

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL102115\
 Data File : VL026239.D
 Acq On : 21 Oct 2015 15:51
 Operator : SY/MD
 Sample : G4112-02DL 200X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 RB-SUBSLAB-239DL

Quant Time: Oct 22 08:34:02 2015
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL102015AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Oct 21 01:20:55 2015
 QLast Update : Wed Oct 21 01:20:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.63	49	470110	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	8.30	114	1374826	10.00	ppbv	-0.01
55) Chlorobenzene-d5	13.71	117	1661546	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.25	95	1324224	10.33	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.30%

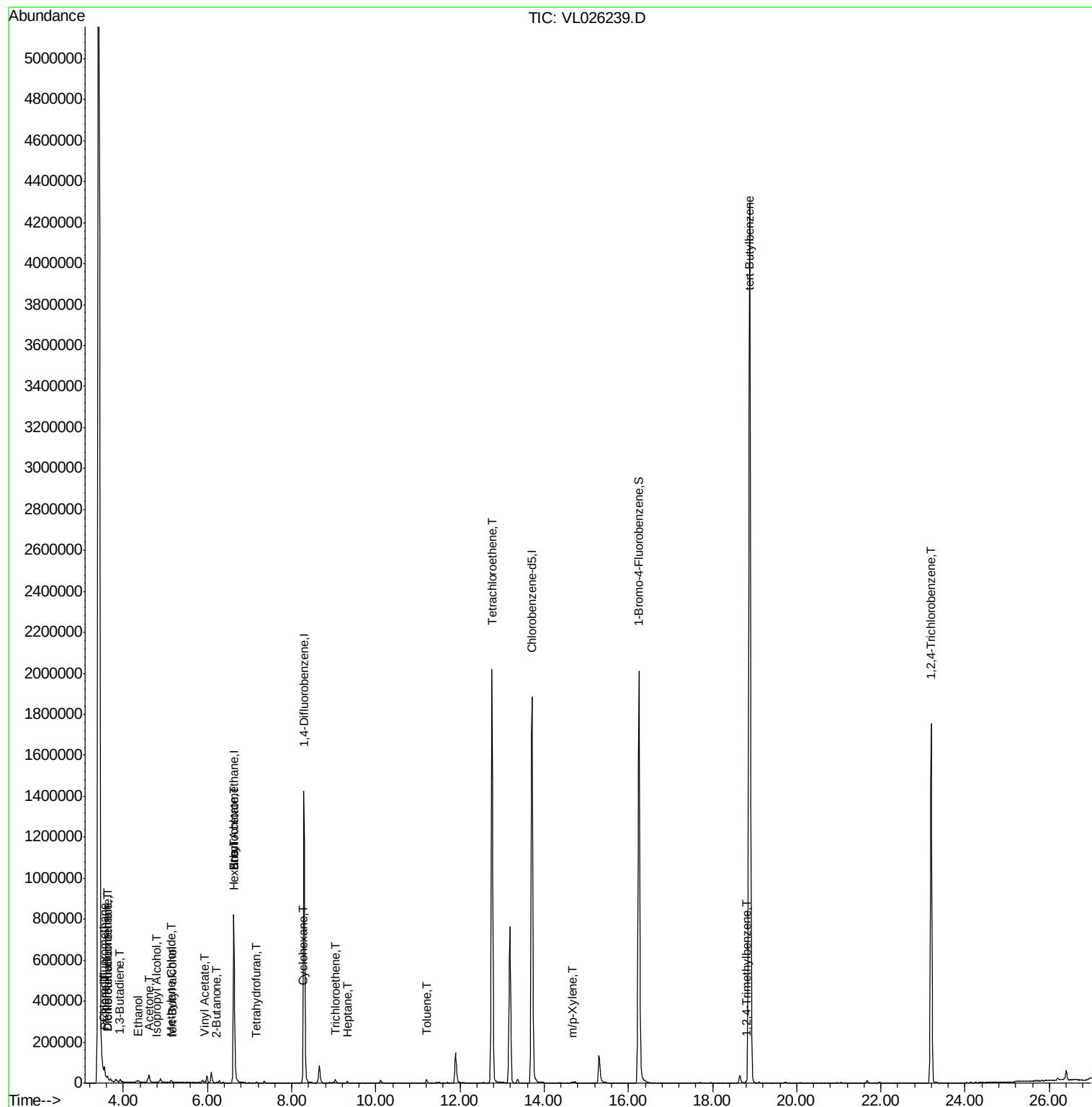
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.62	85	15717	0.16	ppbv	97
3) Chlorodifluoromethane	3.56	51	32992	0.55	ppbv	98
8) Dichlorotetrafluoroethane	3.62	85	15717	0.19	ppbv #	13
9) Propene	3.58	41	985	0.04	ppbv	95
10) Heptane	9.32	43	4085	0.04	ppbv	91
13) Ethanol	4.35	45	8314	1.99	ppbv	93
15) Acetone	4.61	43	44267	0.64	ppbv #	72
16) 1,3-Butadiene	3.93	39	3256	0.11	ppbv #	7
17) tert-Butyl alcohol	5.17	59	3627	0.08	ppbv #	72
19) Isopropyl Alcohol	4.78	45	2759	0.10	ppbv #	27
20) Methylene Chloride	5.14	84	5903	0.21	ppbv	94
23) Vinyl Acetate	5.93	43	3784	0.03	ppbv #	1
25) Ethyl Acetate	6.63	43	6795	0.05	ppbv #	75
26) Hexane	6.64	57	9816	0.15	ppbv #	49
30) Cyclohexane	8.26	84	3738	0.06	ppbv #	1
34) 2-Butanone	6.21	43	6526	0.08	ppbv	91
38) Trichloroethene	9.04	130	6838	0.10	ppbv	96
41) Tetrahydrofuran	7.17	42	2336	0.05	ppbv #	73
52) Tetrachloroethene	12.76	164	688170	8.57	ppbv	99
53) Toluene	11.20	91	20491	0.11	ppbv	95
59) m/p-Xylene	14.67	91	4569	0.02	ppbv #	53
65) tert-Butylbenzene	18.88	119	86972	0.31	ppbv #	25
74) 1,2,4-Trimethylbenzene	18.80	105	12165	0.05	ppbv #	73
81) 1,2,4-Trichlorobenzene	23.20	180	2998	0.03	ppbv #	12

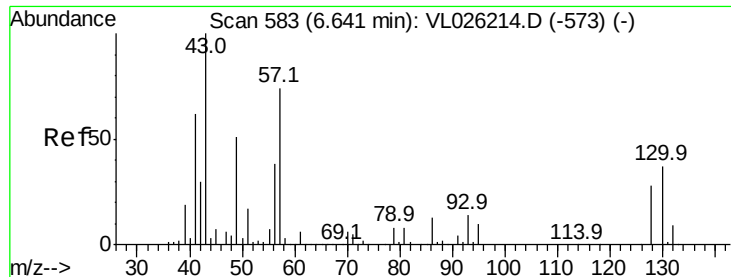
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL102015AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Oct 21 01:20:55 2015
QLast Update : Wed Oct 21 01:20:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.63 min Scan# 581

Delta R.T. -0.01 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

RB-SUBSLAB-239DL

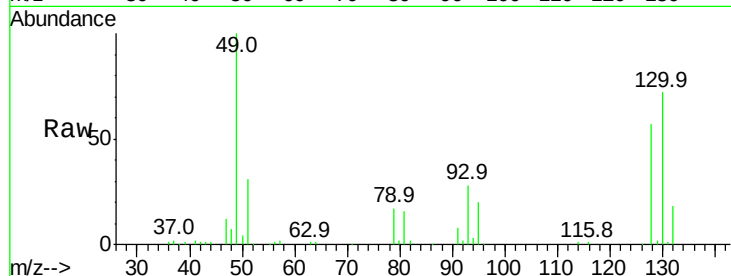
Tgt Ion: 49 Resp: 470110

Ion Ratio Lower Upper

49 100

128 57.5 28.2 84.7

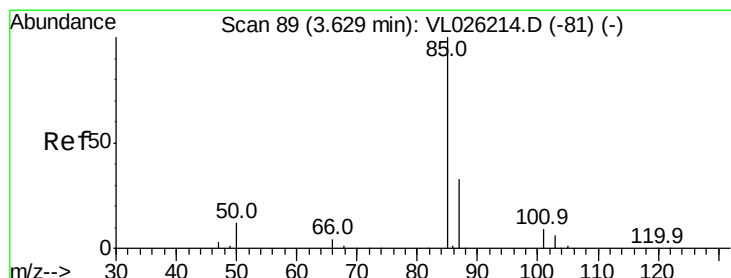
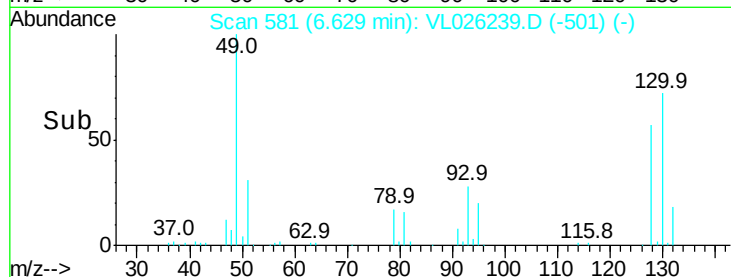
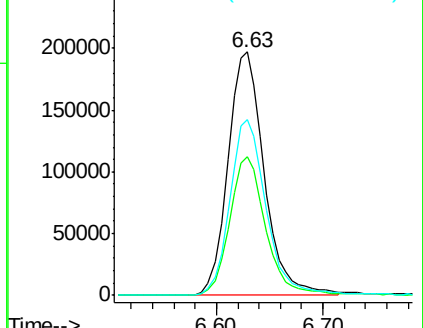
130 73.8 36.0 108.1



