

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX013019\  
 Data File : VX007314.D  
 Acq On : 30 Jan 2019 14:58  
 Operator : JC/SP  
 Sample : PB116701ZHE#08  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB116701ZHE#08

Quant Time: Jan 31 00:23:49 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X010819W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jan 08 14:06:59 2019  
 Response via : Initial Calibration

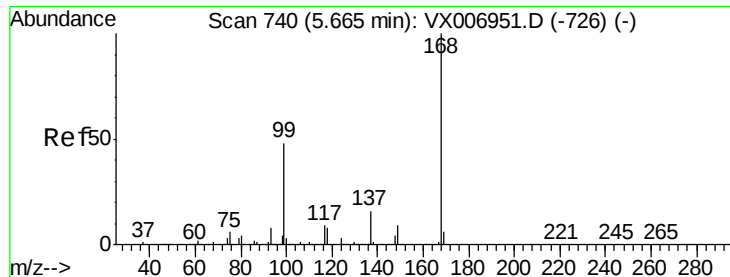
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 511795   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 796212   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 780404   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 375102   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 272523   | 50.95 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.90% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 245990   | 48.24 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.48%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 980274   | 52.52 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.04% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 348724   | 53.60 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.20% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 3.03  | 59   | 1568     | 1.243     | ug/l # | 73     |
| 13) Acrolein                   | 2.28  | 56   | 369      | 3.754     | ug/l # | 72     |
| 16) Acetone                    | 2.45  | 43   | 35914    | 13.582    | ug/l   | 97     |
| 18) Methyl Acetate             | 2.78  | 43   | 28768    | 3.757     | ug/l   | 95     |
| 20) Methylene Chloride         | 2.86  | 84   | 33344    | 6.133     | ug/l   | 95     |
| 25) 2-Butanone                 | 4.71  | 43   | 7774     | 2.055     | ug/l # | 87     |
| 29) Tetrahydrofuran            | 5.16  | 42   | 1749     | 0.711     | ug/l # | 46     |
| 31) Cyclohexane                | 5.66  | 56   | 9391     | 1.245     | ug/l # | 23     |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 33531    | 4.844     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 45761    | 6.570     | ug/l # | 14     |
| 43) Isopropyl Acetate          | 6.46  | 43   | 31774    | 2.714     | ug/l   | 98     |
| 48) Methyl methacrylate        | 7.68  | 41   | 17118    | 2.847     | ug/l # | 13     |
| 49) 1,4-Dioxane                | 7.73  | 88   | 85       | Below Cal | #      | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.62  | 43   | 176812   | 23.502    | ug/l # | 49     |
| 54) cis-1,3-Dichloropropene    | 8.62  | 75   | 87936    | 11.304    | ug/l # | 63     |
| 57) 1,3-Dichloropropane        | 9.54  | 76   | 19746    | 2.218     | ug/l # | 46     |
| 59) 2-Hexanone                 | 9.54  | 43   | 257287   | 44.877    | ug/l # | 51     |
| 74) N-amyl acetate             | 10.69 | 43   | 26254    | 2.465     | ug/l # | 54     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 166477   | 21.901    | ug/l # | 40     |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 15479    | 0.700     | ug/l   | 94     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 166477   | 64.877    | ug/l # | 10     |
| 90) Hexachloroethane           | 12.61 | 117  | 45       | 2.919     | ug/l # | 6      |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 740

Delta R.T. -0.00 min

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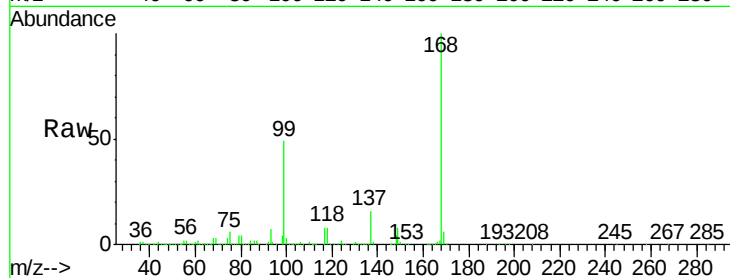
PB116701ZHE#08

Tot Ion:168 Resp: 511795

Ion Ratio Lower Upper

168 100

99 49.0 41.8 62.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

200000

150000

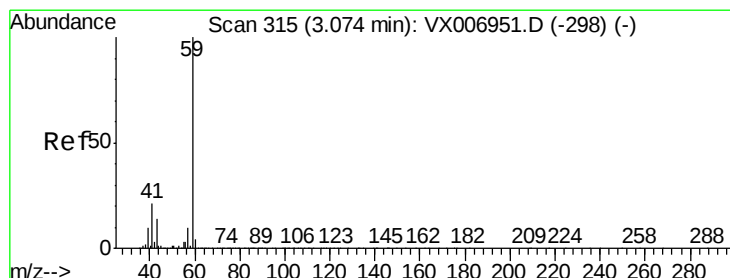
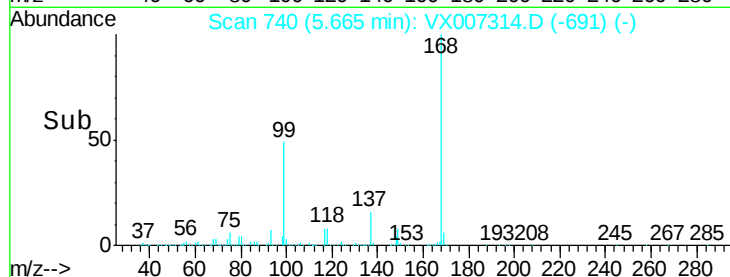
100000

50000

0

Time-->

5.50 5.60 5.70 5.80



#11

Tert butyl alcohol

Concen: 1.243 ug/l

RT: 3.03 min Scan# 308

Delta R.T. -0.04 min

Lab File: VX007314.D

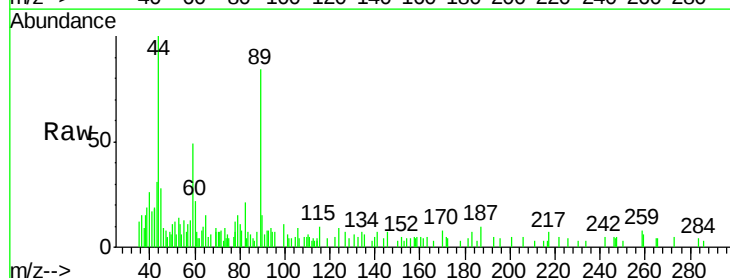
Acq: 30 Jan 2019 14:58

Tgt Ion: 59 Resp: 1568

Ion Ratio Lower Upper

59 100

57 20.9 8.5 12.7#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

3.03

800

600

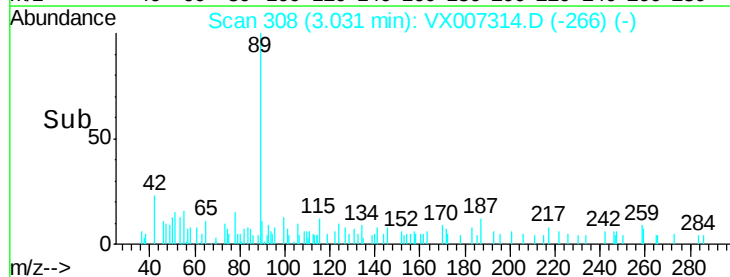
400

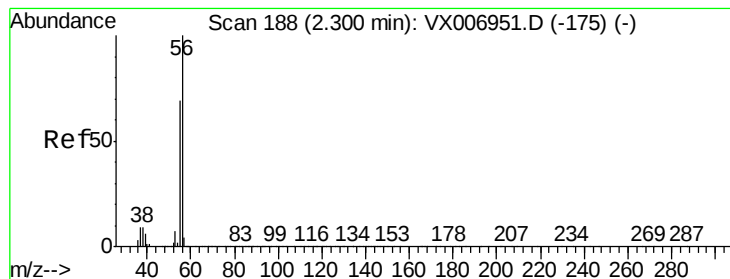
200

0

Time-->

2.95 3.00 3.05





#13

Acrolein

Concen: 3.754 ug/l

RT: 2.28 min Scan# 185

Delta R.T. -0.02 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

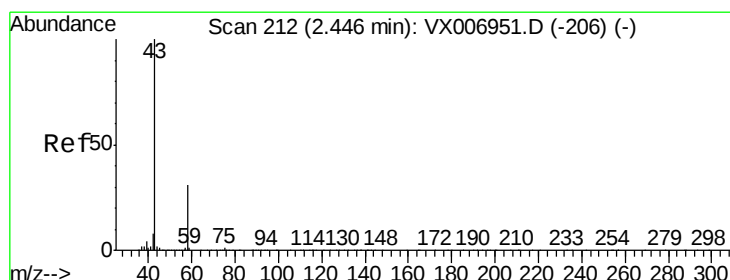
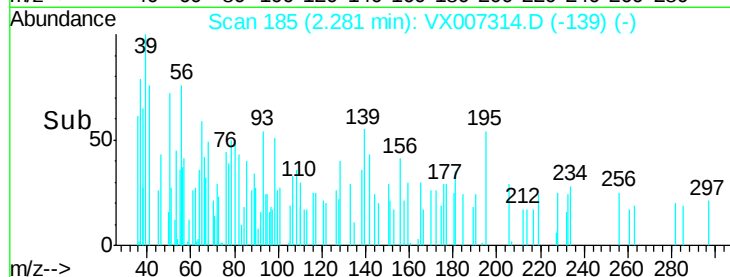
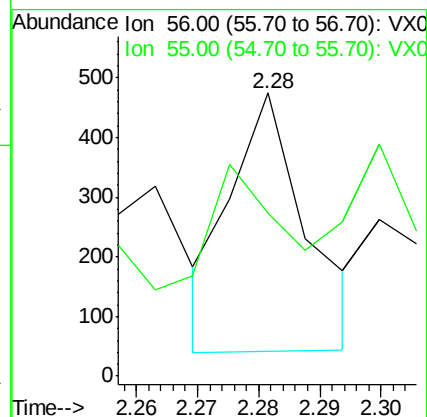
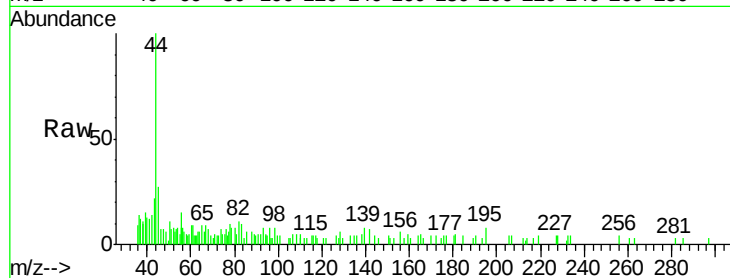
PB116701ZHE#08

