

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102915\
 Data File : VL026272.D
 Acq On : 29 Oct 2015 19:42
 Operator : SY/AP
 Sample : G4169-02DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

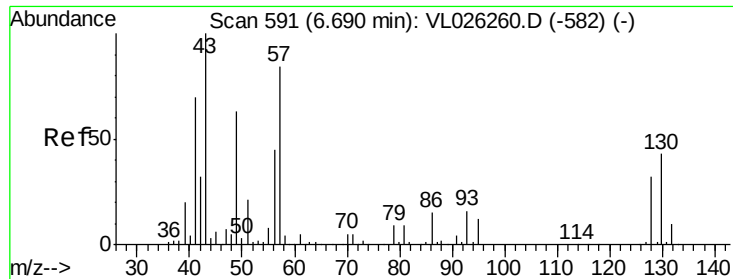
Quant Time: Oct 29 23:02:26 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102915AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct 29 14:29:54 2015
 QLast Update : Thu Oct 29 14:29:54 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.68	49	599807	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.36	114	1652190	10.00	ppbv	-0.01
55) Chlorobenzene-d5	13.78	117	1912646	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	16.32	95	1500360	10.34	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.67	85	6071	0.05	ppbv	95
3) Chlorodifluoromethane	3.59	51	122443	1.62	ppbv	99
4) Chloromethane	3.78	50	1935	0.04	ppbv #	42
8) Dichlorotetrafluoroethane	3.67	85	6071	0.06	ppbv #	14
9) Propene	3.46	41	451	0.01	ppbv	95
11) Trichlorofluoromethane	4.73	101	2652	0.02	ppbv #	77
13) Ethanol	4.39	45	1455	0.27	ppbv #	33
15) Acetone	4.66	43	41882	0.53	ppbv #	62
16) 1,3-Butadiene	3.97	39	3119	0.08	ppbv #	7
19) Isopropyl Alcohol	4.84	45	1423	0.04	ppbv #	1
20) Methylene Chloride	5.18	84	7108	0.21	ppbv	84
21) Allyl Chloride	4.92	41	6758	0.12	ppbv #	52
23) Vinyl Acetate	6.03	43	3966	0.03	ppbv #	56
26) Hexane	6.69	57	1814	0.02	ppbv #	60
30) Cyclohexane	8.34	84	935	0.01	ppbv #	1
34) 2-Butanone	6.28	43	6358	0.06	ppbv	94
36) Benzene	8.05	78	3775	0.02	ppbv #	82
51) 2-Hexanone	11.96	43	49544	0.41	ppbv #	47
53) Toluene	11.27	91	7192	0.03	ppbv	98
60) o-Xylene	15.52	91	3990	0.02	ppbv	94
61) Styrene	15.35	104	1958	0.02	ppbv #	52
66) Benzyl Chloride	18.94	91	1041	0.01	ppbv #	63
73) 1,3,5-Trimethylbenzene	18.02	105	3655	0.01	ppbv #	80
74) 1,2,4-Trimethylbenzene	18.86	105	11477	0.04	ppbv #	61

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.68 min Scan# 590

Delta R.T. -0.01 min

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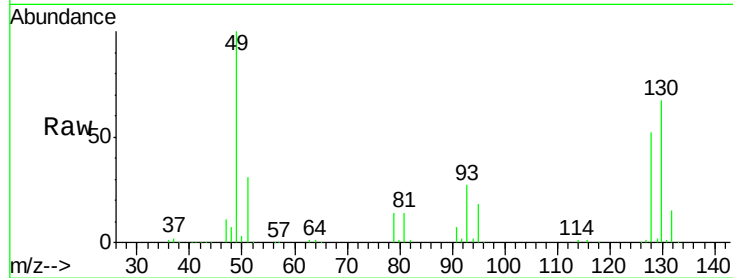
Tot Ion: 49 Resp: 599807

Ion Ratio Lower Upper

49 100

128 54.1 26.7 80.1

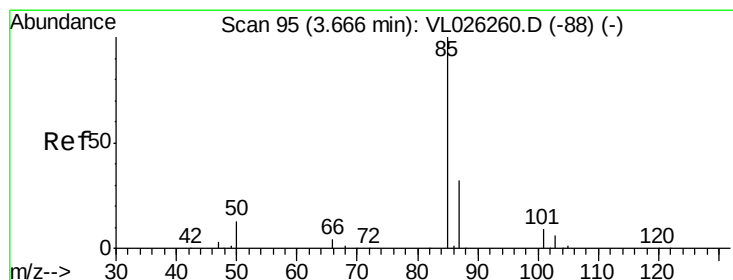
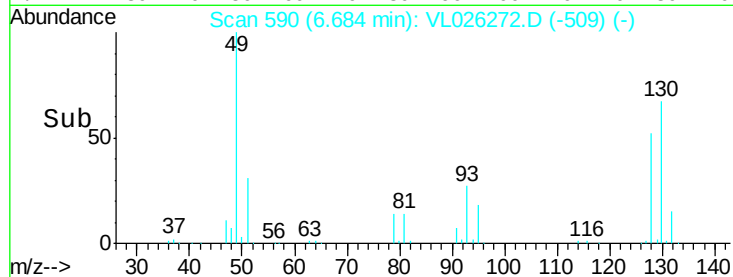
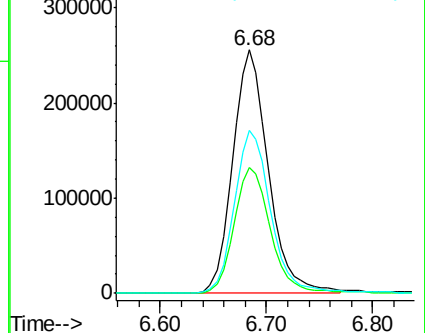
130 69.4 34.4 103.2



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: 0.05 ppbv

RT: 3.67 min Scan# 95

Delta R.T. 0.00 min

Lab File: VL026272.D

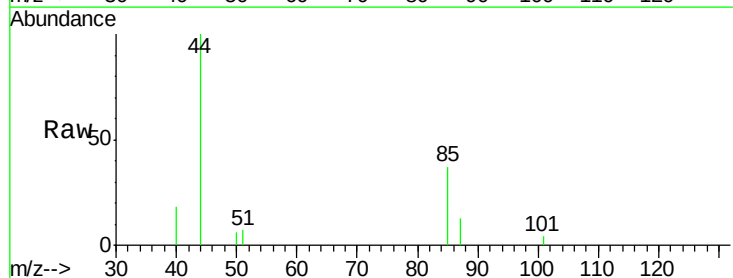
Acq: 29 Oct 2015 19:42

Tgt Ion: 85 Resp: 6071

Ion Ratio Lower Upper

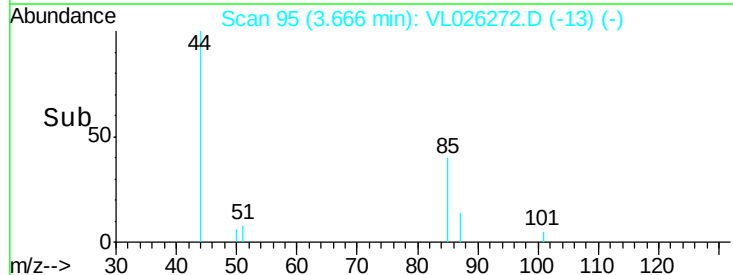
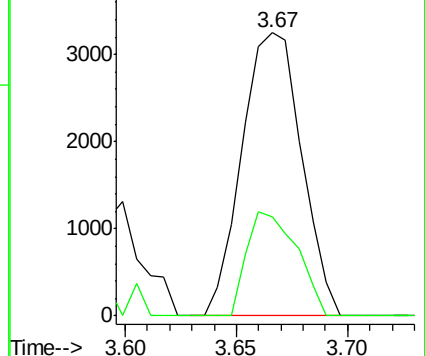
85 100

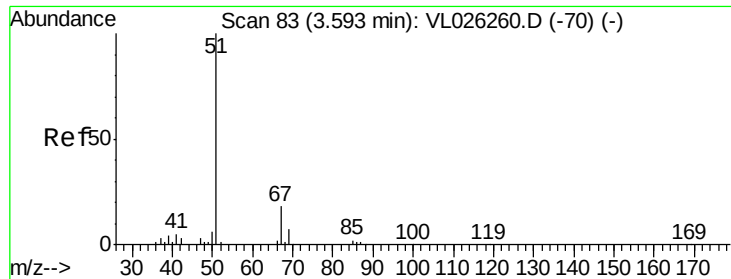
87 35.0 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

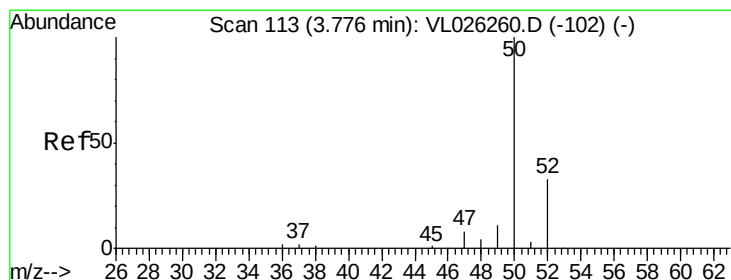
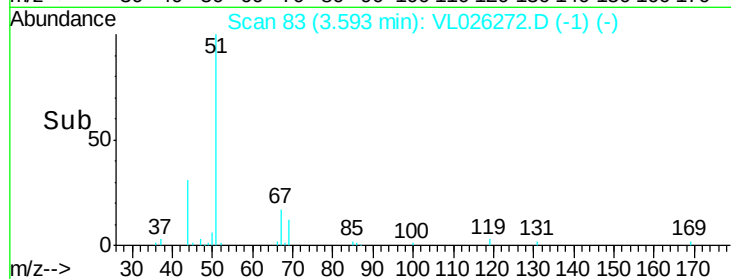
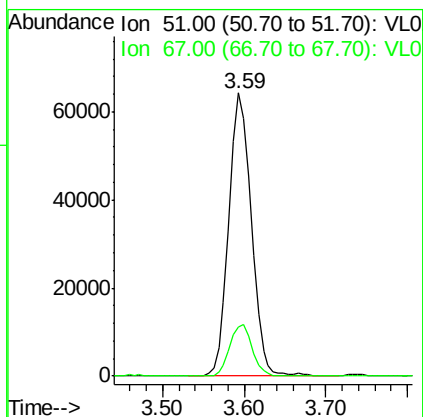
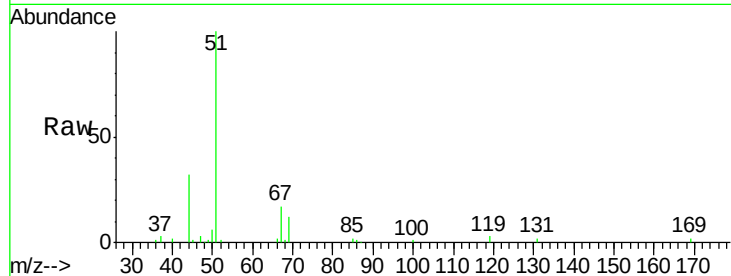