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: 0.16 ppbv

RT: 3.62 min Scan# 88

Delta R.T. -0.01 min

Lab File: VL026239.D

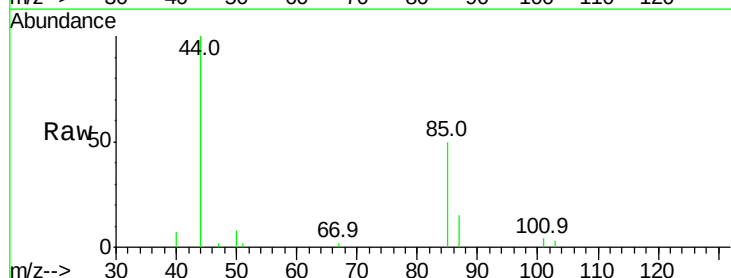
Acq: 21 Oct 2015 15:51

Tgt Ion: 85 Resp: 15717

Ion Ratio Lower Upper

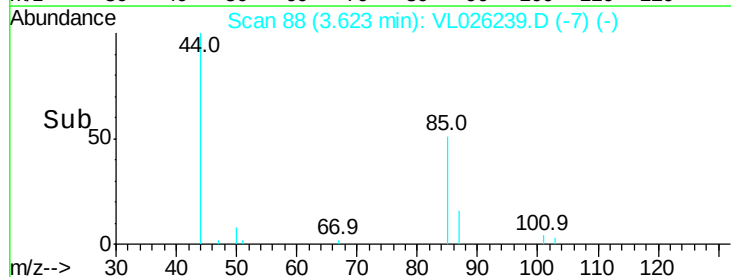
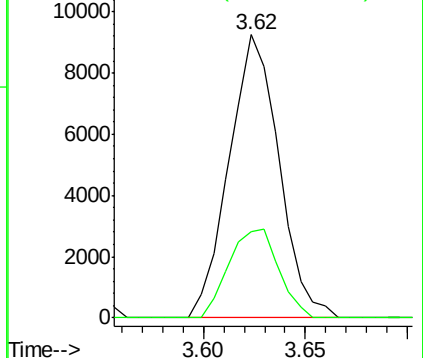
85 100

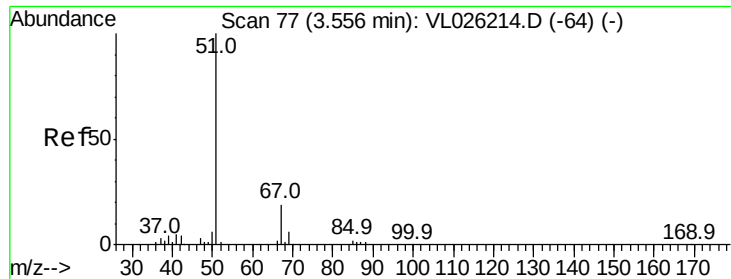
87 30.7 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.55 ppbv

RT: 3.56 min Scan# 77

Delta R.T. 0.00 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

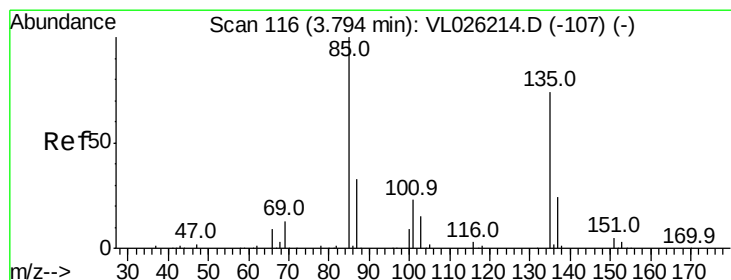
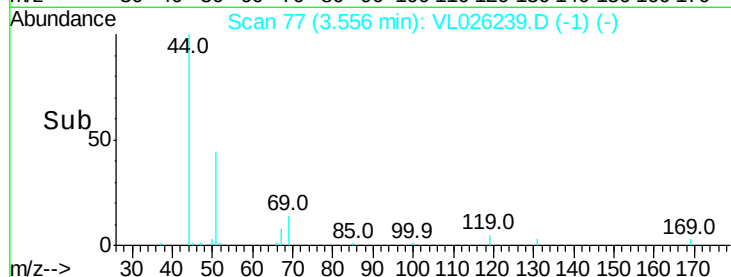
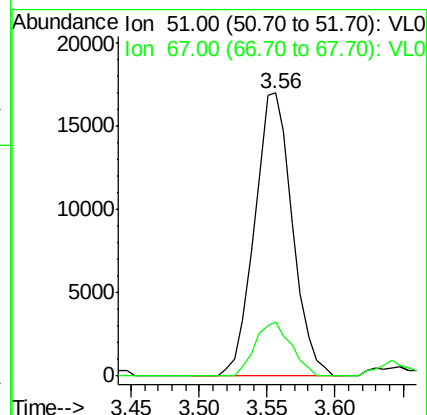
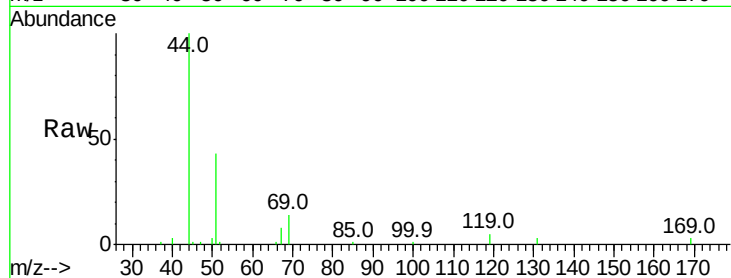
RB-SUBSLAB-239DL

Tgt Ion: 51 Resp: 32992

Ion Ratio Lower Upper

51 100

67 18.3 15.3 22.9



#8

Dichlorotetrafluoroethane

Concen: 0.19 ppbv

RT: 3.62 min Scan# 88

Delta R.T. -0.17 min

Lab File: VL026239.D

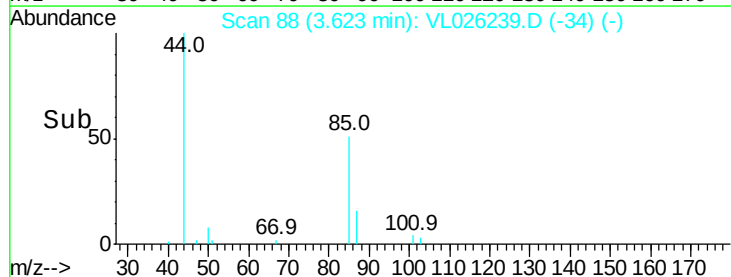
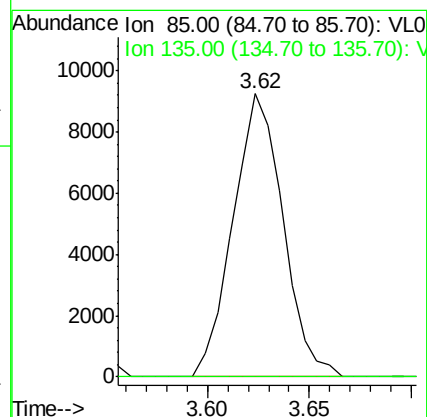
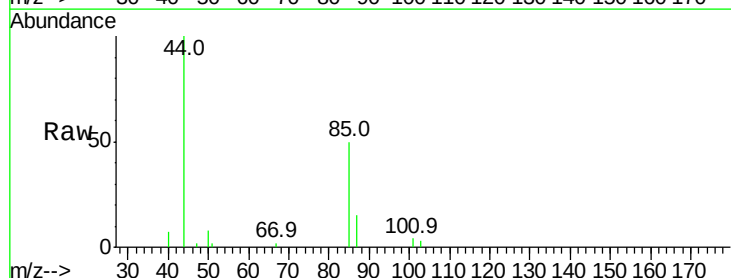
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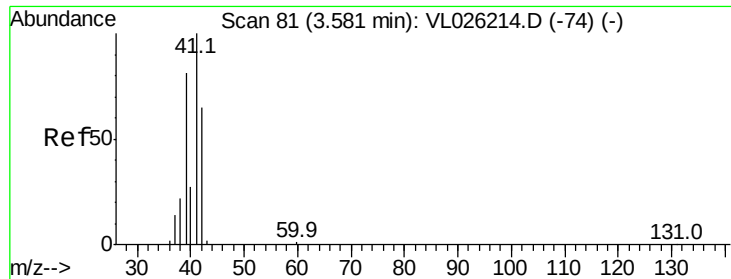
Tgt Ion: 85 Resp: 15717

Ion Ratio Lower Upper

85 100

135 0.0 57.8 86.8#





#9

Propene

Concen: 0.04 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

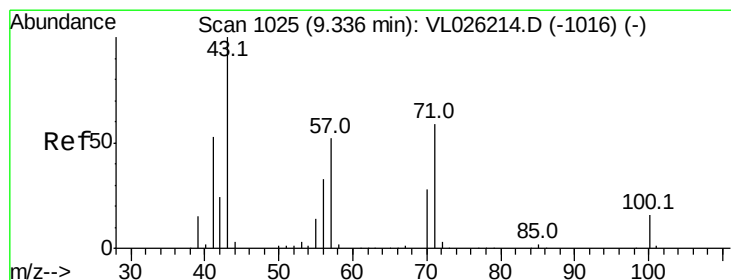
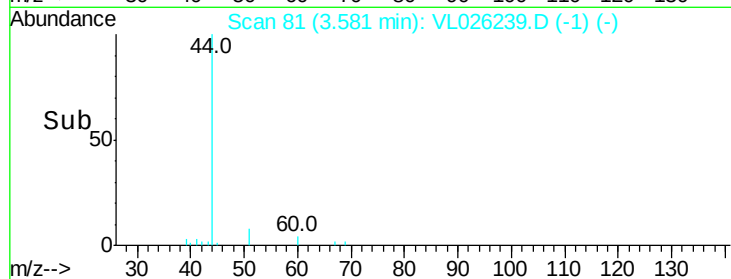
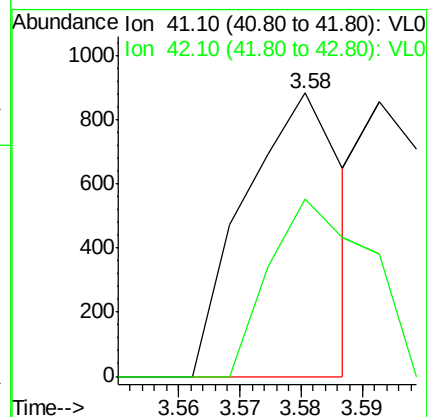
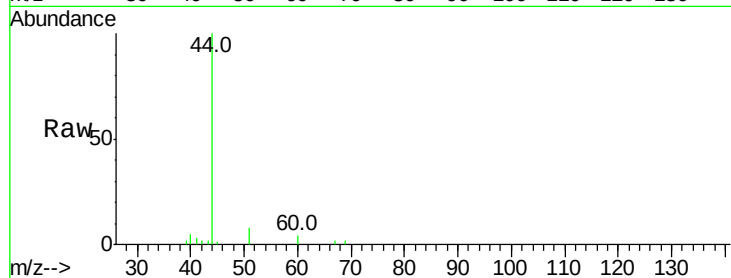
RB-SUBSLAB-239DL

