

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX061618\  
 Data File : VX002671.D  
 Acq On : 17 Jun 2018 02:03  
 Operator : JC/MD  
 Sample : J3509-05  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 MWHR2-6-061318

Quant Time: Jun 18 01:43:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061518W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jun 16 01:37:33 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 205440   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 294811   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 276227   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 150505   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 141579   | 45.35 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.70% |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 108970   | 46.31 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.62% |      |
| 50) Toluene-d8            | 8.72   | 98  | 421266   | 47.15 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.30% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 144934   | 42.81 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 85.62% |      |

## Target Compounds

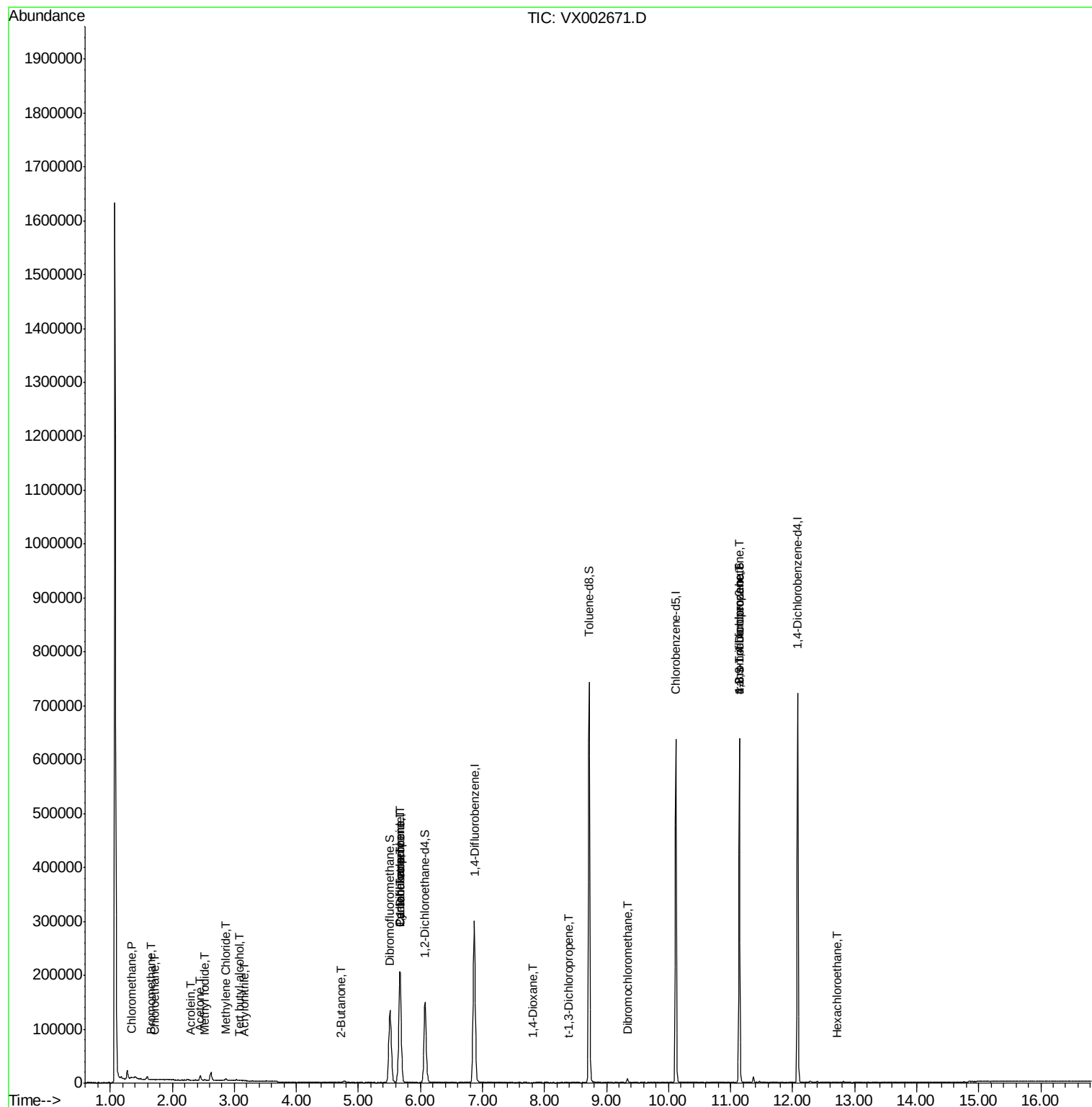
|                                |       |     |       |        |        | Qvalue |
|--------------------------------|-------|-----|-------|--------|--------|--------|
| 3) Chloromethane               | 1.33  | 50  | 778   | 0.300  | ug/l   | 94     |
| 5) Bromomethane                | 1.66  | 94  | 637   | 0.392  | ug/l   | 91     |
| 6) Chloroethane                | 1.71  | 64  | 515   | 0.290  | ug/l # | 57     |
| 10) Methyl Iodide              | 2.51  | 142 | 846   | 5.411  | ug/l # | 39     |
| 11) Tert butyl alcohol         | 3.08  | 59  | 678   | 1.051  | ug/l # | 41     |
| 13) Acrolein                   | 2.30  | 56  | 192   | 7.481  | ug/l # | 82     |
| 15) Acrylonitrile              | 3.16  | 53  | 289   | 0.205  | ug/l # | 68     |
| 16) Acetone                    | 2.45  | 43  | 9122  | 6.623  | ug/l   | 92     |
| 20) Methylene Chloride         | 2.86  | 84  | 1362  | 0.482  | ug/l # | 86     |
| 25) 2-Butanone                 | 4.71  | 43  | 812   | 0.449  | ug/l   | 91     |
| 31) Cyclohexane                | 5.67  | 56  | 4424  | 1.201  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.66  | 75  | 14017 | 4.477  | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.67  | 117 | 19293 | 6.188  | ug/l # | 14     |
| 49) 1,4-Dioxane                | 7.81  | 88  | 19    | 0.334  | ug/l # | 1      |
| 53) t-1,3-Dichloropropene      | 8.40  | 75  | 19    | 2.398  | ug/l # | 43     |
| 60) Dibromochloromethane       | 9.34  | 129 | 39    | 3.774  | ug/l # | 11     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75  | 77562 | 27.310 | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75  | 77562 | 84.259 | ug/l # | 6      |
| 90) Hexachloroethane           | 12.71 | 117 | 41    | 2.652  | ug/l # | 1      |

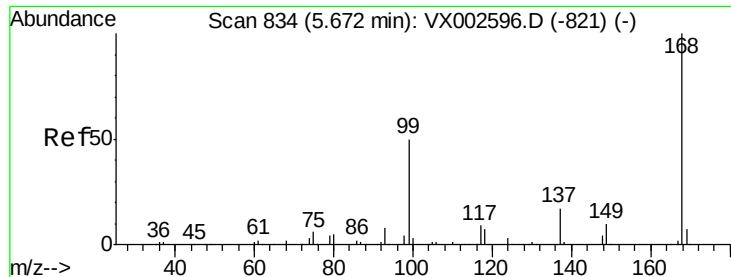
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Sat Jun 16 01:37:33 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

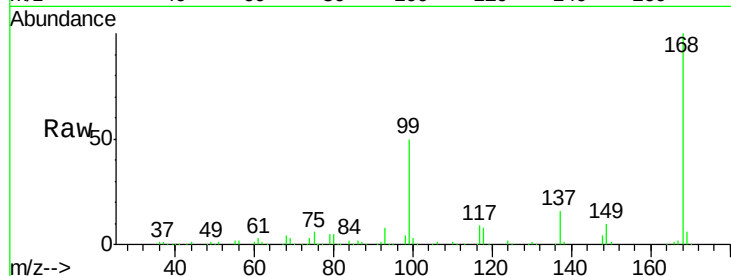
MWHR2-6-061318

Tot Ion:168 Resp: 205440

Ion Ratio Lower Upper

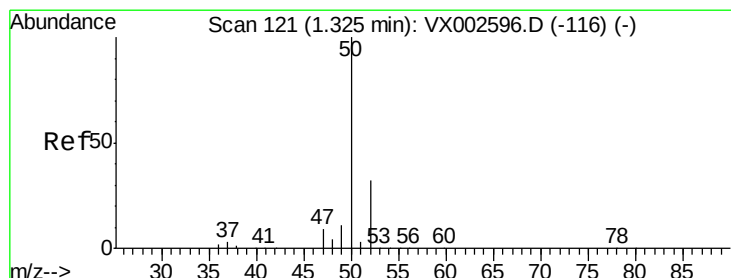
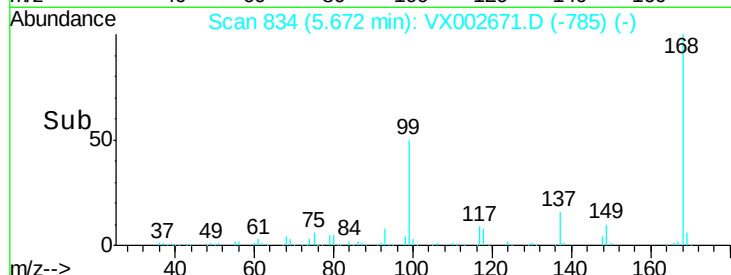
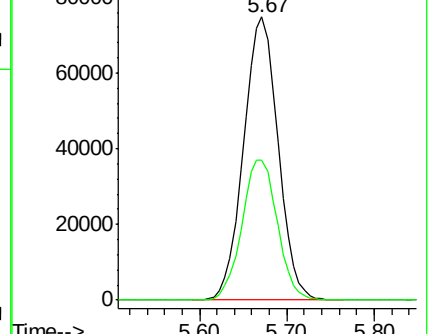
168 100