Tot Ion: 56 Resp: 369

Ion Ratio Lower Upper

56 100

55 49.3 58.2 87.4#



#16

Acetone

Concen: 13.582 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX007314.D

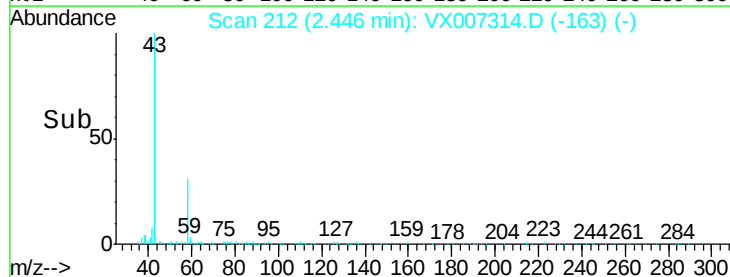
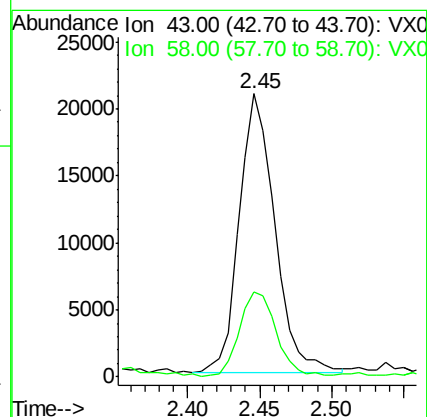
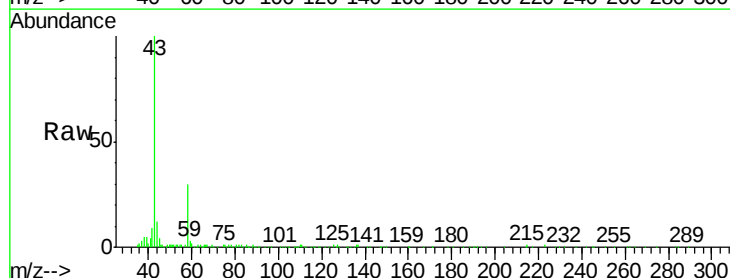
Acq: 30 Jan 2019 14:58

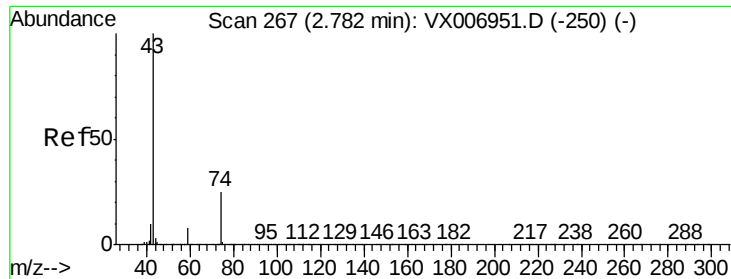
Tgt Ion: 43 Resp: 35914

Ion Ratio Lower Upper

43 100

58 29.5 25.0 37.6

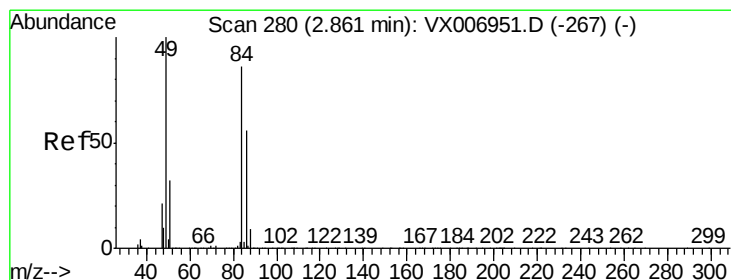
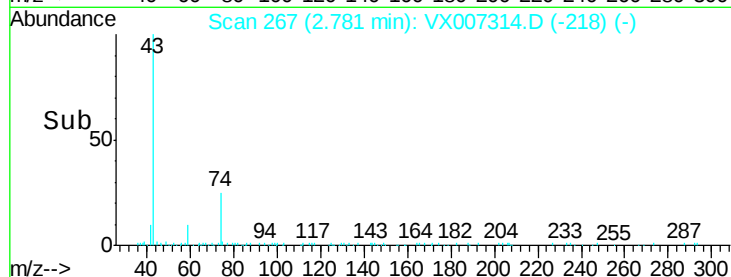
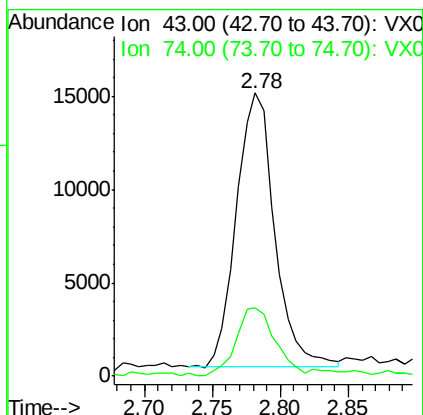
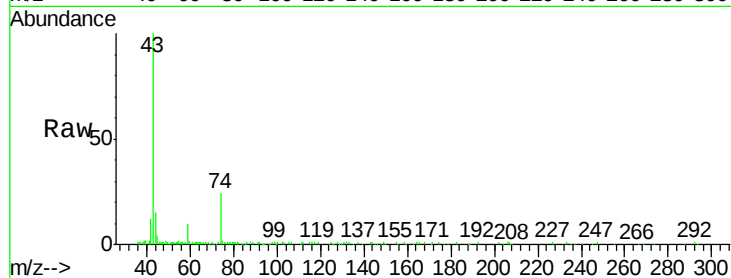




#18  
Methyl Acetate  
Concen: 3.757 ug/l  
RT: 2.78 min Scan# 267  
Delta R.T. -0.00 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

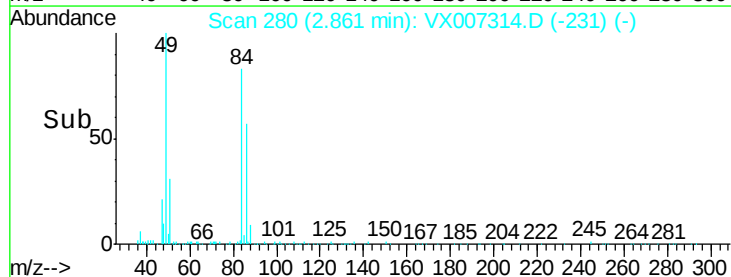
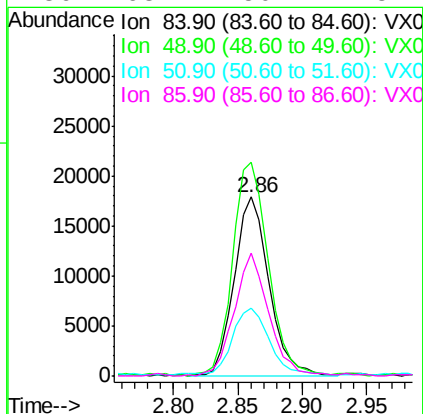
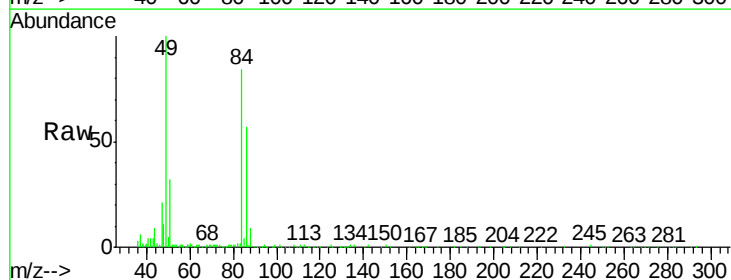
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB116701ZHE#08

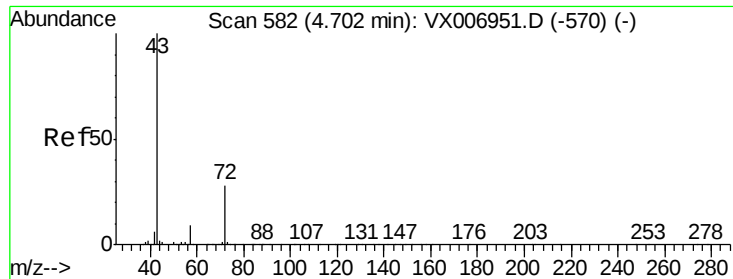
Tot Ion: 43 Resp: 28768  
Ion Ratio Lower Upper  
43 100  
74 25.5 18.6 28.0



#20  
Methylene Chloride  
Concen: 6.133 ug/l  
RT: 2.86 min Scan# 280  
Delta R.T. 0.00 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

Tgt Ion: 84 Resp: 33344  
Ion Ratio Lower Upper  
84 100  
49 119.7 91.8 137.6  
51 37.4 28.5 42.7  
86 68.1 50.2 75.2





#25

2-Butanone

Concen: 2.055 ug/l

RT: 4.71 min Scan# 583

Delta R.T. 0.01 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

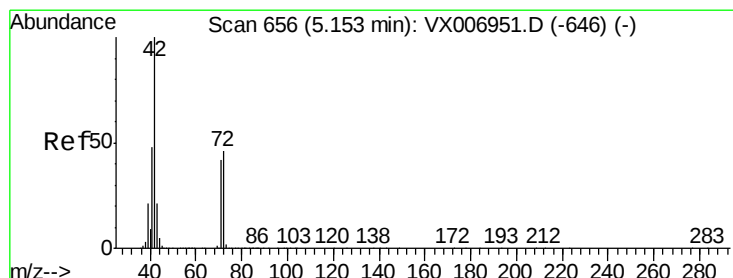
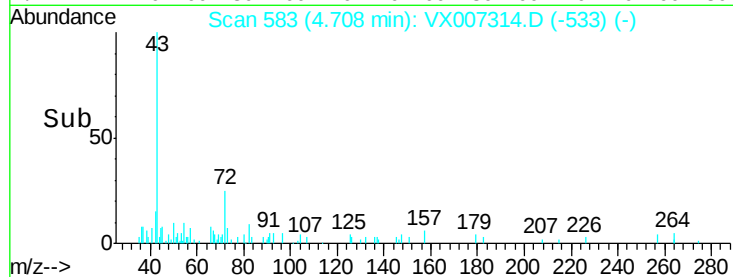
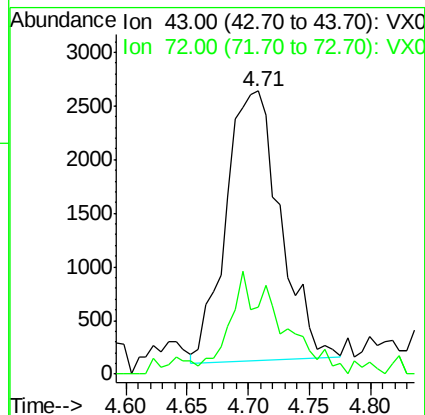
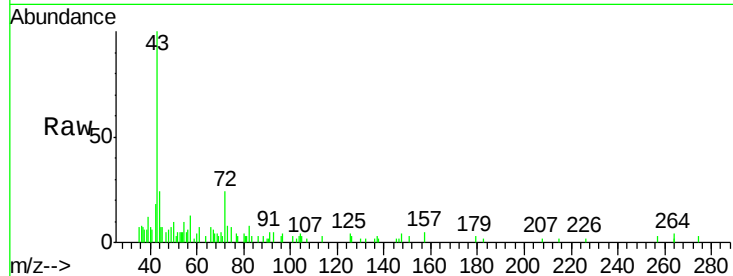
PB116701ZHE#08

