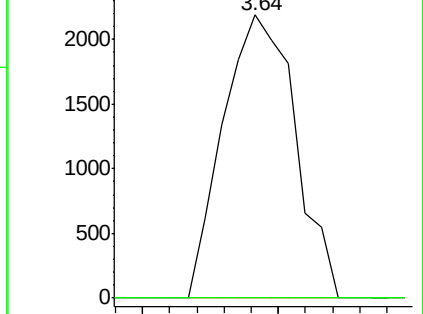
85 100

135 0.0 55.3 82.9#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 0.28 ppbv

RT: 3.61 min Scan# 86

Delta R.T. 0.02 min

Lab File: VL026195.D

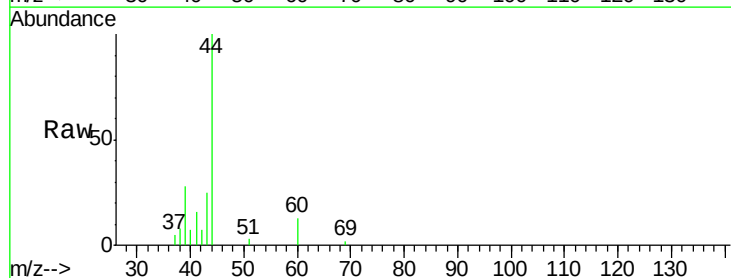
Acq: 10 Oct 2015 3:36

Tgt Ion: 41 Resp: 4767

Ion Ratio Lower Upper

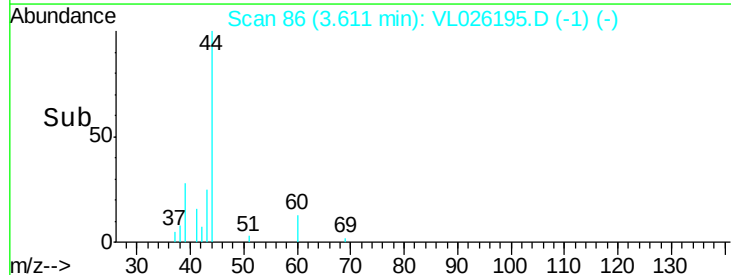
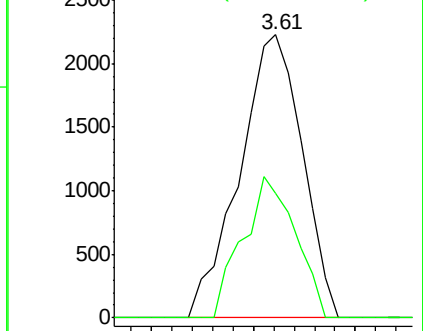
41 100

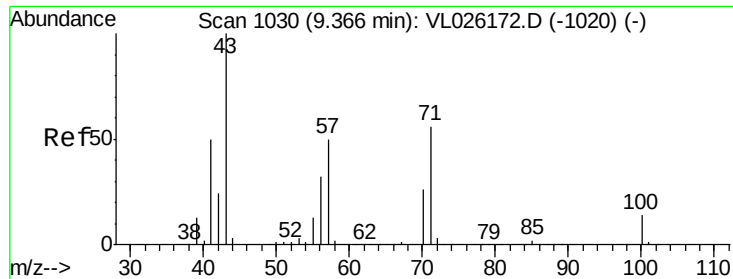
42 42.0 53.6 80.4#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.46 ppbv

RT: 9.35 min Scan# 1028

Delta R.T. -0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

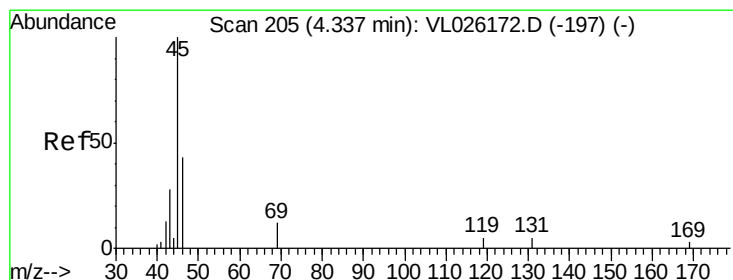
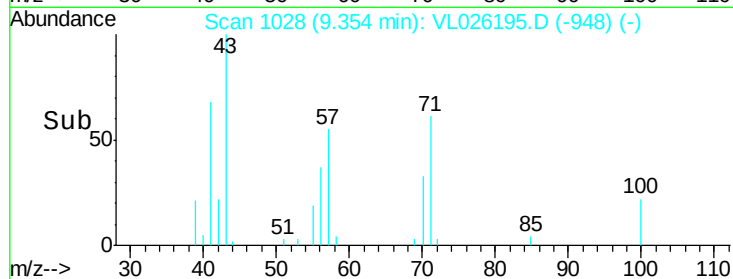
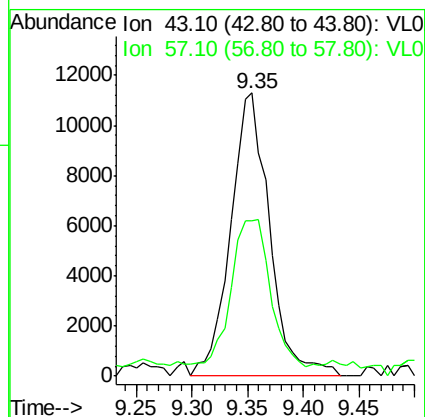
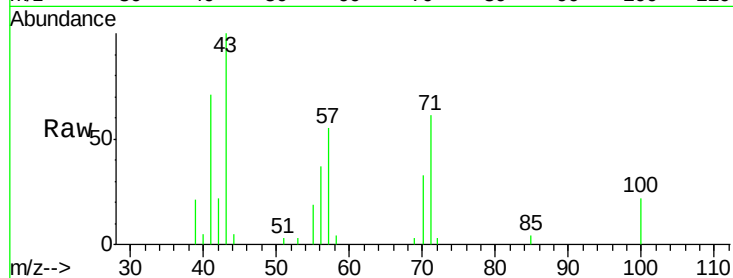
ClientSampleId :

Tot Ion: 43 Resp: 27396

Ion Ratio Lower Upper

43 100

57 59.0 41.8 62.8



#13

Ethanol

Concen: 2.09 ppbv

RT: 4.36 min Scan# 209

Delta R.T. 0.02 min

Lab File: VL026195.D

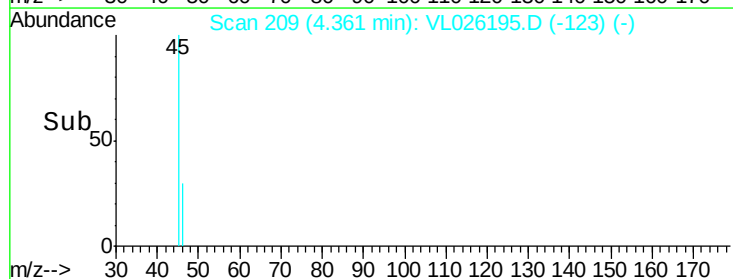
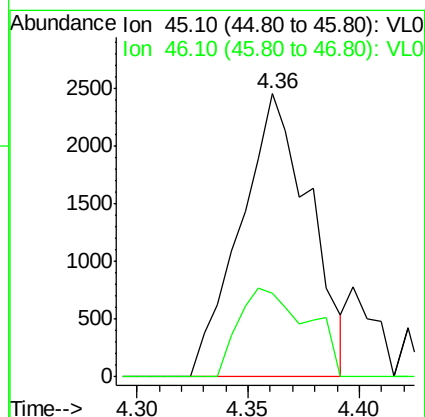
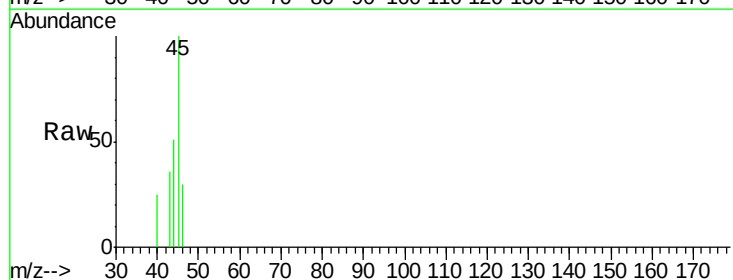
Acq: 10 Oct 2015 3:36