#3
Chlorodifluoromethane
Concen: 1.62 ppbv
RT: 3.59 min Scan# 83
Delta R.T. 0.00 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

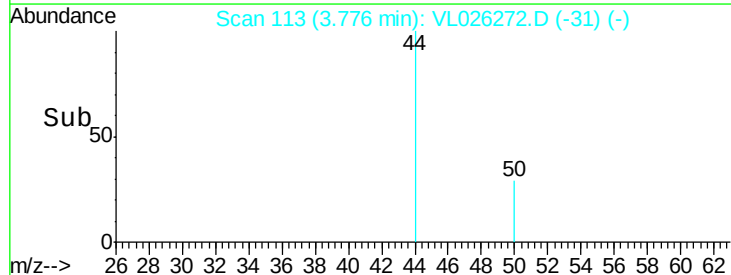
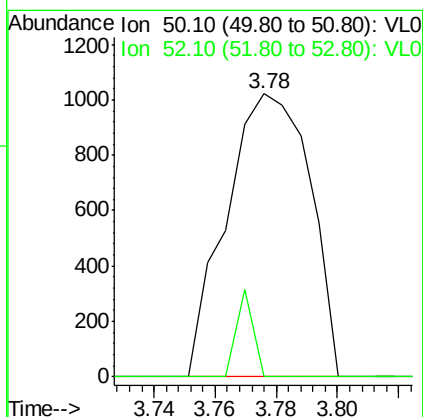
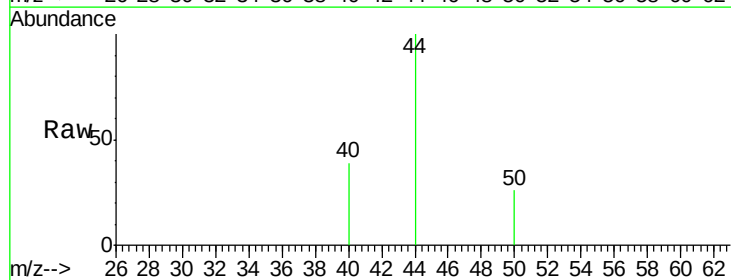
Instrument :
MSVOA_L
ClientSampleId :

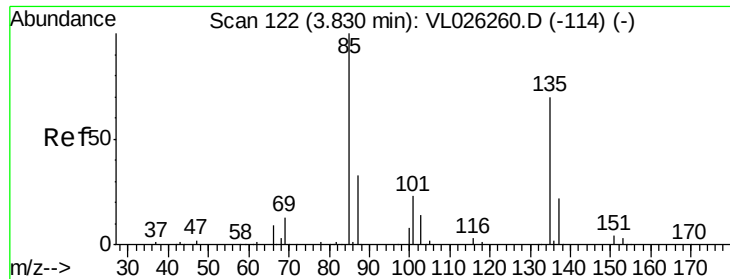
Tot Ion: 51 Resp: 122443
Ion Ratio Lower Upper
51 100
67 17.9 14.5 21.7



#4
Chloromethane
Concen: 0.04 ppbv
RT: 3.78 min Scan# 113
Delta R.T. 0.00 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

Tgt Ion: 50 Resp: 1935
Ion Ratio Lower Upper
50 100
52 0.0 26.1 39.1#





#8

Dichlorotetrafluoroethane

Concen: 0.06 ppbv

RT: 3.67 min Scan# 95

Delta R.T. -0.16 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

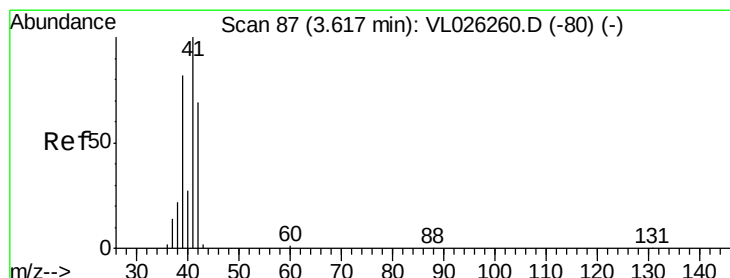
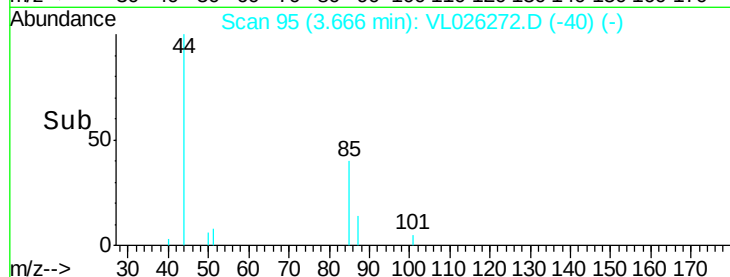
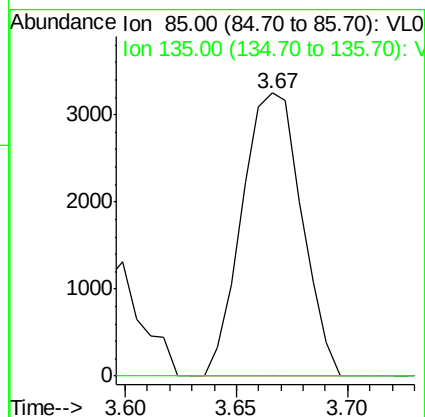
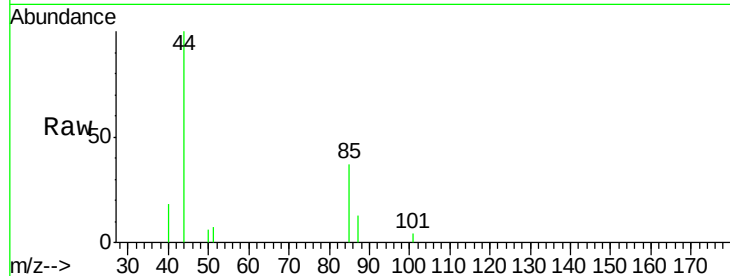
ClientSampleId :

Tot Ion: 85 Resp: 6071

Ion Ratio Lower Upper

85 100

135 0.0 56.6 84.8#



#9

Propene

Concen: 0.01 ppbv

RT: 3.46 min Scan# 61

Delta R.T. -0.16 min

Lab File: VL026272.D

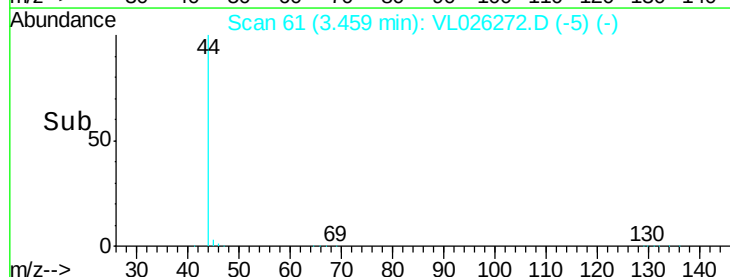
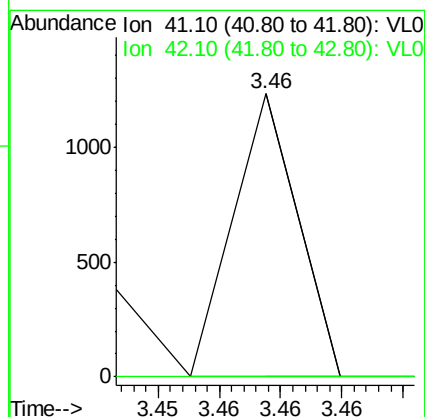
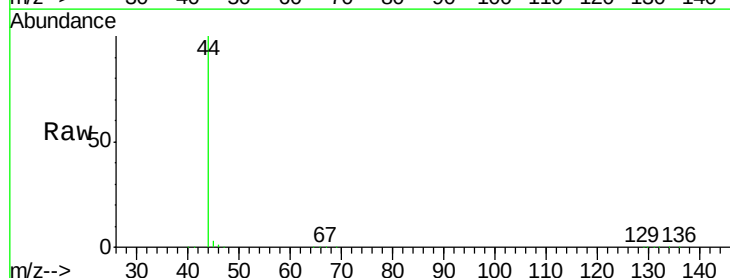
Acq: 29 Oct 2015 19:42