Tot Ion: 43 Resp: 7774

Ion Ratio Lower Upper

43 100

72 21.2 22.4 33.6#



#29

Tetrahydrofuran

Concen: 0.711 ug/l

RT: 5.16 min Scan# 657

Delta R.T. 0.01 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

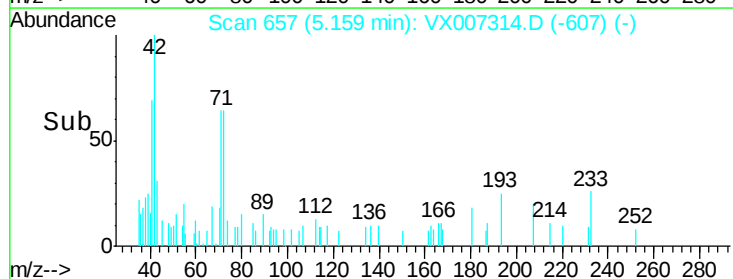
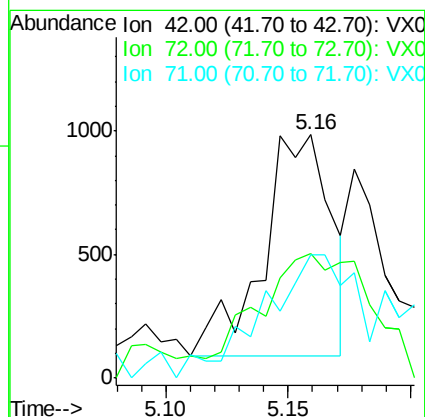
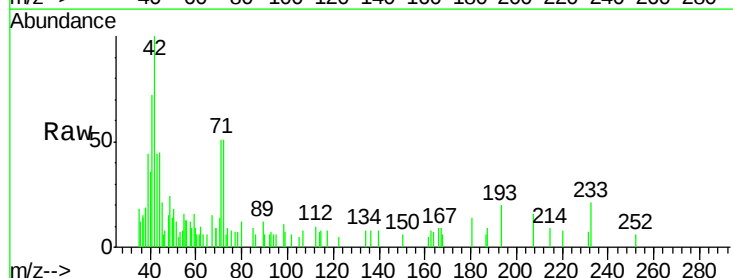
Tgt Ion: 42 Resp: 1749

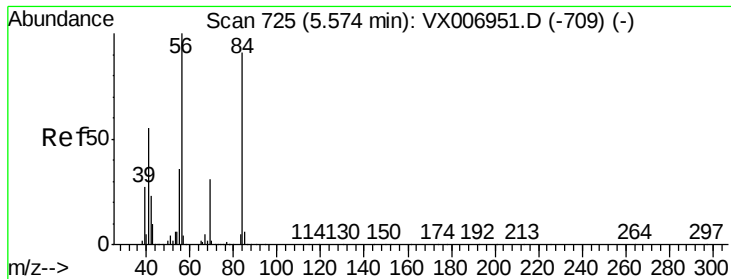
Ion Ratio Lower Upper

42 100

72 91.1 38.9 58.3#

71 74.7 36.2 54.4#

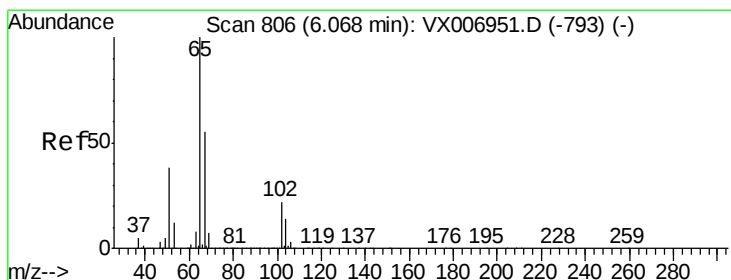
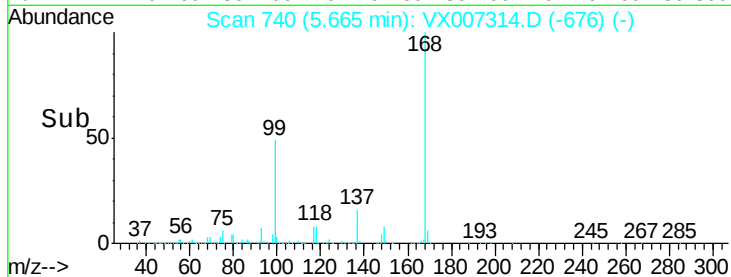
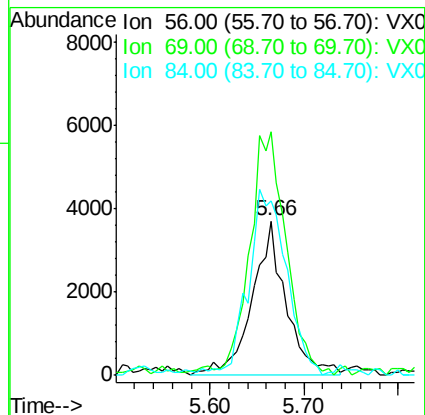
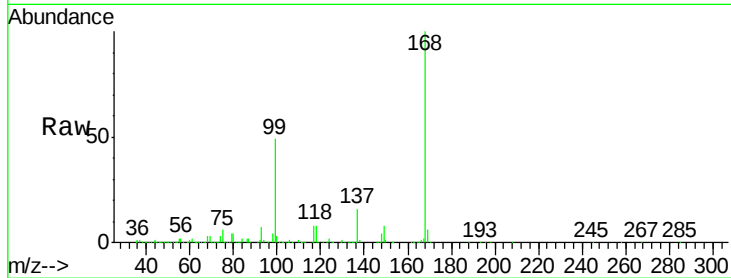




#31  
Cyclohexane  
Concen: 1.245 ug/l  
RT: 5.66 min Scan# 740  
Delta R.T. 0.09 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

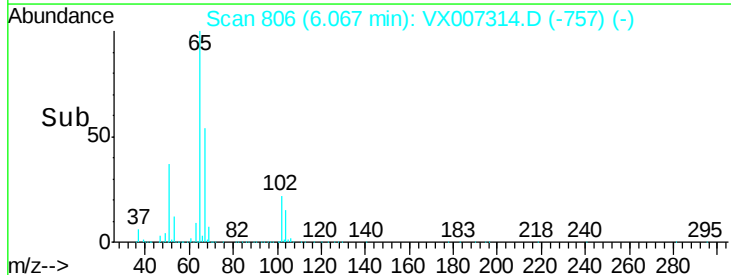
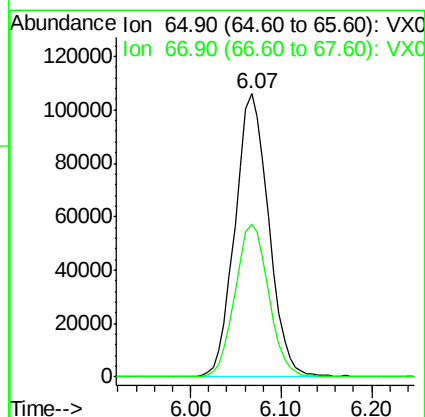
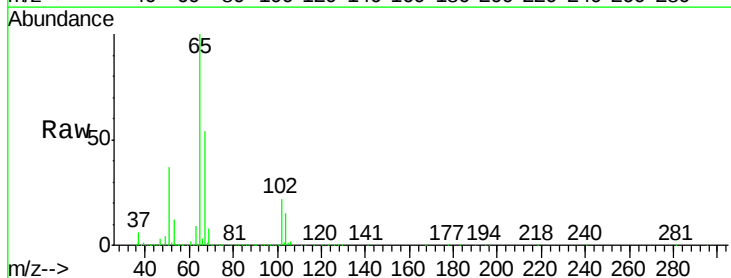
Instrument :  
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ClientSampleId :  
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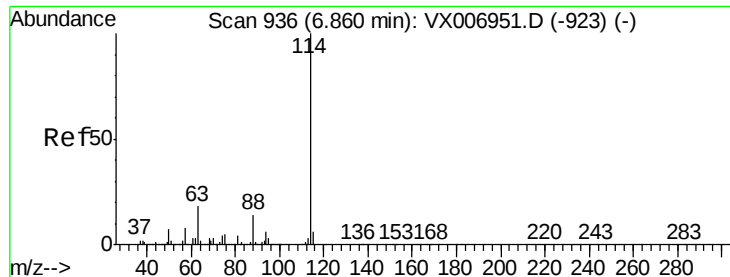
Tot Ion: 56 Resp: 9391  
Ion Ratio Lower Upper  
56 100  
69 154.3 24.4 36.6#  
84 110.6 70.0 105.0#



#33  
1,2-Dichloroethane-d4  
Concen: 50.951 ug/l  
RT: 6.07 min Scan# 806  
Delta R.T. -0.00 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

Tgt Ion: 65 Resp: 272523  
Ion Ratio Lower Upper  
65 100  
67 53.9 0.0 105.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.00 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