99 49.6 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#3

Chloromethane

Concen: 0.300 ug/l

RT: 1.33 min Scan# 122

Delta R.T. 0.01 min

Lab File: VX002671.D

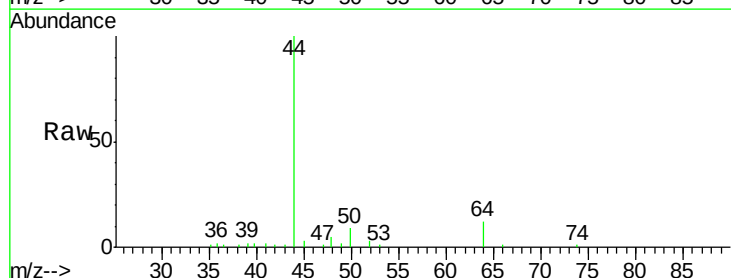
Acq: 17 Jun 2018 02:03

Tgt Ion: 50 Resp: 778

Ion Ratio Lower Upper

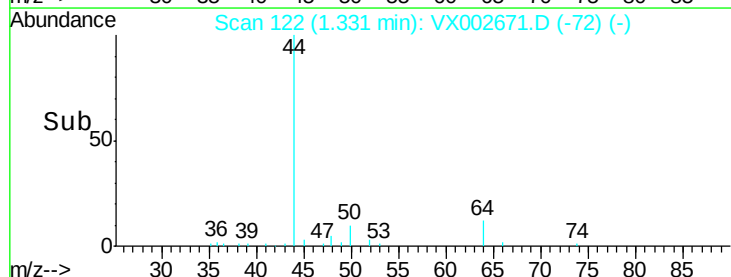
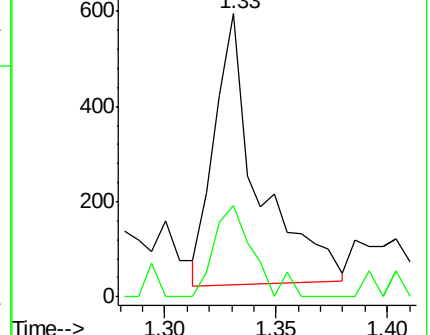
50 100

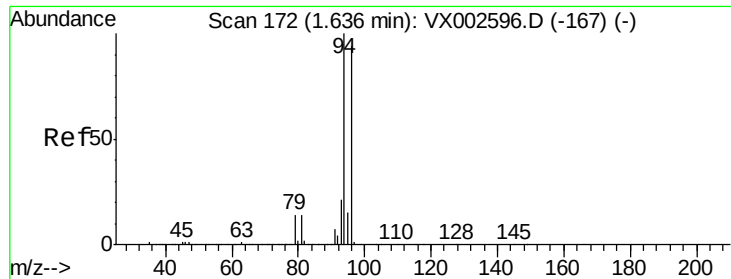
52 35.2 25.7 38.5



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0





#5

Bromomethane

Concen: 0.392 ug/l

RT: 1.66 min Scan# 176

Delta R.T. 0.02 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

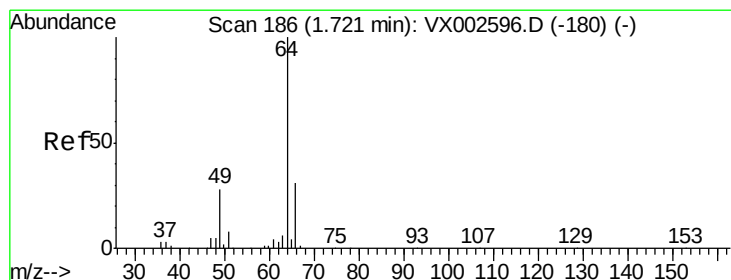
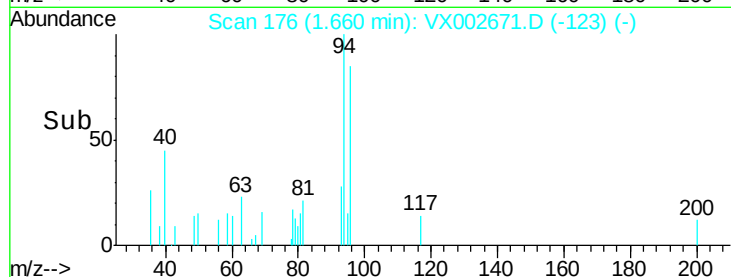
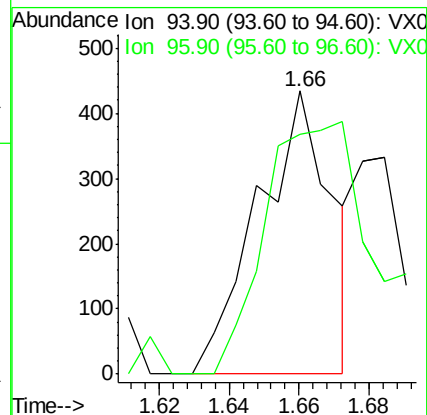
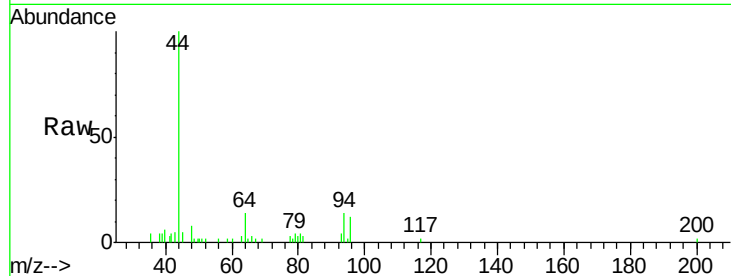
MWHR2-6-061318

Tot Ion: 94 Resp: 637

Ion Ratio Lower Upper

94 100

96 84.6 74.9 112.3



#6

Chloroethane

Concen: 0.290 ug/l

RT: 1.71 min Scan# 184

Delta R.T. -0.01 min

Lab File: VX002671.D

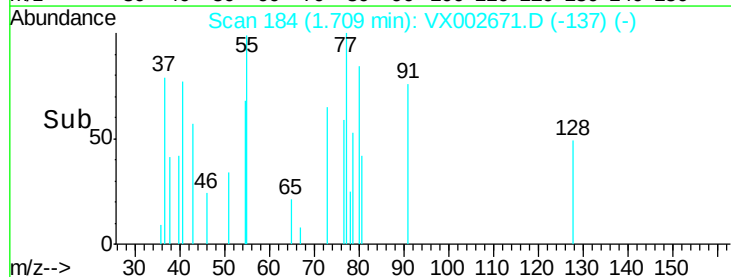
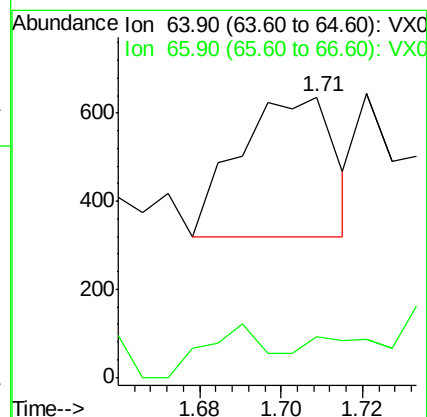
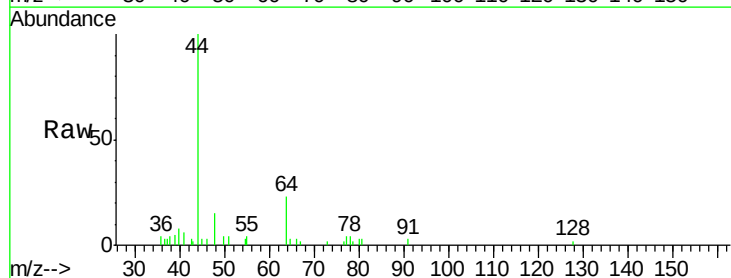
Acq: 17 Jun 2018 02:03

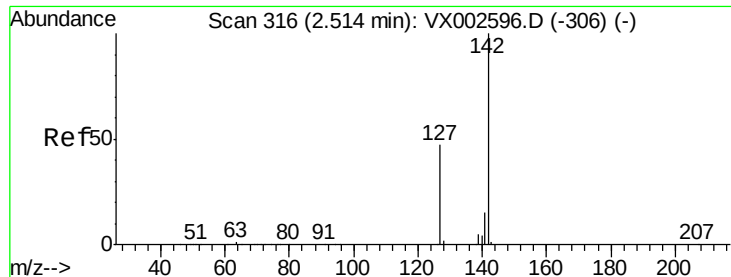
Tgt Ion: 64 Resp: 515

Ion Ratio Lower Upper

64 100

66 7.9 25.5 38.3#

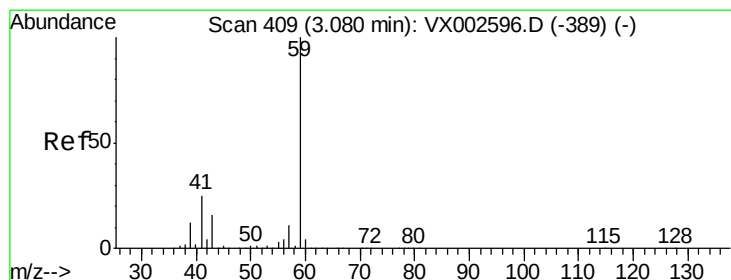
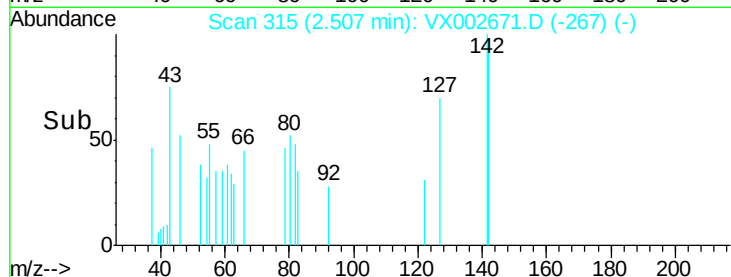
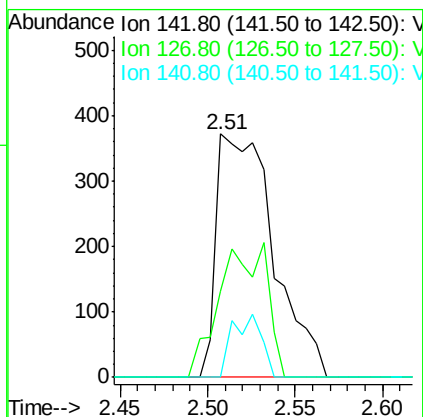
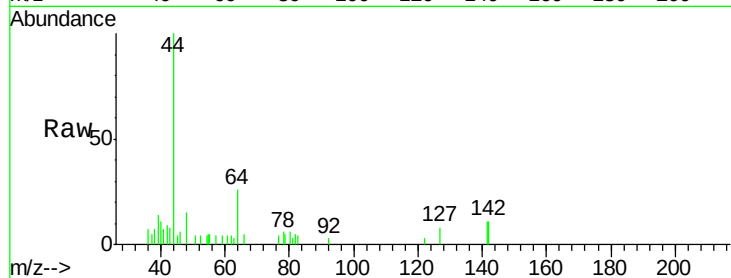