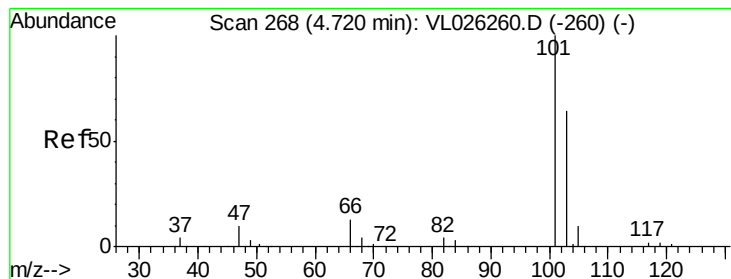
Tgt Ion: 41 Resp: 451

Ion Ratio Lower Upper

41 100

42 72.3 54.5 81.7





#11

Trichlorofluoromethane

Concen: 0.02 ppbv

RT: 4.73 min Scan# 269

Delta R.T. 0.01 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

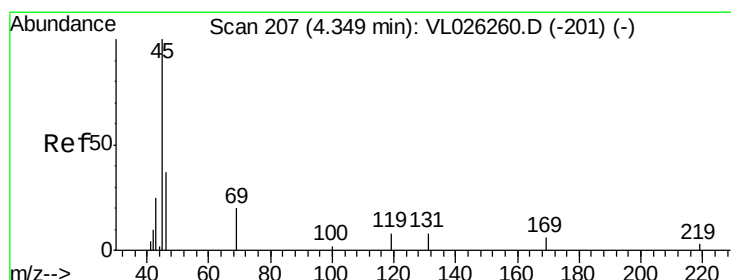
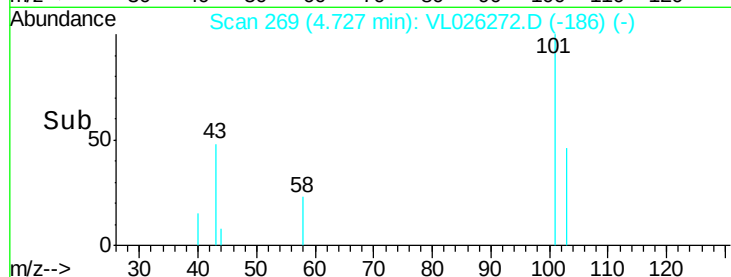
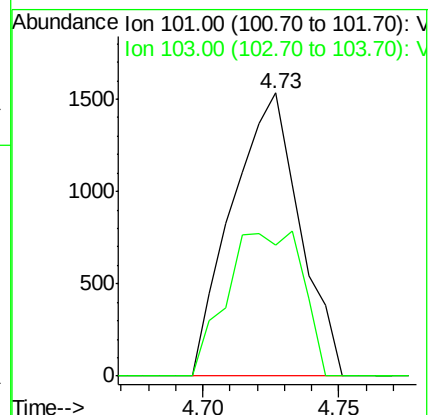
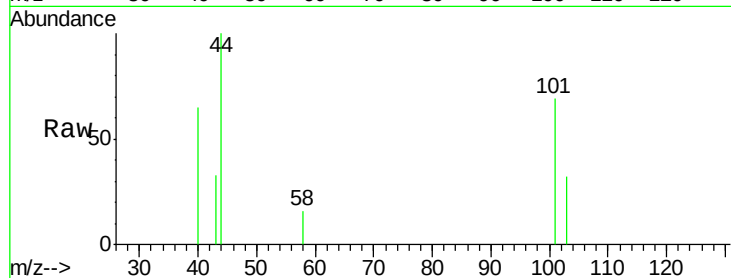
ClientSampleId :

Tot Ion:101 Resp: 2652

Ion Ratio Lower Upper

101 100

103 46.3 51.4 77.0#



#13

Ethanol

Concen: 0.27 ppbv

RT: 4.39 min Scan# 214

Delta R.T. 0.04 min

Lab File: VL026272.D

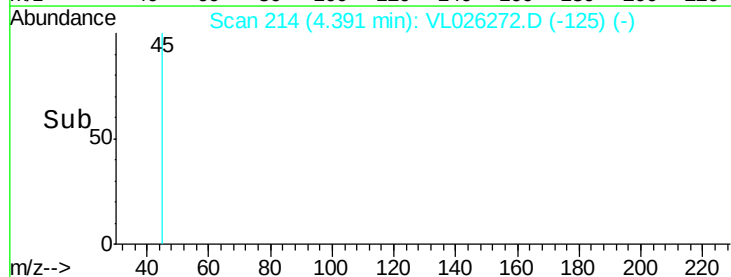
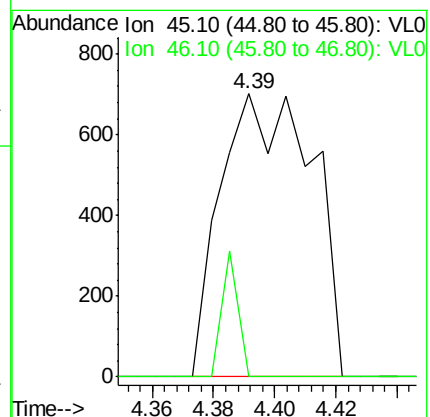
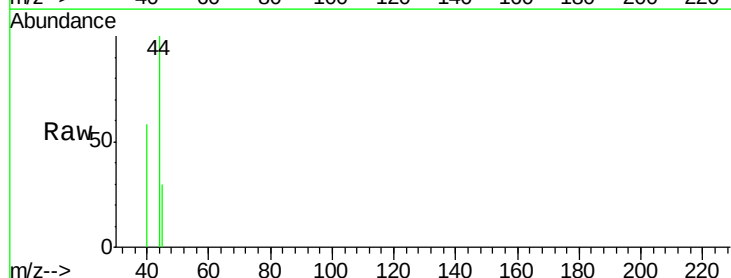
Acq: 29 Oct 2015 19:42

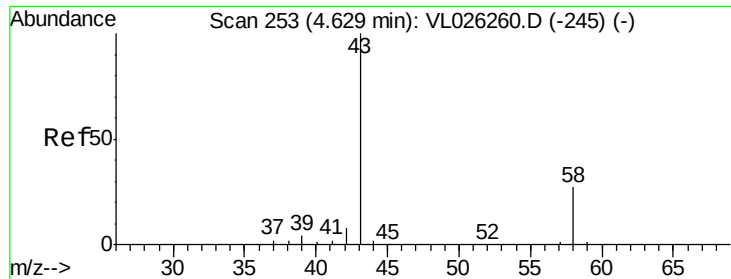
Tgt Ion: 45 Resp: 1455

Ion Ratio Lower Upper

45 100

46 0.0 17.0 68.0#





#15

Acetone

Concen: 0.53 ppbv

RT: 4.66 min Scan# 258

Delta R.T. 0.03 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

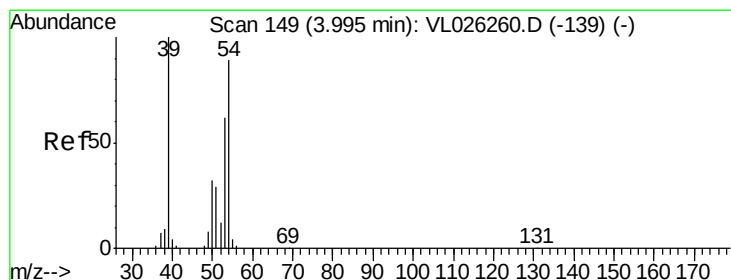
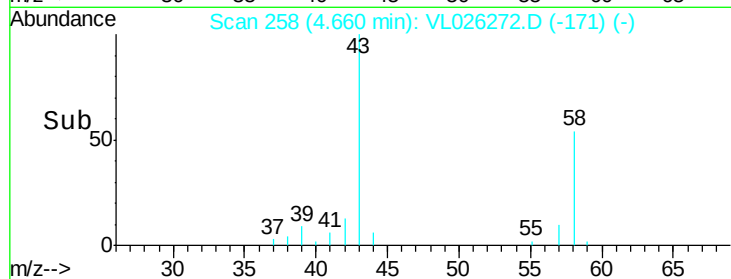
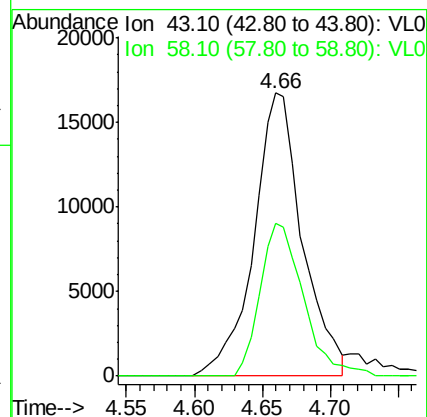
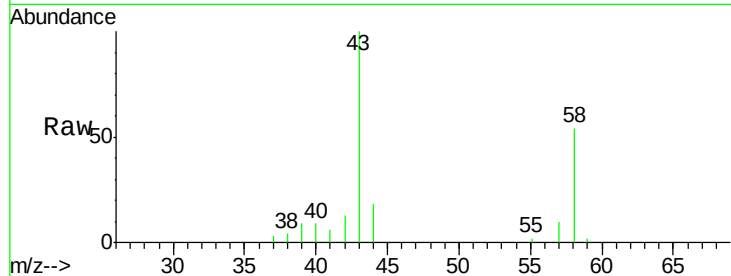
ClientSampled :

Tot Ion: 43 Resp: 41882

Ion Ratio Lower Upper

43 100

58 48.0 22.3 33.5#



#16

1,3-Butadiene

Concen: 0.08 ppbv

RT: 3.97 min Scan# 145

Delta R.T. -0.02 min

Lab File: VL026272.D

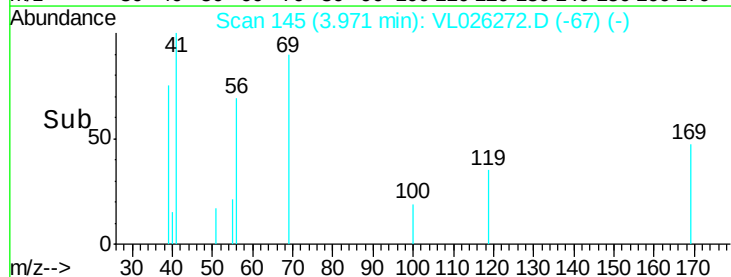
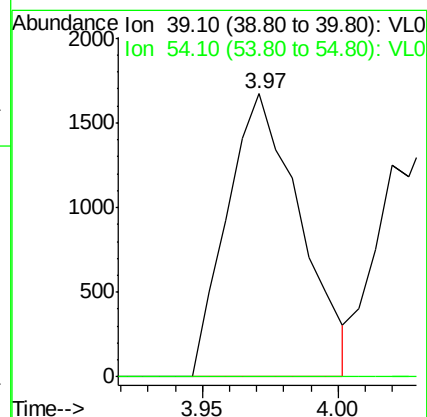
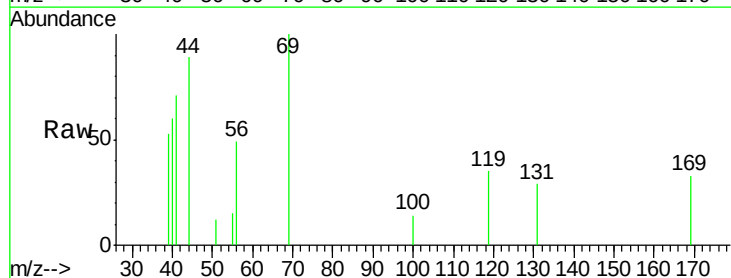
Acq: 29 Oct 2015 19:42

