

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF062218\  
 Data File : VF059298.D  
 Acq On : 23 Jun 2018 2:34  
 Operator : VA/AP  
 Sample : J3605-08  
 Misc : 6.41g/5mL/MSVOA-F/SOIL  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 S-6(8-8.5)

Quant Time: Jun 23 04:40:20 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062118S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 22 05:22:31 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 160073   | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 245496   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 251188   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 156403   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.01  | 65   | 116184   | 50.56 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 101.12% |          |
| 35) Dibromofluoromethane    | 4.28  | 113  | 102397   | 49.58 | ug/l    | -0.02    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 99.16%  |          |
| 50) Toluene-d8              | 7.70  | 98   | 231517   | 44.07 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 88.14%  |          |
| 62) 4-Bromofluorobenzene    | 11.51 | 95   | 132882   | 45.61 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 91.22%  |          |

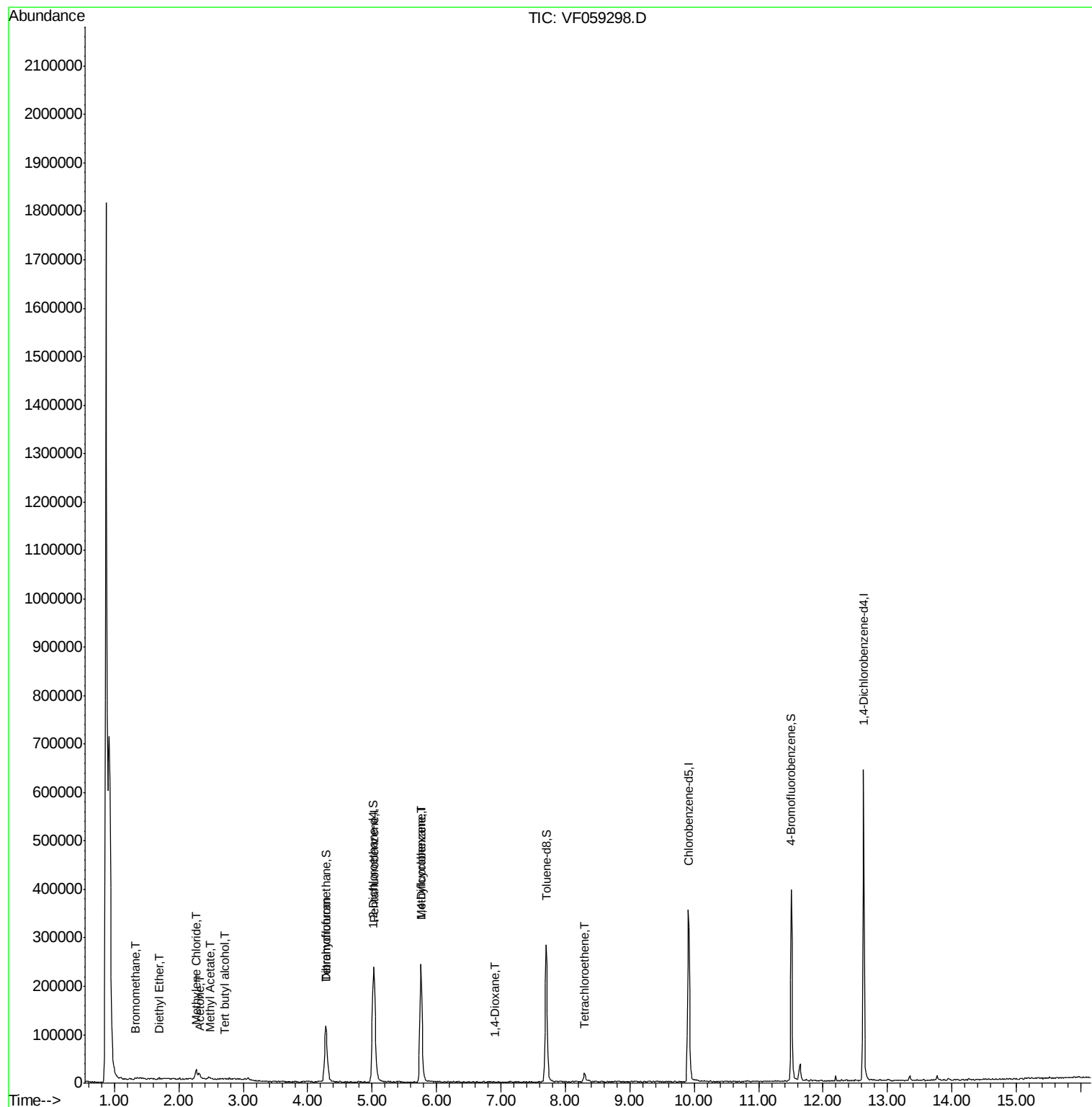
| Target Compounds       | R.T. | QIon | Response | Conc      | Units  | Qvalue |
|------------------------|------|------|----------|-----------|--------|--------|
| 5) Bromomethane        | 1.32 | 94   | 83       | 1.874     | ug/l # | 1      |
| 8) Diethyl Ether       | 1.69 | 74   | 522      | 1.017     | ug/l   | 69     |
| 11) Tert butyl alcohol | 2.70 | 59   | 209      | 1.561     | ug/l # | 70     |
| 13) Acrolein           | 2.12 | 56   | 89       | Below Cal |        | 100    |
| 15) Acrylonitrile      | 3.06 | 53   | 354      | Below Cal | #      | 36     |
| 16) Acetone            | 2.34 | 43   | 3663     | 6.745     | ug/l # | 89     |
| 18) Methyl Acetate     | 2.49 | 43   | 2350     | 2.295     | ug/l # | 66     |
| 20) Methylene Chloride | 2.27 | 84   | 7504     | 5.092     | ug/l   | 98     |
| 28) Bromochloromethane | 3.91 | 49   | 134      | Below Cal | #      | 8      |
| 29) Tetrahydrofuran    | 4.28 | 42   | 609      | 1.872     | ug/l # | 74     |
| 39) Methylcyclohexane  | 5.76 | 83   | 4302     | 1.863     | ug/l # | 33     |
| 49) 1,4-Dioxane        | 6.90 | 88   | 63       | 8.495     | ug/l # | 32     |
| 64) Tetrachloroethene  | 8.30 | 164  | 4820     | 2.499     | ug/l   | 93     |

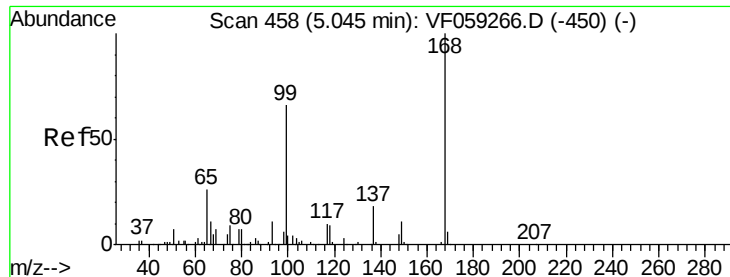
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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S-6(8-8.5)

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Quant Title : SW846 8260  
QLast Update : Fri Jun 22 05:22:31 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.03 min Scan# 456