#10  
Methvl Iodide  
Concen: 5.411 ug/l  
RT: 2.51 min Scan# 315  
Delta R.T. -0.01 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

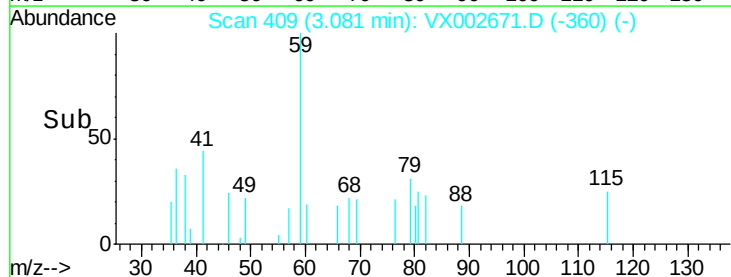
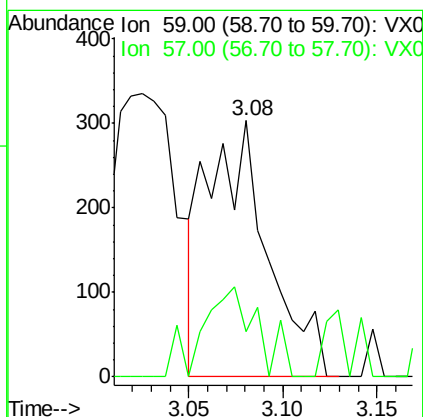
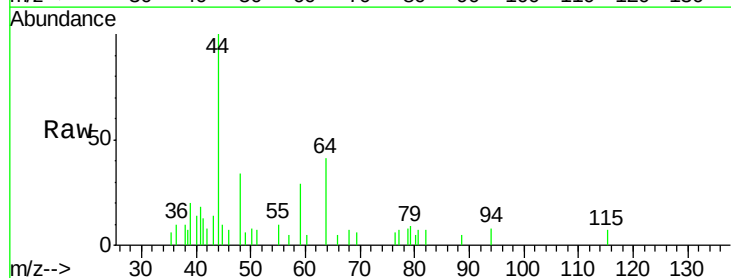
Instrument :  
MSVOA\_X  
ClientSampleId :  
MWHR2-6-061318

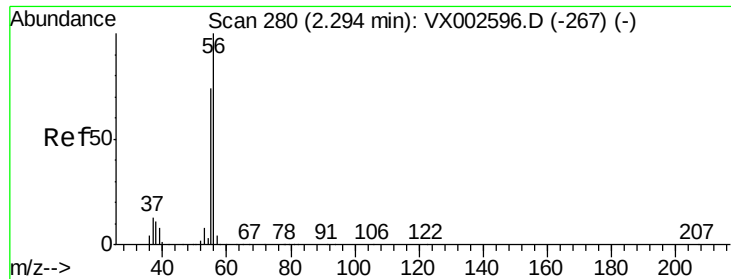
Tot Ion:142 Resp: 846  
Ion Ratio Lower Upper  
142 100  
127 0.0 36.6 55.0#  
141 0.0 11.3 16.9#



#11  
Tert butyl alcohol  
Concen: 1.051 ug/l  
RT: 3.08 min Scan# 409  
Delta R.T. 0.00 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

Tgt Ion: 59 Resp: 678  
Ion Ratio Lower Upper  
59 100  
57 32.0 8.2 12.2#





#13

Acrolein

Concen: 7.481 ug/l

RT: 2.30 min Scan# 281

Delta R.T. 0.01 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

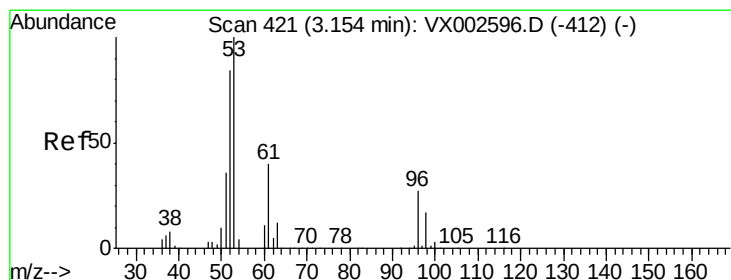
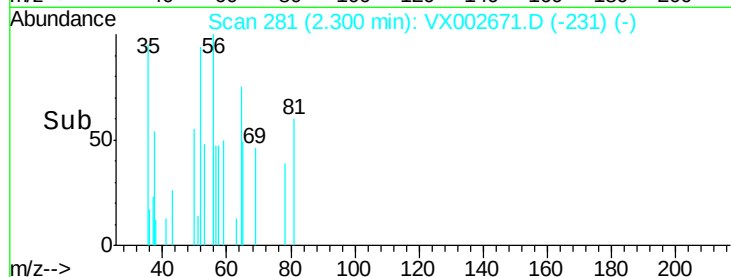
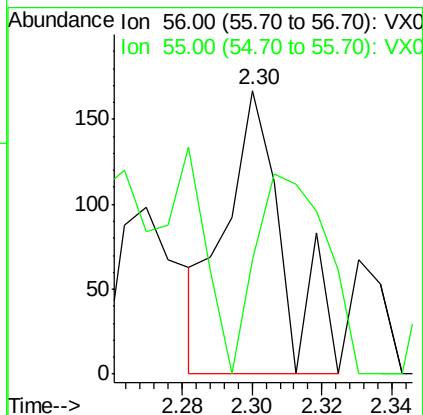
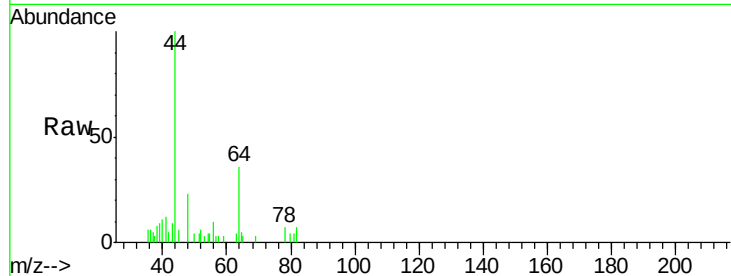
MWHR2-6-061318

Tot Ion: 56 Resp: 192

Ion Ratio Lower Upper

56 100

55 86.5 57.0 85.4#



#15

Acrylonitrile

Concen: 0.205 ug/l

RT: 3.16 min Scan# 422

Delta R.T. 0.01 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

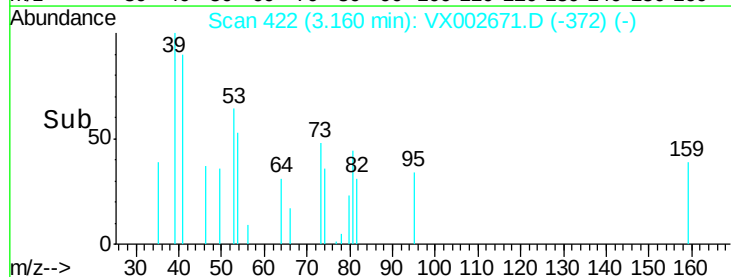
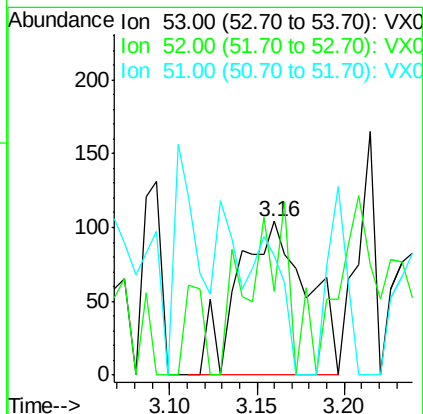
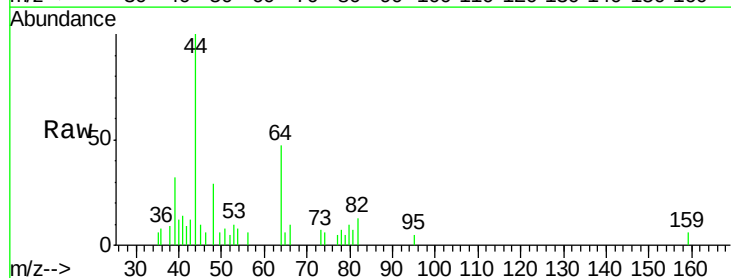
Tgt Ion: 53 Resp: 289