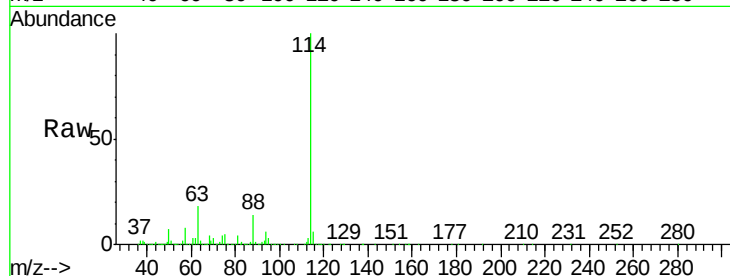
Tot Ion:114 Resp: 796212

Ion Ratio Lower Upper

114 100

63 17.6 0.0 34.8

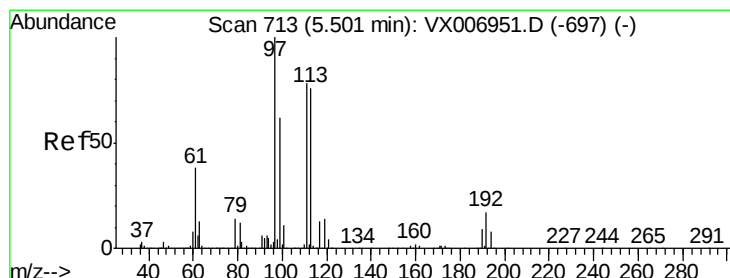
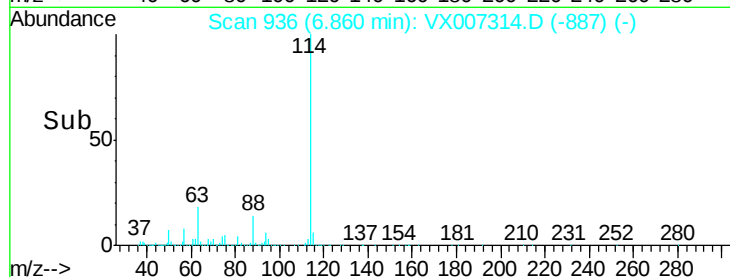
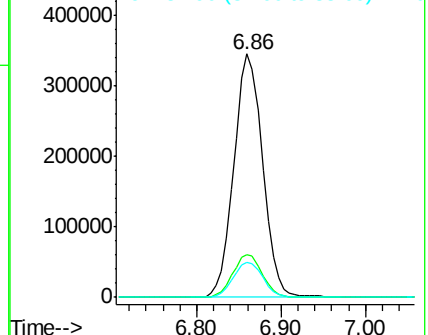
88 14.4 0.0 28.8



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 48.244 ug/l

RT: 5.51 min Scan# 714

Delta R.T. 0.01 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

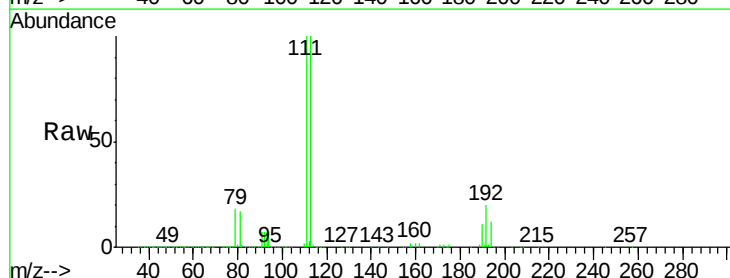
Tgt Ion:113 Resp: 245990

Ion Ratio Lower Upper

113 100

111 102.9 81.6 122.4

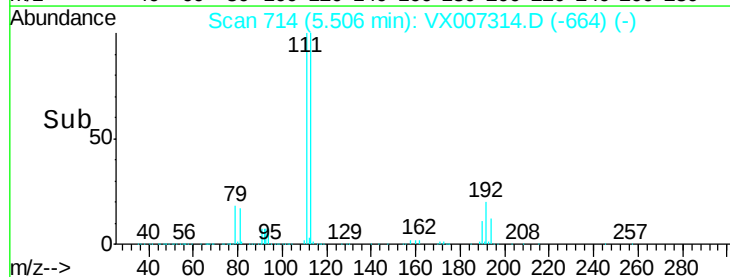
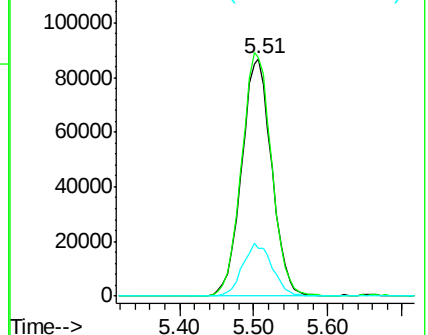
192 22.1 16.7 25.1

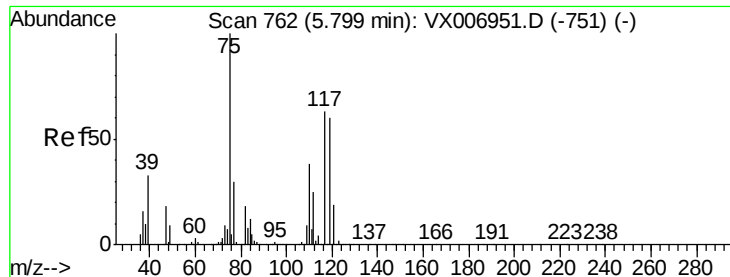


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.844 ug/l

RT: 5.66 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

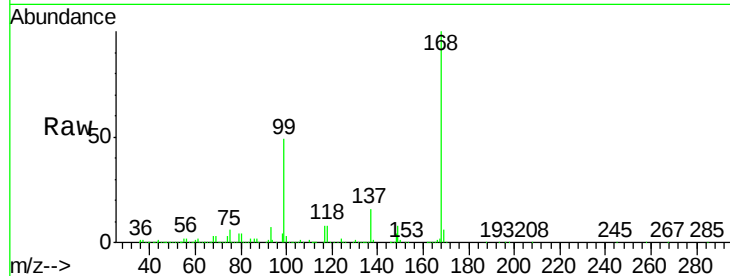
Tot Ion: 75 Resp: 33531

Ion Ratio Lower Upper

75 100

110 11.1 20.2 60.5#

77 0.0 24.8 37.2#

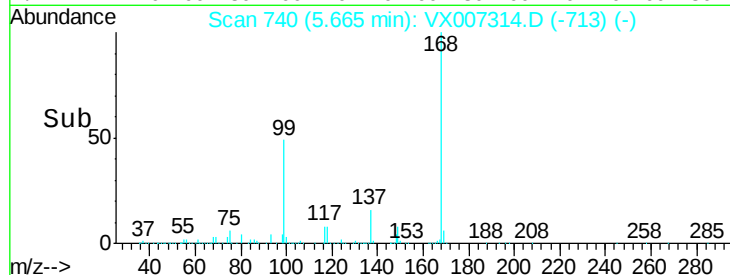


Abundance Ion 74.90 (74.60 to 75.60): VX006951.D (-751) (-)

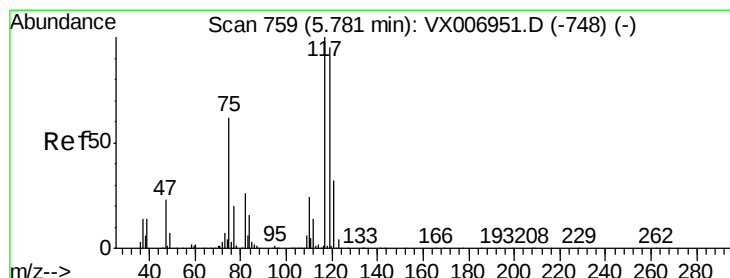
Ion 109.90 (109.60 to 110.60): VX006951.D (-751) (-)

Ion 76.90 (76.60 to 77.60): VX006951.D (-751) (-)

Time-->



Time-->



#38

Carbon Tetrachloride

Concen: 6.570 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

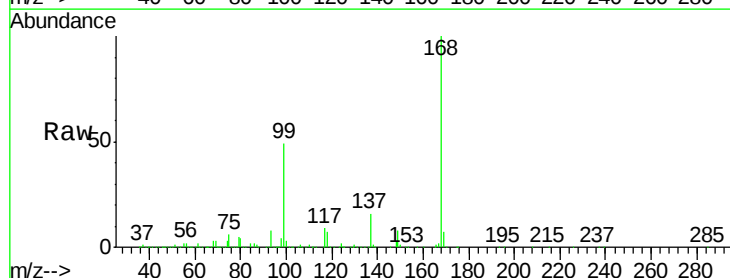
Tgt Ion: 117 Resp: 45761

Ion Ratio Lower Upper

117 100

119 4.5 79.4 119.2#

121 0.3 24.0 36.0#

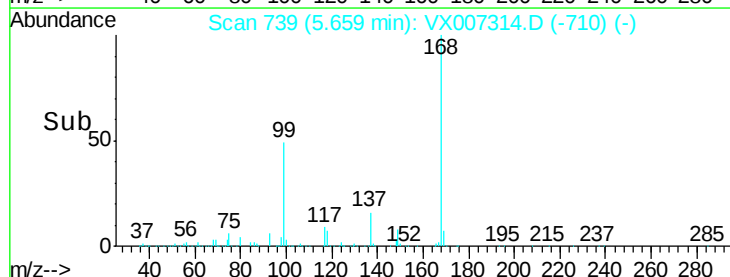


Abundance Ion 116.80 (116.50 to 117.50): VX006951.D (-748) (-)

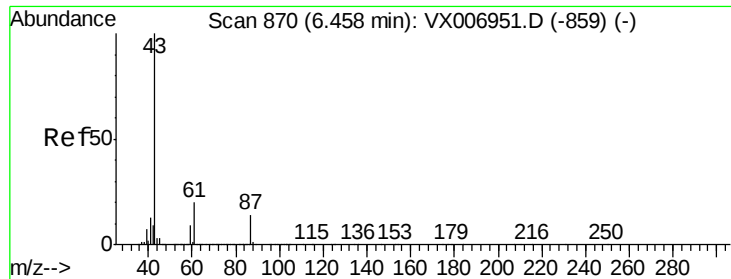
Ion 118.80 (118.50 to 119.50): VX006951.D (-748) (-)

Ion 120.80 (120.50 to 121.50): VX006951.D (-748) (-)