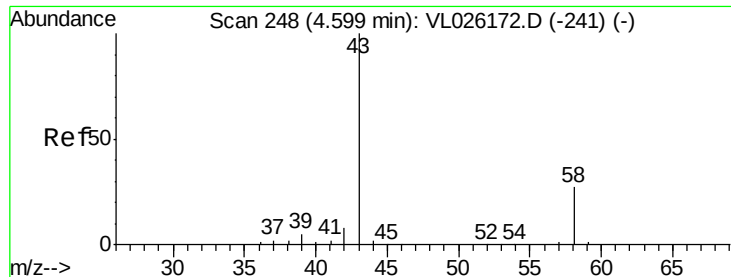
Tgt Ion: 45 Resp: 5299

Ion Ratio Lower Upper

45 100

46 31.2 18.1 72.5





#15

Acetone

Concen: 5.17 ppbv

RT: 4.60 min Scan# 249

Delta R.T. 0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

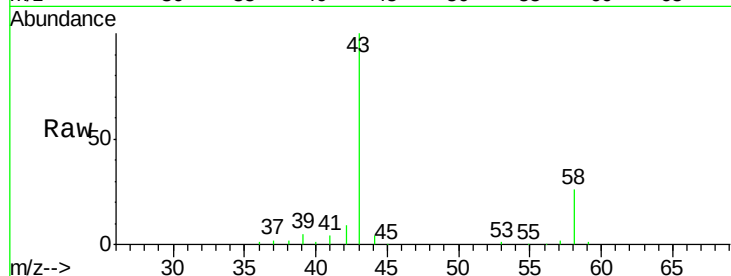
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 215114

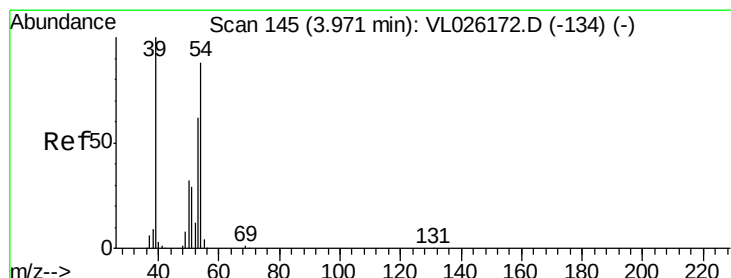
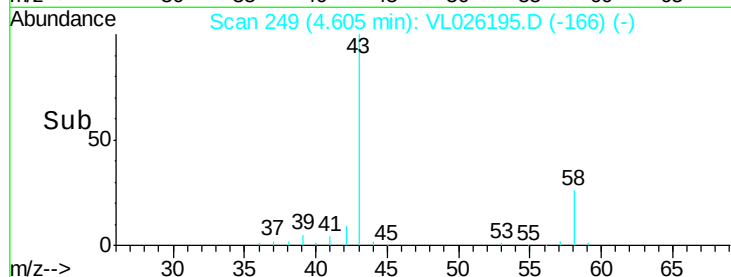
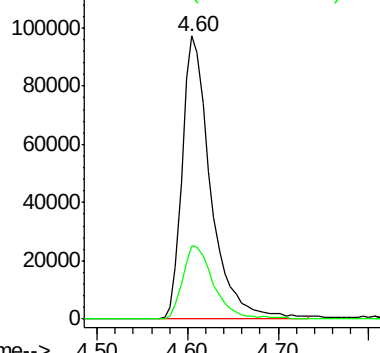
Ion Ratio Lower Upper

43 100

58 28.1 22.0 33.0



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.10 ppbv

RT: 3.95 min Scan# 141

Delta R.T. -0.02 min

Lab File: VL026195.D

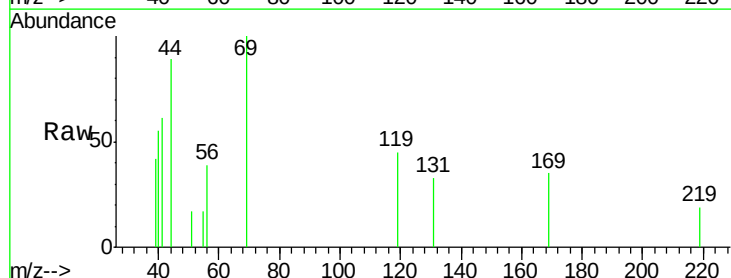
Acq: 10 Oct 2015 3:36

Tgt Ion: 39 Resp: 1834

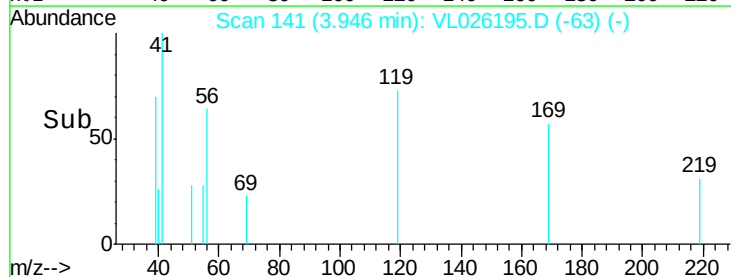
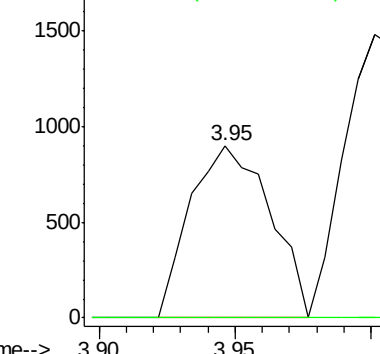
Ion Ratio Lower Upper

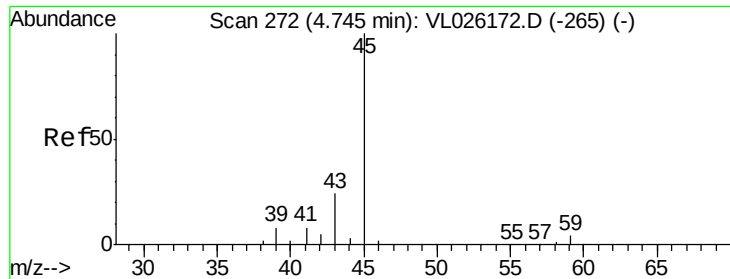
39 100

54 0.0 67.9 101.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0
Ion 54.10 (53.80 to 54.80): VL0



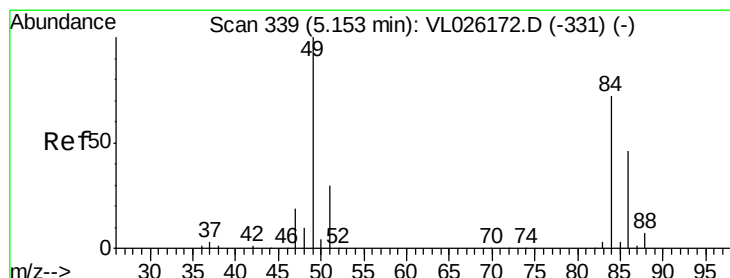
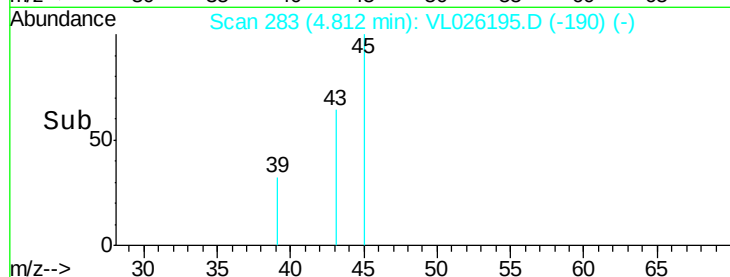
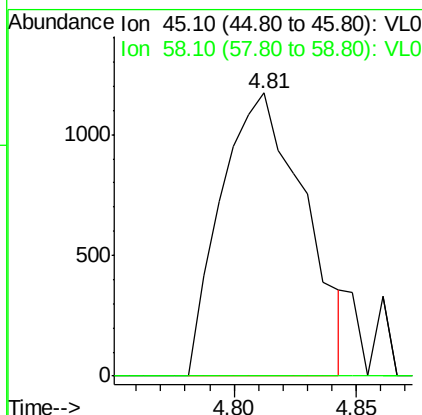
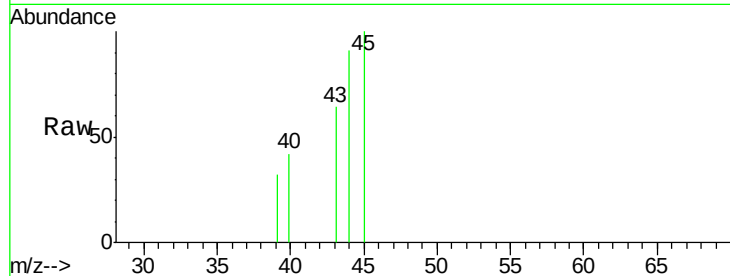