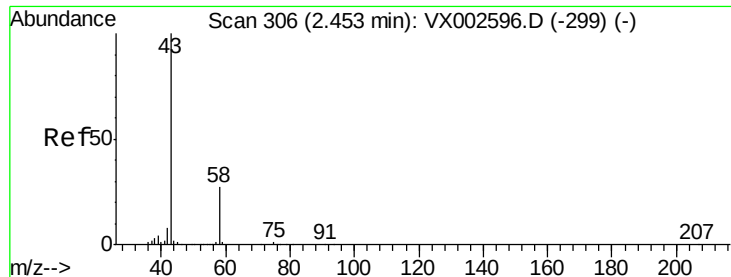
Ion Ratio Lower Upper

53 100

52 66.8 66.7 100.1

51 0.0 29.9 44.9#





#16

Acetone

Concen: 6.623 ug/l

RT: 2.45 min Scan# 306

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

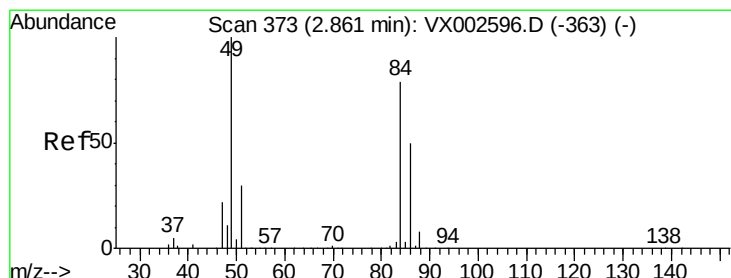
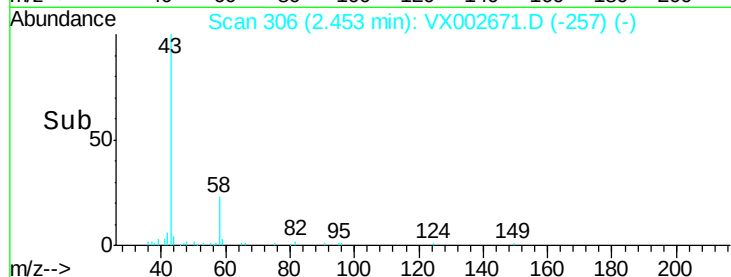
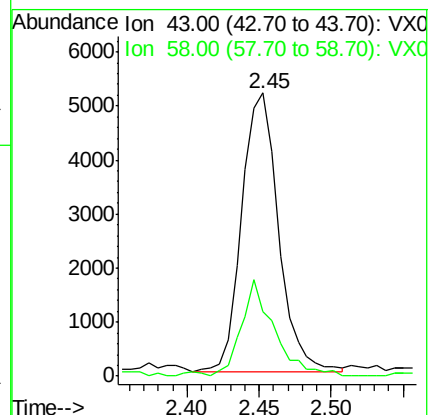
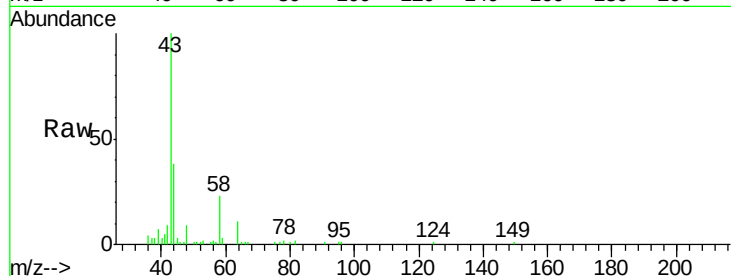
MWHR2-6-061318

Tot Ion: 43 Resp: 9122

Ion Ratio Lower Upper

43 100

58 23.2 22.1 33.1



#20

Methylene Chloride

Concen: 0.482 ug/l

RT: 2.86 min Scan# 373

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Tgt Ion: 84 Resp: 1362

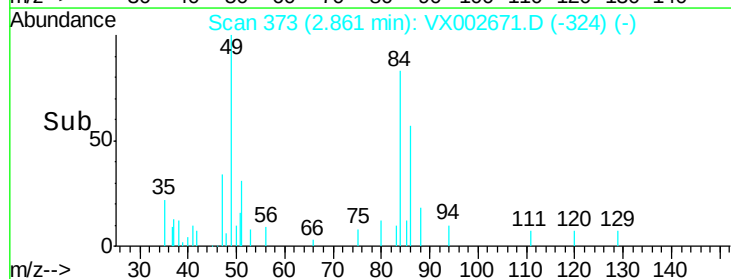
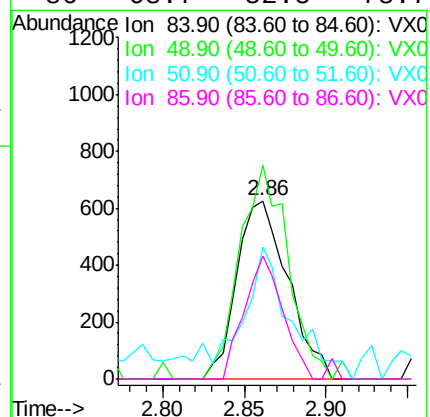
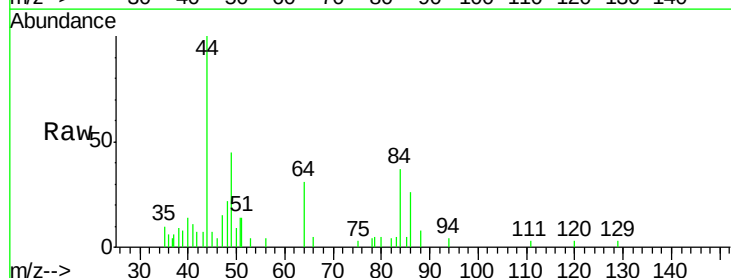
Ion Ratio Lower Upper

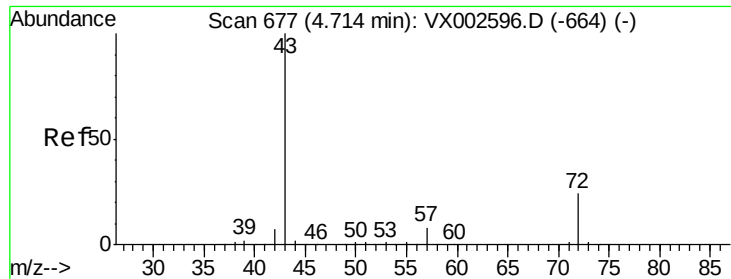
84 100

49 120.0 107.8 161.6

51 63.9 32.8 49.2#

86 68.7 52.5 78.7





#25

2-Butanone

Concen: 0.449 ug/l

RT: 4.71 min Scan# 677

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

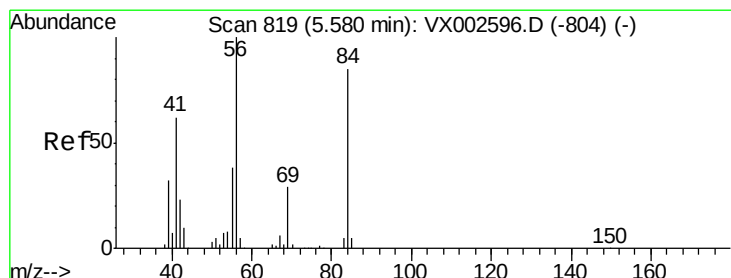
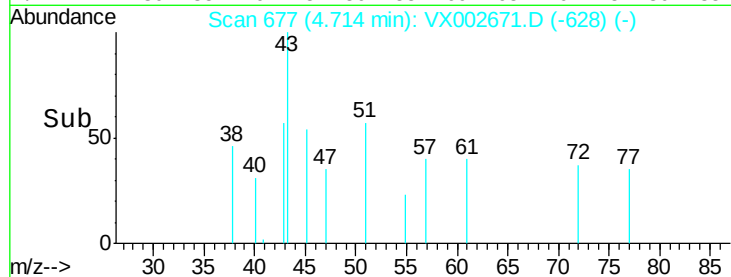
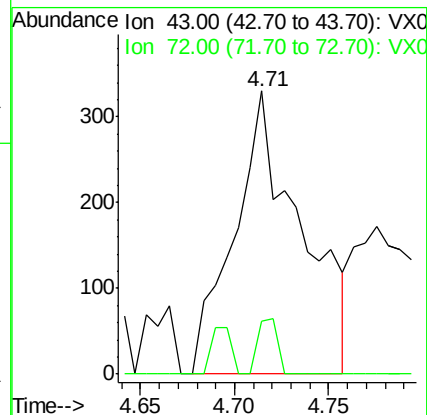
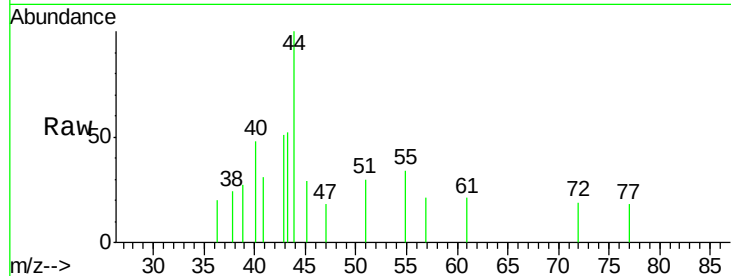
MWHR2-6-061318

Tot Ion: 43 Resp: 812

Ion Ratio Lower Upper

43 100

72 18.5 18.5 27.7



#31

Cyclohexane

Concen: 1.201 ug/l

RT: 5.67 min Scan# 833

Delta R.T. 0.09 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

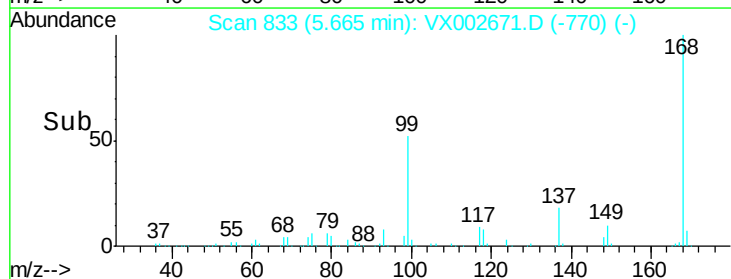
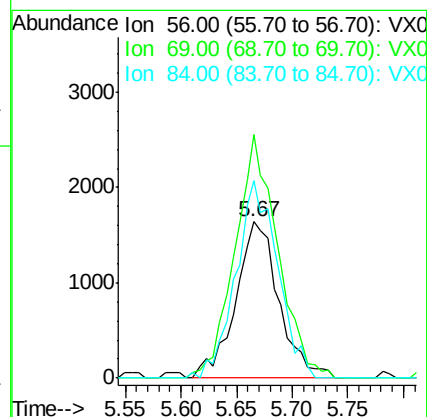
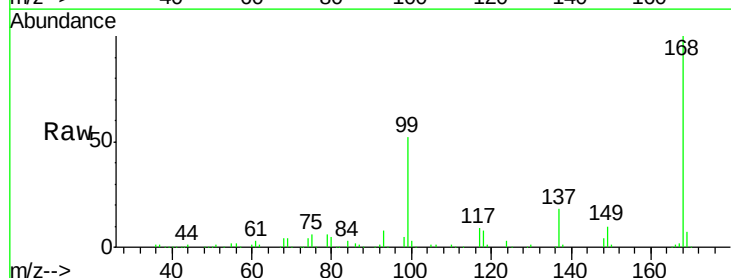
Tgt Ion: 56 Resp: 4424