Time-->



Time-->



#43

Isopropyl Acetate

Concen: 2.714 ug/l

RT: 6.46 min Scan# 870

Delta R.T. -0.00 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

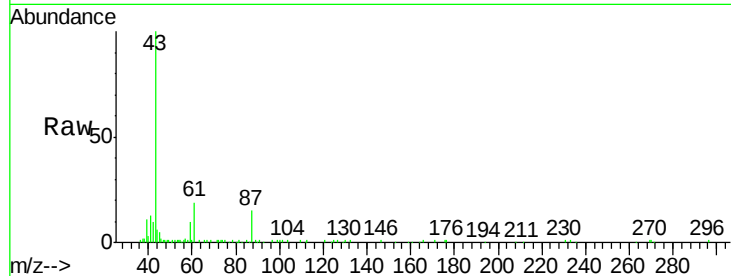
Tot Ion: 43 Resp: 31774

Ion Ratio Lower Upper

43 100

61 21.7 16.8 25.2

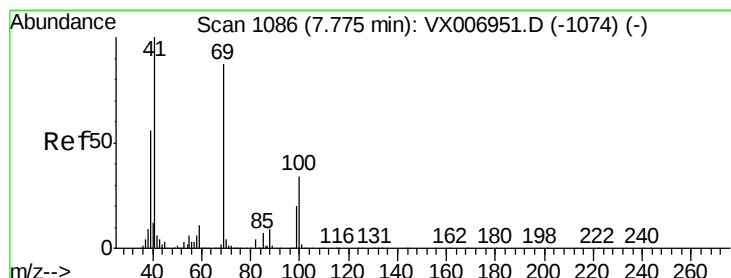
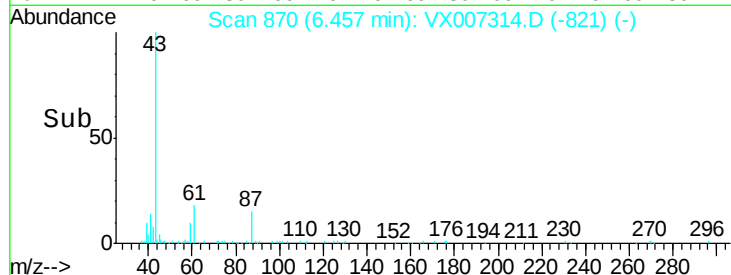
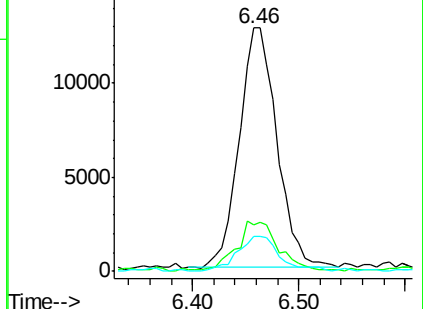
87 16.3 12.4 18.6



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0



#48

Methyl methacrylate

Concen: 2.847 ug/l

RT: 7.68 min Scan# 1071

Delta R.T. -0.09 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

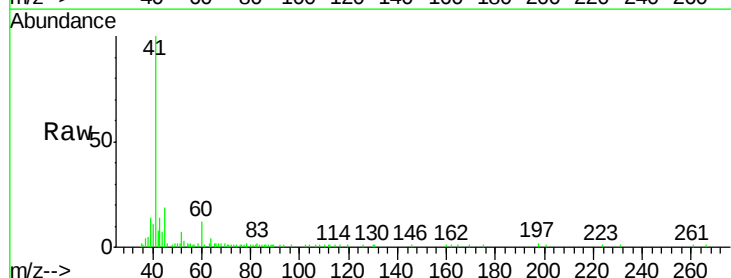
Tgt Ion: 41 Resp: 17118

Ion Ratio Lower Upper

41 100

69 2.8 72.4 108.6#

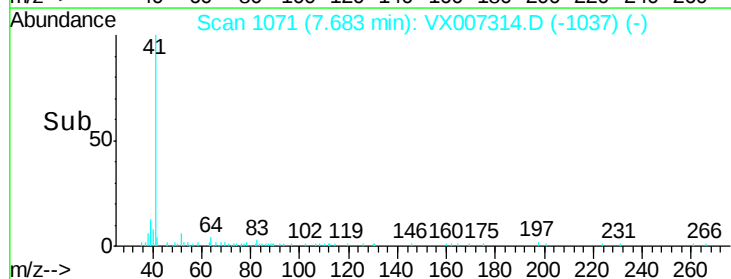
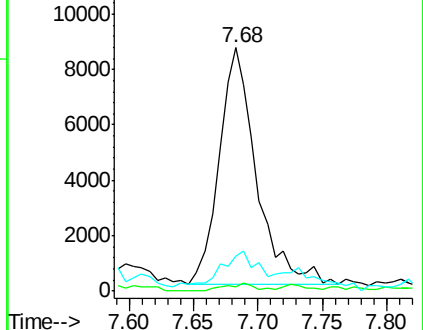
39 0.0 45.8 68.8#

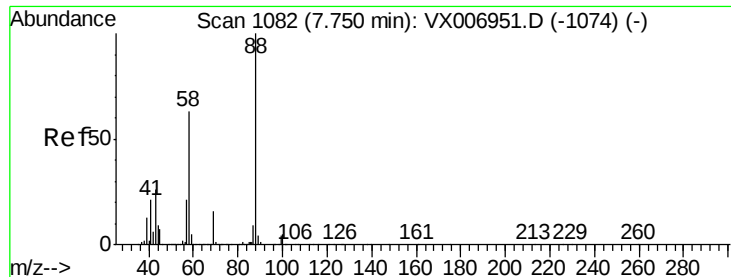


Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 39.00 (38.70 to 39.70): VX0





#49

1,4-Dioxane

Concen: Below Cal

RT: 7.73 min Scan# 1079

Delta R.T. -0.02 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

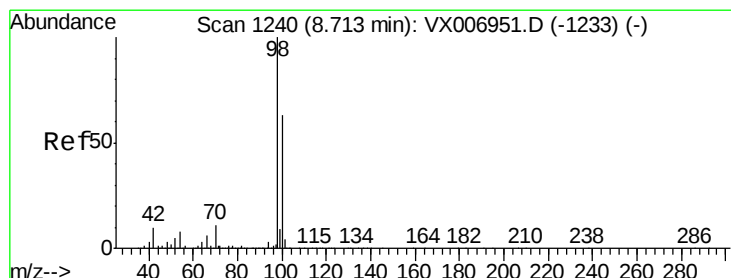
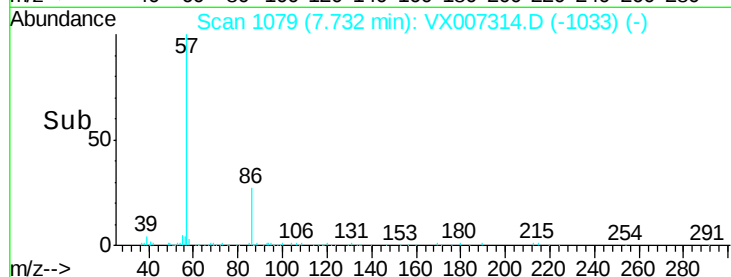
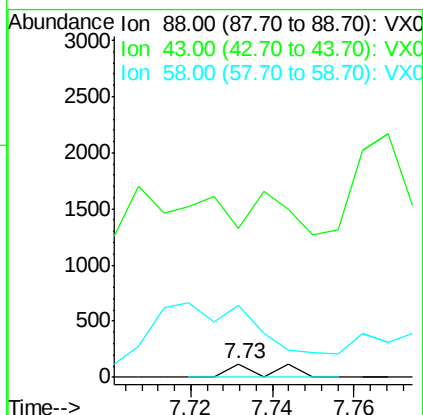
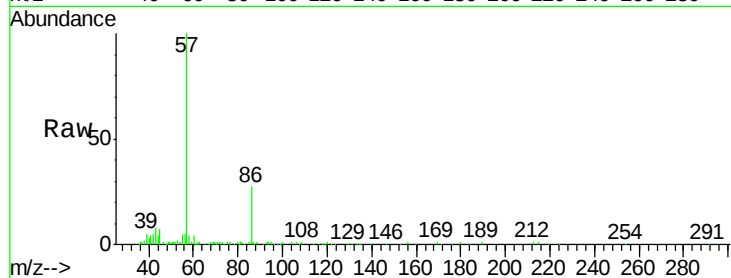
Tot Ion: 88 Resp: 85

Ion Ratio Lower Upper

88 100

43 0.0 22.2 33.4#

58 1168.2 51.0 76.4#



#50

Toluene-d8

Concen: 52.523 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX007314.D

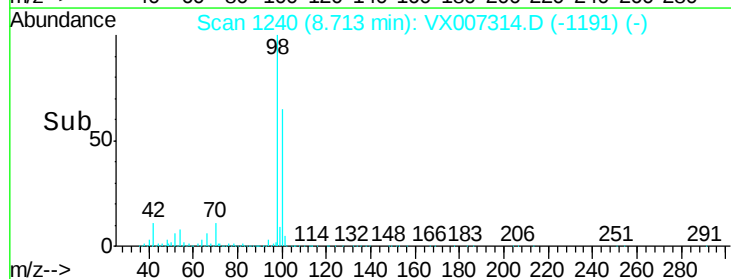
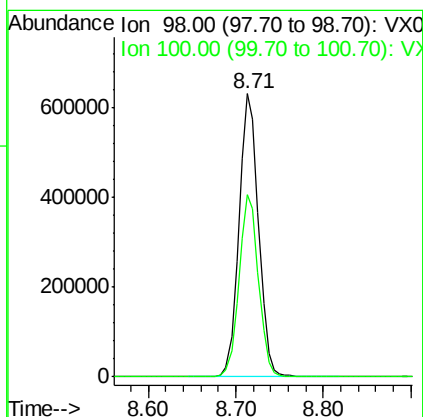
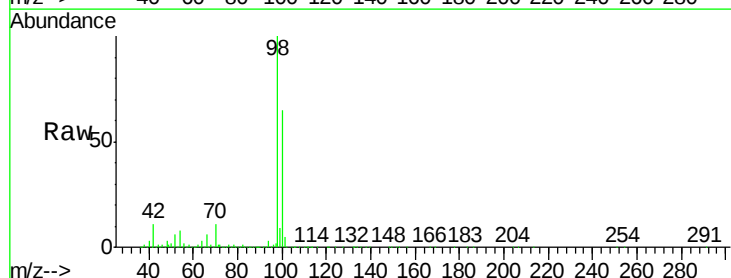
Acq: 30 Jan 2019 14:58