Delta R.T. -0.02 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

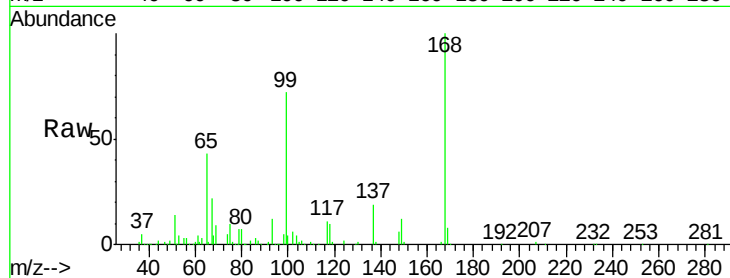
S-6(8-8.5)

Tgt Ion:168 Resp: 160073

Ion Ratio Lower Upper

168 100

99 72.0 52.6 78.8



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.03

60000

50000

40000

30000

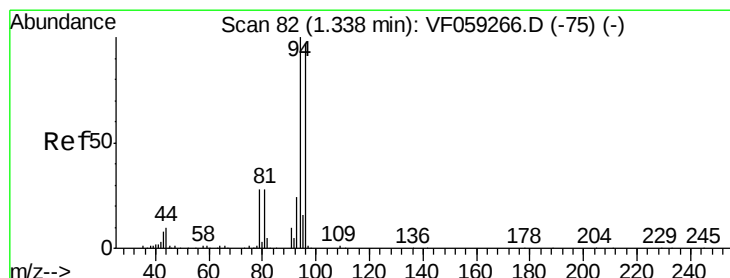
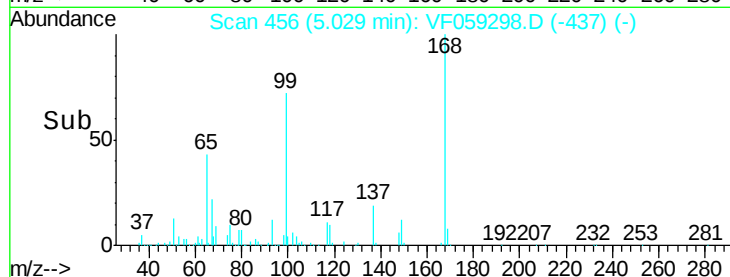
20000

10000

0

4.90 5.00 5.10 5.20

Time-->



#5

Bromomethane

Concen: 1.874 ug/l

RT: 1.32 min Scan# 80

Delta R.T. -0.01 min

Lab File: VF059298.D

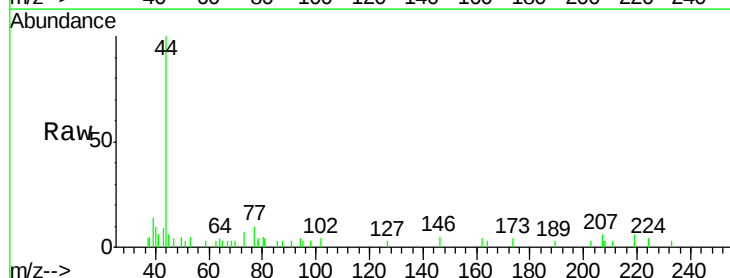
Acq: 23 Jun 2018 2:34

Tgt Ion: 94 Resp: 83

Ion Ratio Lower Upper

94 100

96 0.0 77.7 116.5#



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

1.32

150

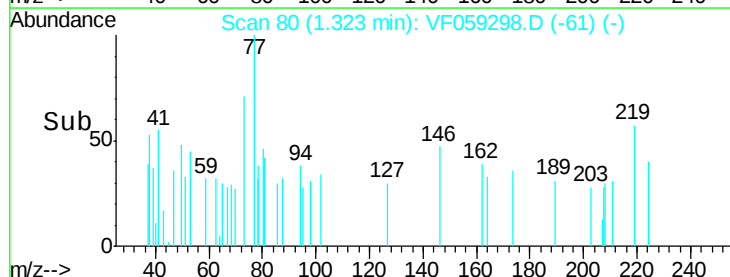
100

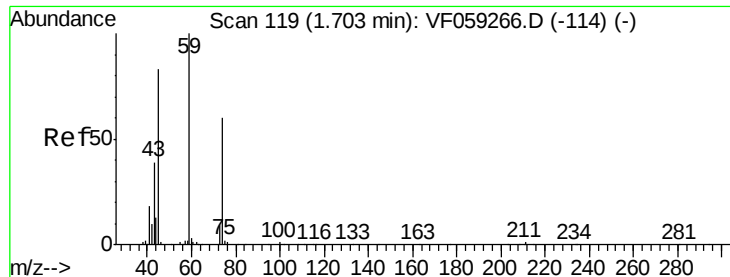
50

0

1.30 1.32 1.34

Time-->





#8

Diethyl Ether

Concen: 1.017 ug/l

RT: 1.69 min Scan# 117

Delta R.T. -0.02 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

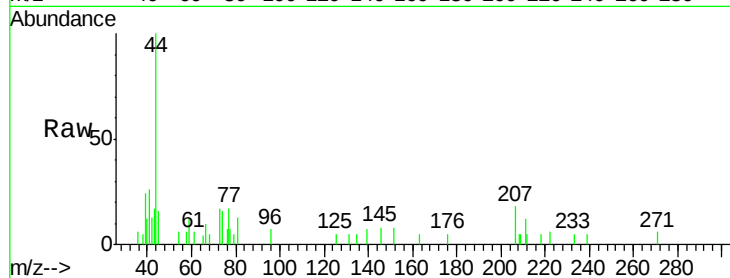
S-6(8-8.5)

Tgt Ion: 74 Resp: 522

Ion Ratio Lower Upper

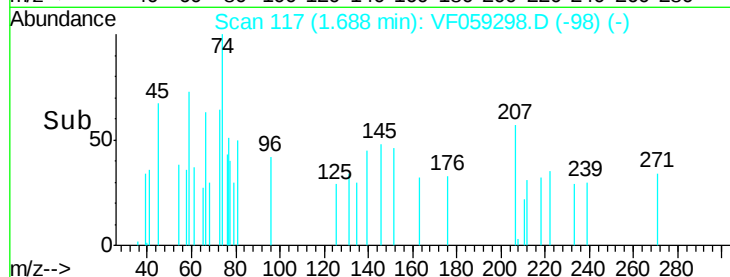
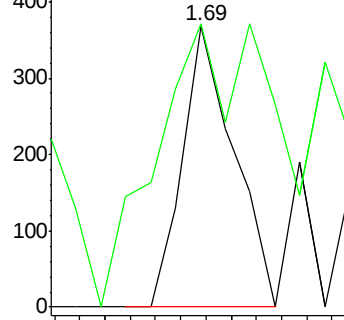
74 100