#19

Isopropyl Alcohol
 Concen: 0.17 ppbv
 RT: 4.81 min Scan# 283
 Delta R.T. 0.07 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Instrument :
 MSVOA_L
 ClientSampleId :

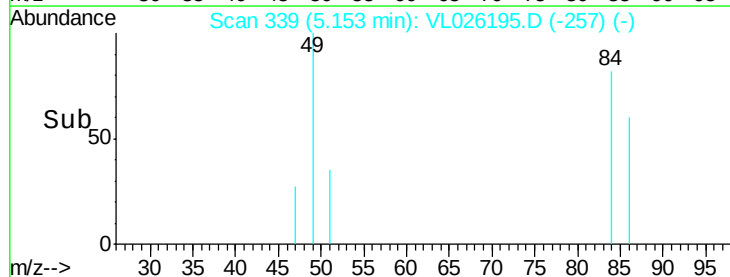
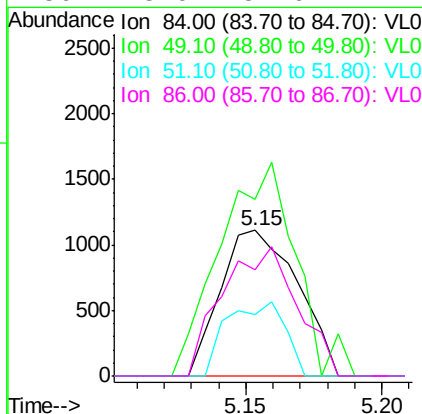
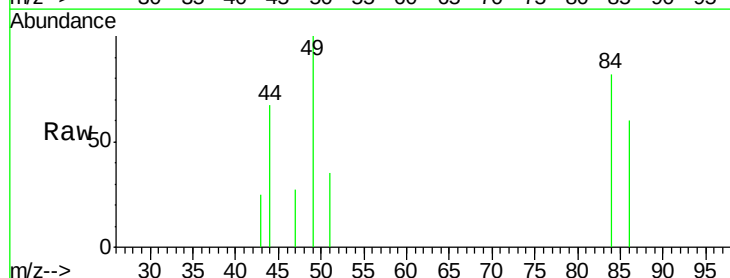
Tot Ion: 45 Resp: 2785
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.7 2.5#

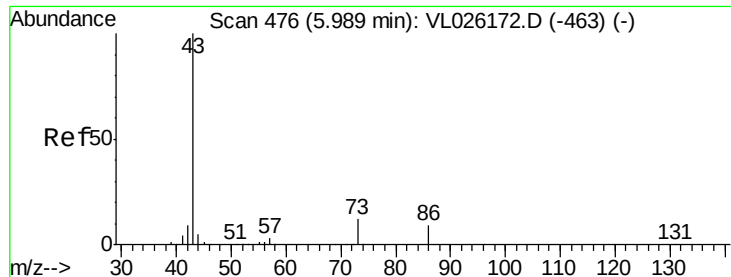


#20

Methylene Chloride
 Concen: 0.12 ppbv
 RT: 5.15 min Scan# 339
 Delta R.T. -0.00 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Tgt Ion: 84 Resp: 2183
 Ion Ratio Lower Upper
 84 100
 49 92.5 111.3 166.9#
 51 42.6 33.0 49.6
 86 73.0 51.6 77.4





#23

Vinyl Acetate

Concen: 0.19 ppbv

RT: 6.01 min Scan# 479

Delta R.T. 0.02 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 14282

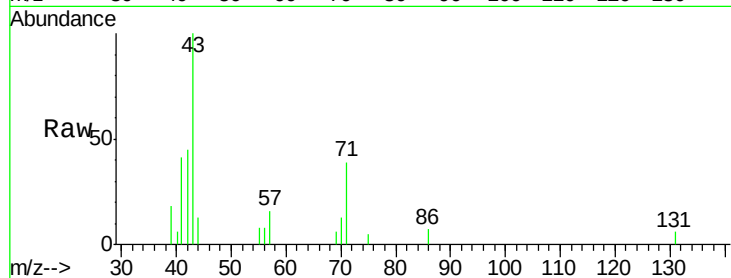
Ion Ratio Lower Upper

43 100

86 6.8 7.2 10.8#

42 44.6 7.4 11.2#

44 5.0 3.9 5.9

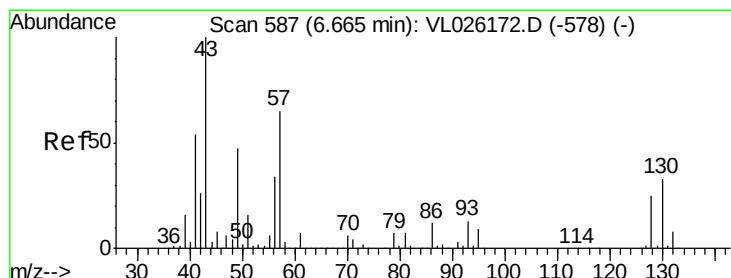
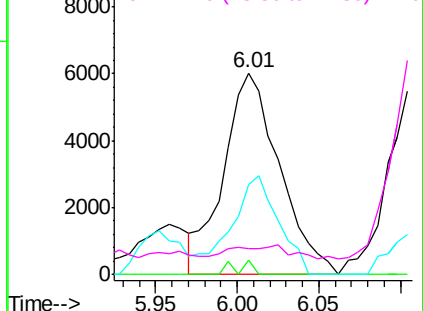
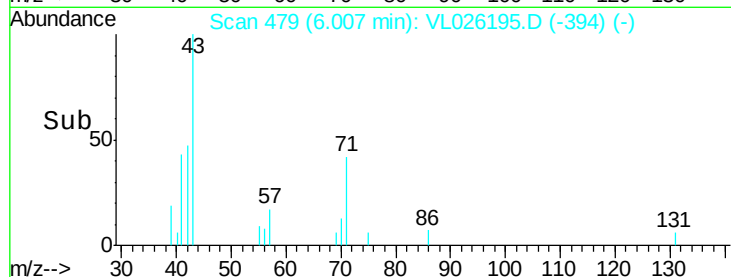


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#26

Hexane

Concen: 0.09 ppbv

RT: 6.66 min Scan# 586

Delta R.T. -0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Tgt Ion: 57 Resp: 3495

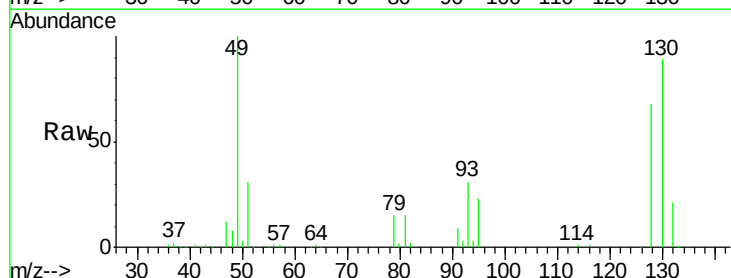
Ion Ratio Lower Upper

57 100

41 89.4 68.0 102.0

43 142.8 164.4 246.6#

56 41.2 42.7 64.1#

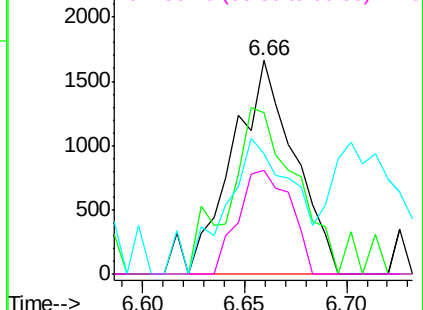
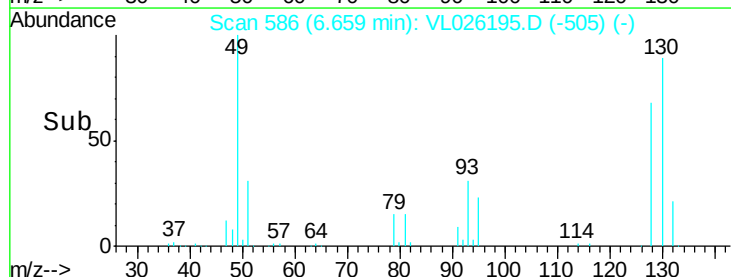