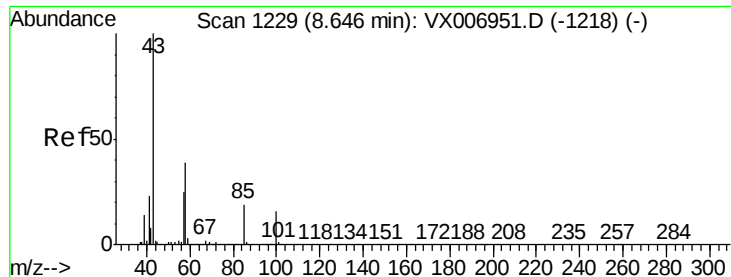
Tgt Ion: 98 Resp: 980274

Ion Ratio Lower Upper

98 100

100 64.0 52.0 78.0

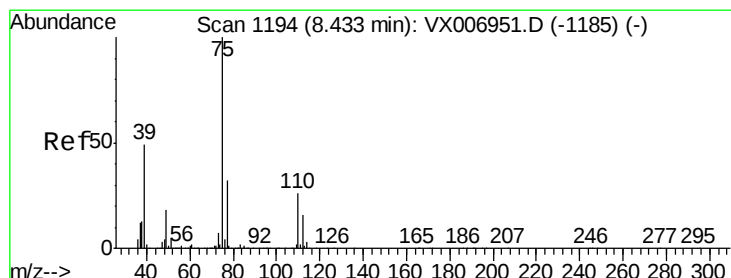
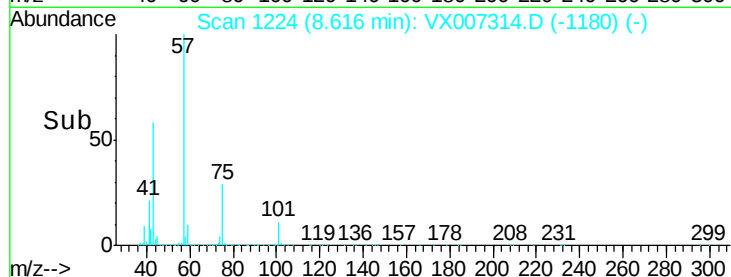
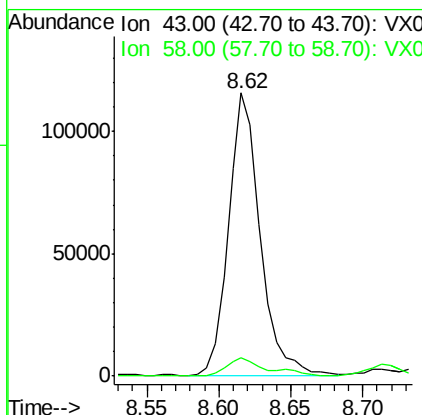
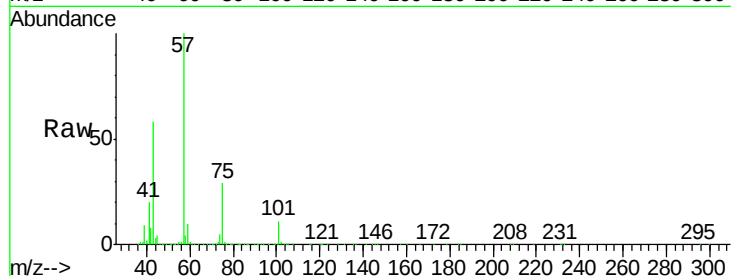




#51  
4-Methyl-2-Pentanone  
Concen: 23.502 ug/l  
RT: 8.62 min Scan# 1224  
Delta R.T. -0.03 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

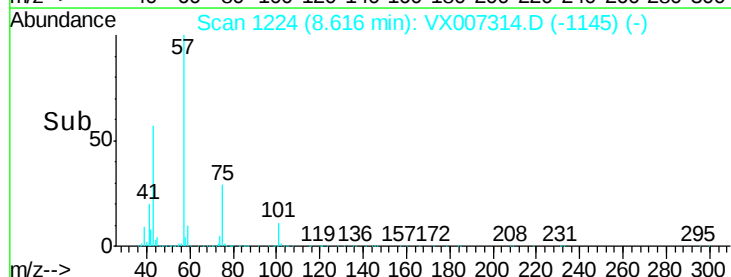
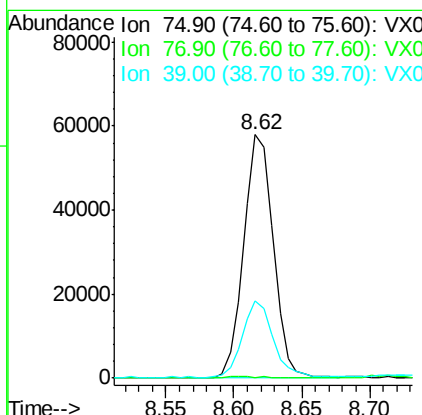
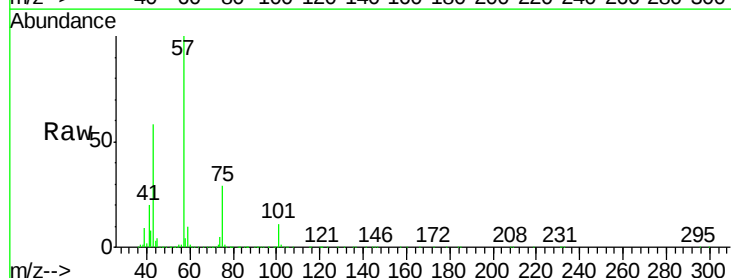
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB116701ZHE#08

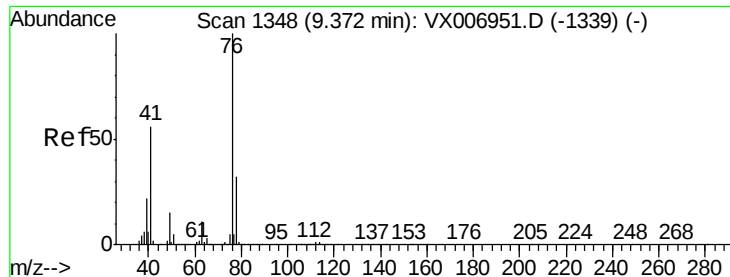
Tot Ion: 43 Resp: 176812  
Ion Ratio Lower Upper  
43 100  
58 8.4 31.8 47.6#



#54  
cis-1,3-Dichloropropene  
Concen: 11.304 ug/l  
RT: 8.62 min Scan# 1224  
Delta R.T. 0.18 min  
Lab File: VX007314.D  
Acq: 30 Jan 2019 14:58

Tgt Ion: 75 Resp: 87936  
Ion Ratio Lower Upper  
75 100  
77 0.3 26.2 39.2#  
39 31.4 36.7 55.1#





#57

1,3-Dichloropropane

Concen: 2.218 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.17 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

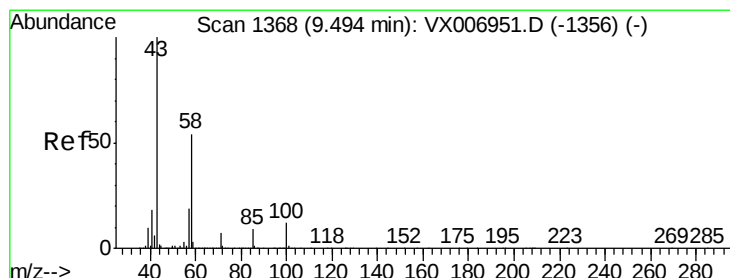
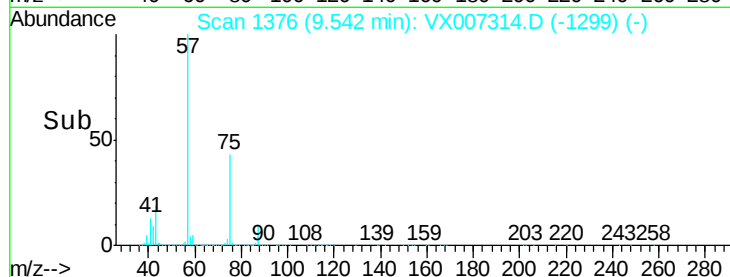
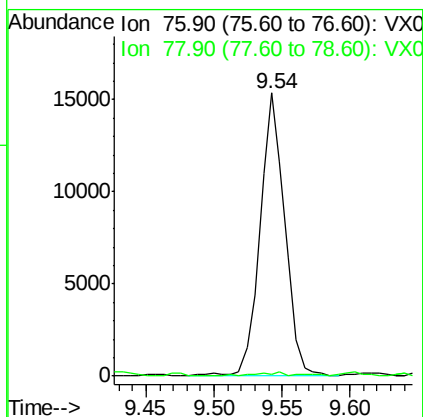
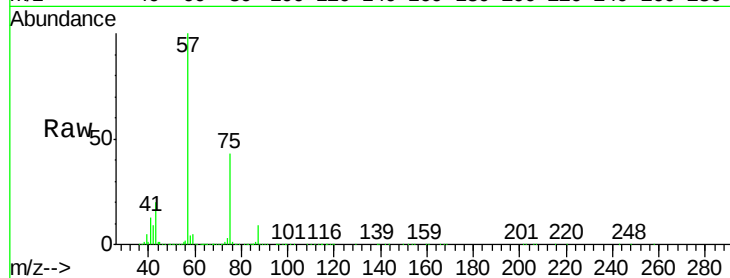
PB116701ZHE#08

Tot Ion: 76 Resp: 19746

Ion Ratio Lower Upper

76 100

78 2.2 26.0 39.0#



#59

2-Hexanone

Concen: 44.877 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.05 min

Lab File: VX007314.D

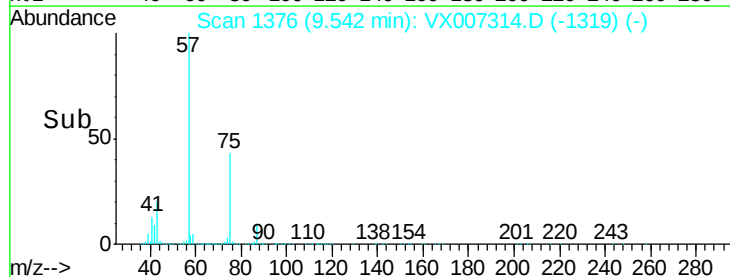
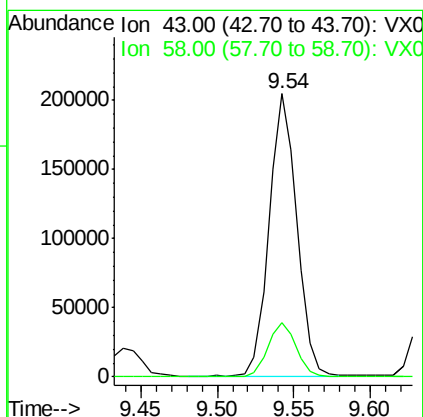
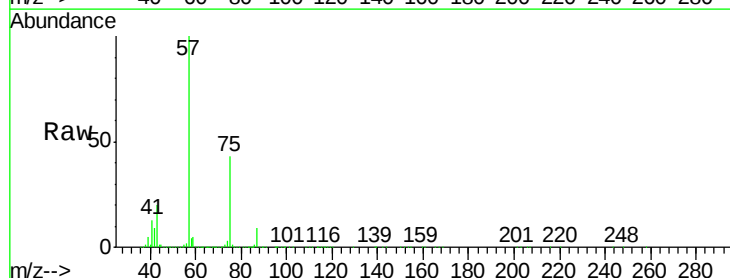
Acq: 30 Jan 2019 14:58