Tgt Ion: 41 Resp: 985

Ion Ratio Lower Upper

41 100

42 63.5 53.8 80.8



#10

Heptane

Concen: 0.04 ppbv

RT: 9.32 min Scan# 1023

Delta R.T. -0.01 min

Lab File: VL026239.D

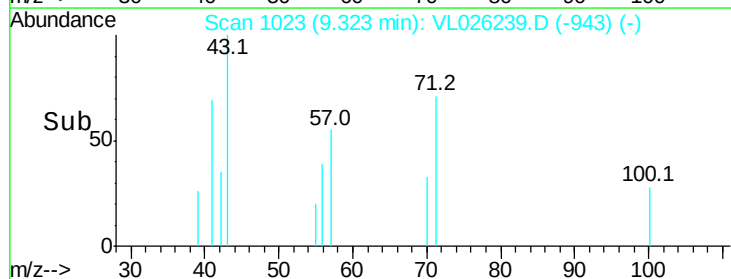
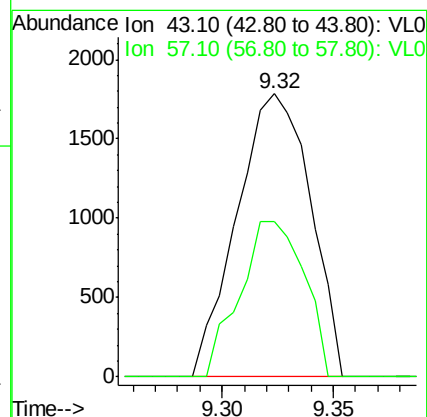
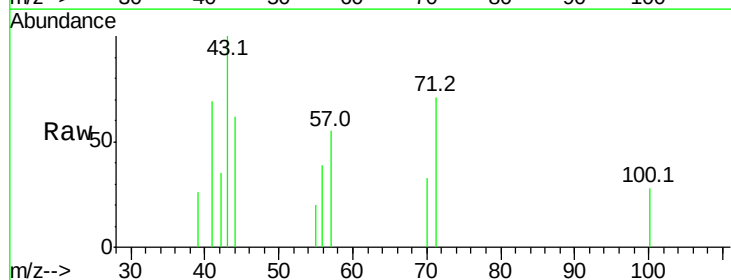
Acq: 21 Oct 2015 15:51

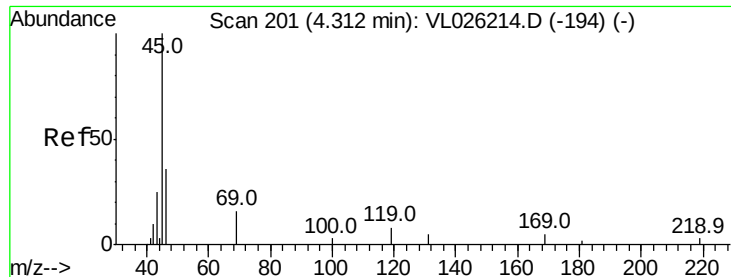
Tgt Ion: 43 Resp: 4085

Ion Ratio Lower Upper

43 100

57 48.2 43.7 65.5





#13

Ethanol

Concen: 1.99 ppbv

RT: 4.35 min Scan# 207

Delta R.T. 0.04 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

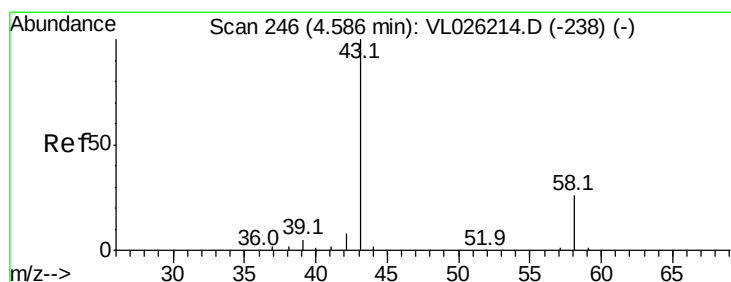
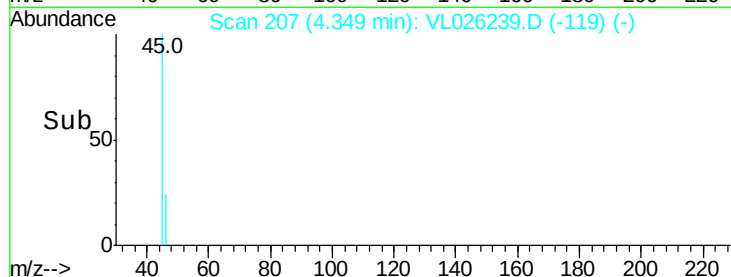
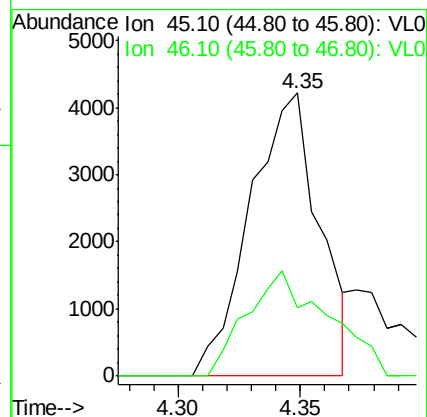
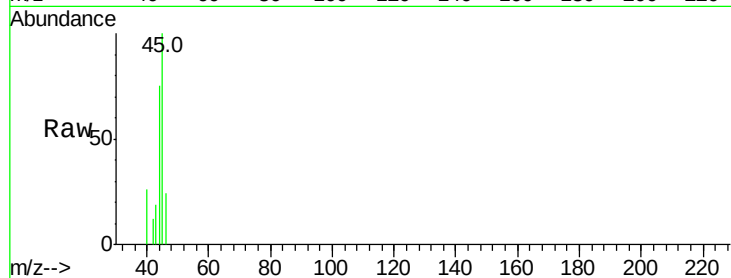
RB-SUBSLAB-239DL

Tgt Ion: 45 Resp: 8314

Ion Ratio Lower Upper

45 100

46 43.6 15.8 63.0



#15

Acetone

Concen: 0.64 ppbv

RT: 4.61 min Scan# 250

Delta R.T. 0.02 min

Lab File: VL026239.D

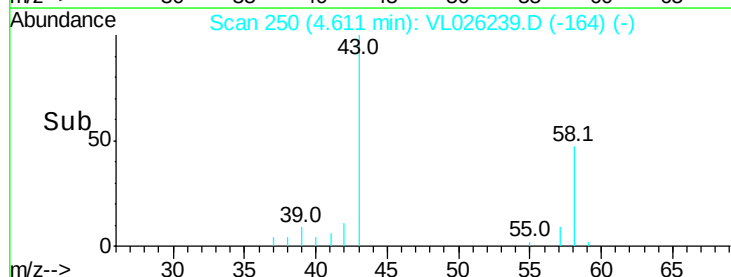
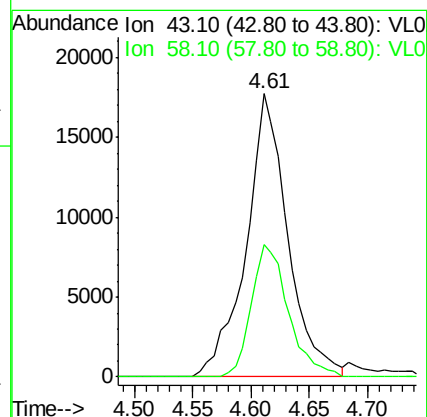
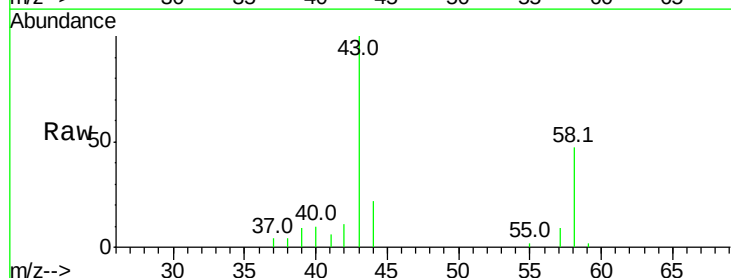
Acq: 21 Oct 2015 15:51

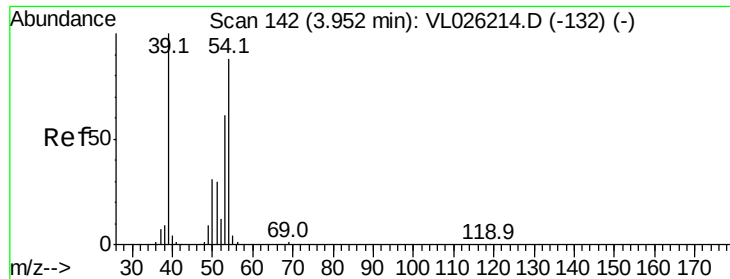
Tgt Ion: 43 Resp: 44267

Ion Ratio Lower Upper

43 100

58 41.7 21.8 32.6#

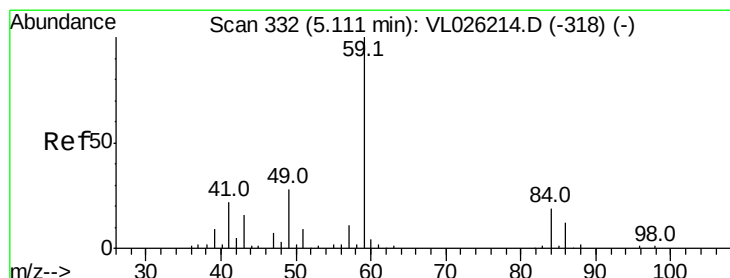
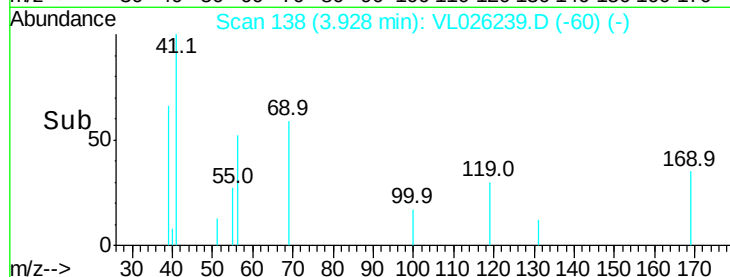
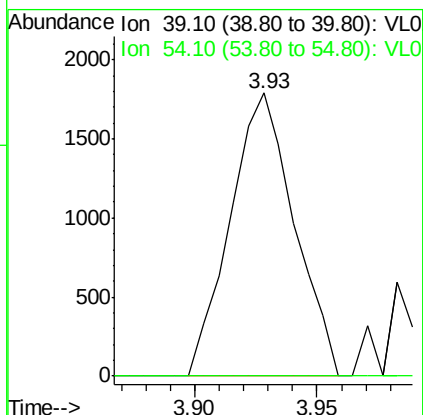
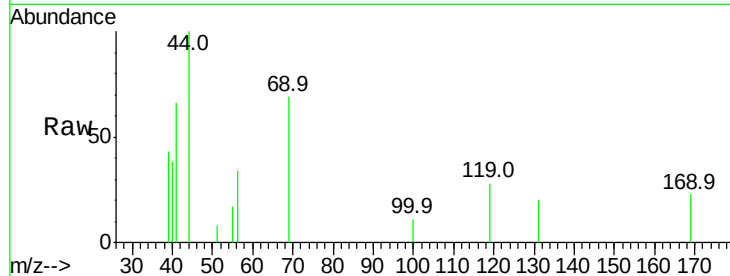