45 100.8 69.2 207.4

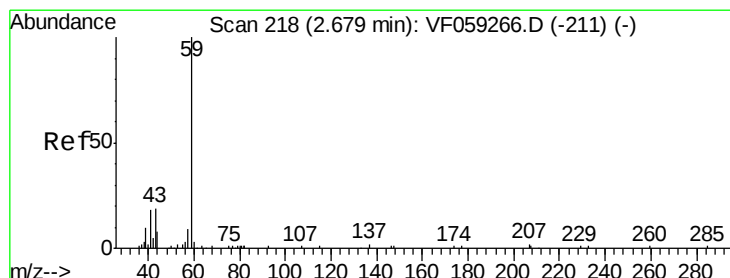


Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0



Time-->



#11

Tert butyl alcohol

Concen: 1.561 ug/l

RT: 2.70 min Scan# 220

Delta R.T. 0.02 min

Lab File: VF059298.D

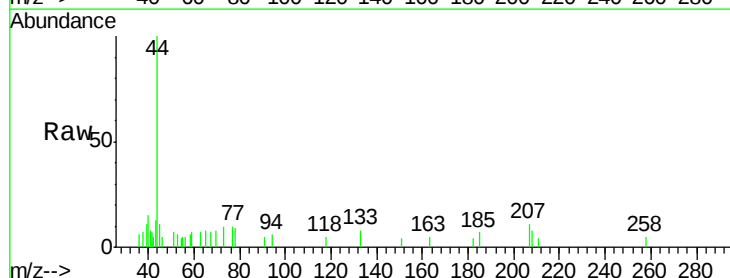
Acq: 23 Jun 2018 2:34

Tgt Ion: 59 Resp: 209

Ion Ratio Lower Upper

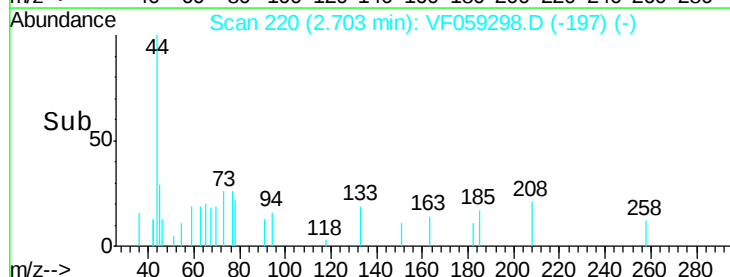
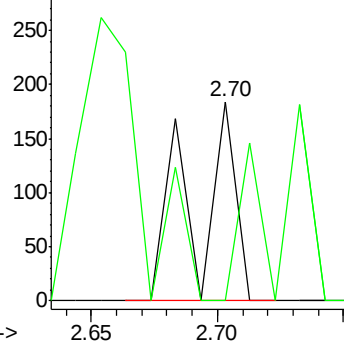
59 100

57 0.0 9.2 13.8#

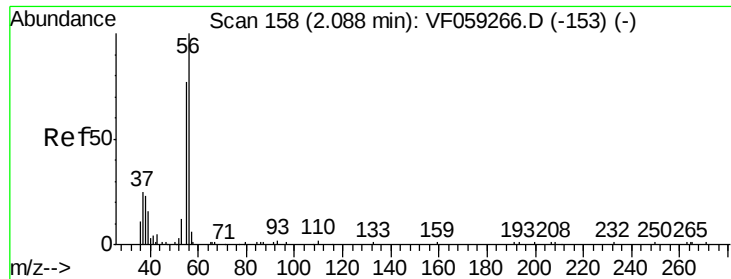


Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0



Time-->



#13

Acrolein

Concen: Below Cal

RT: 2.12 min Scan# 161

Delta R.T. 0.03 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

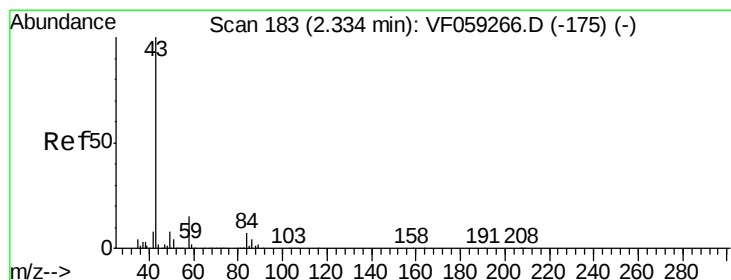
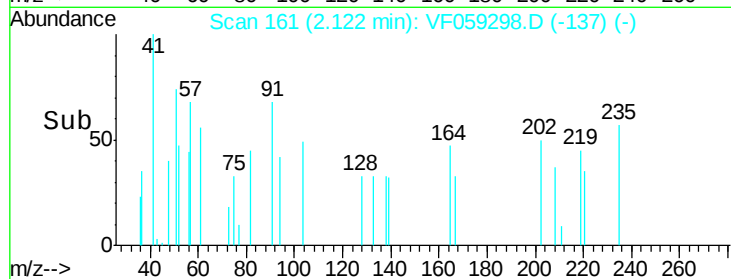
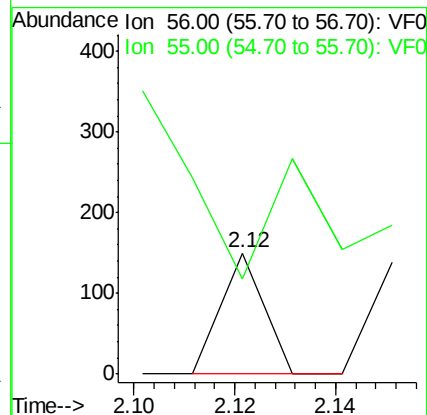
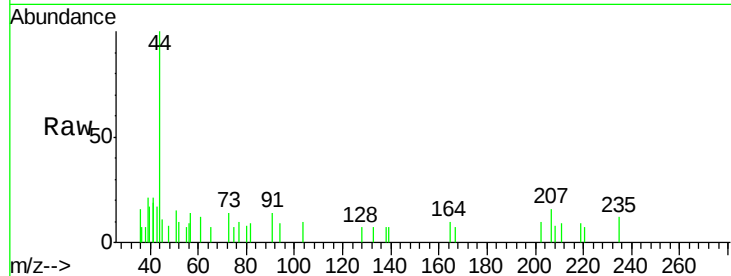
S-6(8-8.5)

Tgt Ion: 56 Resp: 89

Ion Ratio Lower Upper

56 100

55 78.7 63.0 94.6



#16

Acetone

Concen: 6.745 ug/l

RT: 2.34 min Scan# 183

Delta R.T. 0.00 min

Lab File: VF059298.D

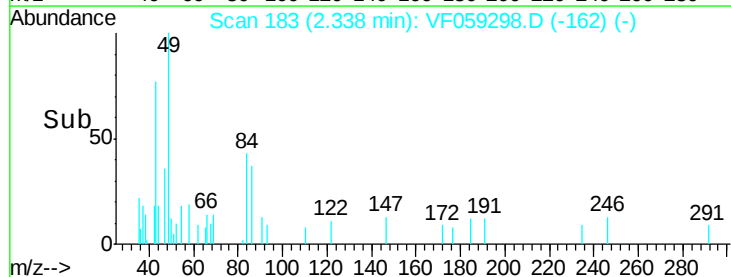
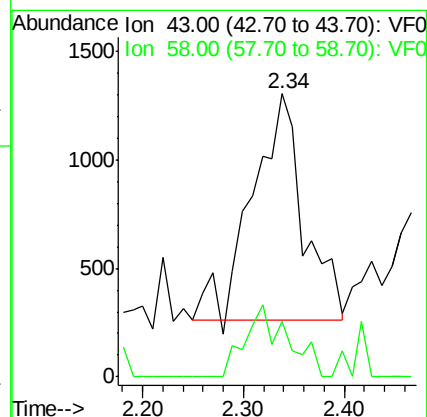
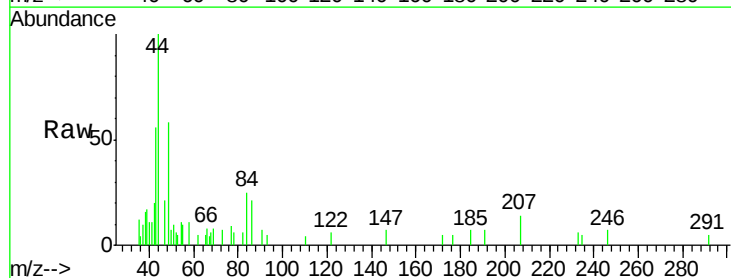
Acq: 23 Jun 2018 2:34