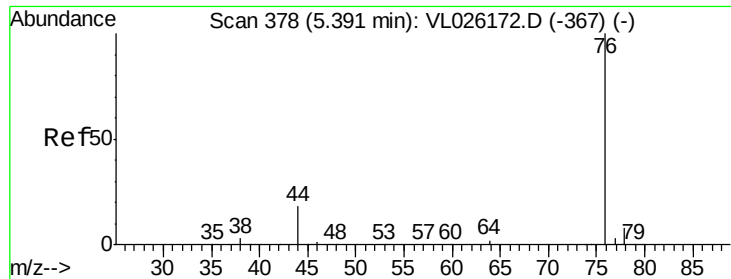
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.04 ppbv

RT: 5.40 min Scan# 379

Delta R.T. 0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

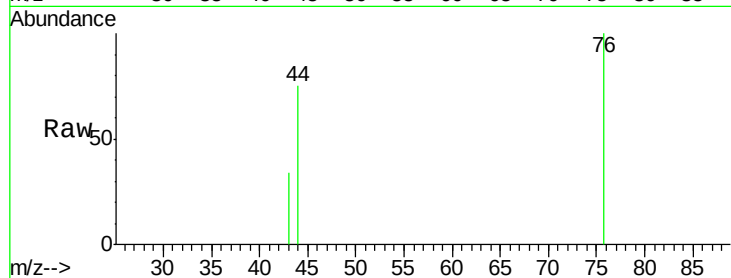
Tot Ion: 76 Resp: 1850

Ion Ratio Lower Upper

76 100

44 64.3 14.2 21.4#

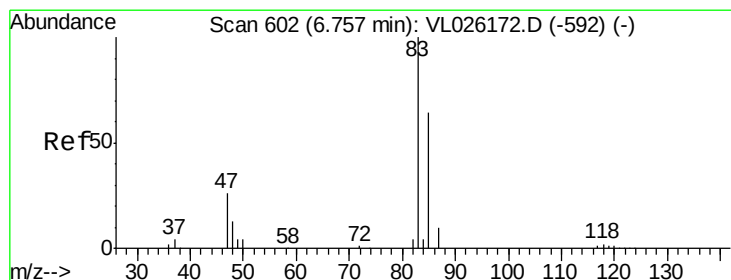
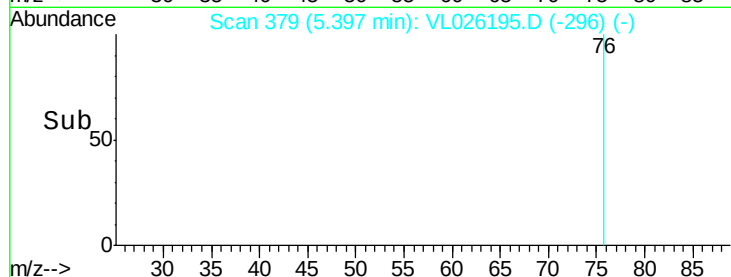
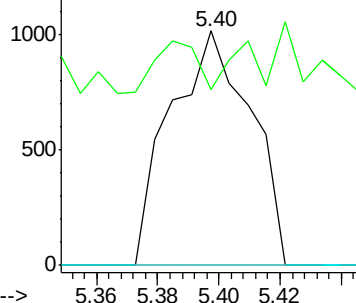
78 0.0 7.5 11.3#



Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.03 ppbv

RT: 6.74 min Scan# 600

Delta R.T. -0.01 min

Lab File: VL026195.D

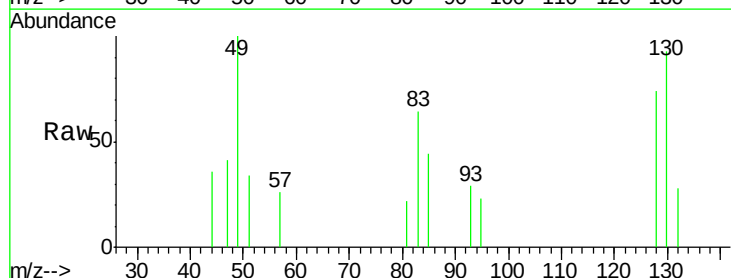
Acq: 10 Oct 2015 3:36

Tgt Ion: 83 Resp: 1745

Ion Ratio Lower Upper

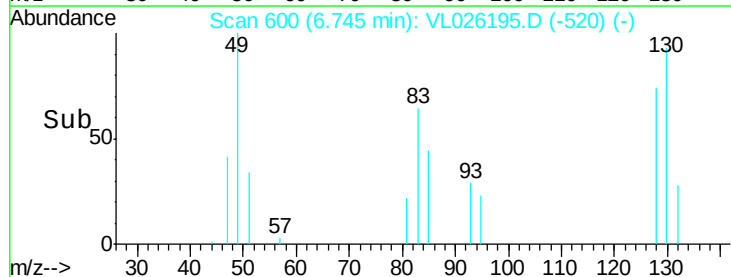
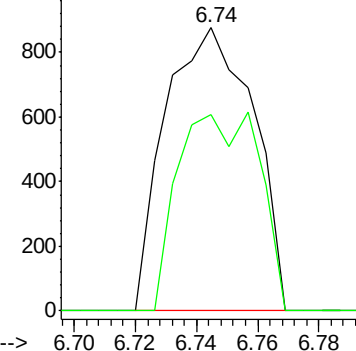
83 100

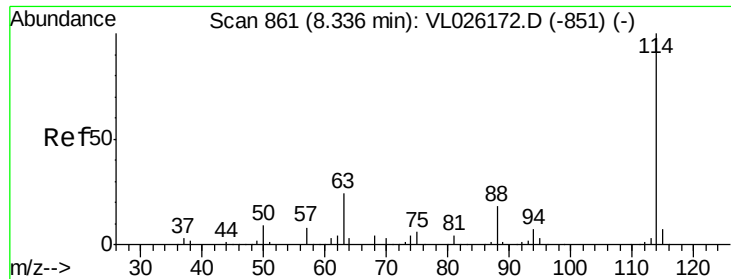
85 69.2 51.5 77.3



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

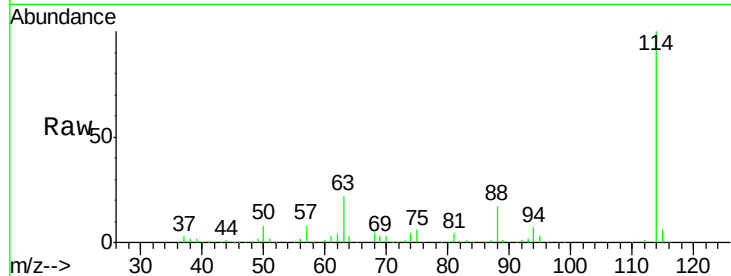




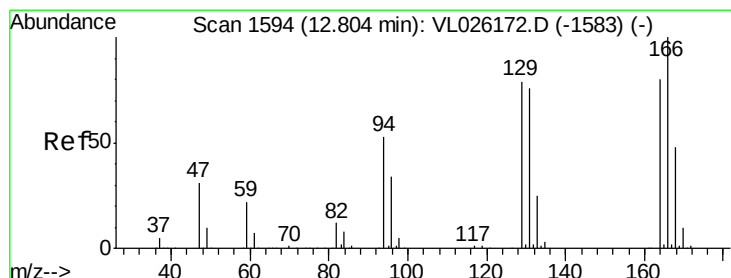
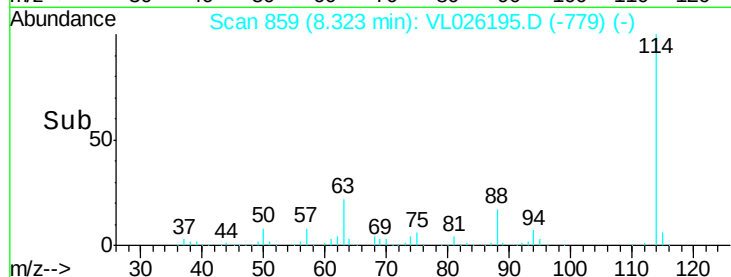
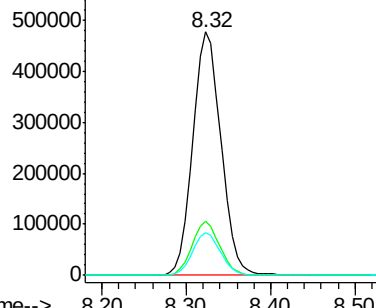
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.32 min Scan# 859
 Delta R.T. -0.01 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 1090198
 Ion Ratio Lower Upper
 114 100
 63 21.9 19.0 28.6
 88 17.4 13.8 20.8