Ion Ratio Lower Upper

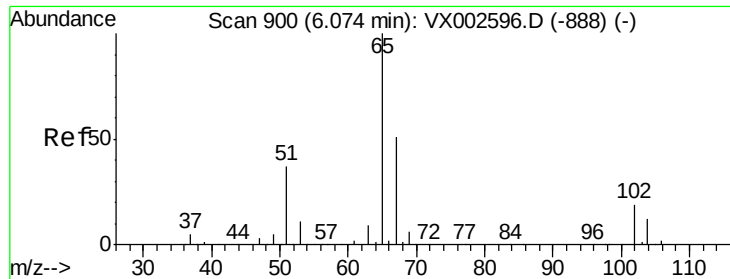
56 100

69 156.0 23.7 35.5#

84 126.8 64.1 96.1#



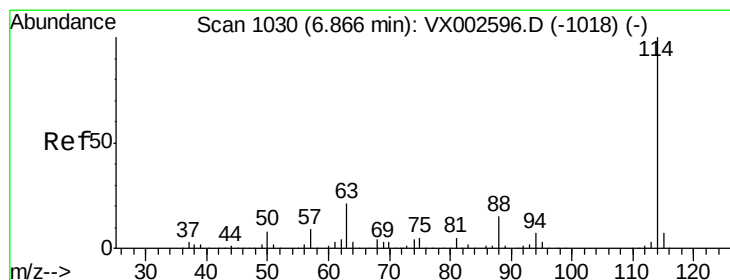
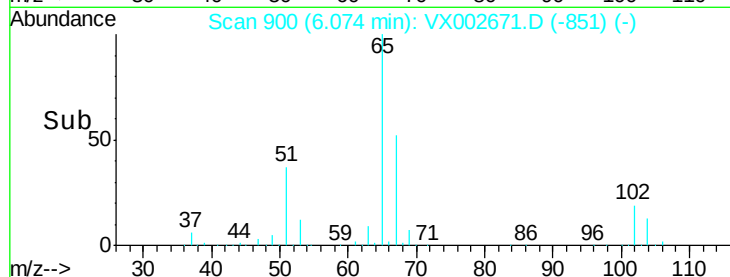
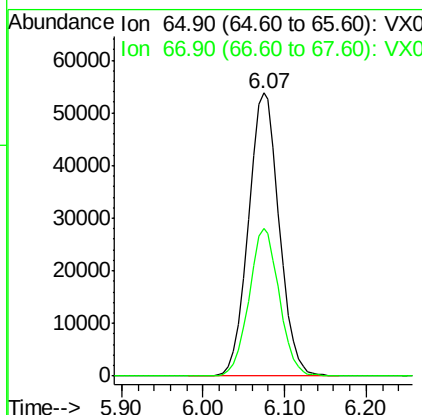
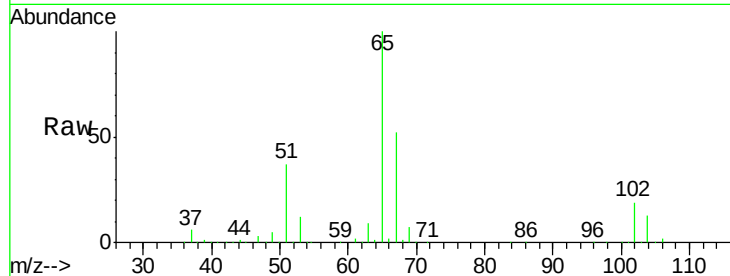




#33  
 1,2-Dichloroethane-d4  
 Concen: 45.350 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.00 min  
 Lab File: VX002671.D  
 Acq: 17 Jun 2018 02:03

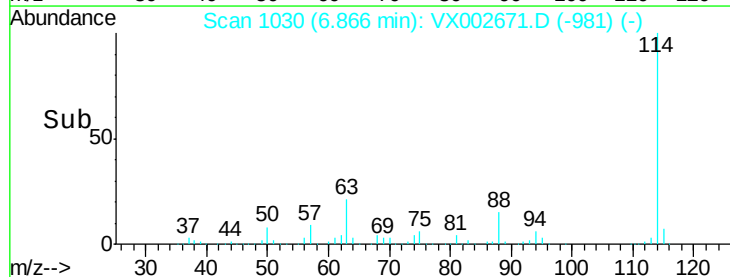
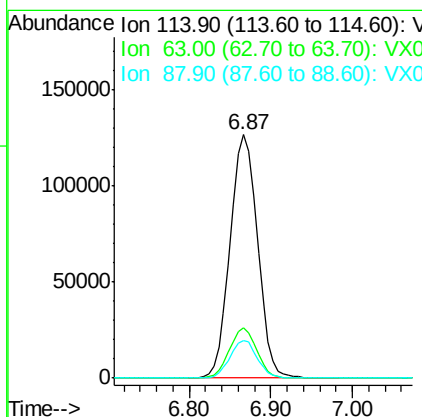
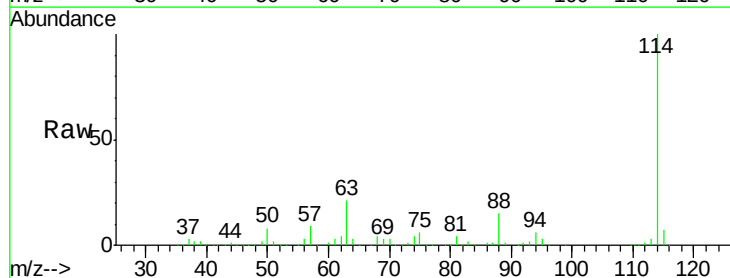
Instrument :  
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 ClientSampleId :  
 MWHR2-6-061318

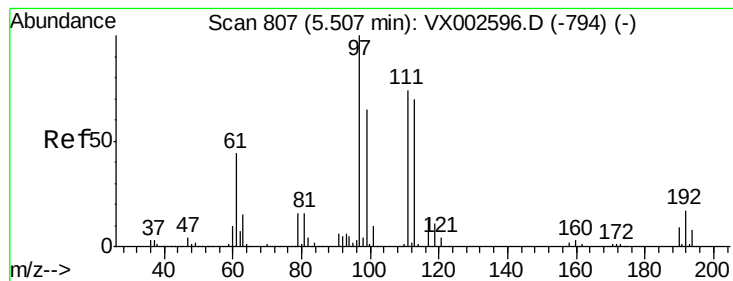
Tot Ion: 65 Resp: 141579  
 Ion Ratio Lower Upper  
 65 100  
 67 51.4 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. 0.00 min  
 Lab File: VX002671.D  
 Acq: 17 Jun 2018 02:03

Tgt Ion: 114 Resp: 294811  
 Ion Ratio Lower Upper  
 114 100  
 63 20.9 0.0 41.4  
 88 15.4 0.0 30.0





#35

Dibromofluoromethane

Concen: 46.313 ug/l

RT: 5.51 min Scan# 807

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

MWHR2-6-061318

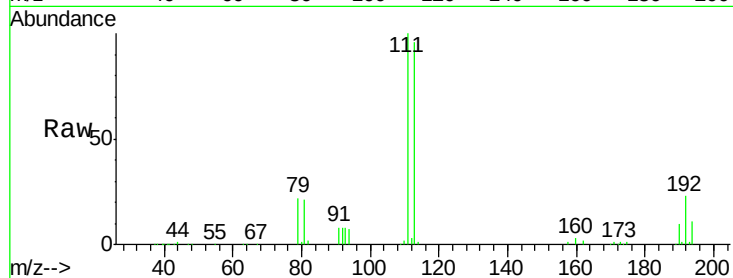
Tot Ion:113 Resp: 108970

Ion Ratio Lower Upper

113 100

111 101.9 81.4 122.0

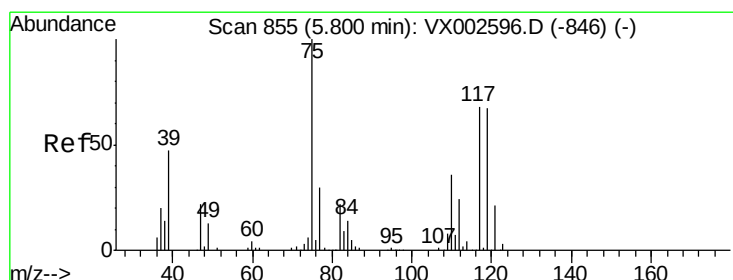
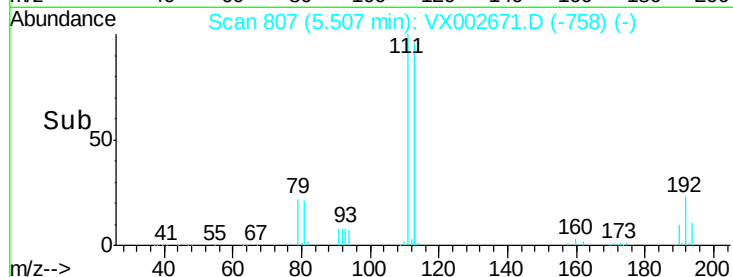
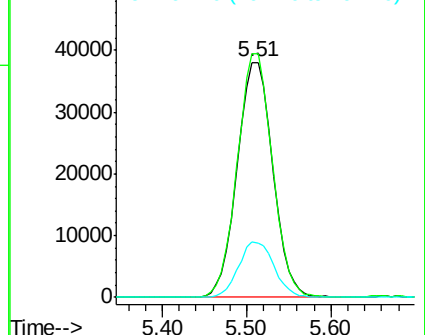
192 23.6 19.1 28.7