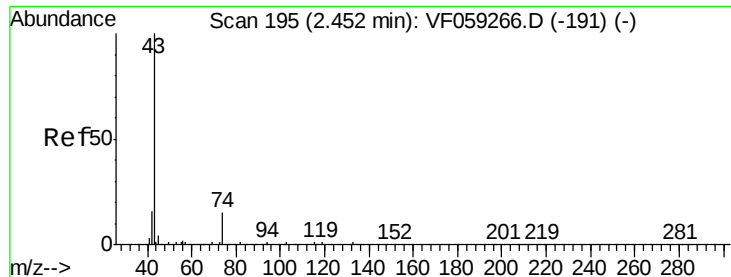
Tgt Ion: 43 Resp: 3663

Ion Ratio Lower Upper

43 100

58 19.6 12.1 18.1#





#18

Methyl Acetate

Concen: 2.295 ug/l

RT: 2.49 min Scan# 198

Delta R.T. 0.03 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

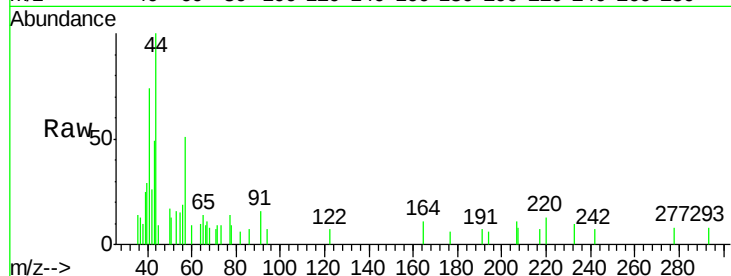
S-6(8-8.5)

Tgt Ion: 43 Resp: 2350

Ion Ratio Lower Upper

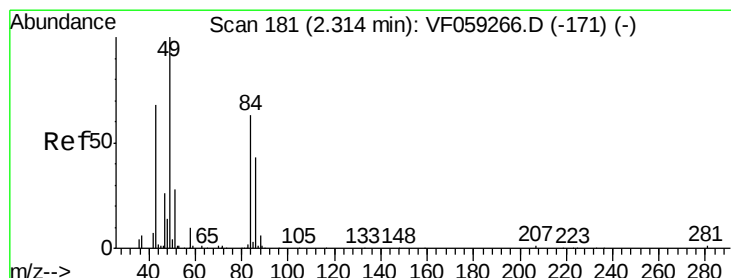
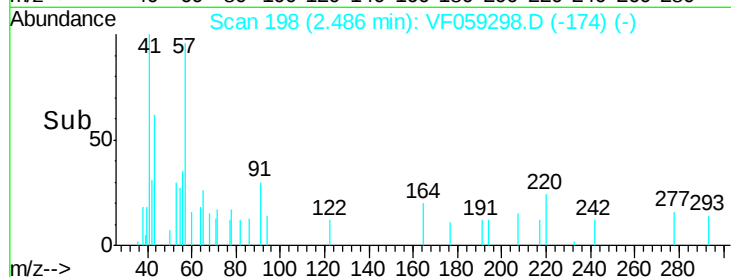
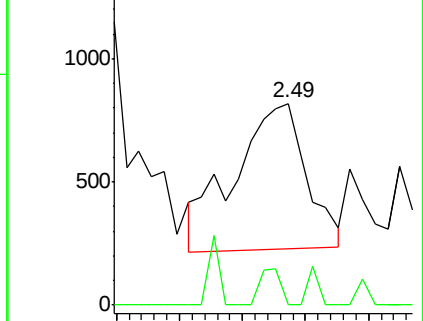
43 100

74 0.0 11.0 16.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0



#20

Methylene Chloride

Concen: 5.092 ug/l

RT: 2.27 min Scan# 176

Delta R.T. -0.04 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Tgt Ion: 84 Resp: 7504

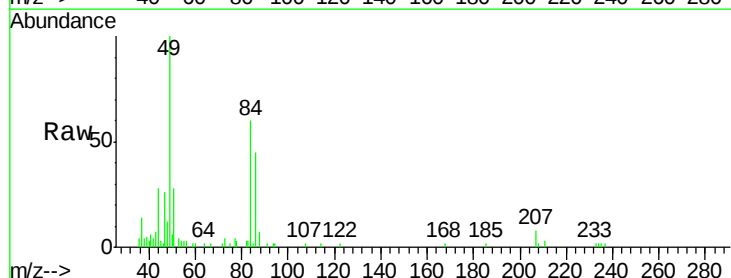
Ion Ratio Lower Upper

84 100

49 160.9 130.0 195.0

51 45.5 36.6 55.0

86 72.9 55.1 82.7

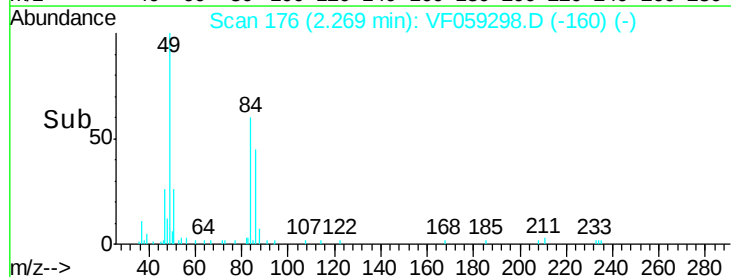
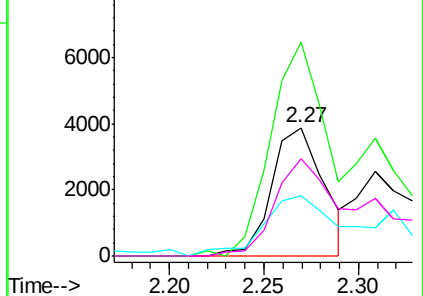


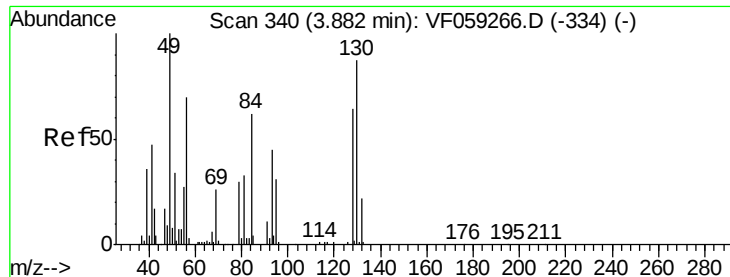
Abundance Ion 84.00 (83.70 to 84.70): VF0