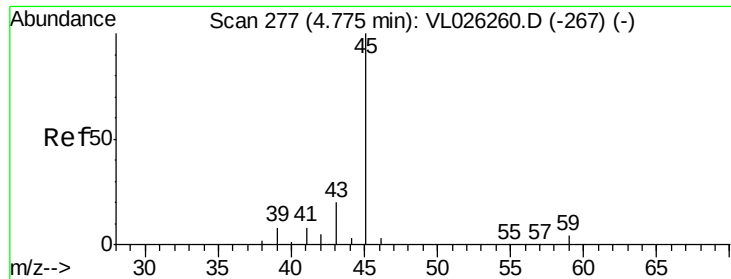
Tgt Ion: 39 Resp: 3119

Ion Ratio Lower Upper

39 100

54 0.0 67.3 100.9#





#19

Isopropyl Alcohol

Concen: 0.04 ppbv

RT: 4.84 min Scan# 288

Delta R.T. 0.07 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

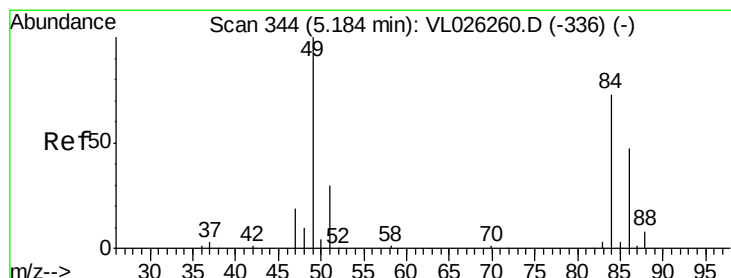
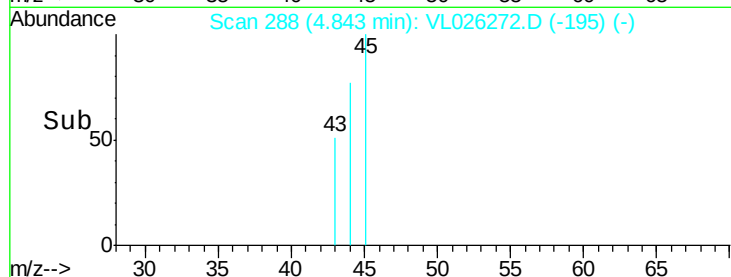
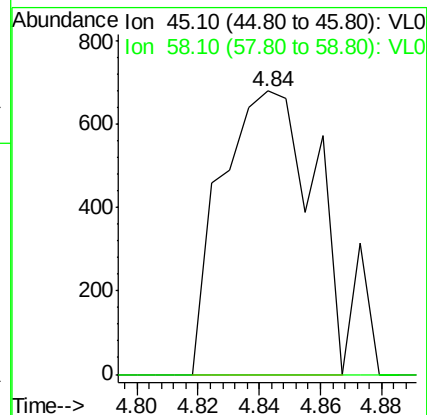
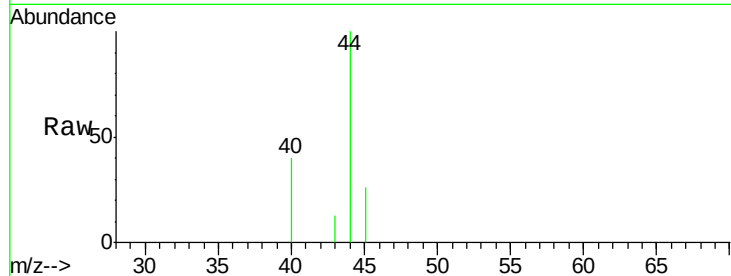
ClientSampleId :

Tot Ion: 45 Resp: 1423

Ion Ratio Lower Upper

45 100

58 1412.5 43.8 65.8#



#20

Methylene Chloride

Concen: 0.21 ppbv

RT: 5.18 min Scan# 343

Delta R.T. -0.01 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Tgt Ion: 84 Resp: 7108

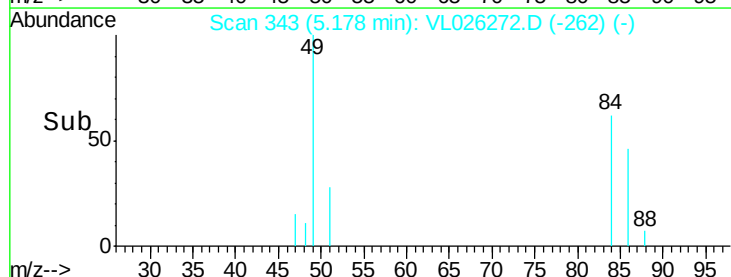
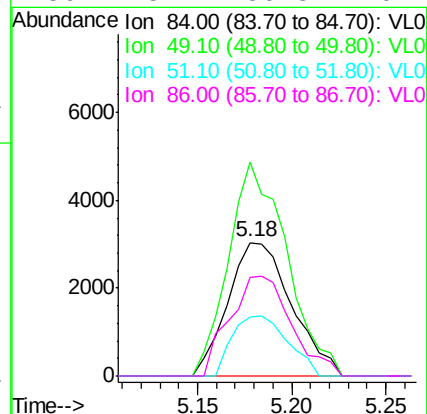
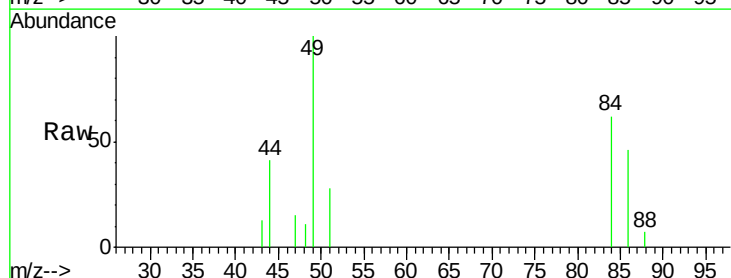
Ion Ratio Lower Upper

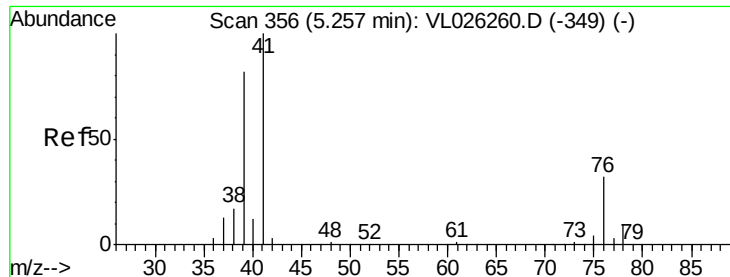
84 100

49 160.1 109.0 163.4

51 44.5 32.8 49.2

86 73.7 50.8 76.2

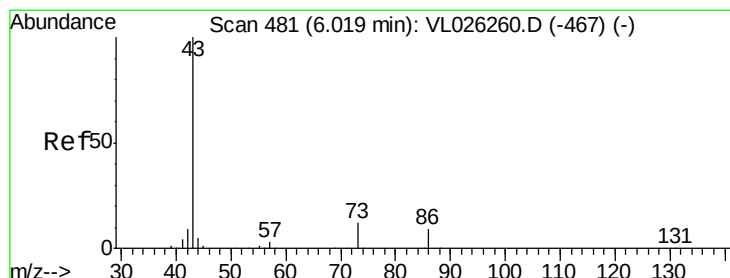
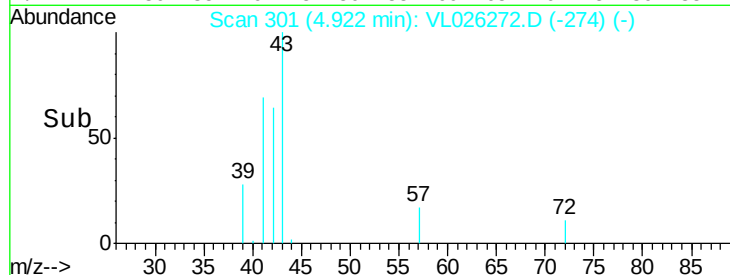
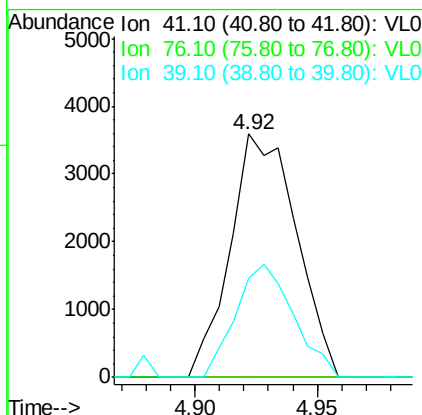
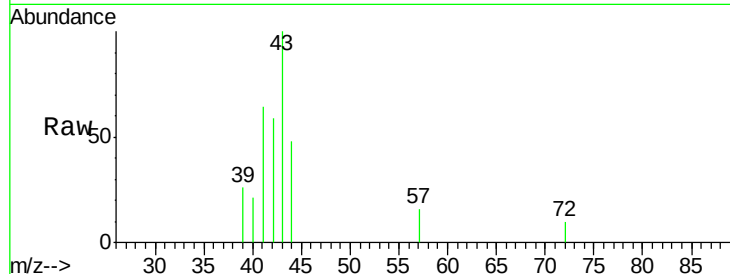




#21
Allvl Chloride
Concen: 0.12 ppbv
RT: 4.92 min Scan# 301
Delta R.T. -0.34 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