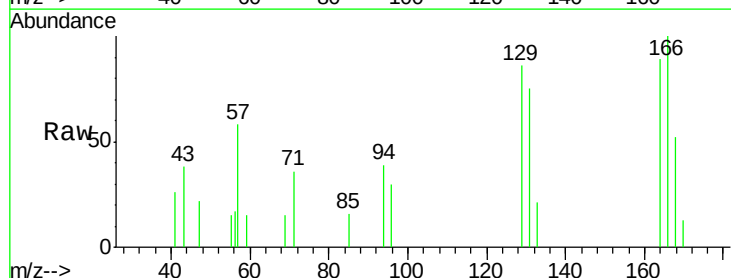


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

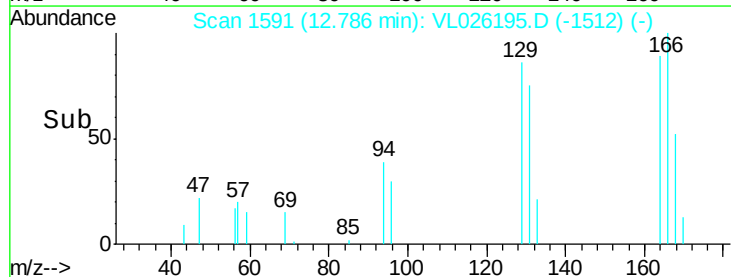
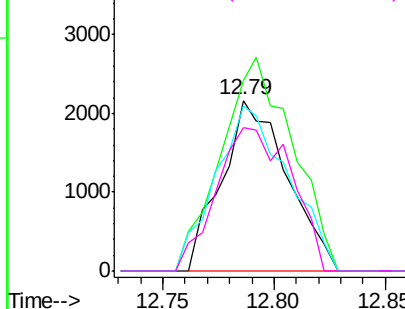


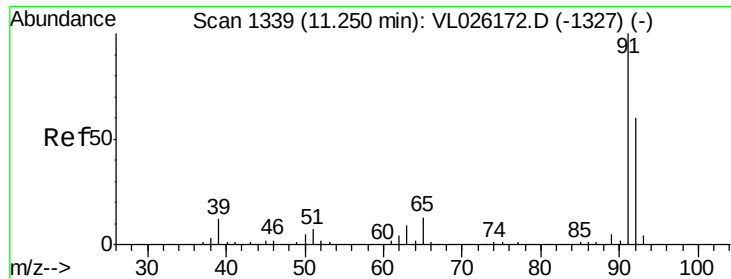
#52
 Tetrachloroethene
 Concen: 0.09 ppbv
 RT: 12.79 min Scan# 1591
 Delta R.T. -0.02 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Tgt Ion:164 Resp: 4461
 Ion Ratio Lower Upper
 164 100
 166 112.2 99.9 149.9
 129 96.7 79.1 118.7
 131 84.4 76.3 114.5



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: 0.87 ppbv

RT: 11.24 min Scan# 1337

Delta R.T. -0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

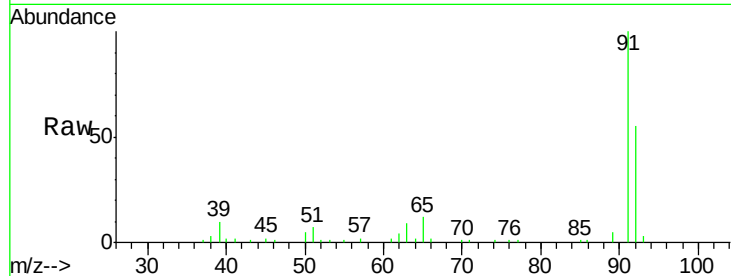
ClientSampled :

Tot Ion: 91 Resp: 117483

Ion Ratio Lower Upper

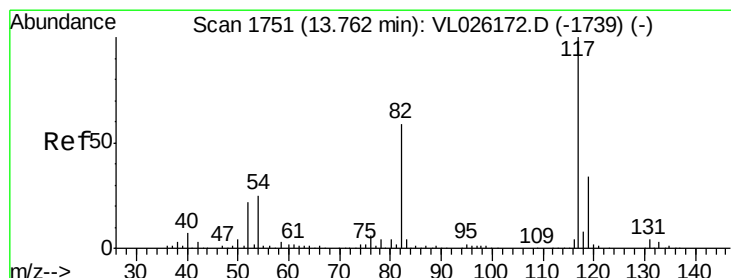
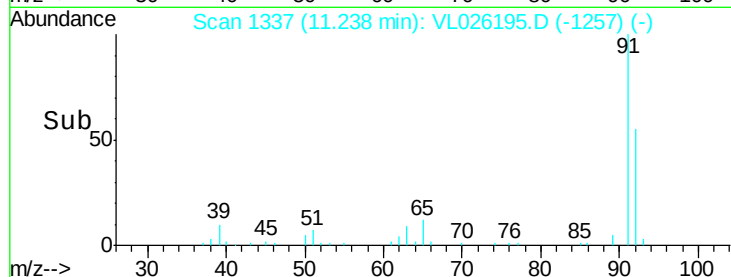
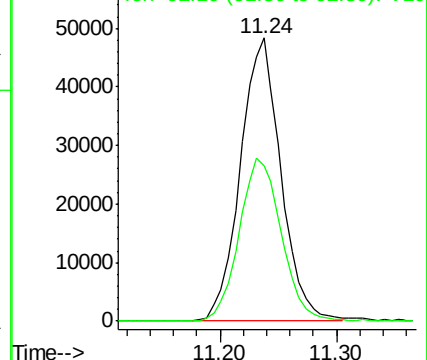
91 100

92 59.5 48.5 72.7



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: 13.74 min Scan# 1748

Delta R.T. -0.02 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

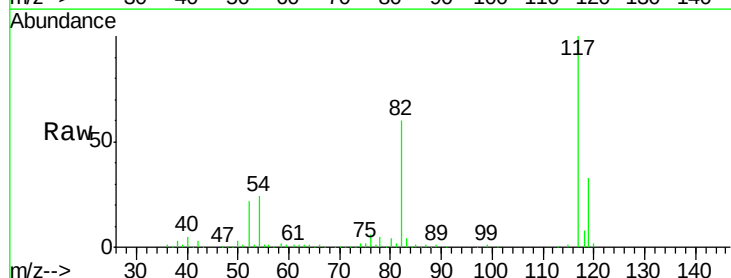
Tgt Ion: 117 Resp: 1178191

Ion Ratio Lower Upper

117 100

82 60.6 47.7 71.5

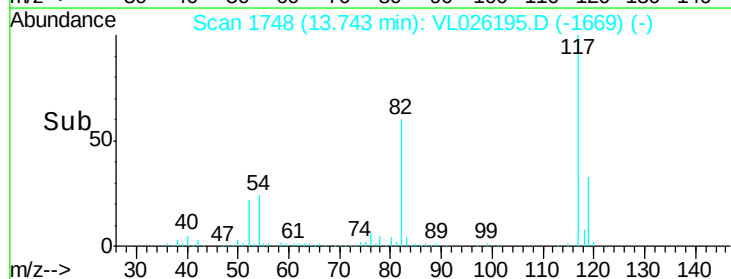
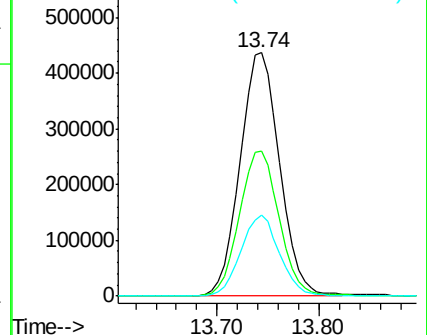
119 32.8 43.7 65.5#