Ion 49.00 (48.70 to 49.70): VF0

Ion 51.00 (50.70 to 51.70): VF0

Ion 86.00 (85.70 to 86.70): VF0





#28

Bromochloromethane

Concen: Below Cal

RT: 3.91 min Scan# 342

Delta R.T. 0.02 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

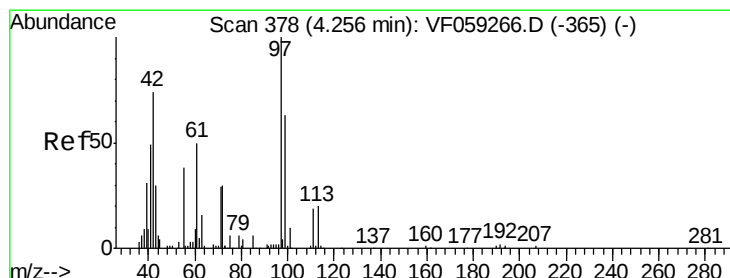
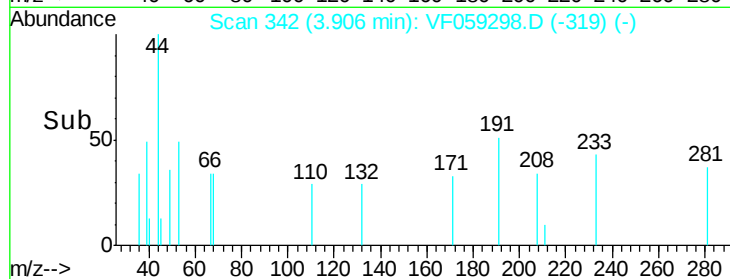
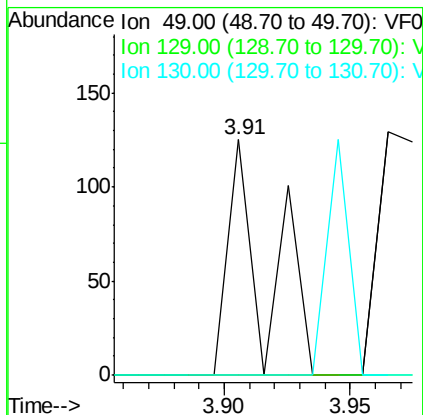
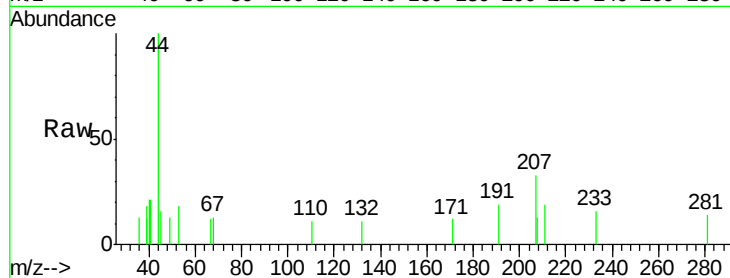
Instrument :

MSVOA\_F

ClientSampleId :

S-6(8-8.5)

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 49    | Resp: | 134    |
| Ion      | Ratio | Lower | Upper  |
| 49       | 100   |       |        |
| 129      | 0.0   | 0.0   | 3.8    |
| 130      | 0.0   | 69.4  | 104.2# |



#29

Tetrahydrofuran

Concen: 1.872 ug/l

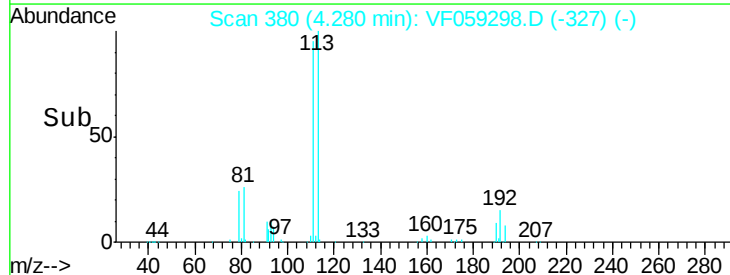
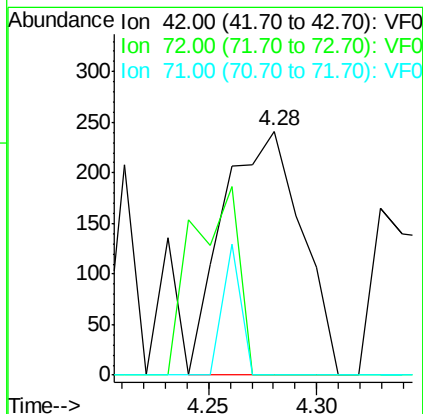
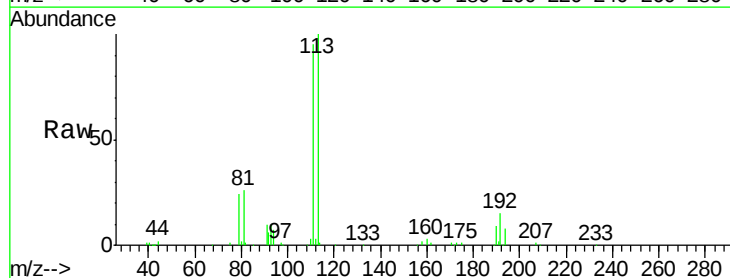
RT: 4.28 min Scan# 380

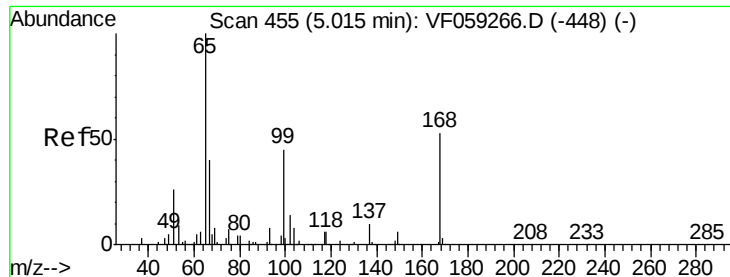
Delta R.T. 0.02 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 609   |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 45.5  | 31.2  | 46.8  |
| 71       | 12.5  | 30.2  | 45.2# |





#33

1,2-Dichloroethane-d4

Concen: 50.565 ug/l

RT: 5.01 min Scan# 454

Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

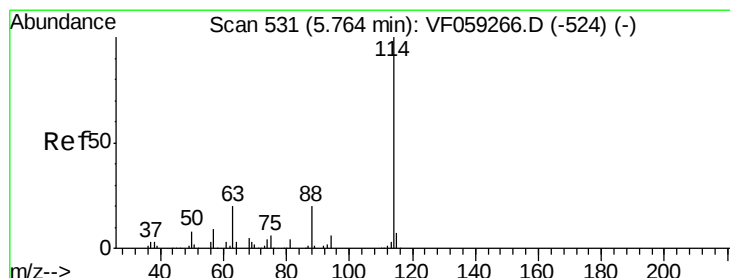
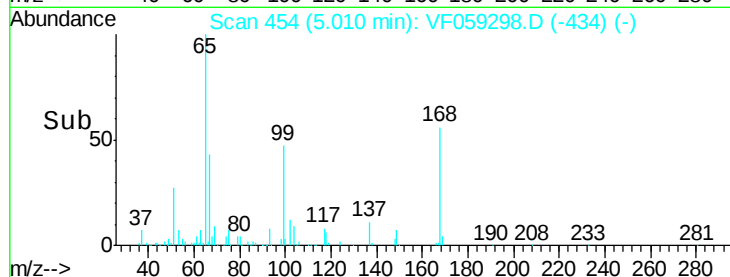
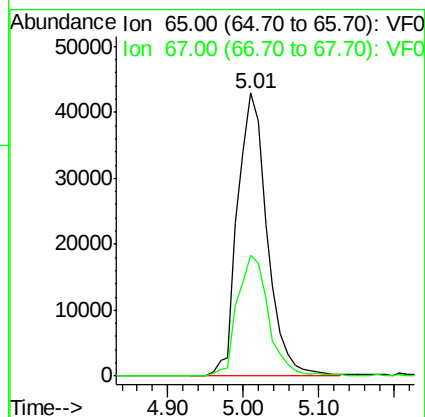
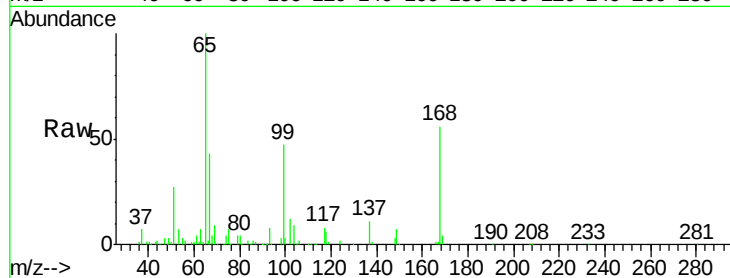
S-6(8-8.5)