#16
 1,3-Butadiene
 Concen: 0.11 ppbv
 RT: 3.93 min Scan# 138
 Delta R.T. -0.02 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

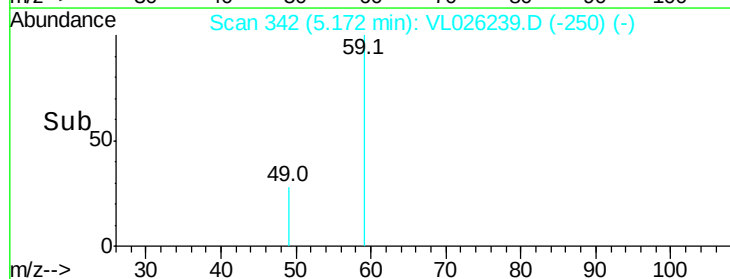
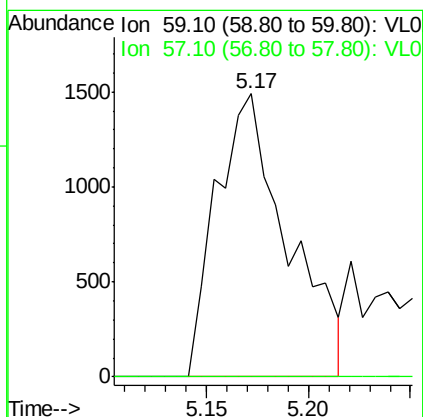
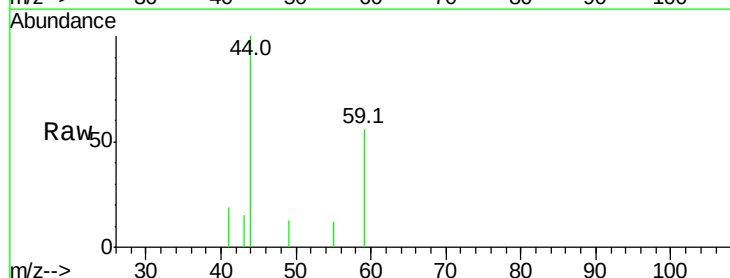
Instrument :
 MSVOA_L
 ClientSampleId :
 RB-SUBSLAB-239DL

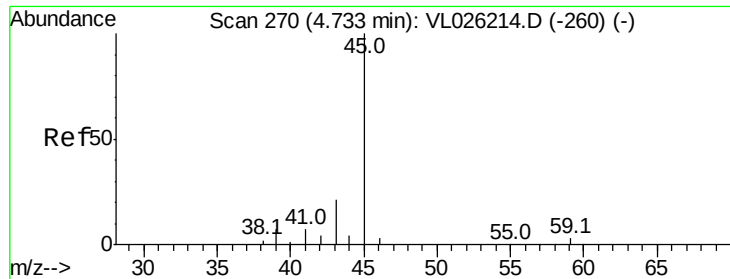
Tgt Ion: 39 Resp: 3256
 Ion Ratio Lower Upper
 39 100
 54 0.0 67.3 100.9#



#17
 tert-Butyl alcohol
 Concen: 0.08 ppbv
 RT: 5.17 min Scan# 342
 Delta R.T. 0.06 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Tgt Ion: 59 Resp: 3627
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 0.10 ppbv

RT: 4.78 min Scan# 278

Delta R.T. 0.05 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

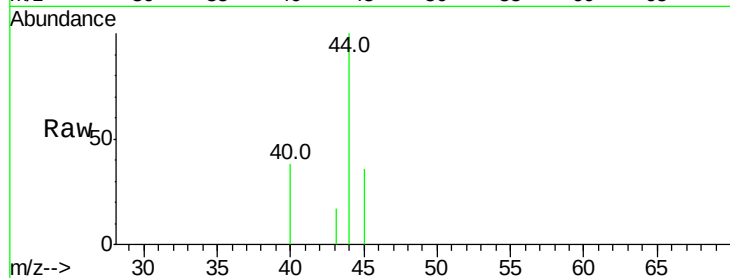
RB-SUBSLAB-239DL

Tgt Ion: 45 Resp: 2759

Ion Ratio Lower Upper

45 100

58 0.0 40.3 60.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.78

1200

1000

800

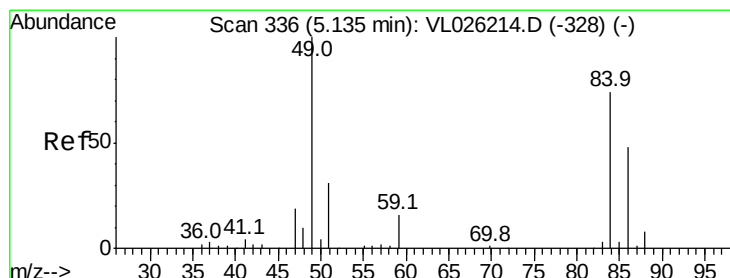
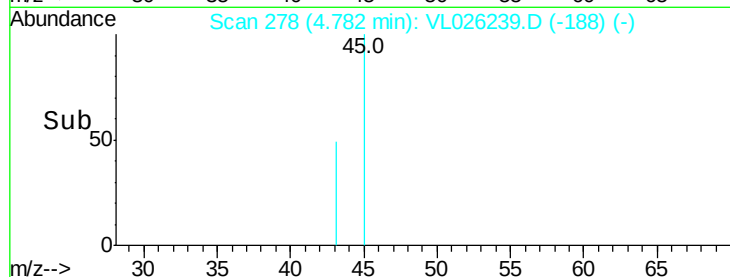
600

400

200

0

Time-->



#20

Methylene Chloride

Concen: 0.21 ppbv

RT: 5.14 min Scan# 336

Delta R.T. 0.00 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Tgt Ion: 84 Resp: 5903

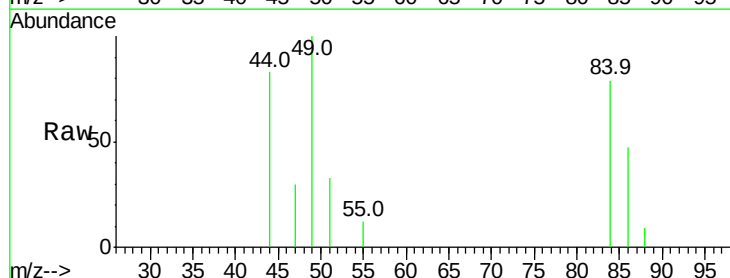
Ion Ratio Lower Upper

84 100

49 127.2 108.7 163.1

51 41.4 33.7 50.5

86 60.1 52.2 78.2



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

6000

5000

4000

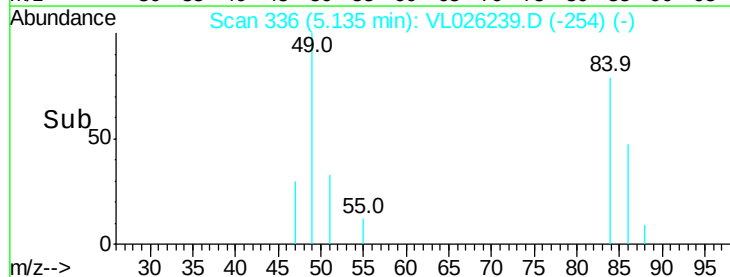
3000

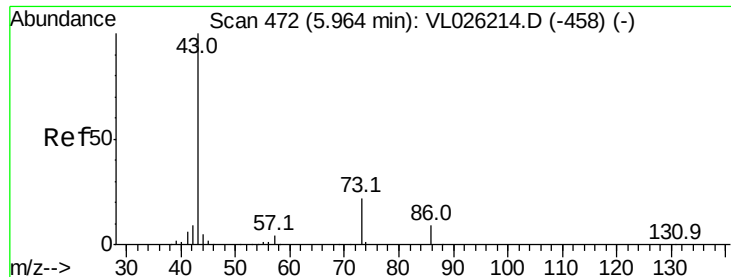
2000

1000

0

Time-->





#23

Vinyl Acetate

Concen: 0.03 ppbv

RT: 5.93 min Scan# 467

Delta R.T. -0.03 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

RB-SUBSLAB-239DL

Tgt Ion: 43 Resp: 3784

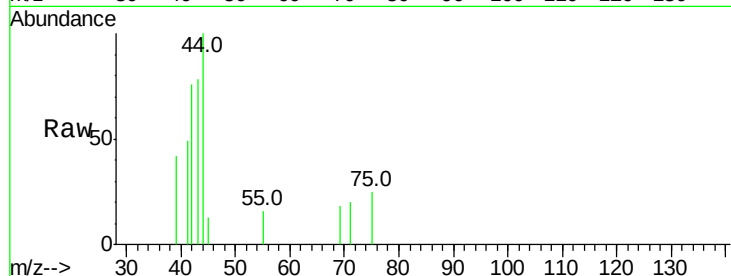
Ion Ratio Lower Upper

43 100

86 0.0 7.0 10.6#

42 96.9 7.5 11.3#

44 32.8 3.6 5.4#

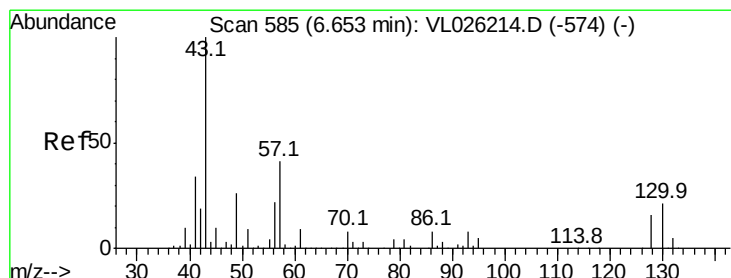
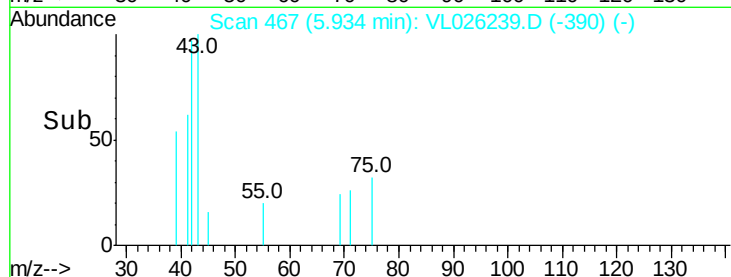
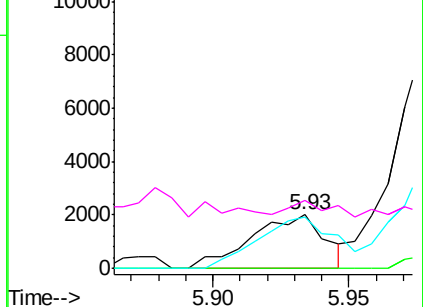