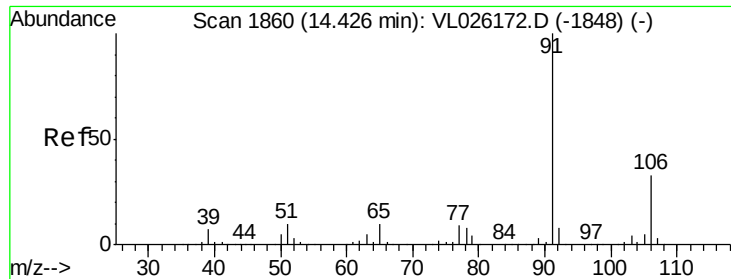


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.04 ppbv

RT: 14.41 min Scan# 1858

Delta R.T. -0.01 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

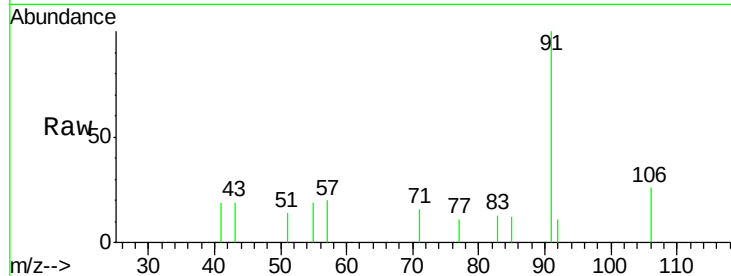
ClientSampleId :

Tot Ion: 91 Resp: 7462

Ion Ratio Lower Upper

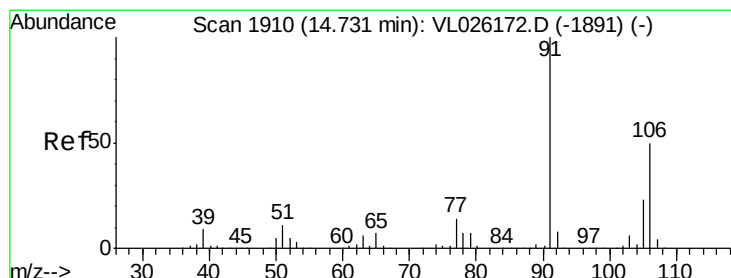
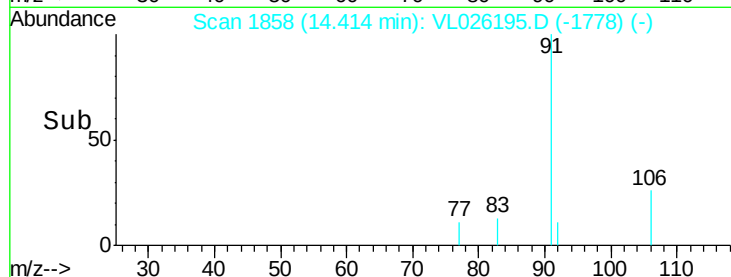
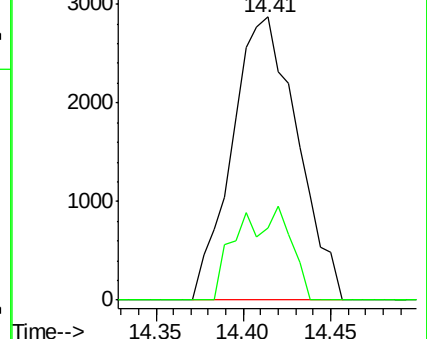
91 100

106 25.6 26.1 39.1#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.15 ppbv

RT: 14.69 min Scan# 1903

Delta R.T. -0.04 min

Lab File: VL026195.D

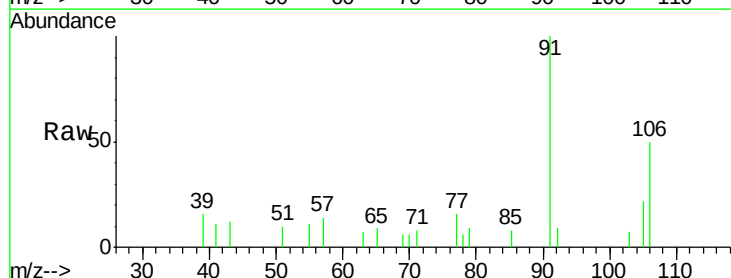
Acq: 10 Oct 2015 3:36

Tgt Ion: 91 Resp: 20228

Ion Ratio Lower Upper

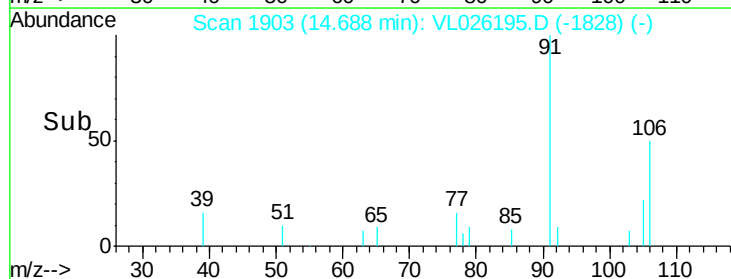
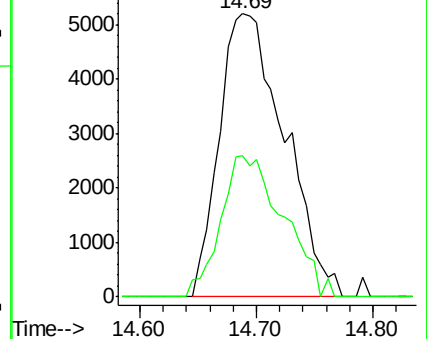
91 100

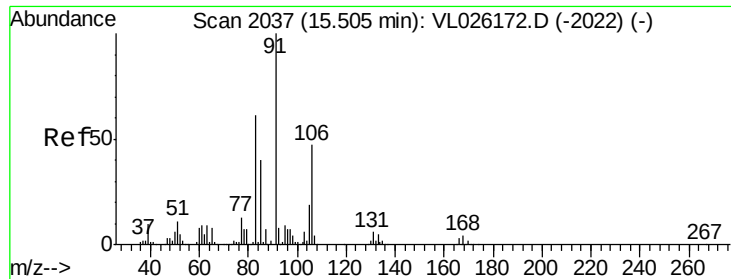
106 47.7 40.2 60.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

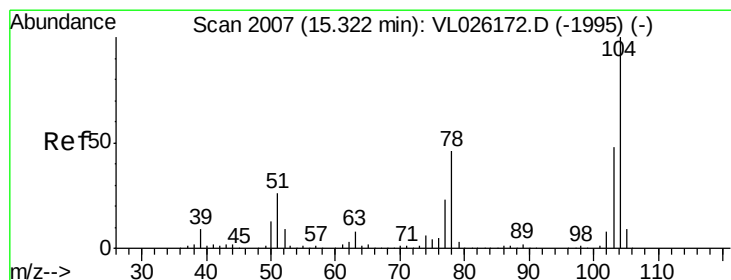
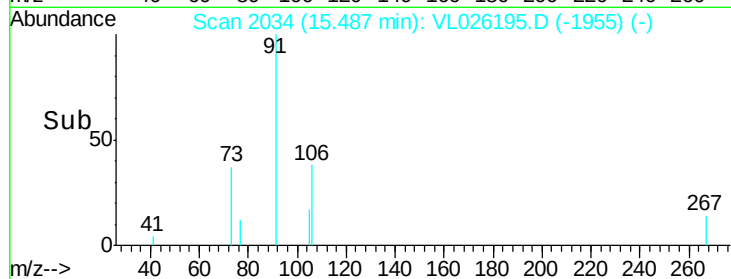
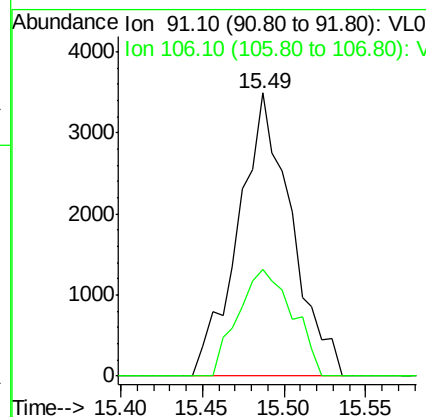
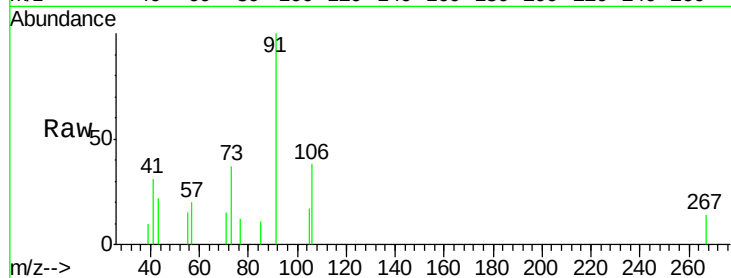