Tgt Ion: 65 Resp: 116184

Ion Ratio Lower Upper

65 100

67 42.6 0.0 95.8



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.76 min Scan# 530

Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

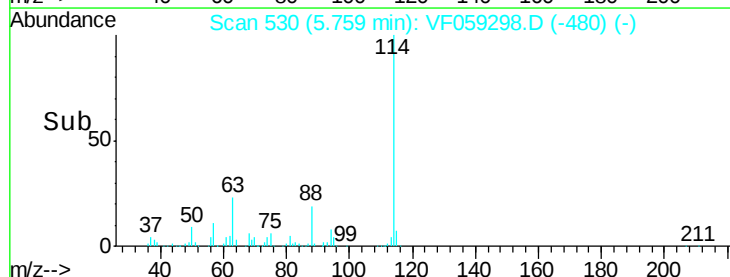
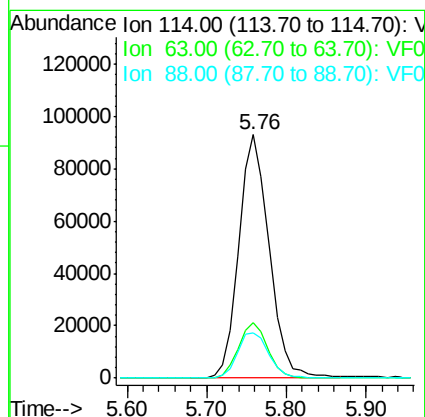
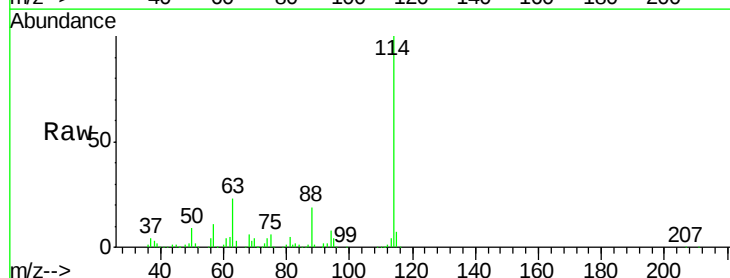
Tgt Ion: 114 Resp: 245496

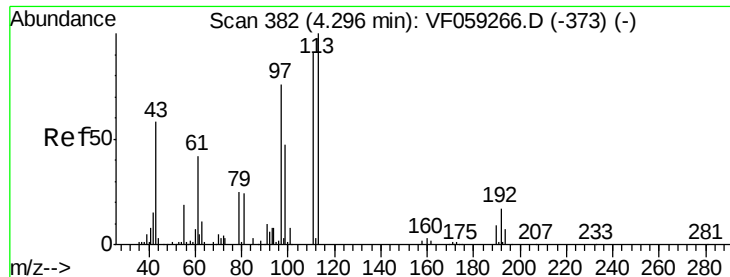
Ion Ratio Lower Upper

114 100

63 22.6 0.0 41.0

88 18.6 0.0 39.6





#35

Dibromofluoromethane

Concen: 49.576 ug/l

RT: 4.28 min Scan# 380

Delta R.T. -0.02 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

S-6(8-8.5)

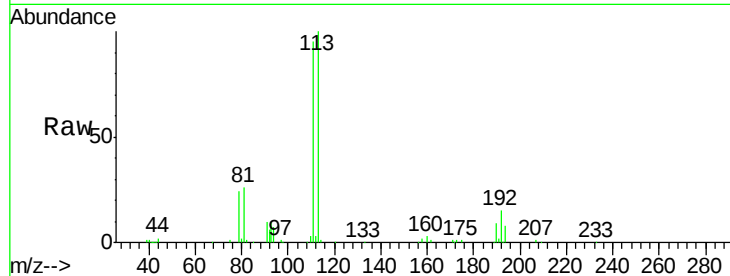
Tgt Ion: 113 Resp: 102397

Ion Ratio Lower Upper

113 100

111 94.8 73.1 109.7

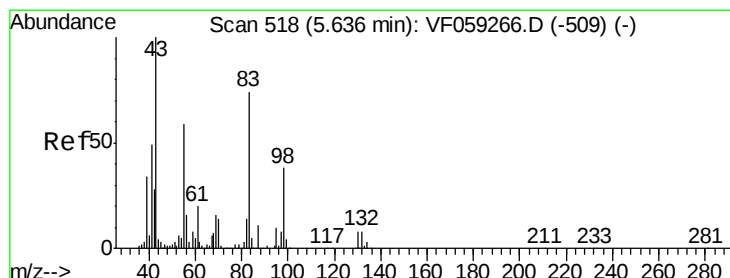
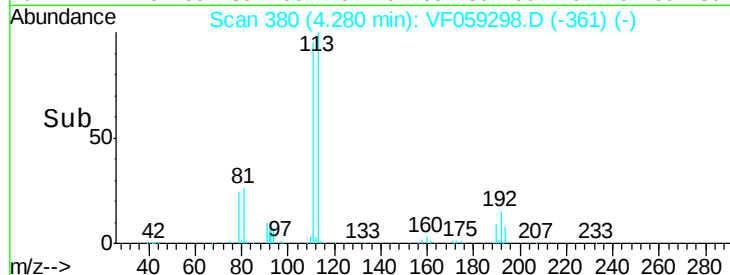
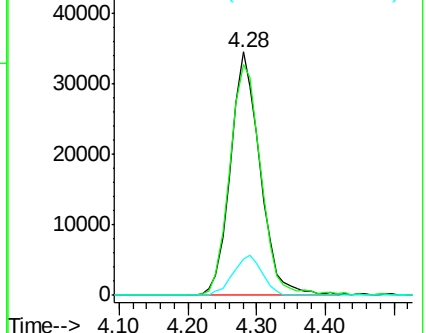
192 15.1 13.9 20.9



Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V



#39

Methylcyclohexane

Concen: 1.863 ug/l

RT: 5.76 min Scan# 530

Delta R.T. 0.12 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

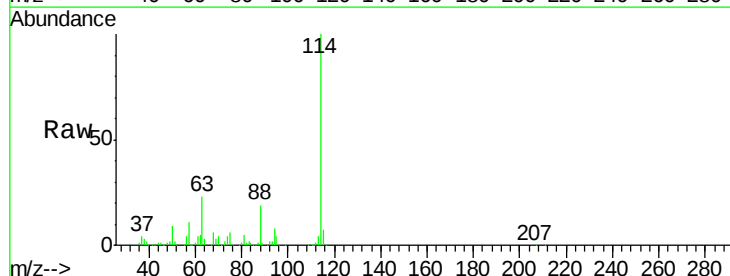
Tgt Ion: 83 Resp: 4302

Ion Ratio Lower Upper

83 100

55 24.4 63.7 95.5#

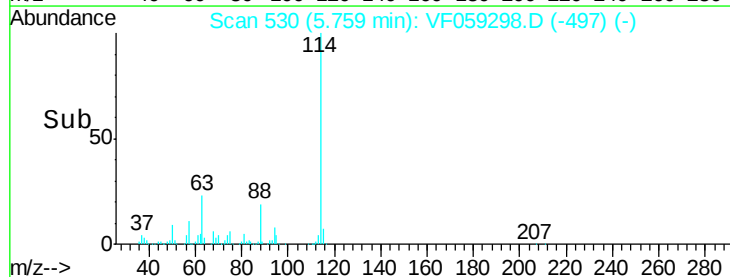
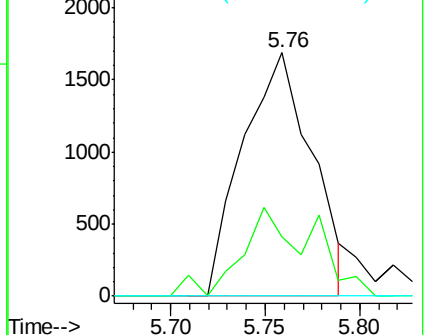
98 0.0 41.6 62.4#

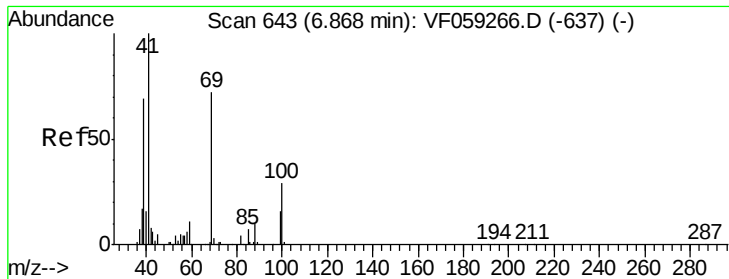


Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 98.00 (97.70 to 98.70): VF0





#49

1,4-Dioxane

Concen: 8.495 ug/l

RT: 6.90 min Scan# 646

Delta R.T. 0.03 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

S-6(8-8.5)

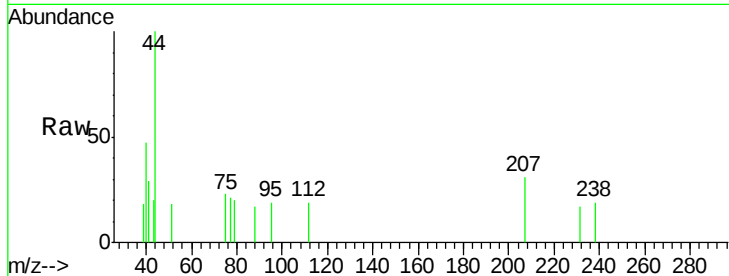
Tgt Ion: 88 Resp: 63

Ion Ratio Lower Upper

88 100

43 115.0 55.5 83.3#

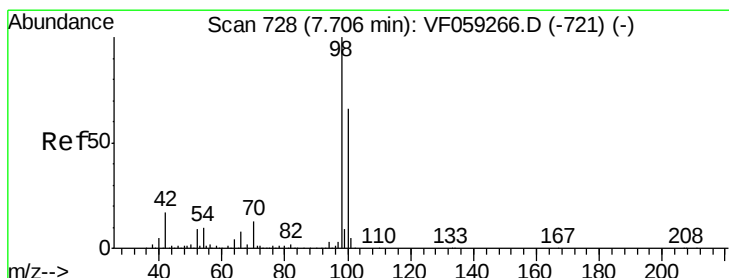
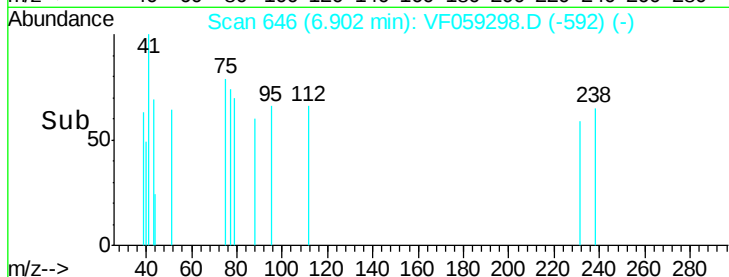
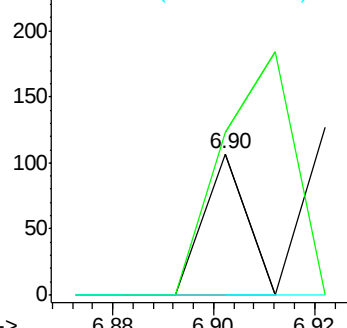
58 0.0 50.1 75.1#



Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#50

Toluene-d8

Concen: 44.067 ug/l

RT: 7.70 min Scan# 727

Delta R.T. -0.01 min

Lab File: VF059298.D

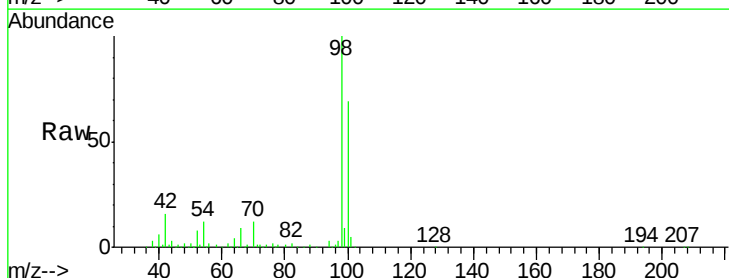
Acq: 23 Jun 2018 2:34

Tgt Ion: 98 Resp: 231517

Ion Ratio Lower Upper

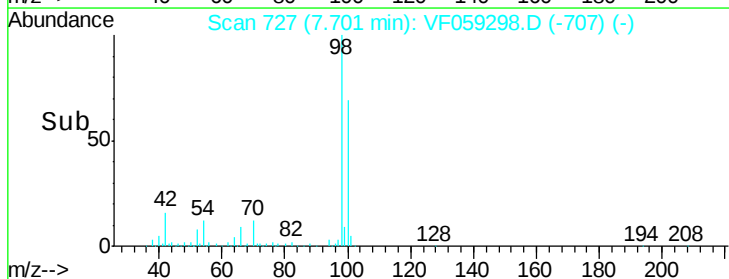
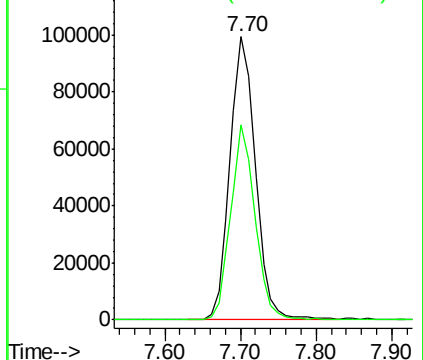
98 100