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#25

Ethyl Acetate

Concen: 0.05 ppbv

RT: 6.63 min Scan# 582

Delta R.T. -0.02 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Tgt Ion: 43 Resp: 6795

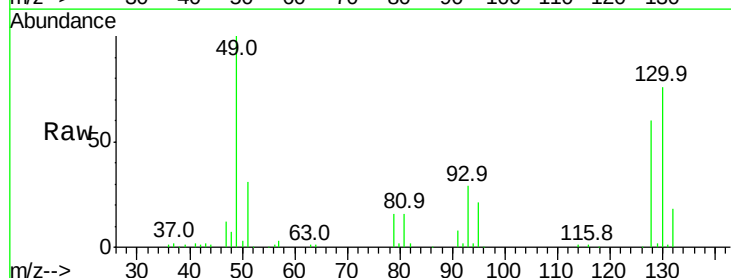
Ion Ratio Lower Upper

43 100

45 0.0 7.7 11.5#

61 0.0 7.5 11.3#

70 0.0 6.9 10.3#

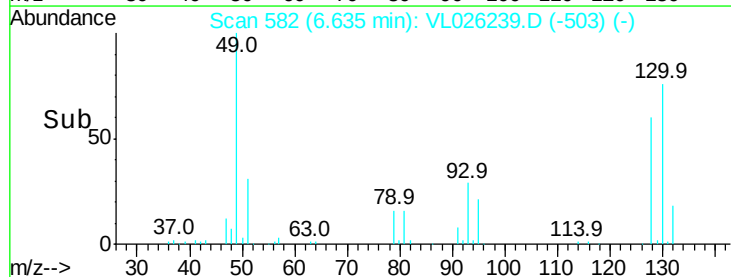
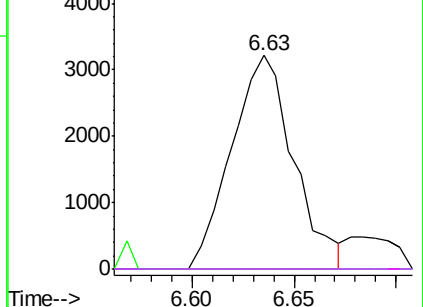


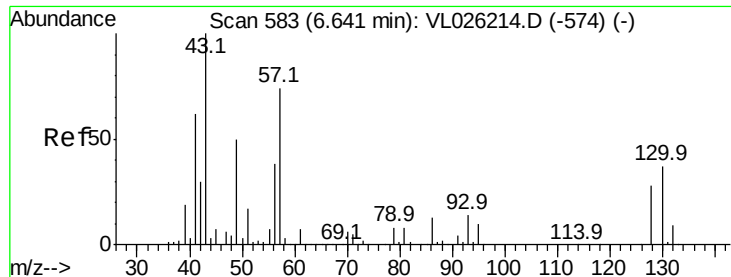
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

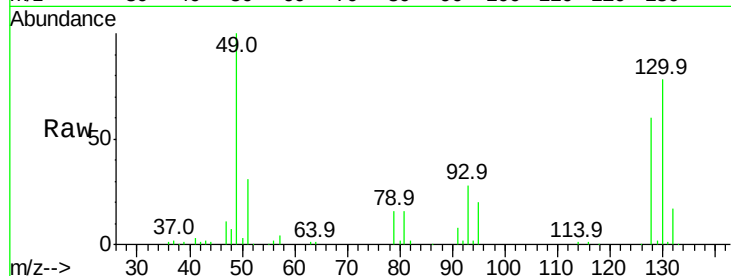




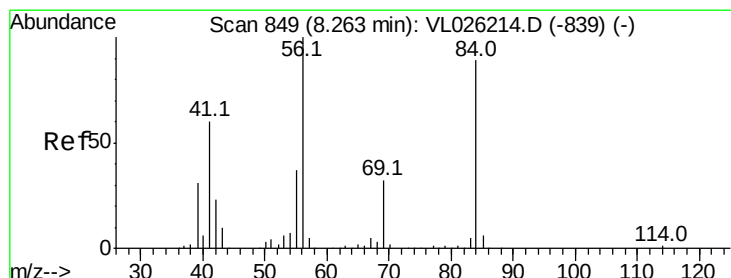
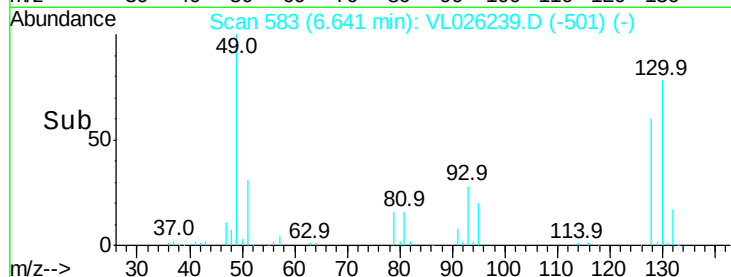
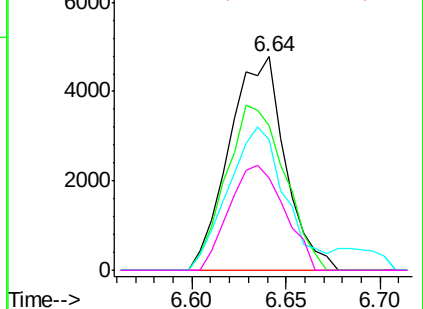
#26
Hexane
Concen: 0.15 ppbv
RT: 6.64 min Scan# 583
Delta R.T. 0.00 min
Lab File: VL026239.D
Acq: 21 Oct 2015 15:51

Instrument :
MSVOA_L
ClientSampleId :
RB-SUBSLAB-239DL

Tgt Ion: 57 Resp: 9816
Ion Ratio Lower Upper
57 100
41 81.3 68.1 102.1
43 77.4 163.4 245.2#
56 48.5 42.2 63.4

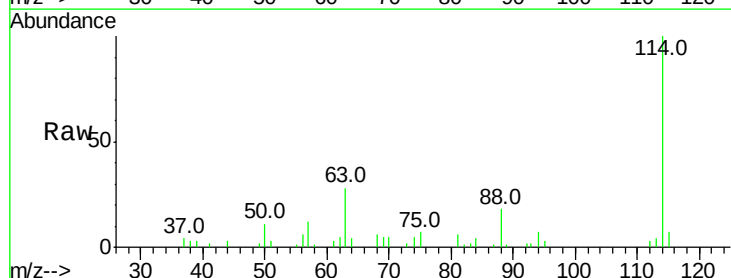


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

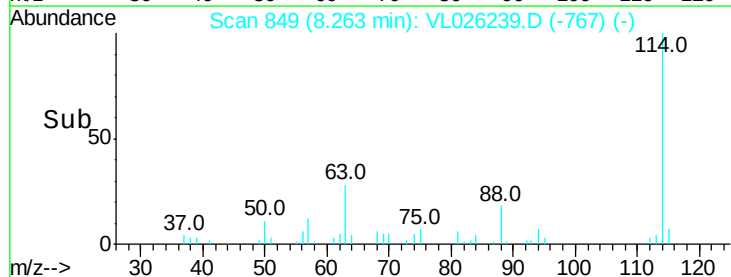
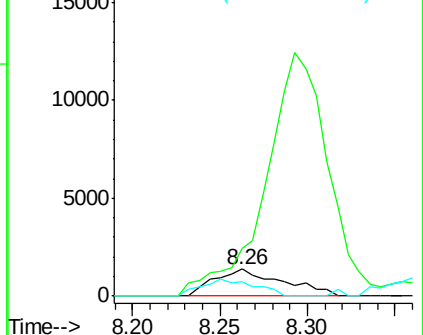


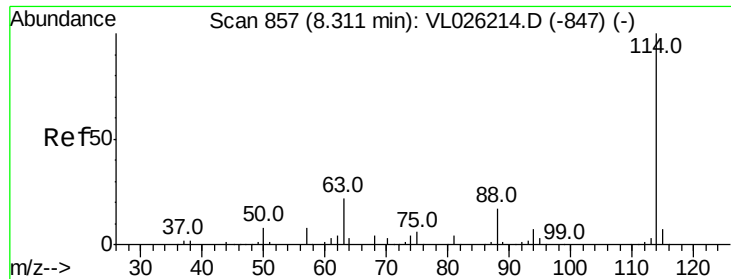
#30
Cyclohexane
Concen: 0.06 ppbv
RT: 8.26 min Scan# 849
Delta R.T. 0.00 min
Lab File: VL026239.D
Acq: 21 Oct 2015 15:51

Tgt Ion: 84 Resp: 3738
Ion Ratio Lower Upper
84 100
56 868.8 95.9 143.9#
41 48.4 54.8 82.2#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