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: 4.477 ug/l

RT: 5.66 min Scan# 832

Delta R.T. -0.14 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

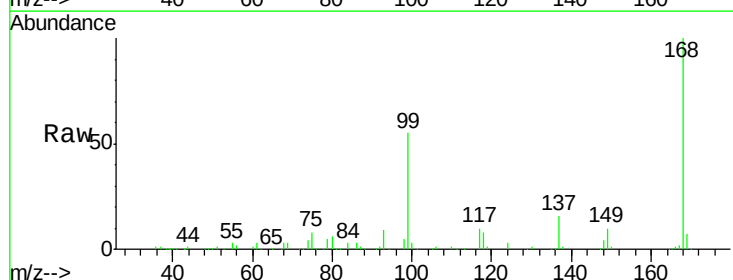
Tgt Ion: 75 Resp: 14017

Ion Ratio Lower Upper

75 100

110 11.6 18.1 54.4#

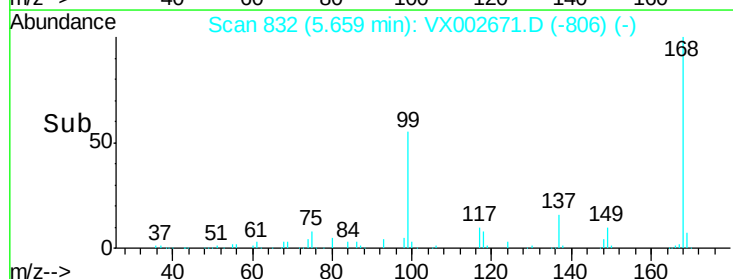
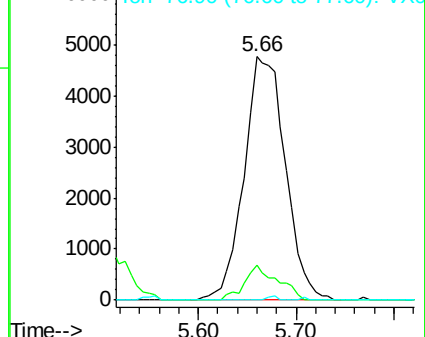
77 0.4 24.3 36.5#

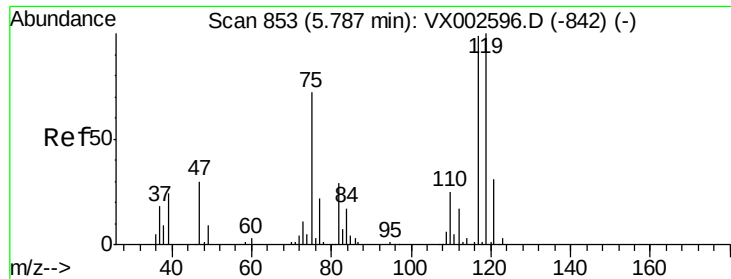


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0

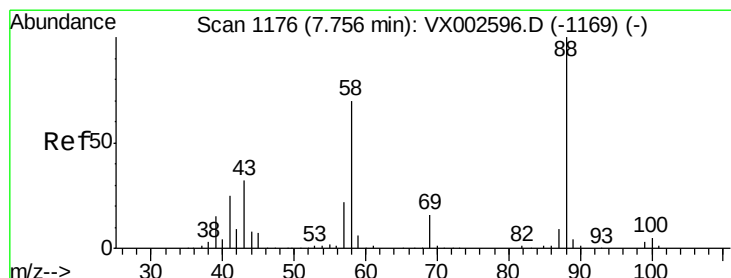
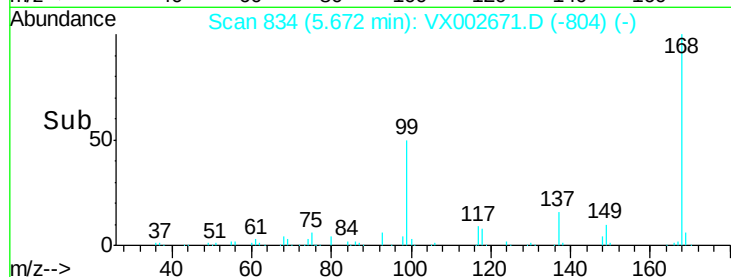
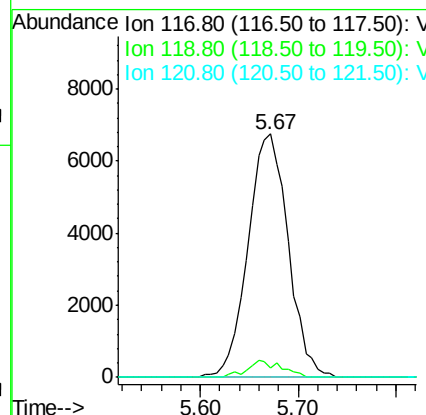
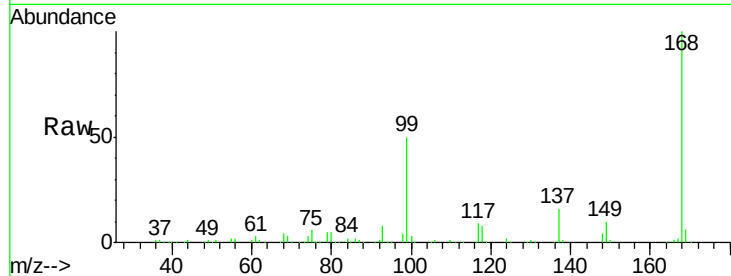




#38  
Carbon Tetrachloride  
Concen: 6.188 ug/l  
RT: 5.67 min Scan# 834  
Delta R.T. -0.12 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

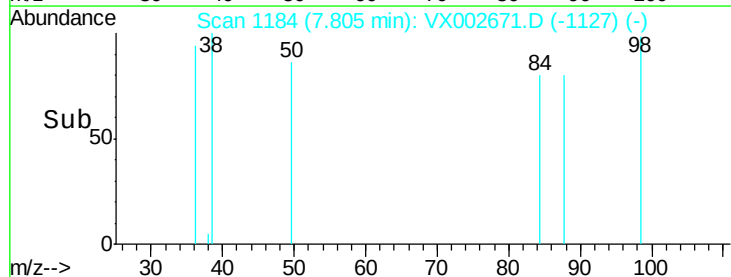
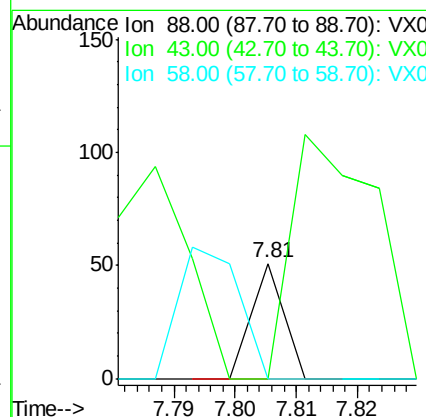
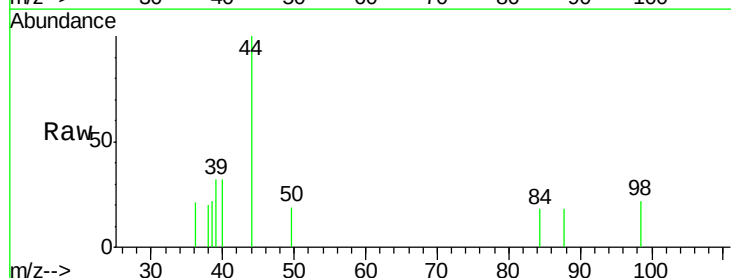
Instrument :  
MSVOA\_X  
ClientSampleId :  
MWHR2-6-061318

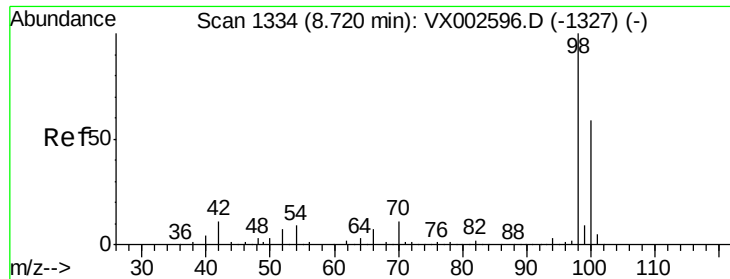
Tot Ion:117 Resp: 19293  
Ion Ratio Lower Upper  
117 100  
119 3.6 77.4 116.0#  
121 0.0 24.4 36.6#



#49  
1,4-Dioxane  
Concen: 0.334 ug/l  
RT: 7.81 min Scan# 1184  
Delta R.T. 0.05 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

Tgt Ion: 88 Resp: 19  
Ion Ratio Lower Upper  
88 100  
43 542.1 29.8 44.6#  
58 0.0 57.1 85.7#

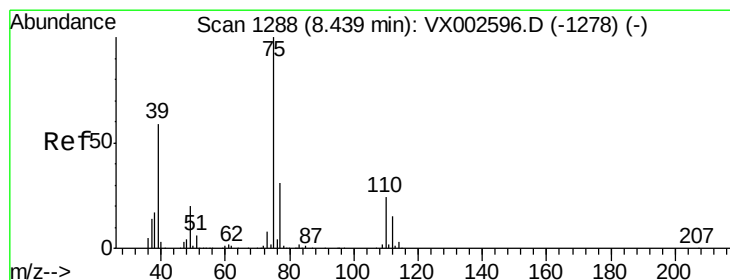
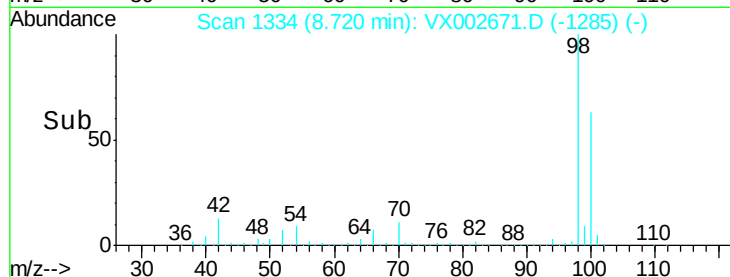
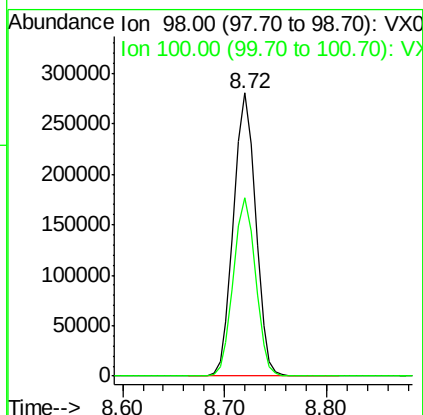
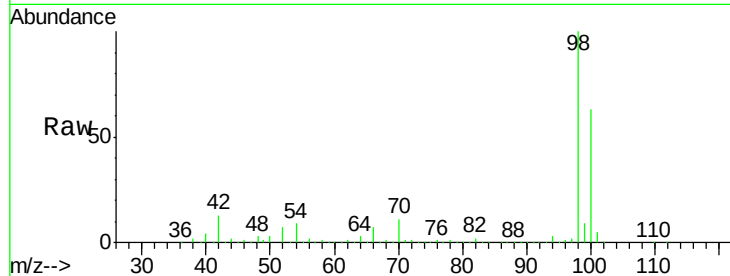