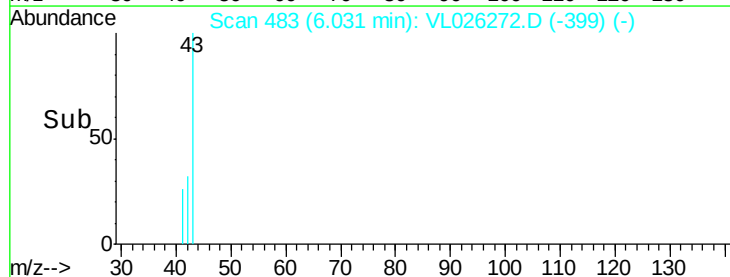
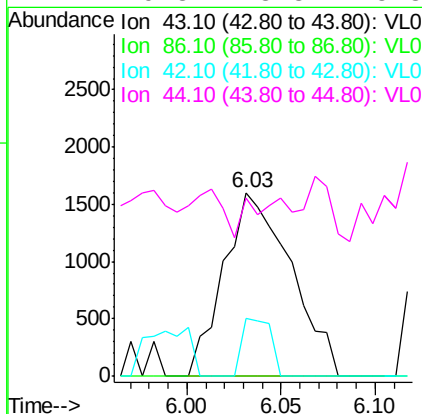
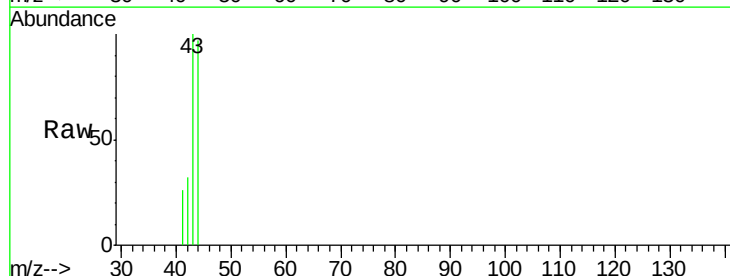
Instrument :
MSVOA_L
ClientSampleId :

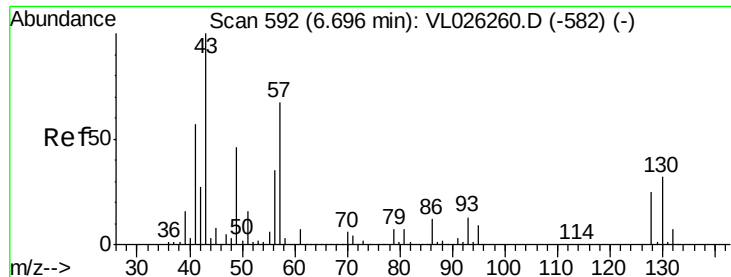
Tot Ion: 41 Resp: 6758
Ion Ratio Lower Upper
41 100
76 0.0 25.9 38.9#
39 42.5 65.8 98.6#



#23
Vinyl Acetate
Concen: 0.03 ppbv
RT: 6.03 min Scan# 483
Delta R.T. 0.01 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

Tgt Ion: 43 Resp: 3966
Ion Ratio Lower Upper
43 100
86 0.0 7.3 10.9#
42 31.7 7.2 10.8#
44 19.3 3.8 5.8#

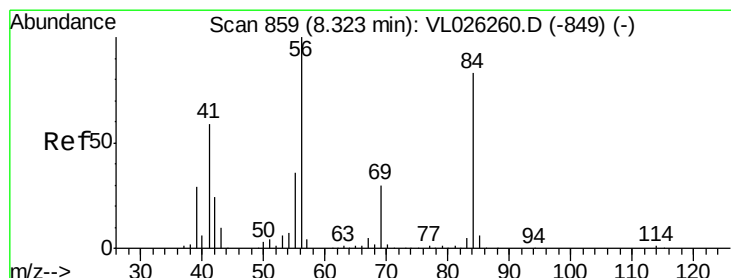
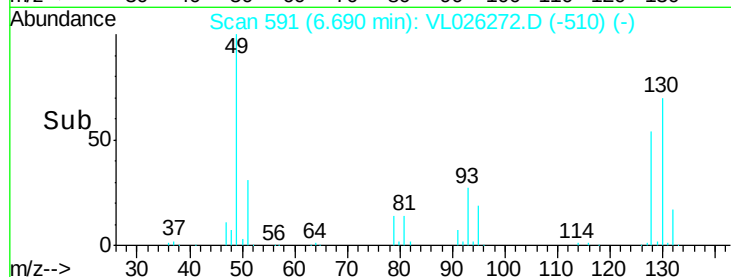
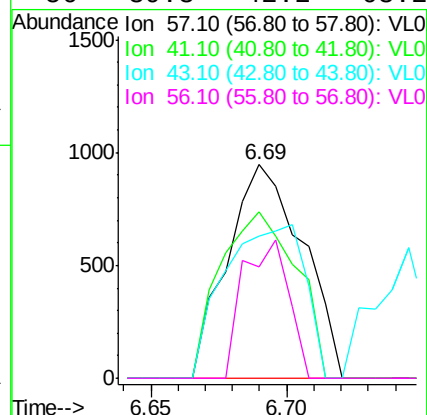
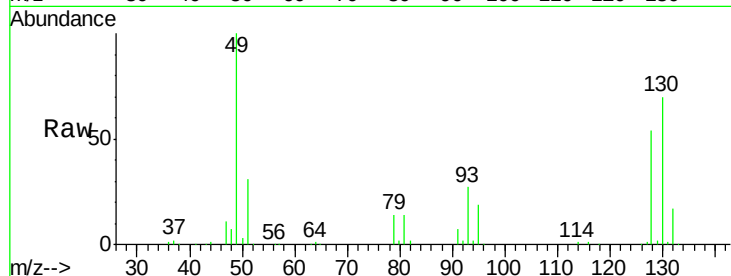




#26
Hexane
Concen: 0.02 ppbv
RT: 6.69 min Scan# 591
Delta R.T. -0.01 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

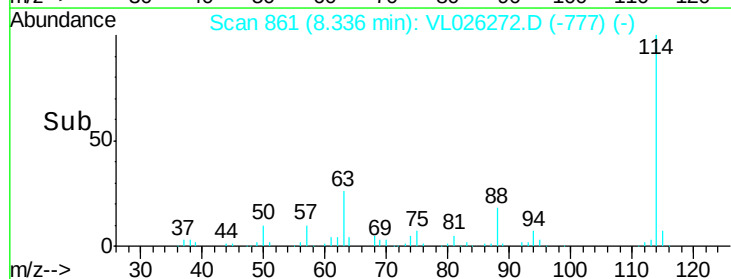
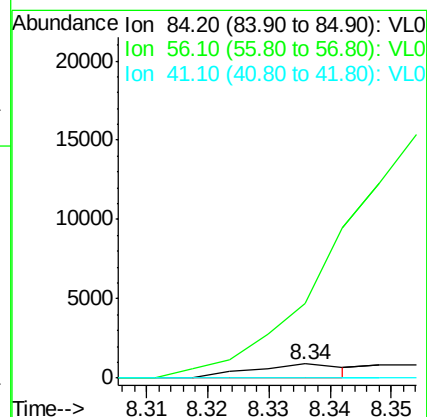
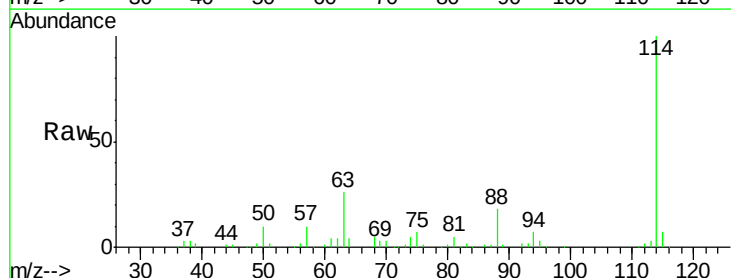
Instrument :
MSVOA_L
ClientSampleId :

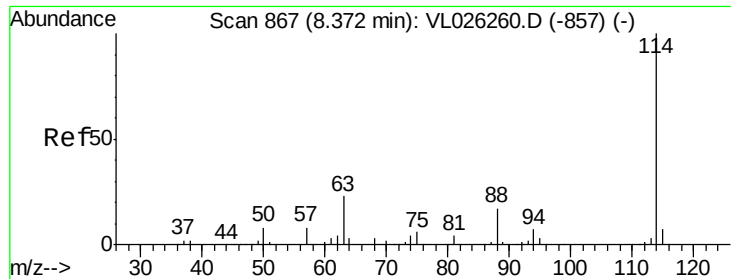
Tot Ion: 57 Resp: 1814
Ion Ratio Lower Upper
57 100
41 78.7 67.4 101.2
43 114.8 163.9 245.9#
56 39.3 42.2 63.2#



#30
Cyclohexane
Concen: 0.01 ppbv
RT: 8.34 min Scan# 861
Delta R.T. 0.01 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

Tgt Ion: 84 Resp: 935
Ion Ratio Lower Upper
84 100
56 0.0 99.6 149.4#
41 0.0 56.7 85.1#

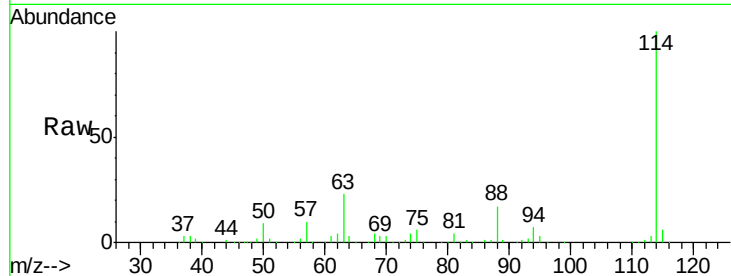




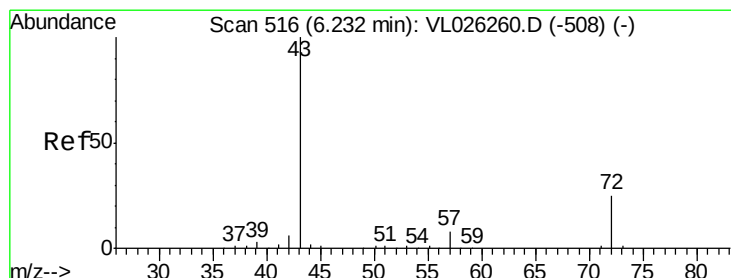
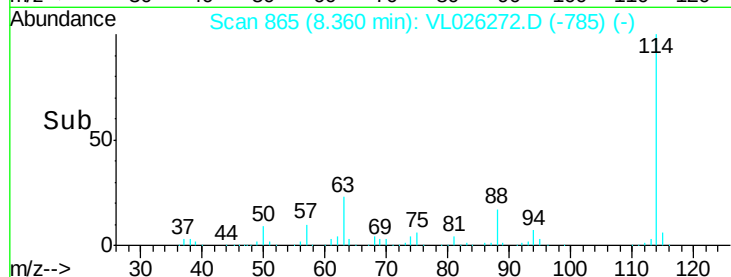
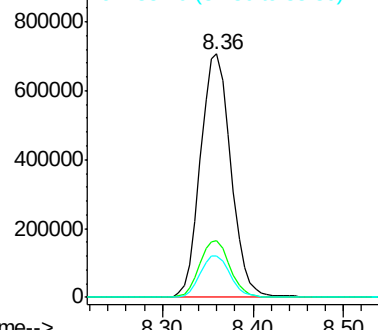
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.36 min Scan# 865
 Delta R.T. -0.01 min
 Lab File: VL026272.D
 Acq: 29 Oct 2015 19:42