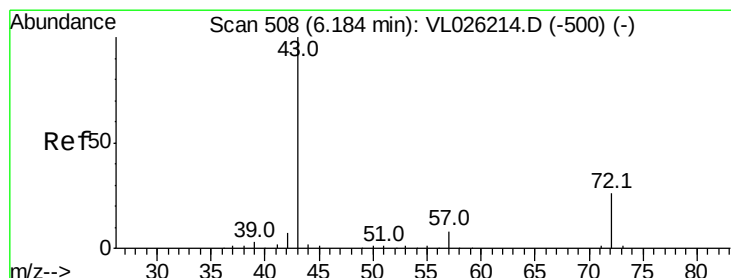
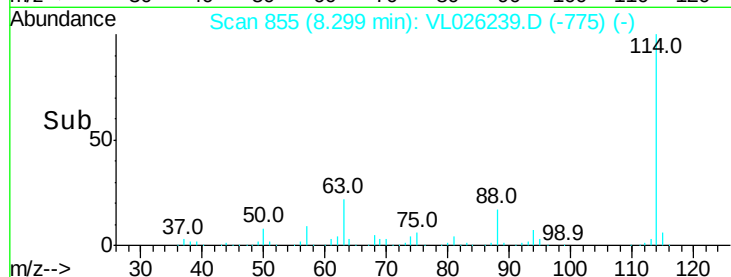
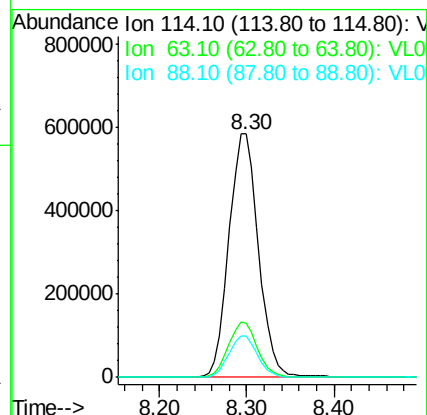
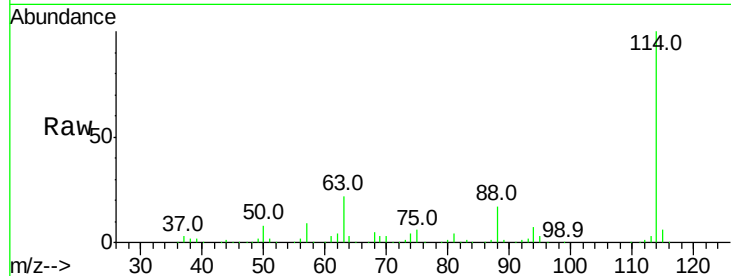




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.30 min Scan# 855
 Delta R.T. -0.01 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

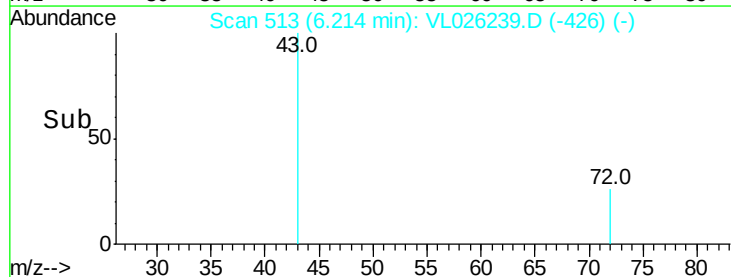
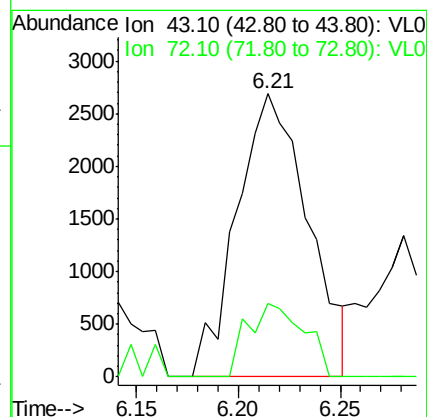
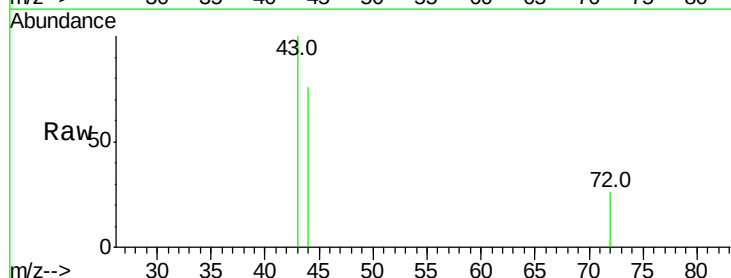
Instrument :
 MSVOA_L
 ClientSampleId :
 RB-SUBSLAB-239DL

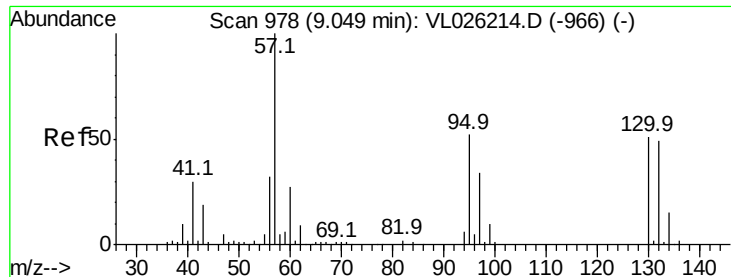
Tgt Ion: 114 Resp: 1374826
 Ion Ratio Lower Upper
 114 100
 63 22.5 18.2 27.4
 88 16.7 13.5 20.3



#34
 2-Butanone
 Concen: 0.08 ppbv
 RT: 6.21 min Scan# 513
 Delta R.T. 0.03 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Tgt Ion: 43 Resp: 6526
 Ion Ratio Lower Upper
 43 100
 72 20.6 20.1 30.1

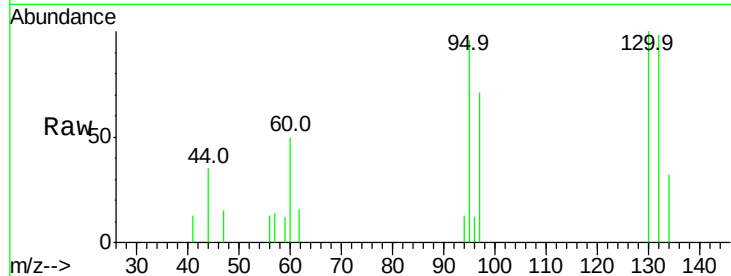




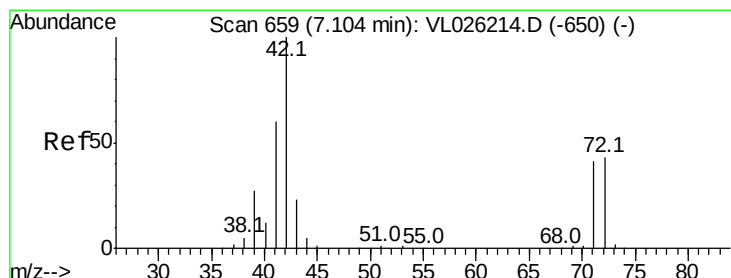
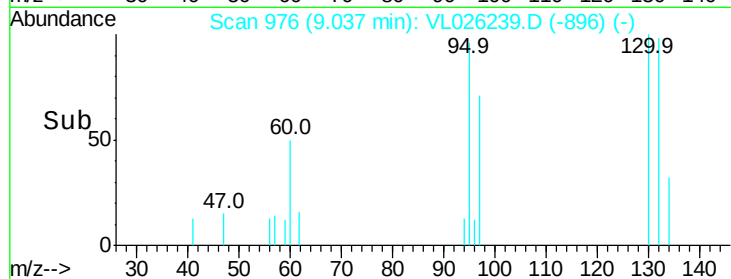
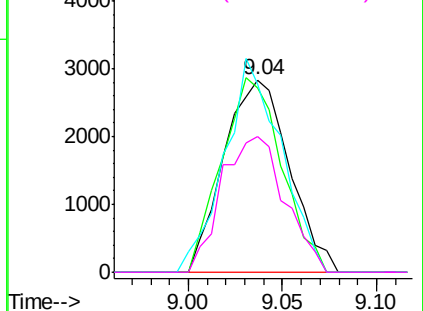
#38
 Trichloroethene
 Concen: 0.10 ppbv
 RT: 9.04 min Scan# 976
 Delta R.T. -0.01 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Instrument :
 MSVOA_L
 ClientSampleId :
 RB-SUBSLAB-239DL

Tgt Ion:130 Resp: 6838
 Ion Ratio Lower Upper
 130 100
 95 96.2 81.0 121.4
 132 97.6 76.5 114.7
 97 70.9 52.5 78.7

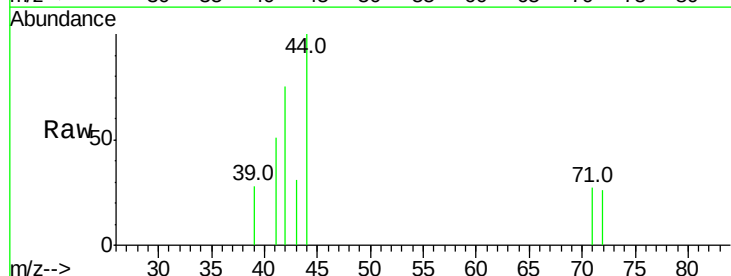


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

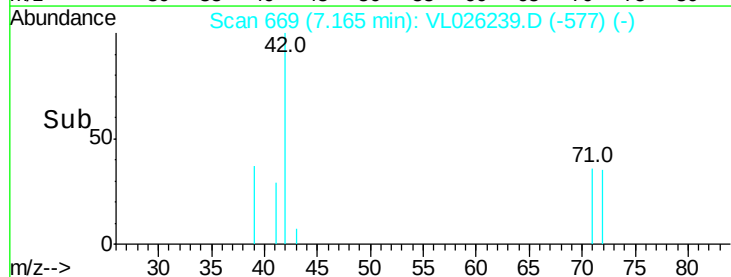
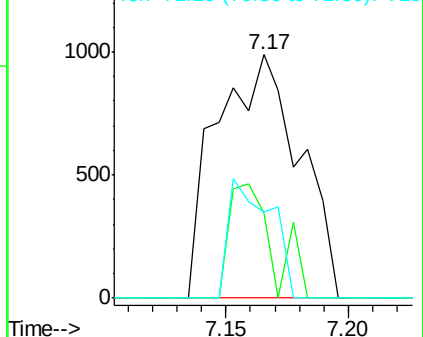


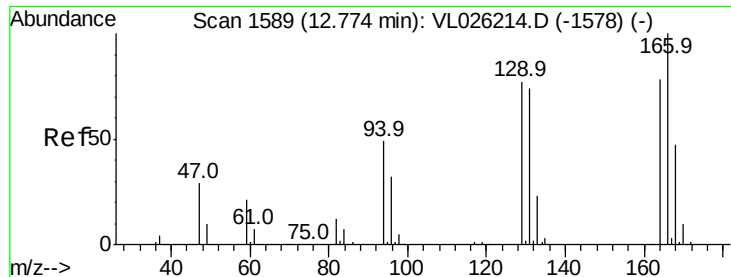
#41
 Tetrahydrofuran
 Concen: 0.05 ppbv
 RT: 7.17 min Scan# 669
 Delta R.T. 0.06 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Tgt Ion: 42 Resp: 2336
 Ion Ratio Lower Upper
 42 100
 72 24.5 34.3 51.5#
 71 25.0 32.1 48.1#



Abundance Ion 42.10 (41.80 to 42.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0
 Ion 71.10 (70.80 to 71.80): VL0