#60
o-Xylene
Concen: 0.06 ppbv
RT: 15.49 min Scan# 2034
Delta R.T. -0.02 min
Lab File: VL026195.D
Acq: 10 Oct 2015 3:36

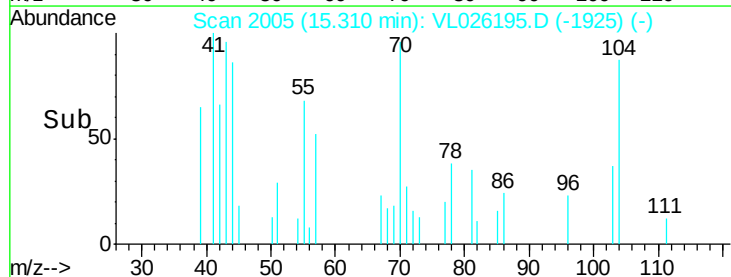
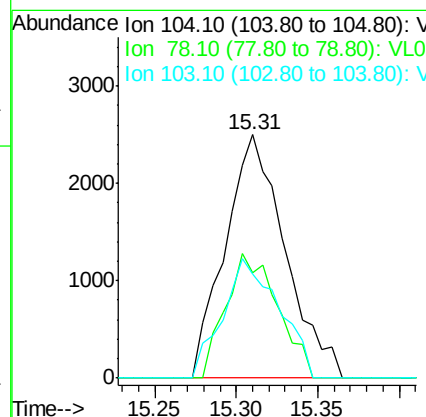
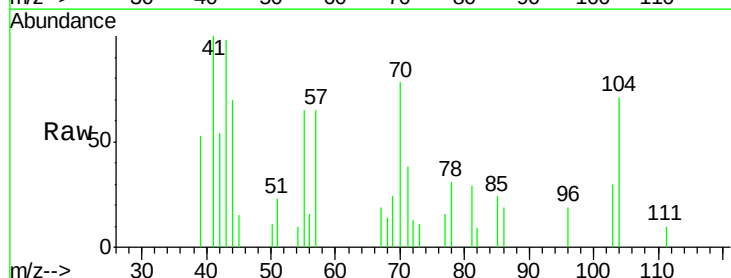
Instrument :
MSVOA_L
ClientSampleId :

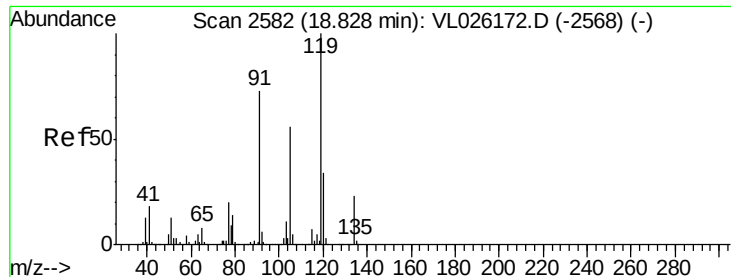
Tot Ion: 91 Resp: 7918
Ion Ratio Lower Upper
91 100
106 38.8 23.4 70.3



#61
Styrene
Concen: 0.11 ppbv
RT: 15.31 min Scan# 2005
Delta R.T. -0.01 min
Lab File: VL026195.D
Acq: 10 Oct 2015 3:36

Tgt Ion: 104 Resp: 6376
Ion Ratio Lower Upper
104 100
78 44.4 36.1 54.1
103 46.0 37.5 56.3

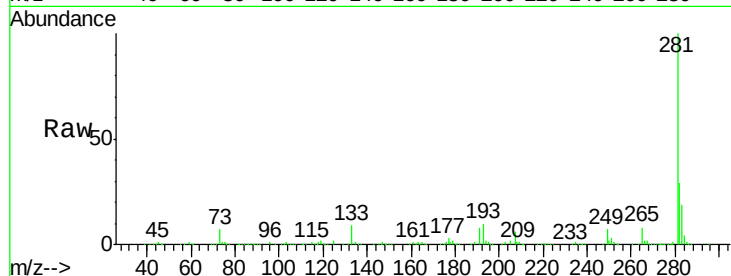




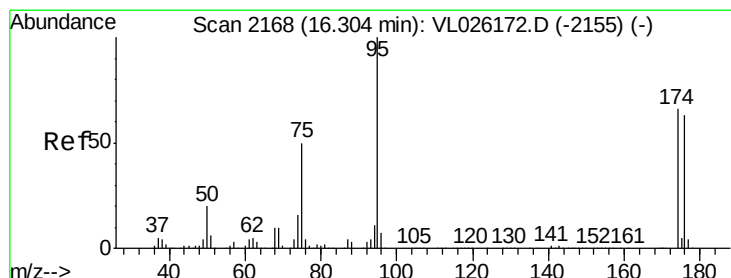
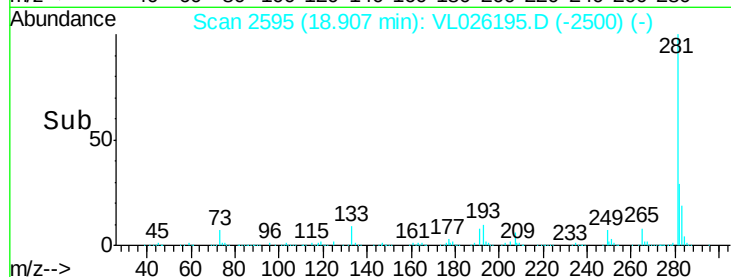
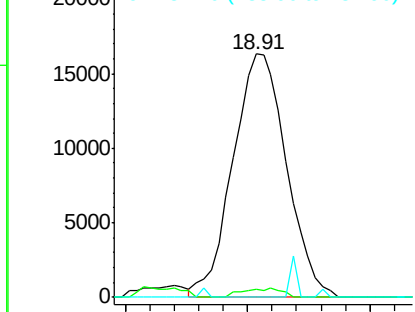
#65
 tert-Butylbenzene
 Concen: 0.30 ppbv
 RT: 18.91 min Scan# 2595
 Delta R.T. 0.08 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:119 Resp: 49604
 Ion Ratio Lower Upper
 119 100
 91 2.7 58.5 87.7#
 134 2.4 18.0 27.0#

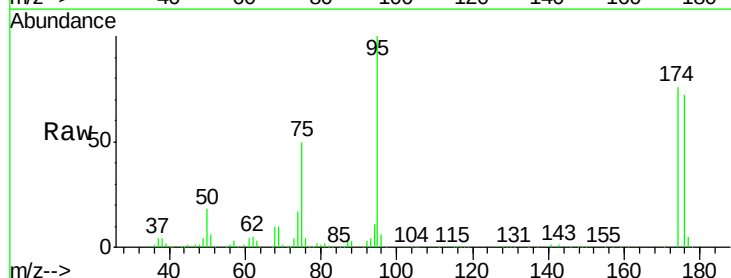


Abundance Ion 119.20 (118.90 to 119.90): V
 Ion 91.10 (90.80 to 91.80): V
 Ion 134.20 (133.90 to 134.90): V