#50  
Toluene-d8  
Concen: 47.154 ug/l  
RT: 8.72 min Scan# 1334  
Delta R.T. 0.00 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

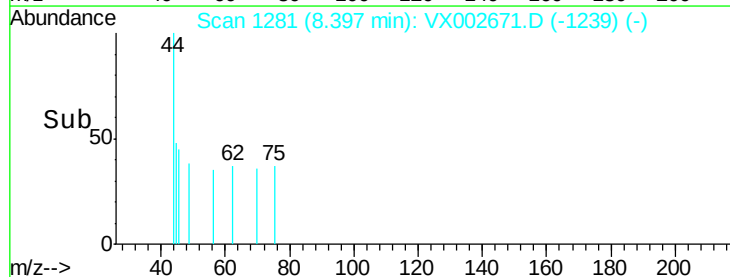
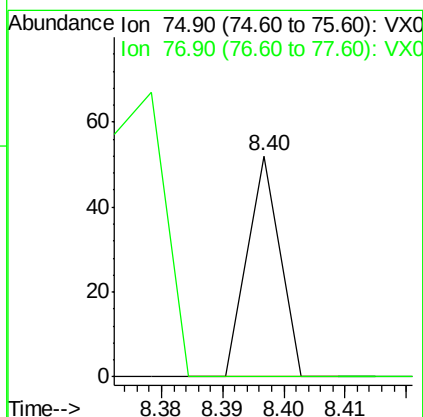
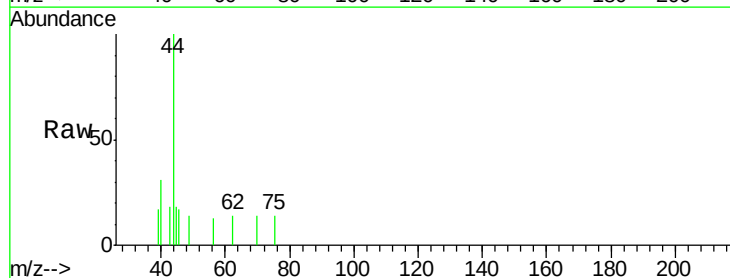
Instrument :  
MSVOA\_X  
ClientSampleId :  
MWHR2-6-061318

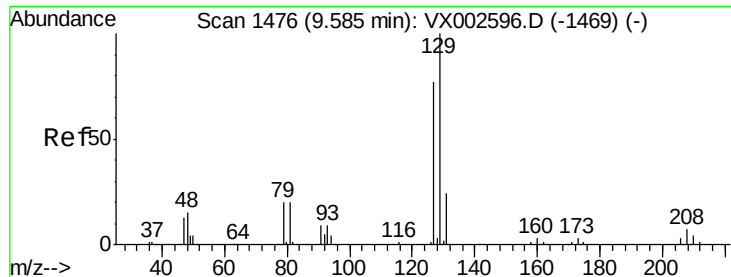
Tot Ion: 98 Resp: 421266  
Ion Ratio Lower Upper  
98 100  
100 63.1 50.9 76.3



#53  
t-1,3-Dichloropropene  
Concen: 2.398 ug/l  
RT: 8.40 min Scan# 1281  
Delta R.T. -0.04 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

Tgt Ion: 75 Resp: 19  
Ion Ratio Lower Upper  
75 100  
77 0.0 25.4 38.2#





#60

Dibromochloromethane

Concen: 3.774 ug/l

RT: 9.34 min Scan# 1435

Delta R.T. -0.25 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

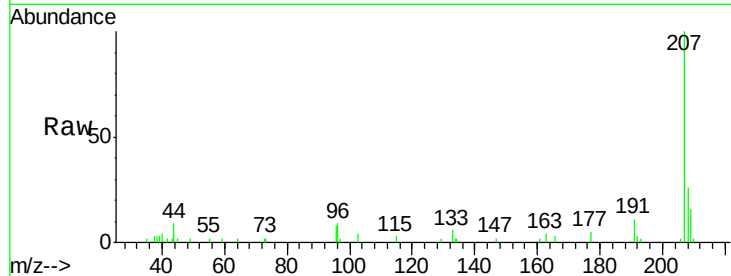
MWHR2-6-061318

Tot Ion:129 Resp: 39

Ion Ratio Lower Upper

129 100

127 0.0 38.5 115.3#

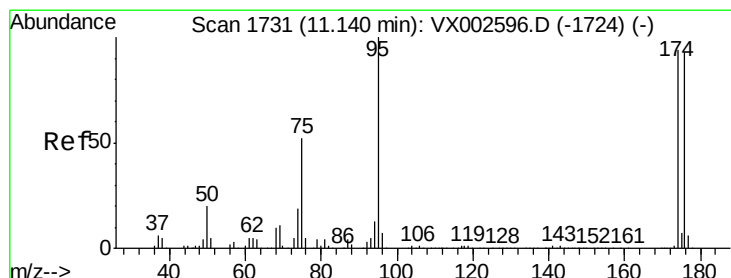
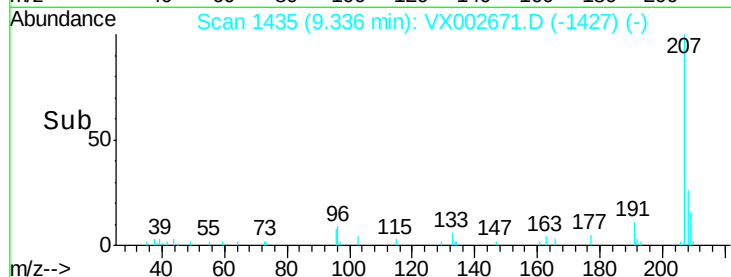


Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

9.34

Time-->



#62

4-Bromofluorobenzene

Concen: 42.813 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

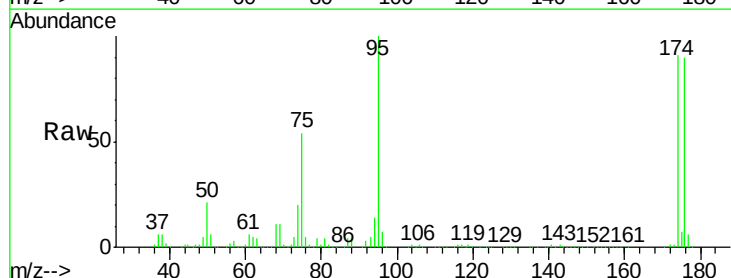
Tgt Ion: 95 Resp: 144934

Ion Ratio Lower Upper

95 100

174 95.9 0.0 187.4

176 92.9 0.0 181.0



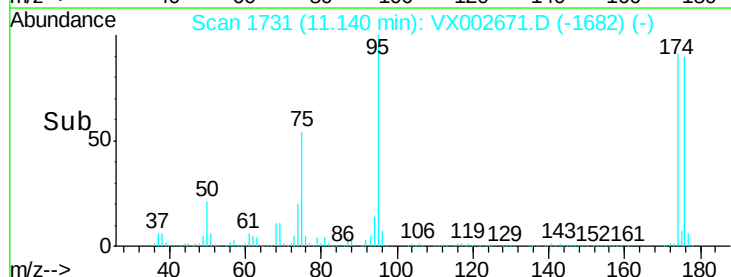
Abundance Ion 94.90 (94.60 to 95.60): VX0

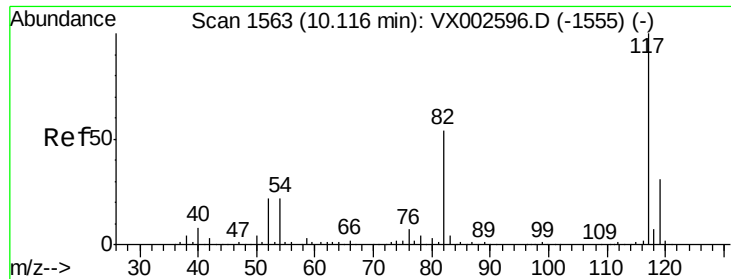
Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

11.14

Time-->

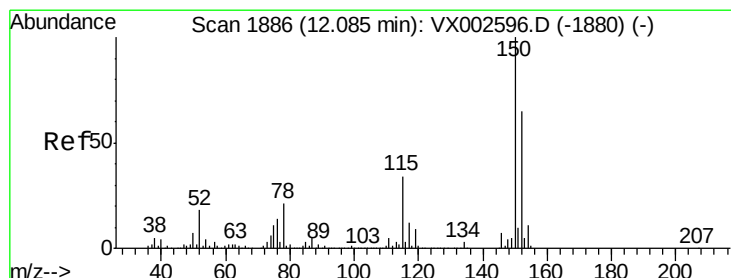
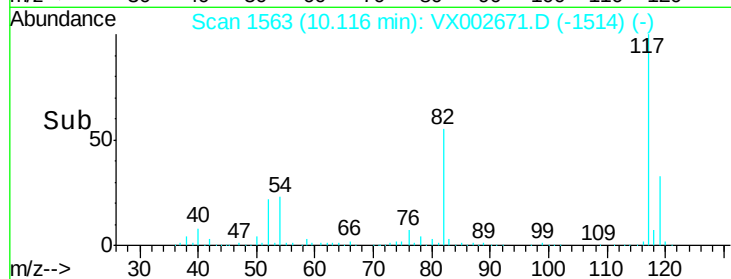
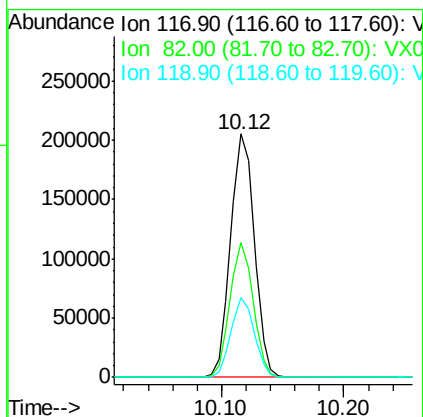
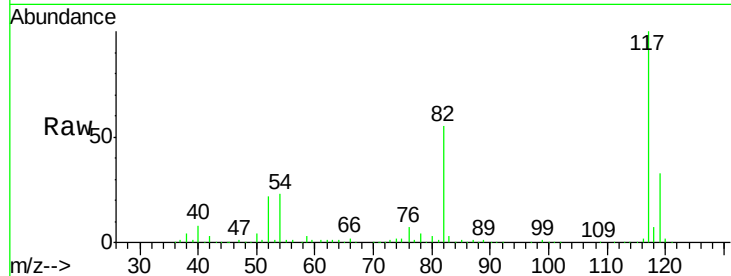