#52

Tetrachloroethene

Concen: 8.57 ppbv

RT: 12.76 min Scan# 1587

Delta R.T. -0.01 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

RB-SUBSLAB-239DL

Tgt Ion:164 Resp: 688170

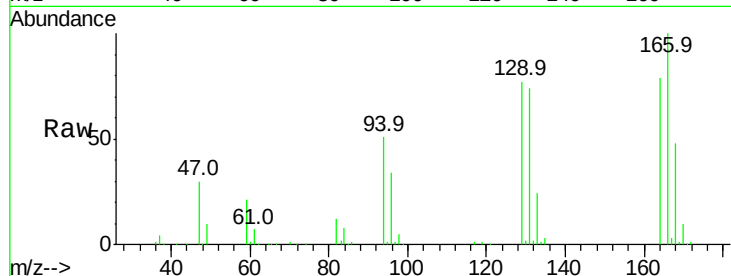
Ion Ratio Lower Upper

164 100

166 126.7 102.3 153.5

129 97.6 78.2 117.4

131 94.3 75.7 113.5

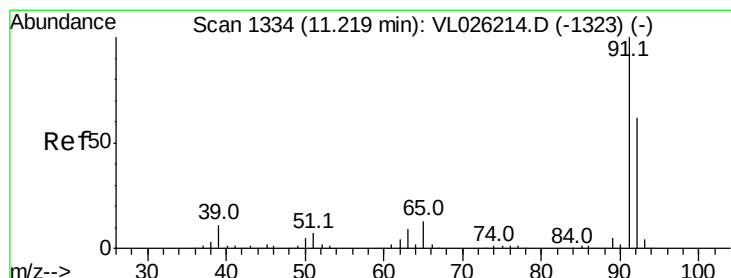
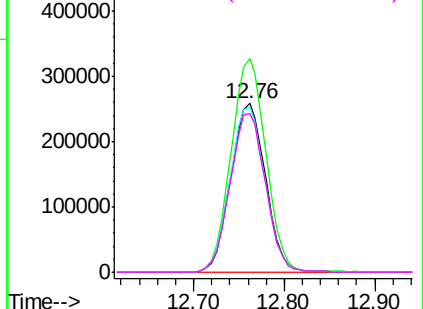
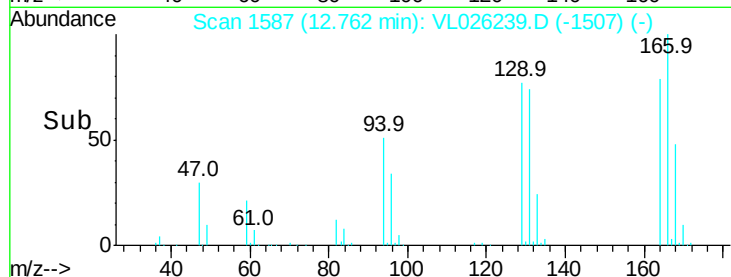


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.11 ppbv

RT: 11.20 min Scan# 1331

Delta R.T. -0.02 min

Lab File: VL026239.D

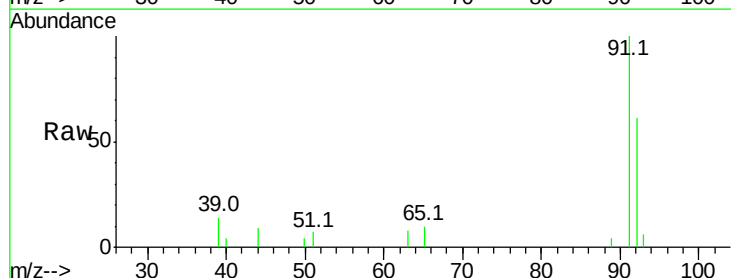
Acq: 21 Oct 2015 15:51

Tgt Ion: 91 Resp: 20491

Ion Ratio Lower Upper

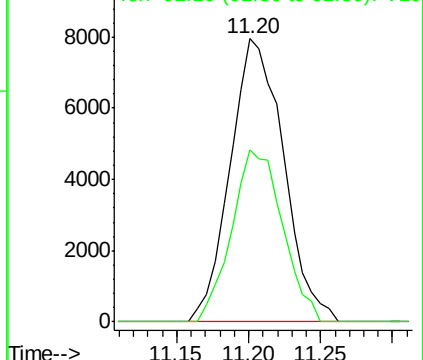
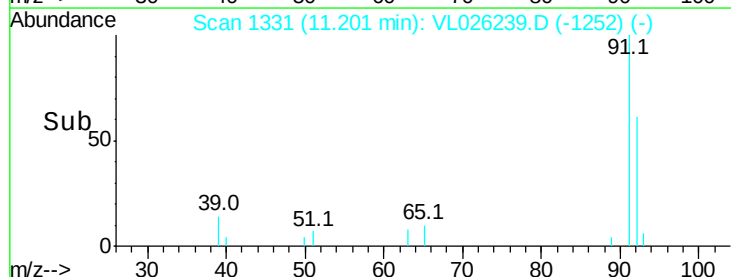
91 100

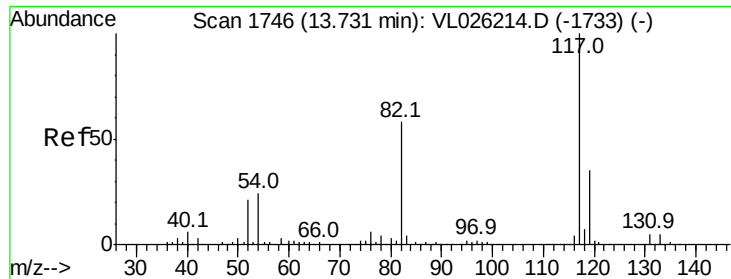
92 57.7 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

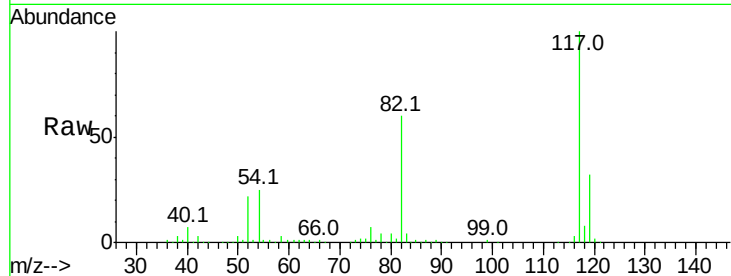




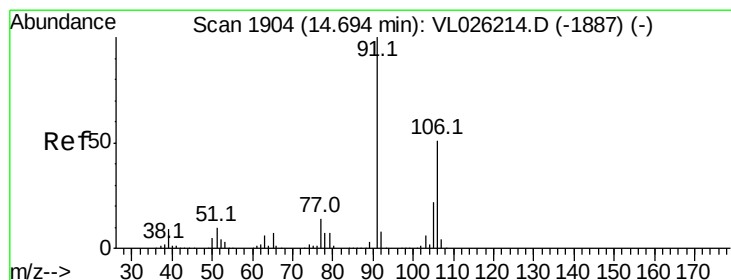
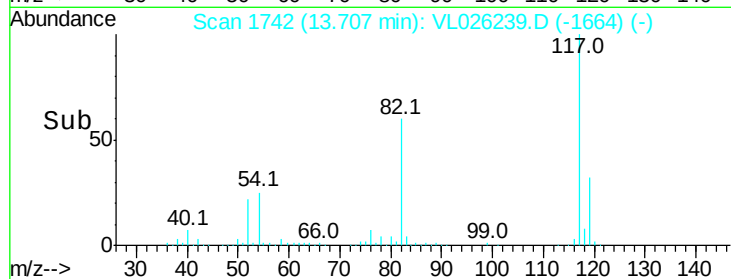
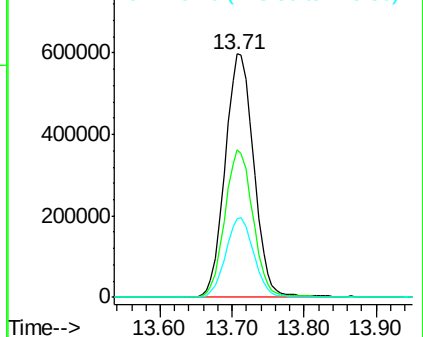
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.71 min Scan# 1742
Delta R.T. -0.02 min
Lab File: VL026239.D
Acq: 21 Oct 2015 15:51

Instrument :
MSVOA_L
ClientSampleId :
RB-SUBSLAB-239DL

Tgt Ion:117 Resp: 1661546
Ion Ratio Lower Upper
117 100
82 60.1 45.8 68.8
119 32.2 45.0 67.4#

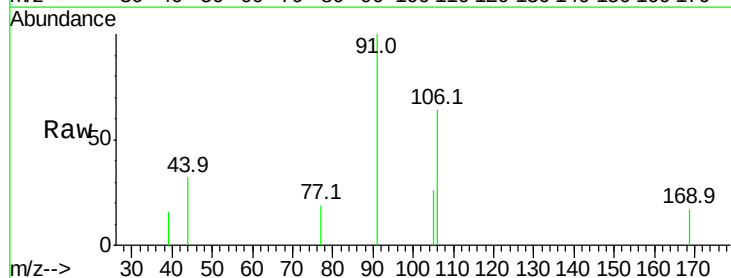


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

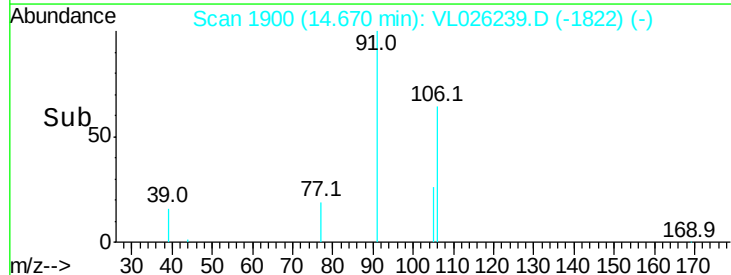
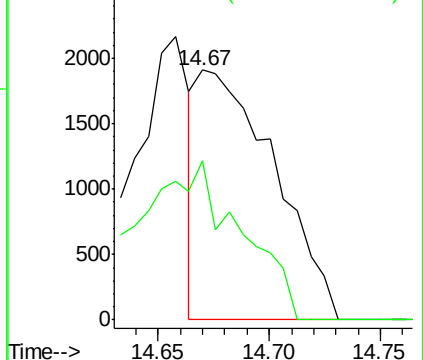