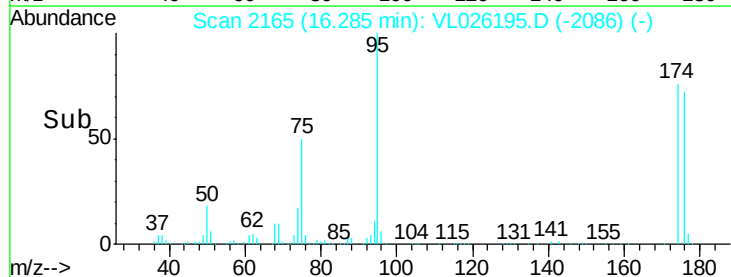
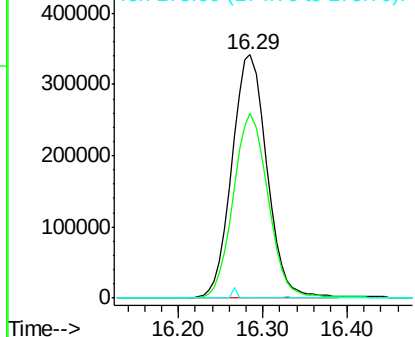


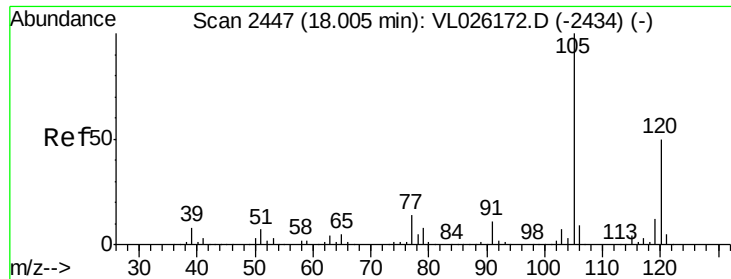
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.66 ppbv
 RT: 16.29 min Scan# 2165
 Delta R.T. -0.02 min
 Lab File: VL026195.D
 Acq: 10 Oct 2015 3:36

Tgt Ion: 95 Resp: 964508
 Ion Ratio Lower Upper
 95 100
 174 76.0 52.2 78.4
 175 0.2 3.9 5.9#



Abundance Ion 95.10 (94.80 to 95.80): V
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V





#73

1,3,5-Trimethylbenzene

Concen: 0.03 ppbv

RT: 17.98 min Scan# 2443

Delta R.T. -0.02 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

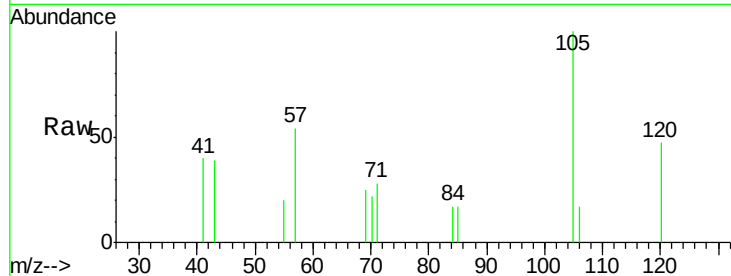
ClientSampleId :

Tot Ion:105 Resp: 4769

Ion Ratio Lower Upper

105 100

120 46.9 40.1 60.1



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

17.98

1500

1000

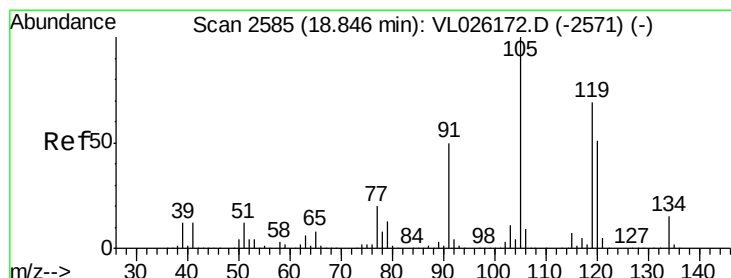
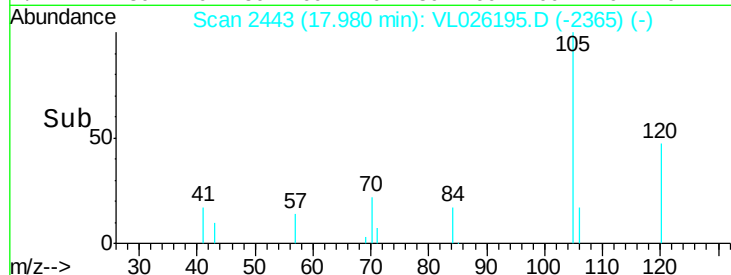
500

0

Time-->

17.95

18.00



#74

1,2,4-Trimethylbenzene

Concen: 0.11 ppbv

RT: 18.83 min Scan# 2582

Delta R.T. -0.02 min

Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Tgt Ion:105 Resp: 17110

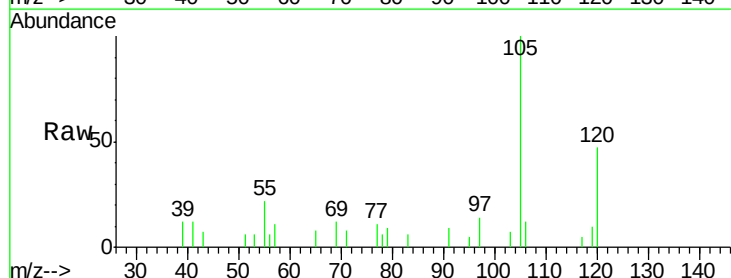
Ion Ratio Lower Upper

105 100

120 47.4 41.1 61.7

91 8.5 39.8 59.6#

77 11.3 16.3 24.5#



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

8000

6000

4000

2000

0

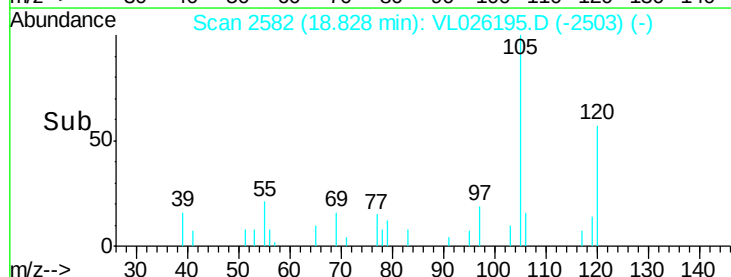
Time-->

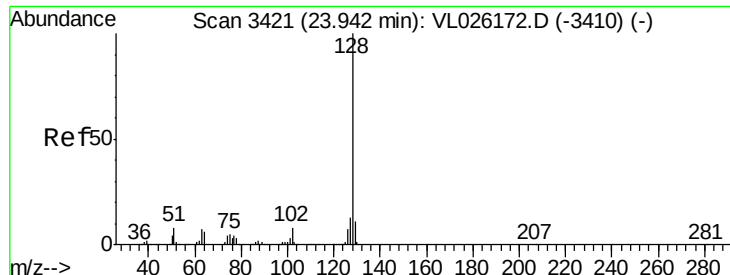
18.75

18.80

18.85

18.90





#79

Naphthalene

Concen: 0.06 ppbv

RT: 23.94 min Scan# 3421

Delta R.T. -0.00 min

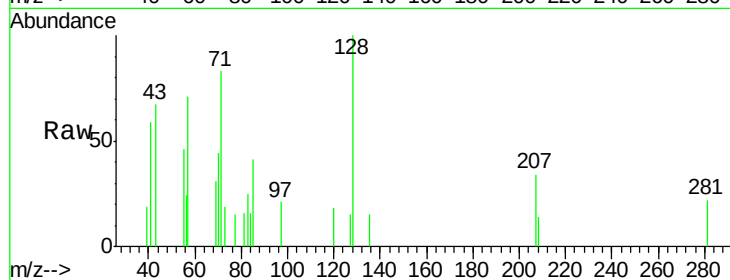
Lab File: VL026195.D

Acq: 10 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :



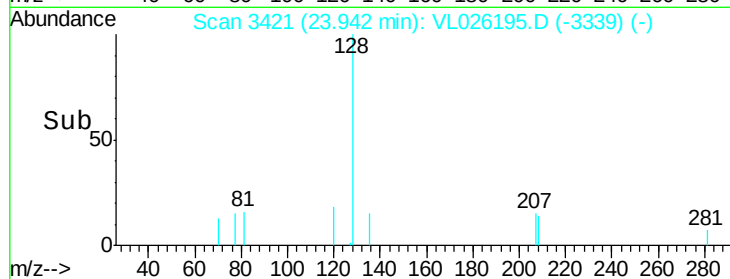
Tot Ion:128 Resp: 5557

Ion Ratio Lower Upper

128 100

127 15.1 10.2 15.2

129 0.0 8.7 13.1#



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V