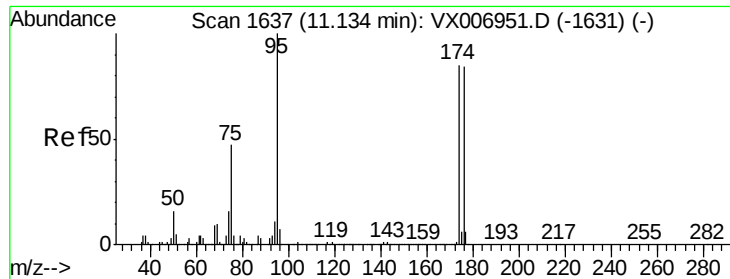
Tgt Ion: 43 Resp: 257287

Ion Ratio Lower Upper

43 100

58 20.1 27.7 83.1#





#62

4-Bromofluorobenzene

Concen: 53.596 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

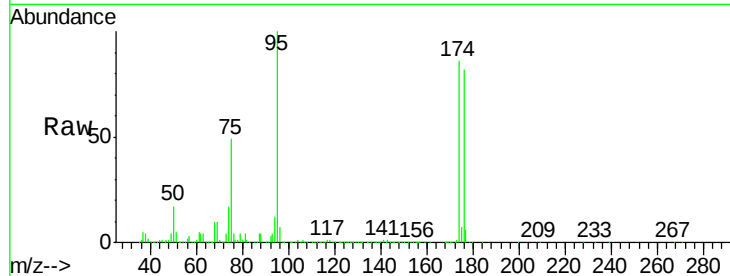
Tot Ion: 95 Resp: 348724

Ion Ratio Lower Upper

95 100

174 92.2 0.0 182.2

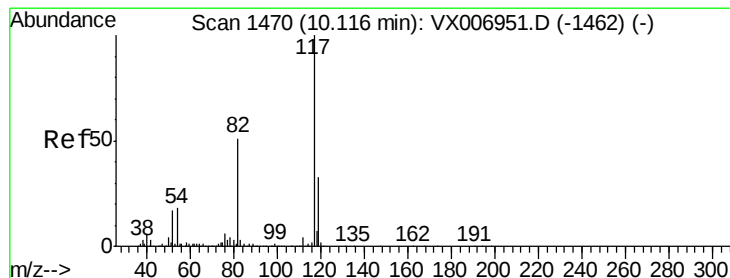
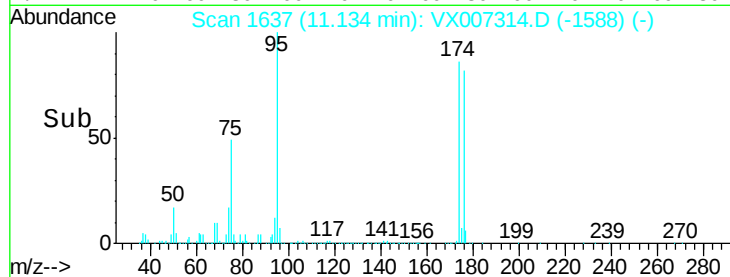
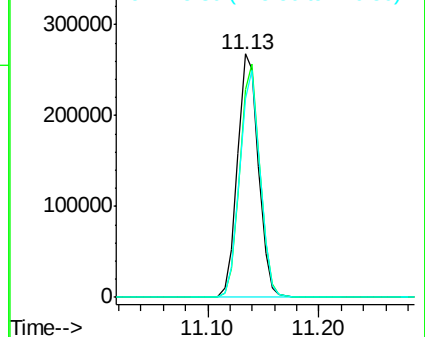
176 90.4 0.0 178.8



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.12 min Scan# 1470

Delta R.T. -0.00 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

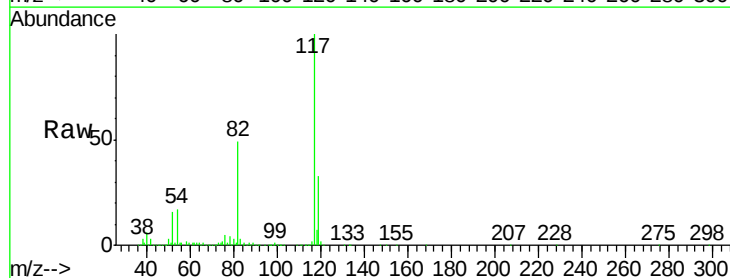
Tgt Ion: 117 Resp: 780404

Ion Ratio Lower Upper

117 100

82 49.4 41.0 61.6

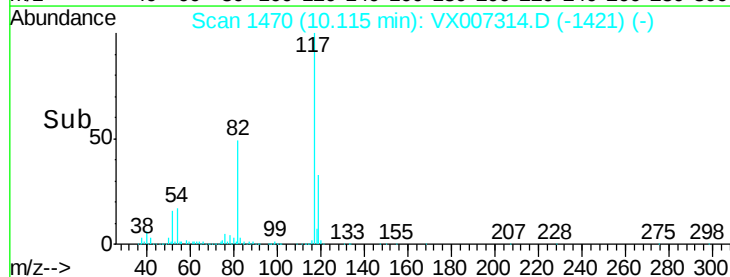
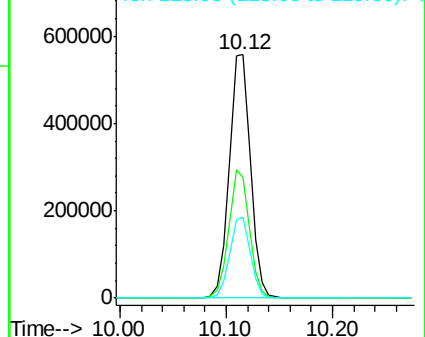
119 33.1 25.4 38.0

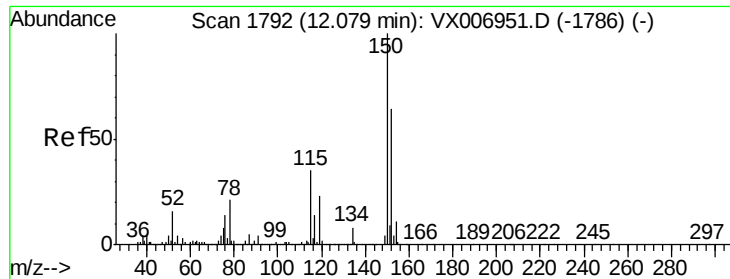


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

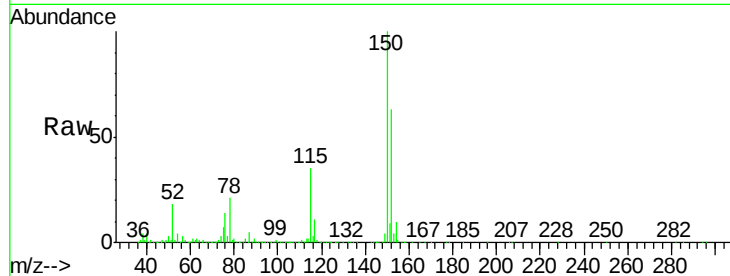
Tot Ion:152 Resp: 375102

Ion Ratio Lower Upper

152 100

115 54.5 39.1 117.2

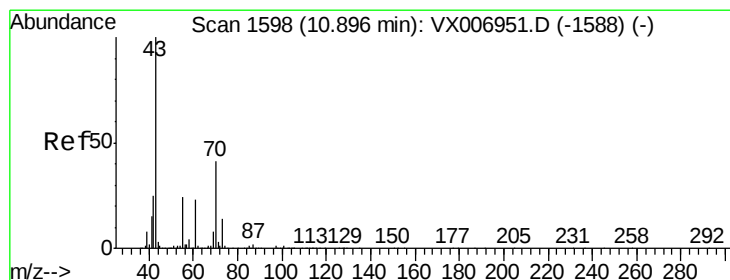
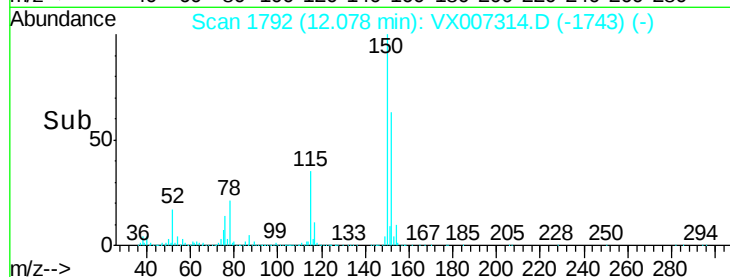
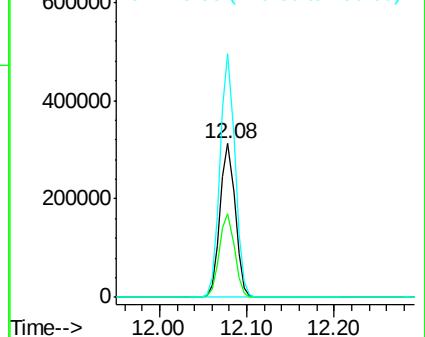
150 154.8 0.0 344.8



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#74

N-ethyl acetate

Concen: 2.465 ug/l

RT: 10.69 min Scan# 1565

Delta R.T. -0.20 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Tgt Ion: 43 Resp: 26254

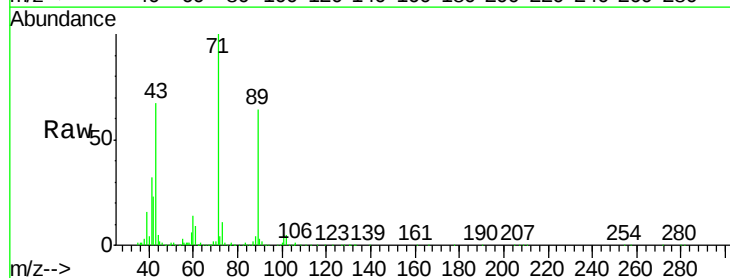
Ion Ratio Lower Upper

43 100

70 3.9 35.8 53.8#

55 5.5 19.4 29.0#

61 13.1 20.1 30.1#

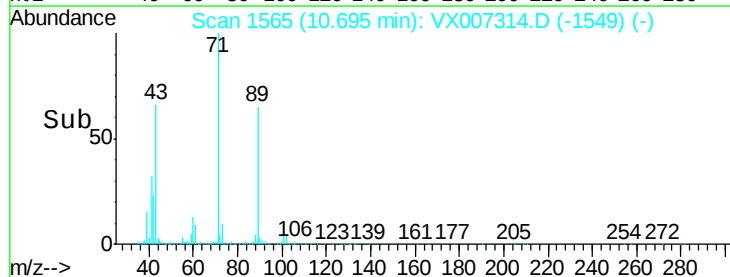
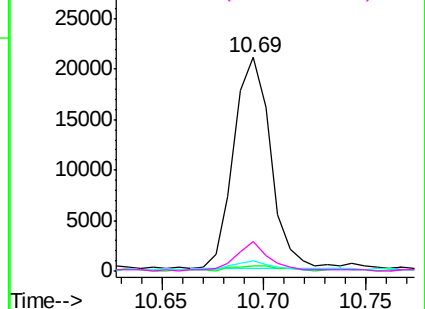