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 1652190
 Ion Ratio Lower Upper
 114 100
 63 23.3 18.6 28.0
 88 17.0 13.4 20.2

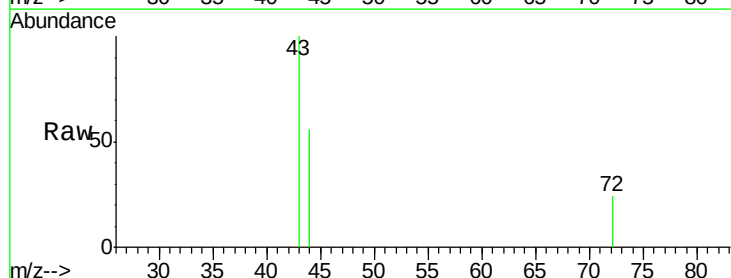


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

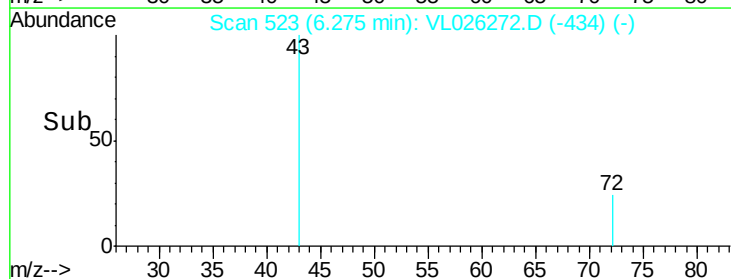
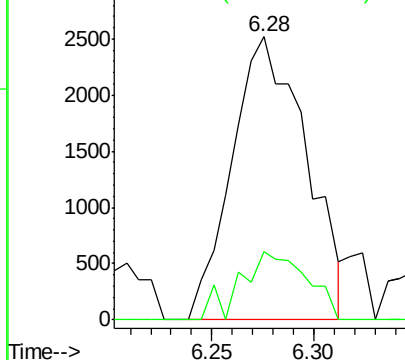


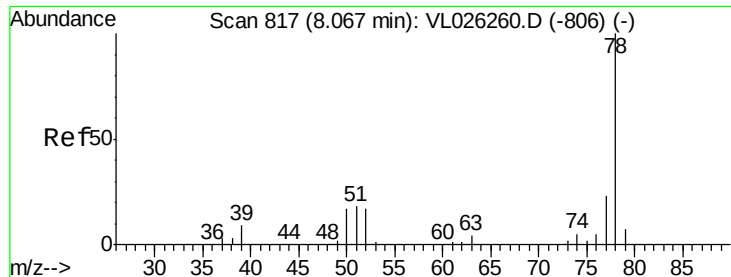
#34
 2-Butanone
 Concen: 0.06 ppbv
 RT: 6.28 min Scan# 523
 Delta R.T. 0.04 min
 Lab File: VL026272.D
 Acq: 29 Oct 2015 19:42

Tgt Ion: 43 Resp: 6358
 Ion Ratio Lower Upper
 43 100
 72 21.7 19.9 29.9



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





#36

Benzene

Concen: 0.02 ppbv

RT: 8.05 min Scan# 814

Delta R.T. -0.02 min

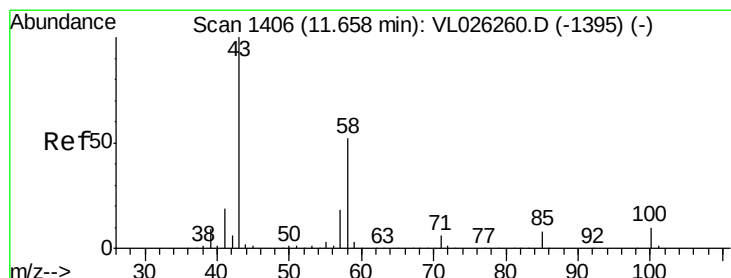
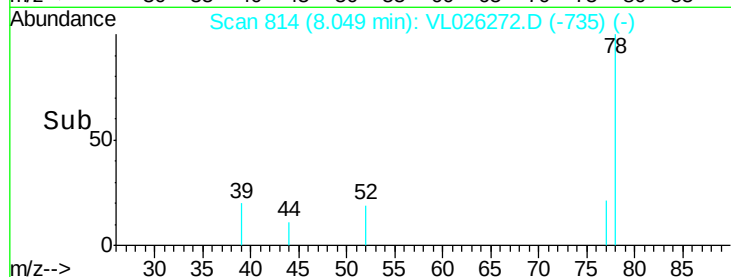
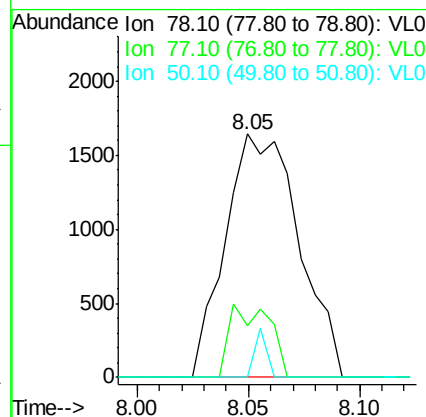
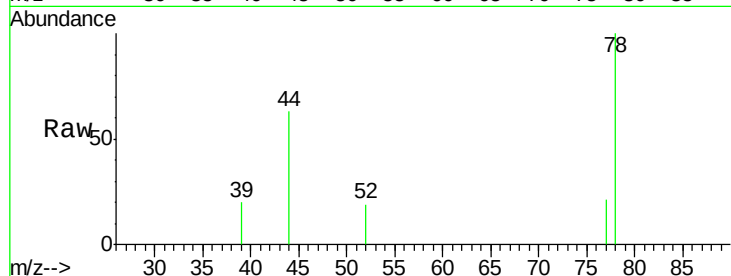
Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 78 Resp: 3775

Ion	Ratio	Lower	Upper
78	100		
77	21.0	18.0	27.0
50	0.0	13.3	19.9#



#51

2-Hexanone

Concen: 0.41 ppbv

RT: 11.96 min Scan# 1455

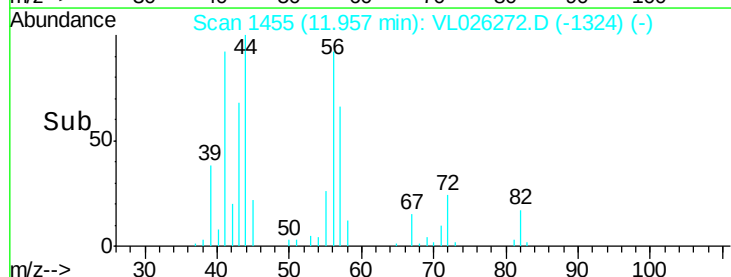
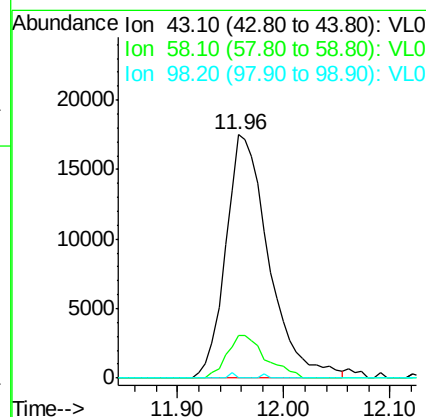
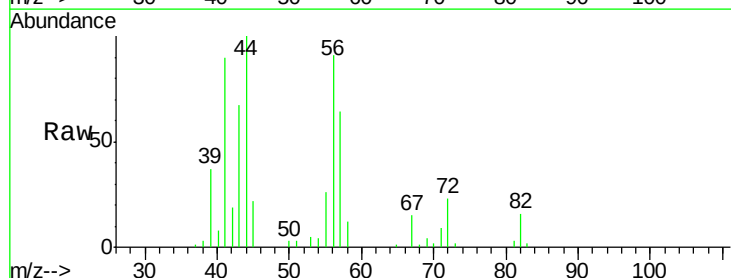
Delta R.T. 0.30 min

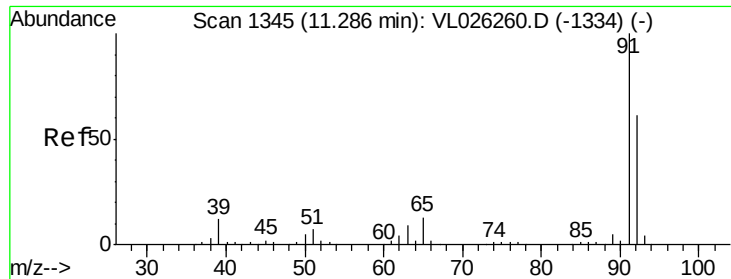
Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Tgt Ion: 43 Resp: 49544

Ion	Ratio	Lower	Upper
43	100		
58	15.8	42.7	64.1#
98	0.5	0.0	0.0#





#53

Toluene

Concen: 0.03 ppbv

RT: 11.27 min Scan# 1342

Delta R.T. -0.02 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

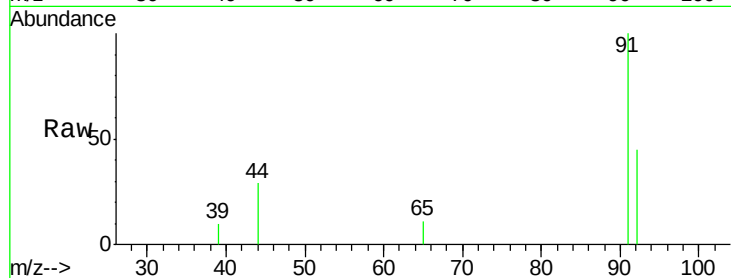
ClientSampleId :