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. 0.00 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

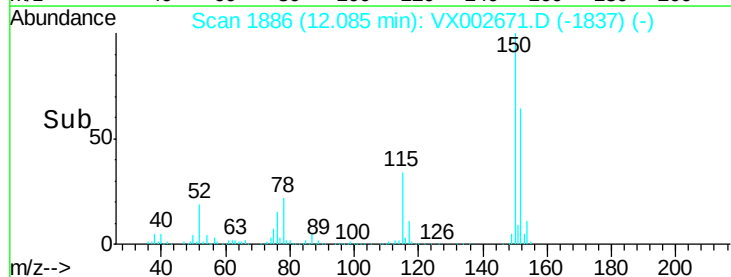
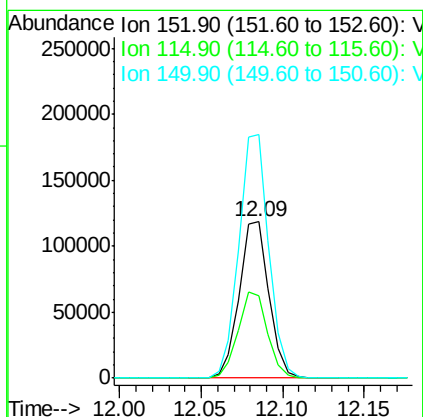
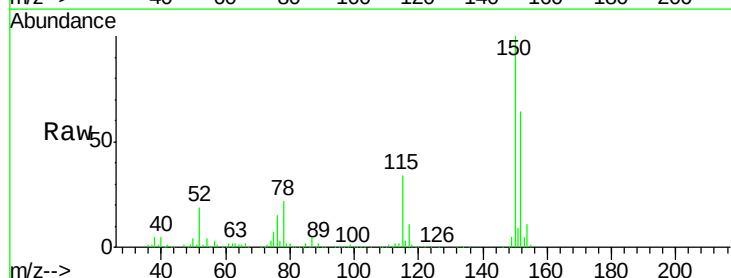
Instrument :  
MSVOA\_X  
ClientSampleId :  
MWHHR2-6-061318

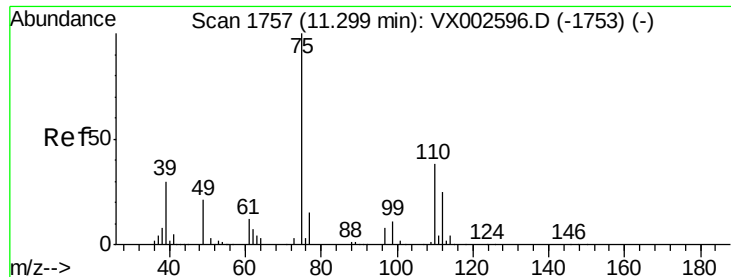
Tot Ion:117 Resp: 276227  
Ion Ratio Lower Upper  
117 100  
82 55.2 45.0 67.4  
119 32.6 25.8 38.6



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.09 min Scan# 1886  
Delta R.T. 0.00 min  
Lab File: VX002671.D  
Acq: 17 Jun 2018 02:03

Tgt Ion:152 Resp: 150505  
Ion Ratio Lower Upper  
152 100  
115 54.7 40.1 120.2  
150 157.0 0.0 347.2





#76

1,2,3-Trichloropropane

Concen: 27.310 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

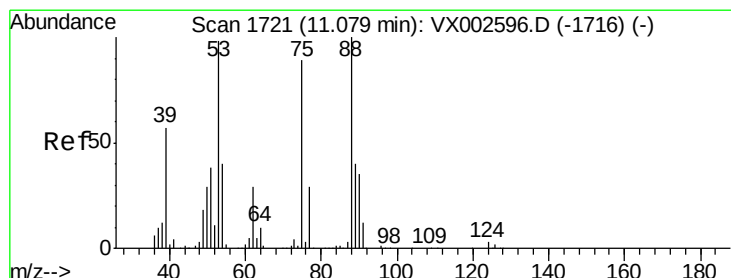
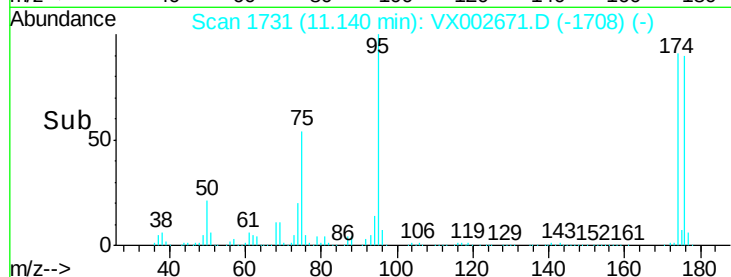
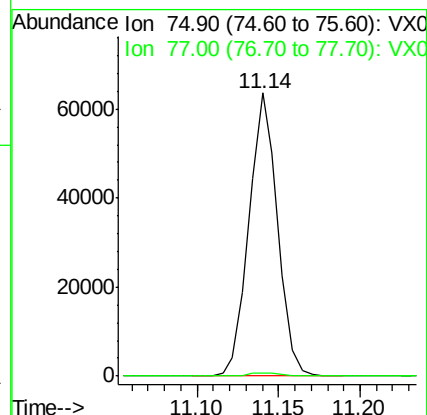
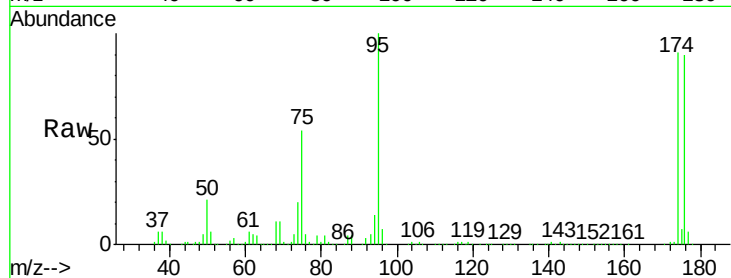
MWHR2-6-061318

Tot Ion: 75 Resp: 77562

Ion Ratio Lower Upper

75 100

77 1.4 22.8 68.3#



#81

trans-1,4-Dichloro-2-butene

Concen: 84.259 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

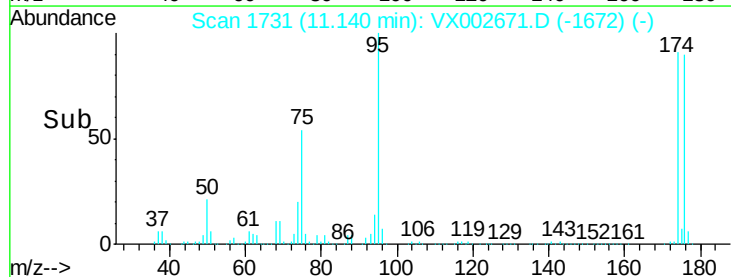
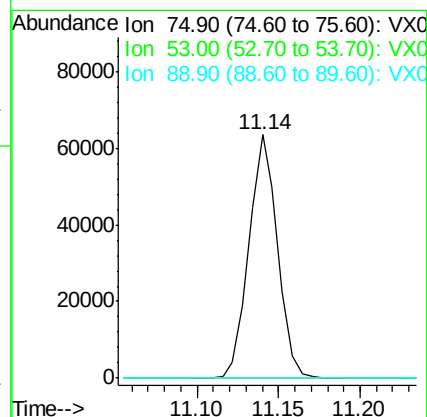
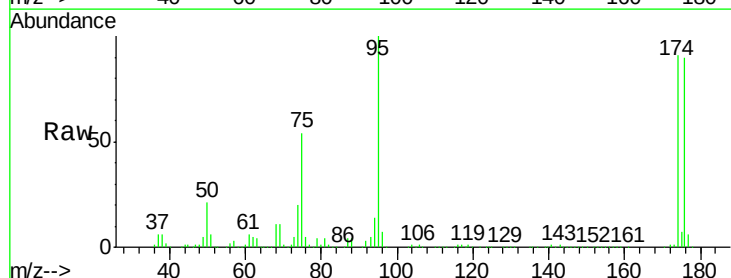
Tgt Ion: 75 Resp: 77562

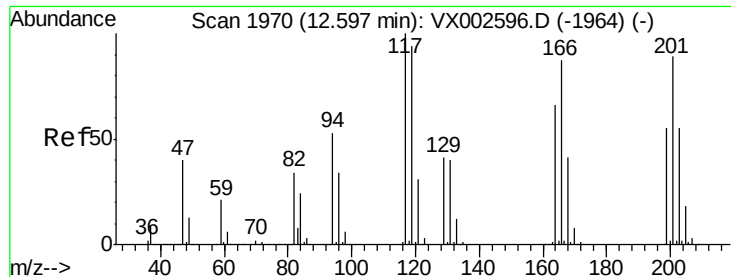
Ion Ratio Lower Upper

75 100

53 0.0 86.8 130.2#

89 0.0 38.2 57.2#





#90

Hexachloroethane

Concen: 2.652 ug/l

RT: 12.71 min Scan# 1988

Delta R.T. 0.11 min

Lab File: VX002671.D

Acq: 17 Jun 2018 02:03

Instrument :

MSVOA\_X

ClientSampleId :

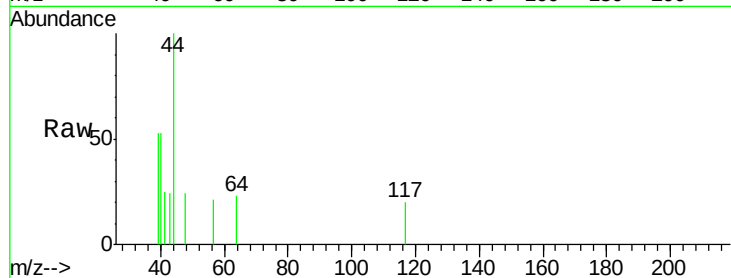
MWHR2-6-061318

Tot Ion:117 Resp: 41

Ion Ratio Lower Upper

117 100

201 0.0 49.0 147.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V