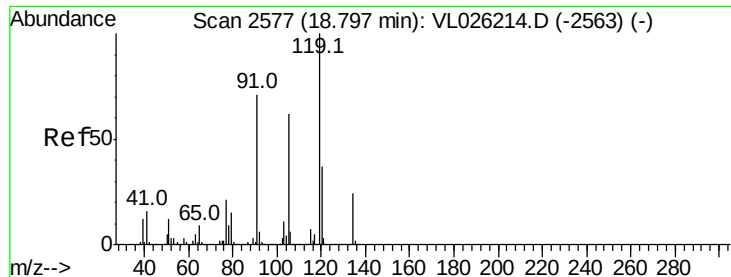
#59
m/p-Xylene
Concen: 0.02 ppbv
RT: 14.67 min Scan# 1900
Delta R.T. -0.02 min
Lab File: VL026239.D
Acq: 21 Oct 2015 15:51

Tgt Ion: 91 Resp: 4569
Ion Ratio Lower Upper
91 100
106 83.7 40.6 61.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V

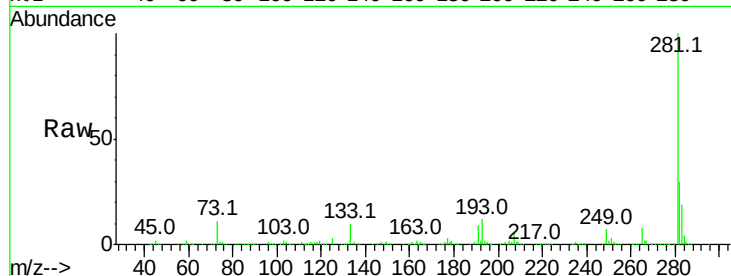




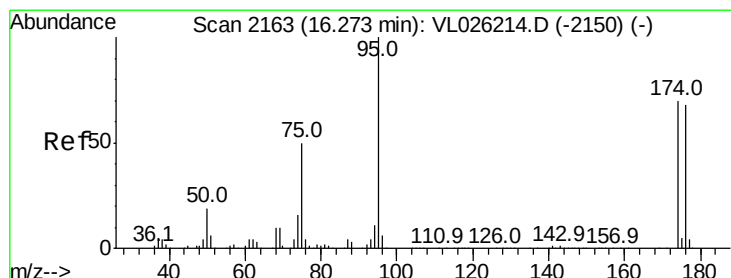
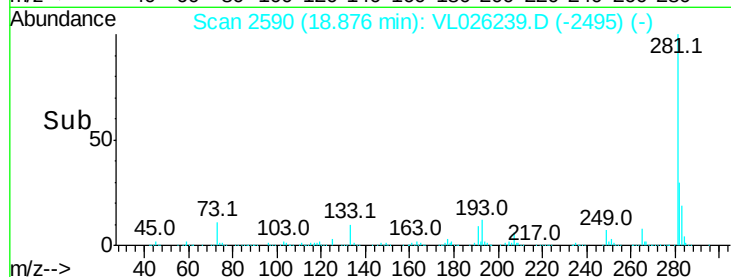
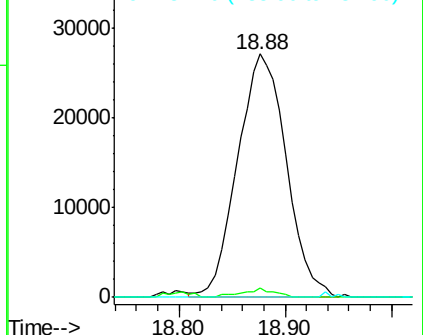
#65
 tert-Butylbenzene
 Concen: 0.31 ppbv
 RT: 18.88 min Scan# 2590
 Delta R.T. 0.08 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Instrument :
 MSVOA_L
 ClientSampleId :
 RB-SUBSLAB-239DL

Tgt Ion: 119 Resp: 86972
 Ion Ratio Lower Upper
 119 100
 91 2.5 57.5 86.3#
 134 0.0 18.1 27.1#

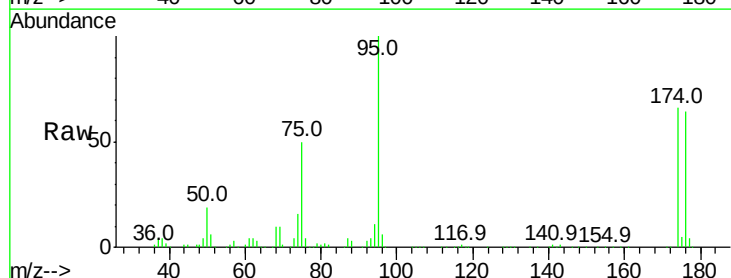


Abundance Ion 119.20 (118.90 to 119.90): V
 Ion 91.10 (90.80 to 91.80): VL0
 Ion 134.20 (133.90 to 134.90): V

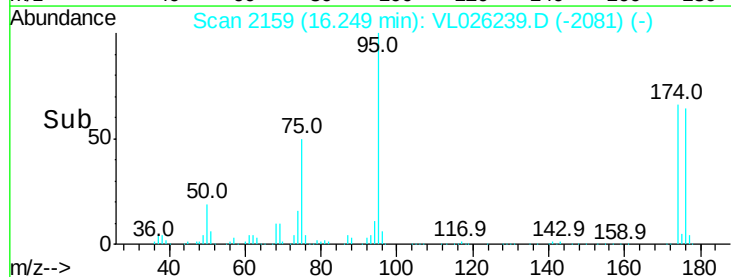
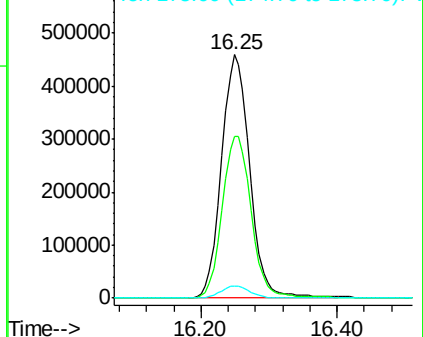


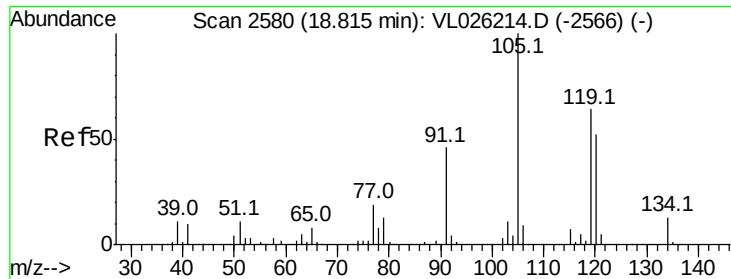
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.33 ppbv
 RT: 16.25 min Scan# 2159
 Delta R.T. -0.02 min
 Lab File: VL026239.D
 Acq: 21 Oct 2015 15:51

Tgt Ion: 95 Resp: 1324224
 Ion Ratio Lower Upper
 95 100
 174 68.6 55.8 83.8
 175 5.2 4.3 6.5



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: 0.05 ppbv

RT: 18.80 min Scan# 2577

Delta R.T. -0.02 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

Instrument :

MSVOA_L

ClientSampleId :

RB-SUBSLAB-239DL

Tgt Ion:105 Resp: 12165

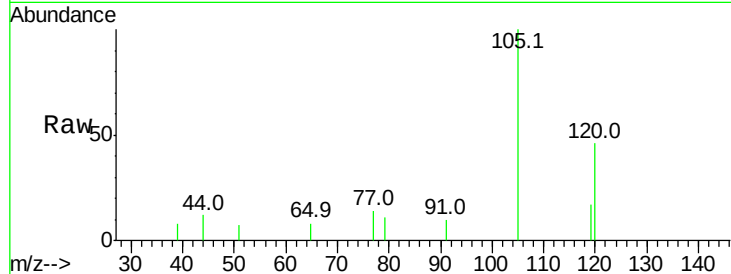
Ion Ratio Lower Upper

105 100

120 46.2 41.2 61.8

91 9.9 37.2 55.8#

77 14.0 15.6 23.4#

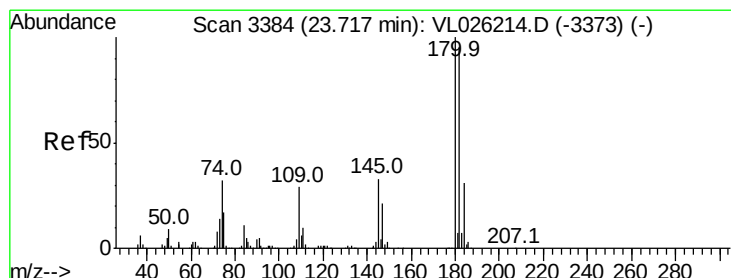
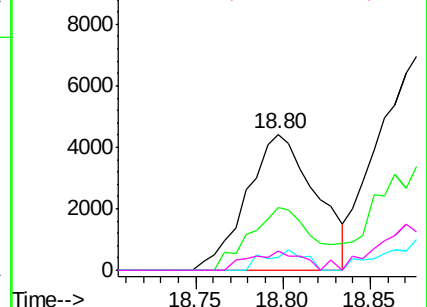
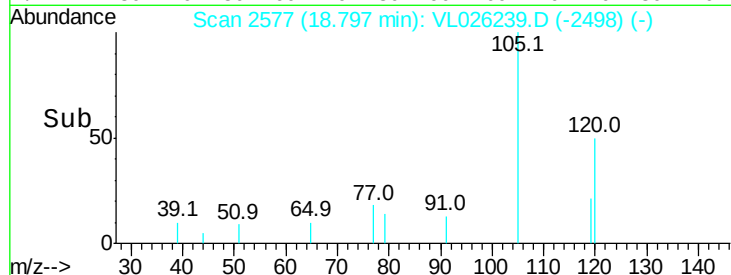


Abundance Ion 105.10 (104.80 to 105.80): V

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



#81

1,2,4-Trichlorobenzene

Concen: 0.03 ppbv

RT: 23.20 min Scan# 3299

Delta R.T. -0.52 min

Lab File: VL026239.D

Acq: 21 Oct 2015 15:51

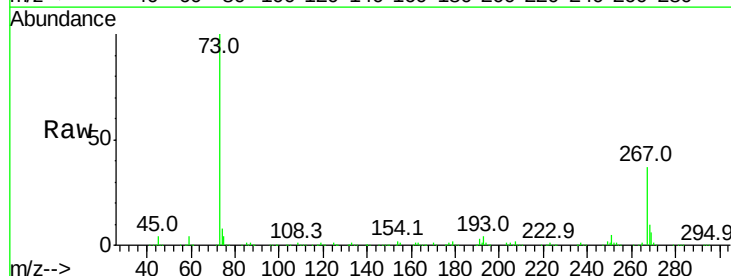
Tgt Ion:180 Resp: 2998

Ion Ratio Lower Upper

180 100

182 0.0 76.7 115.1#

184 0.0 24.2 36.2#



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 184.00 (183.70 to 184.70): V