Tot Ion: 91 Resp: 7192

Ion Ratio Lower Upper

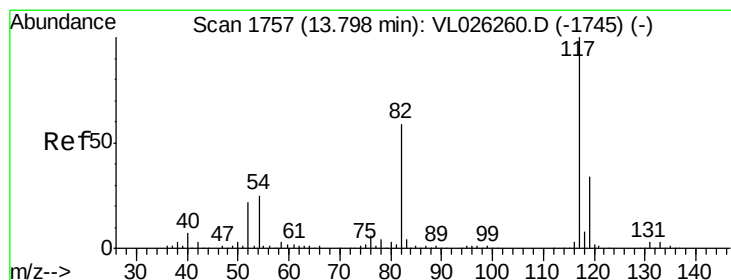
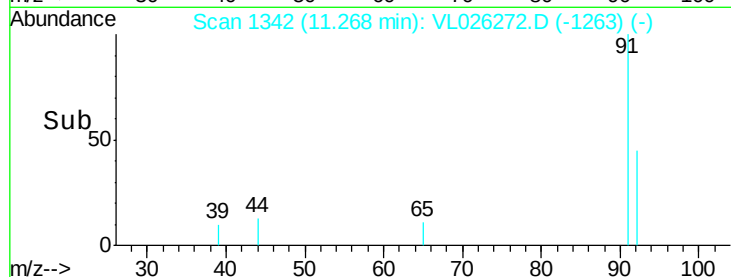
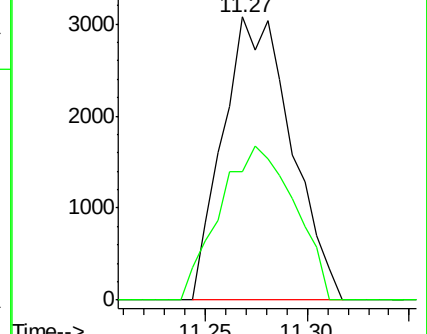
91 100

92 59.5 48.6 73.0



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: 13.78 min Scan# 1754

Delta R.T. -0.02 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

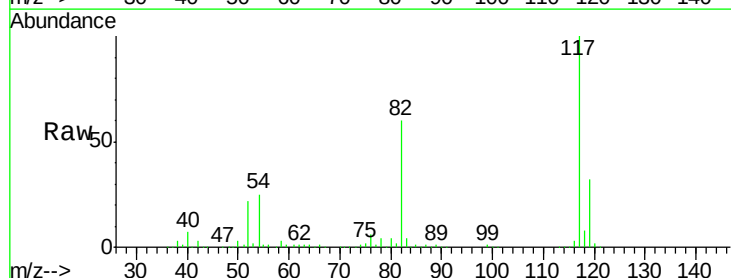
Tgt Ion: 117 Resp: 1912646

Ion Ratio Lower Upper

117 100

82 61.4 48.2 72.4

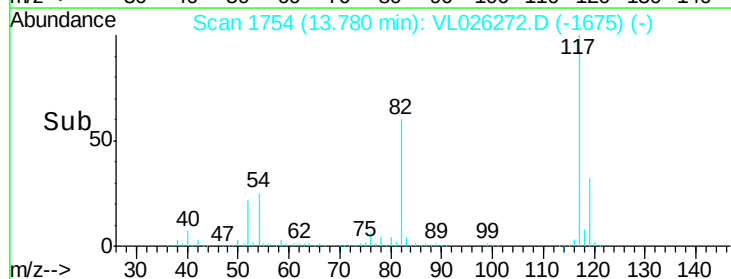
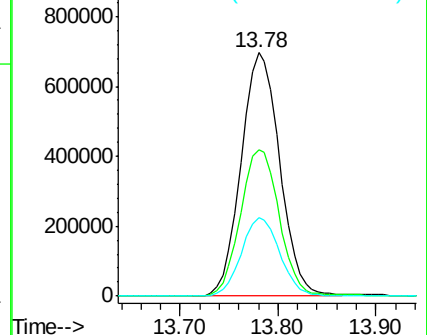
119 32.5 46.2 69.2#

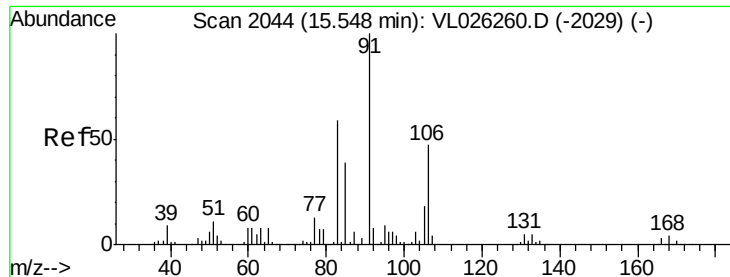


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

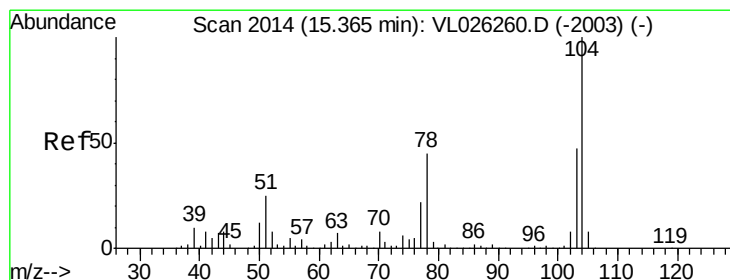
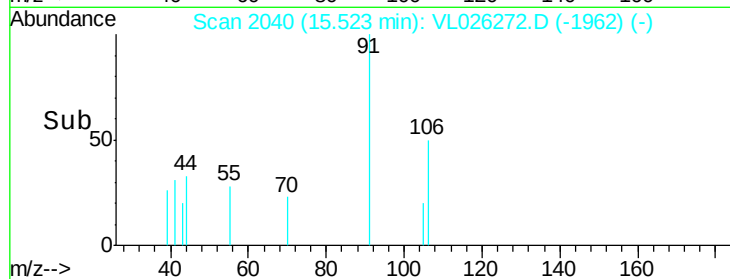
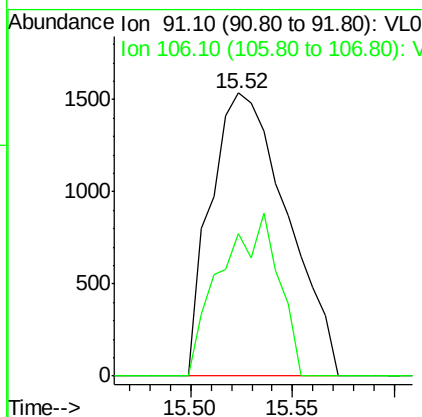
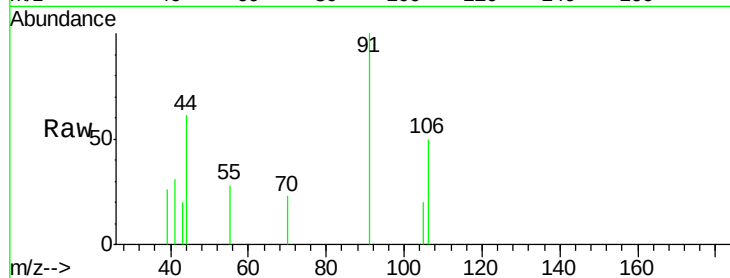




#60
o-Xylene
Concen: 0.02 ppbv
RT: 15.52 min Scan# 2040
Delta R.T. -0.02 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

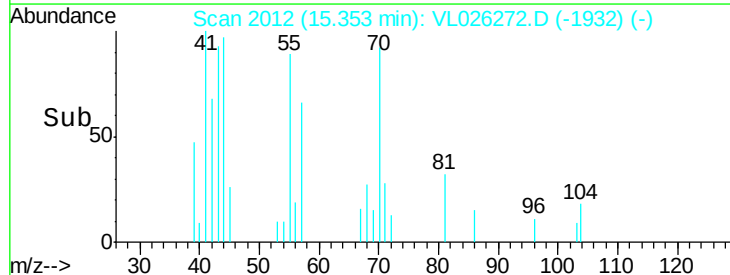
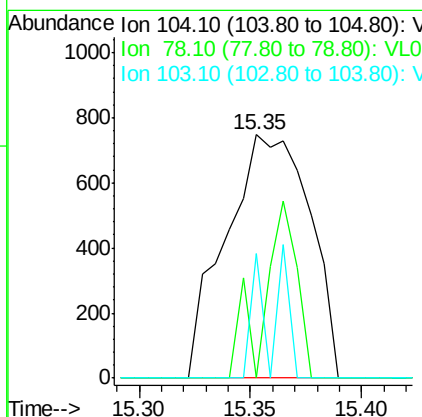
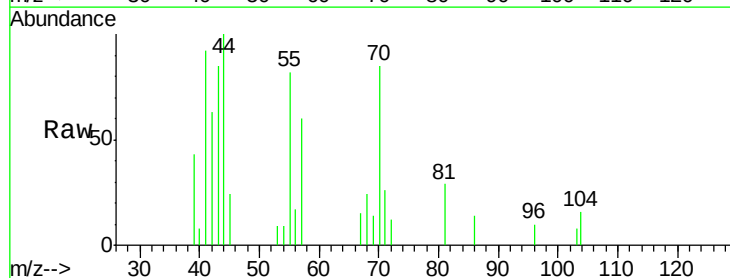
Instrument :
MSVOA_L
ClientSampleId :

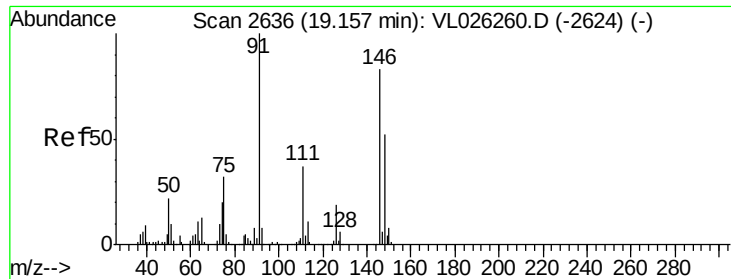
Tot Ion: 91 Resp: 3990
Ion Ratio Lower Upper
91 100
106 43.3 23.6 70.8