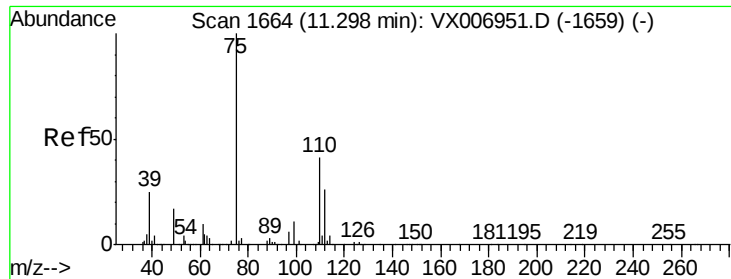
Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 70.00 (69.70 to 70.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 61.00 (60.70 to 61.70): VX0





#76

1,2,3-Trichloropropane

Concen: 21.901 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

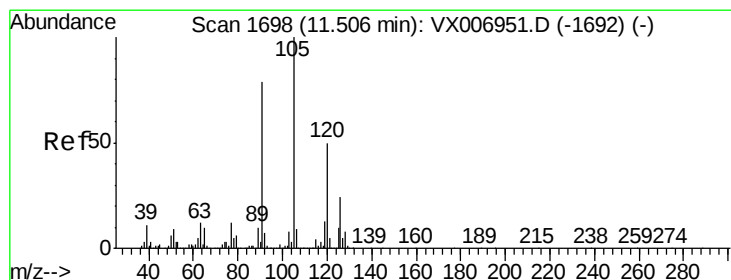
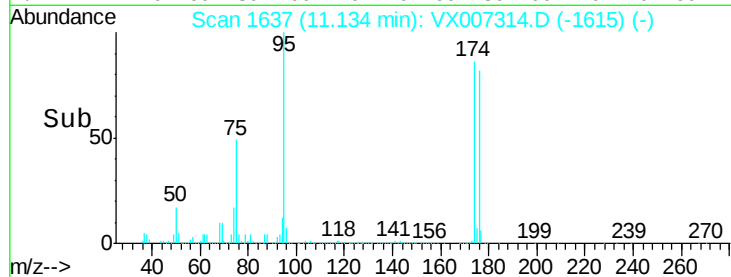
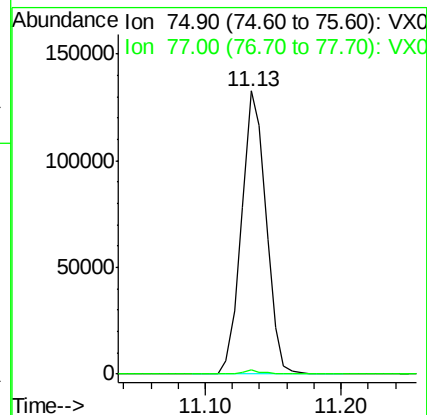
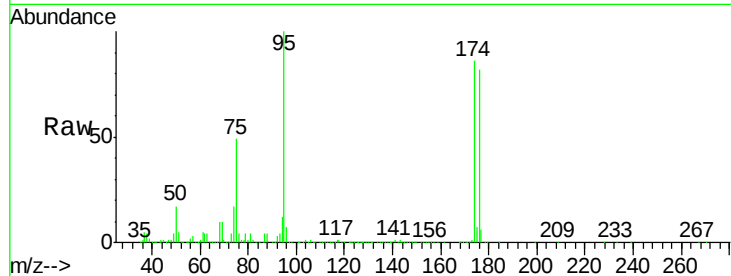
PB116701ZHE#08

Tot Ion: 75 Resp: 166477

Ion Ratio Lower Upper

75 100

77 1.4 18.5 55.5#



#80

1,3,5-Trimethylbenzene

Concen: 0.700 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. -0.00 min

Lab File: VX007314.D

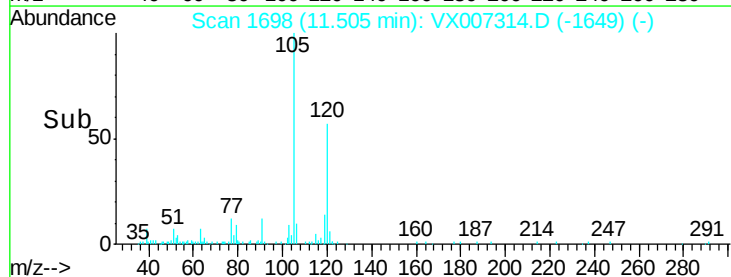
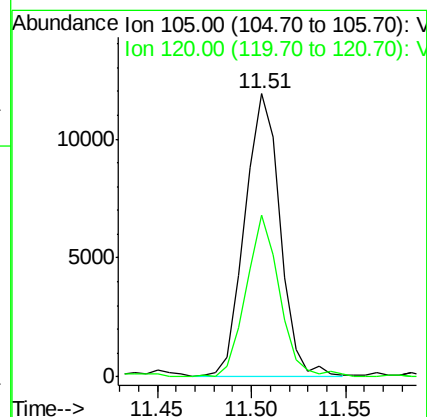
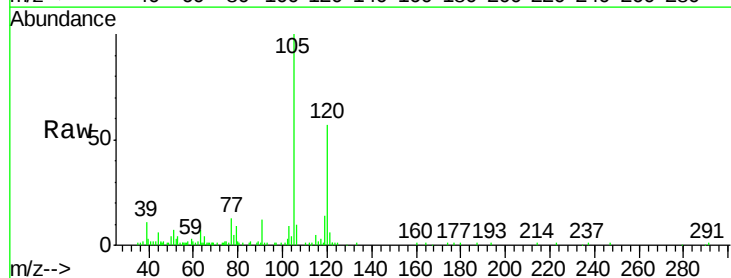
Acq: 30 Jan 2019 14:58

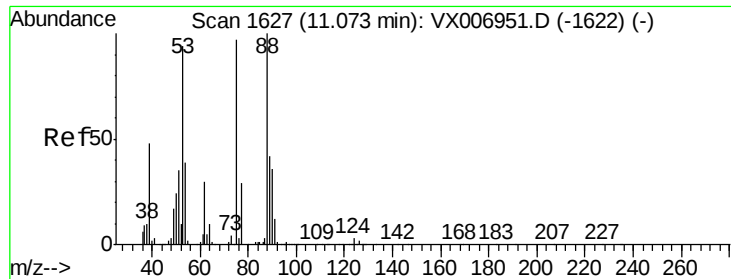
Tgt Ion:105 Resp: 15479

Ion Ratio Lower Upper

105 100

120 54.1 25.1 75.3





#81

trans-1,4-Dichloro-2-butene

Concen: 64.877 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Instrument :

MSVOA\_X

ClientSampleId :

PB116701ZHE#08

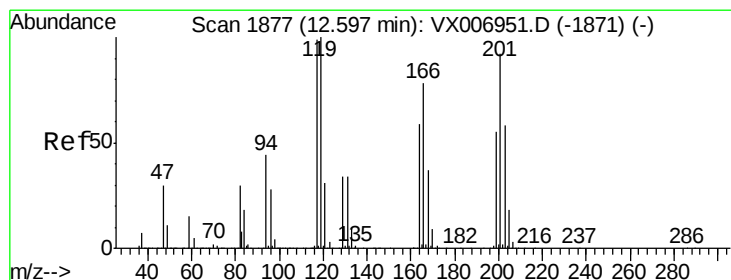
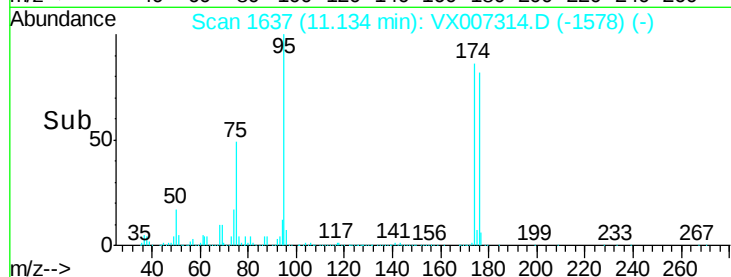
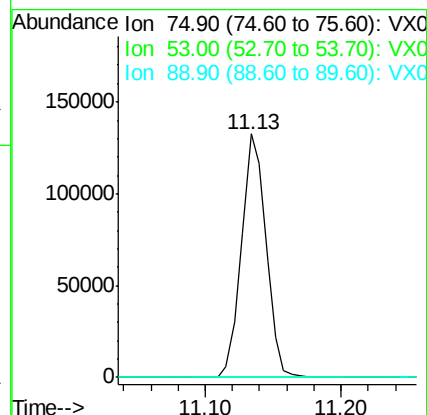
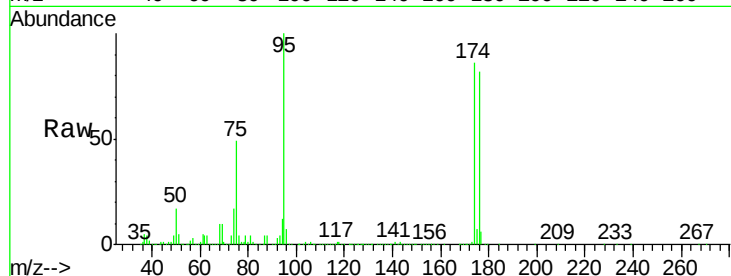
Tot Ion: 75 Resp: 166477

Ion Ratio Lower Upper

75 100

53 0.4 79.7 119.5#

89 0.1 38.0 57.0#



#90

Hexachloroethane

Concen: 2.919 ug/l

RT: 12.61 min Scan# 1879

Delta R.T. 0.01 min

Lab File: VX007314.D

Acq: 30 Jan 2019 14:58

Tgt Ion: 117 Resp: 45

Ion Ratio Lower Upper

117 100

201 0.0 42.9 128.7#