#61
Styrene
Concen: 0.02 ppbv
RT: 15.35 min Scan# 2012
Delta R.T. -0.01 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

Tgt Ion: 104 Resp: 1958
Ion Ratio Lower Upper
104 100
78 28.7 35.5 53.3#
103 0.0 37.0 55.6#

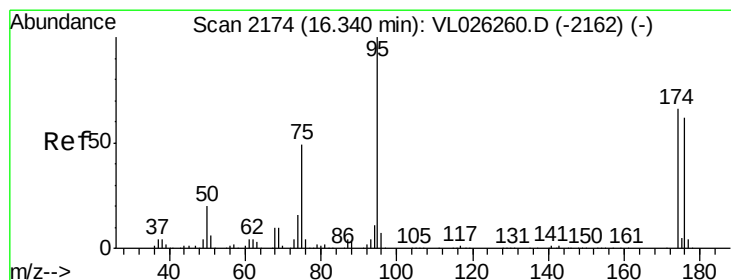
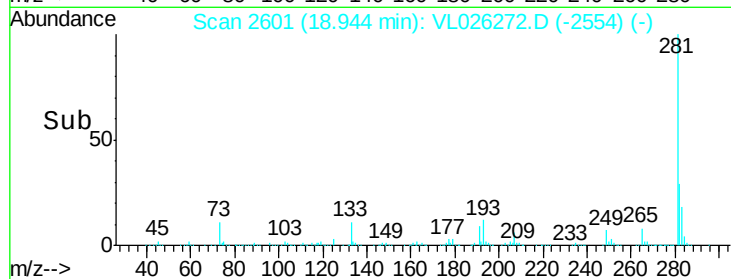
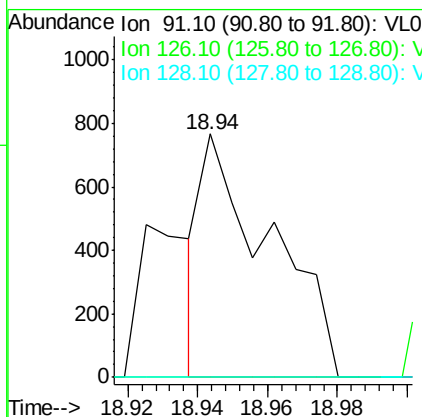
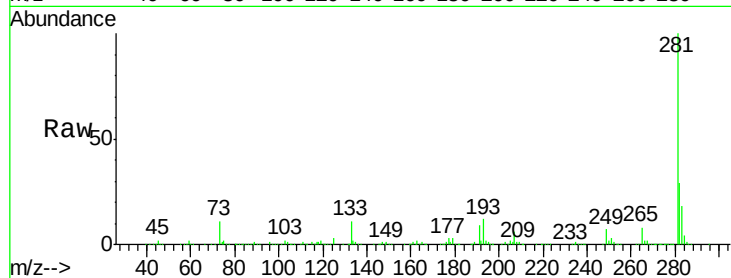




#66
Benzvl Chloride
Concen: 0.01 ppbv
RT: 18.94 min Scan# 2601
Delta R.T. -0.21 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

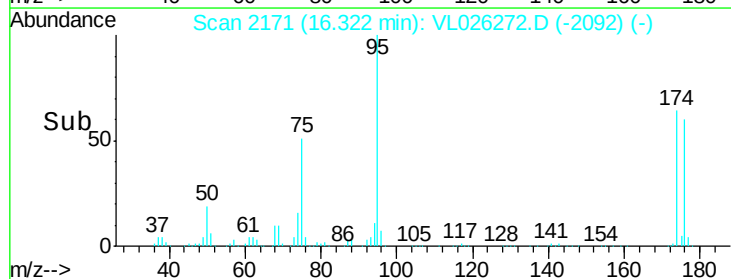
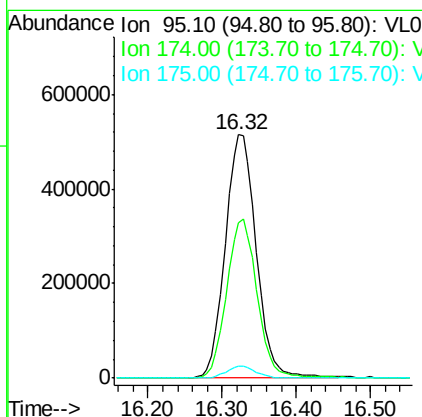
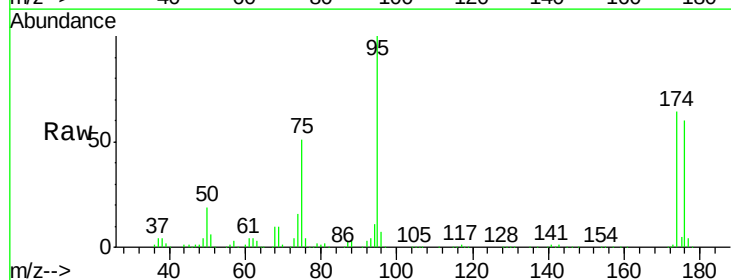
Instrument :
MSVOA_L
ClientSampleId :

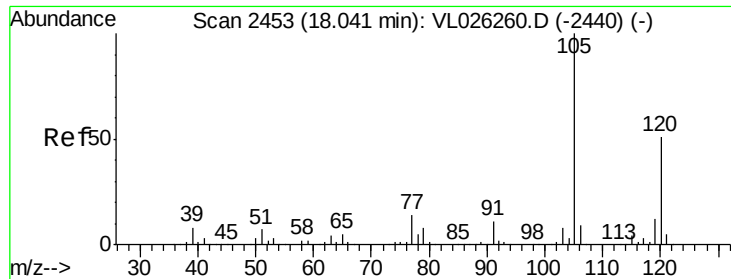
Tot Ion: 91 Resp: 1041
Ion Ratio Lower Upper
91 100
126 0.0 15.8 23.8#
128 0.0 5.0 7.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.34 ppbv
RT: 16.32 min Scan# 2171
Delta R.T. -0.02 min
Lab File: VL026272.D
Acq: 29 Oct 2015 19:42

Tgt Ion: 95 Resp: 1500360
Ion Ratio Lower Upper
95 100
174 64.8 52.9 79.3
175 4.7 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 0.01 ppbv

RT: 18.02 min Scan# 2450

Delta R.T. -0.02 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Instrument :

MSVOA_L

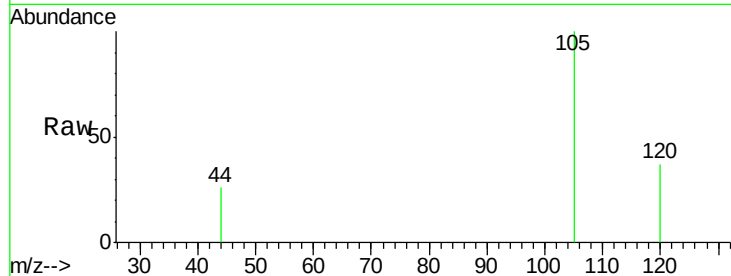
ClientSampleId :

Tot Ion:105 Resp: 3655

Ion Ratio Lower Upper

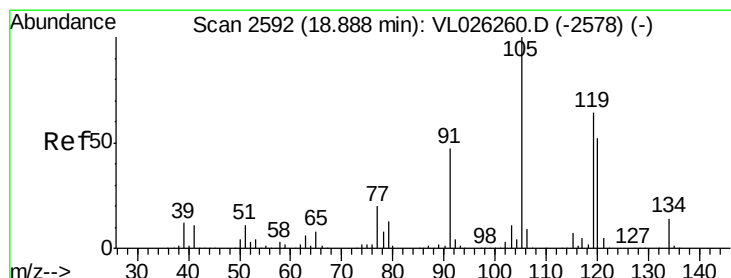
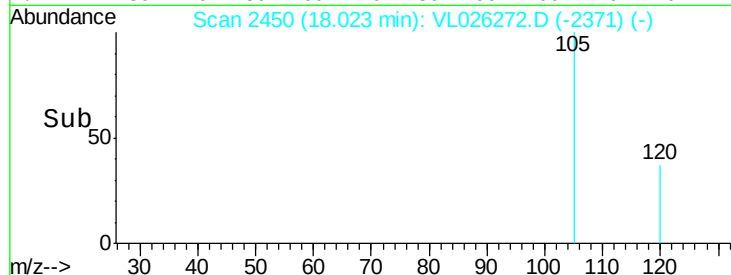
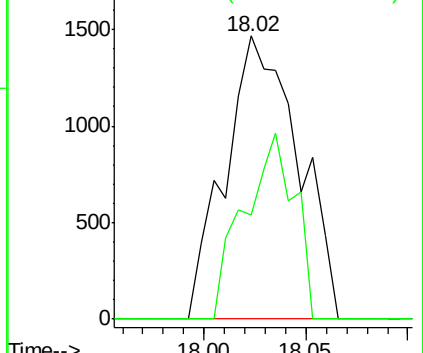
105 100

120 36.7 40.6 61.0#



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: 0.04 ppbv

RT: 18.86 min Scan# 2588

Delta R.T. -0.02 min

Lab File: VL026272.D

Acq: 29 Oct 2015 19:42

Tgt Ion:105 Resp: 11477

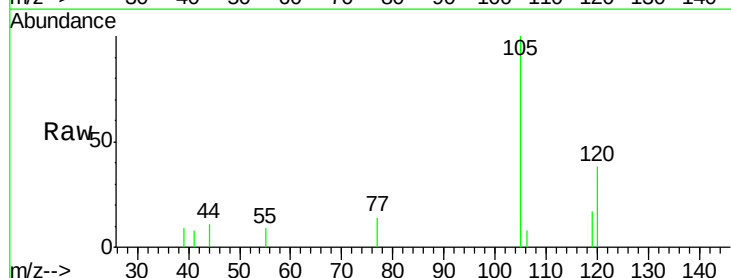
Ion Ratio Lower Upper

105 100

120 37.8 41.2 61.8#

91 0.0 37.8 56.8#

77 14.3 16.1 24.1#



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