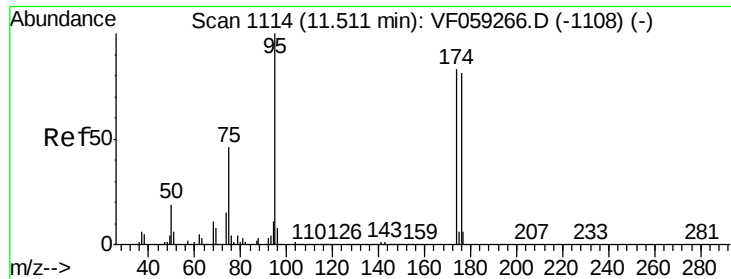
100 69.1 52.8 79.2



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0





#62

4-Bromofluorobenzene

Concen: 45.611 ug/l

RT: 11.51 min Scan# 1113

Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

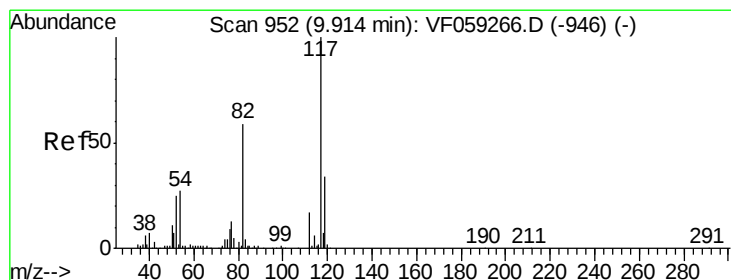
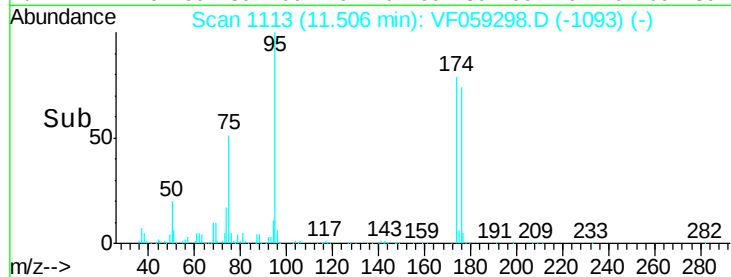
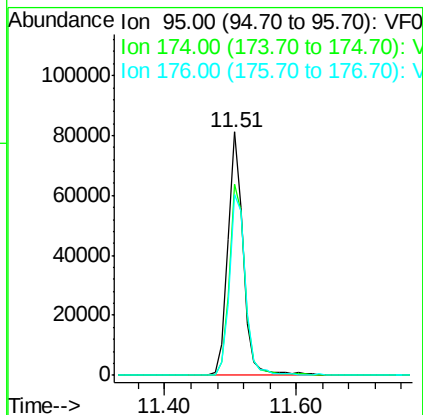
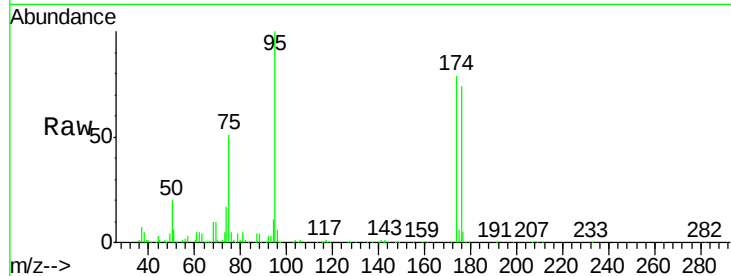
Instrument :

MSVOA\_F

ClientSampleId :

S-6(8-8.5)

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 95    | Resp: | 132882 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 174      | 78.5  | 0.0   | 166.2  |
| 176      | 74.2  | 0.0   | 162.8  |



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

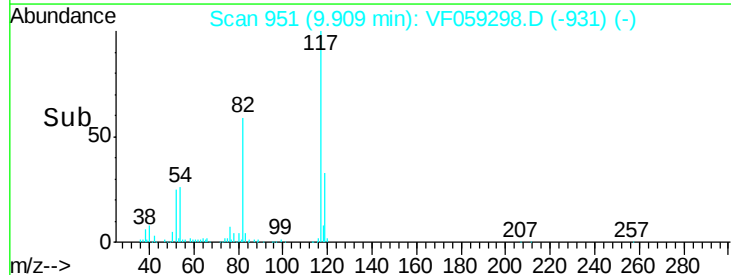
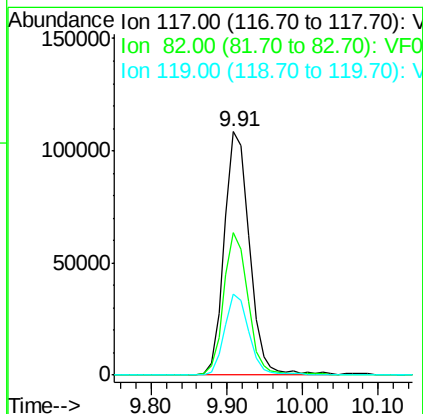
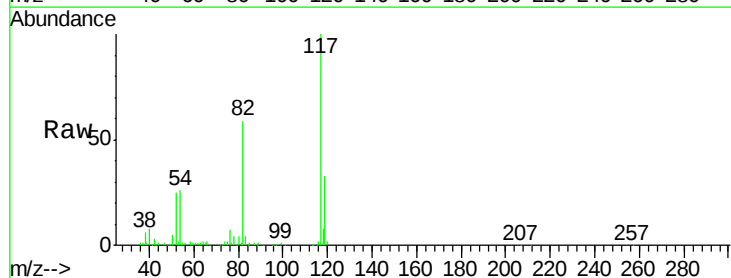
RT: 9.91 min Scan# 951

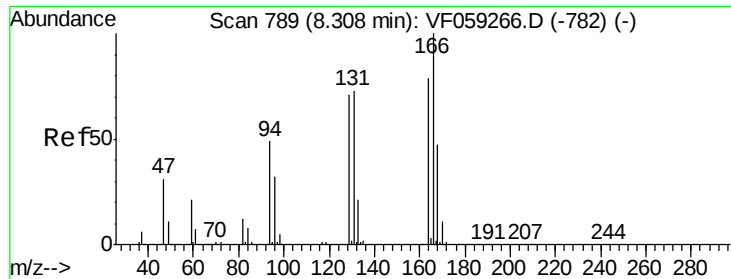
Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 251188 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 82       | 58.8  | 47.1  | 70.7   |
| 119      | 33.0  | 26.9  | 40.3   |





#64

Tetrachloroethene

Concen: 2.499 ug/l

RT: 8.30 min Scan# 788

Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

Instrument :

MSVOA\_F

ClientSampleId :

S-6(8-8.5)

Tgt Ion:164 Resp: 4820

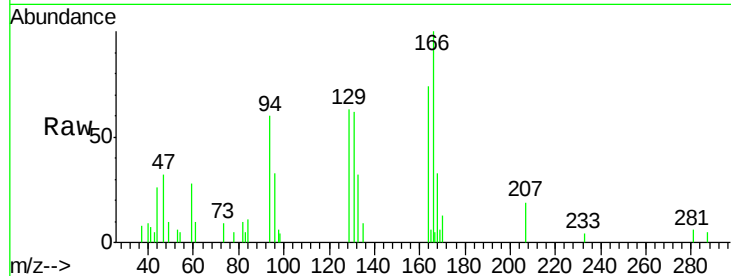
Ion Ratio Lower Upper

164 100

166 134.4 101.4 152.2

129 85.2 72.2 108.4

131 82.9 73.8 110.6

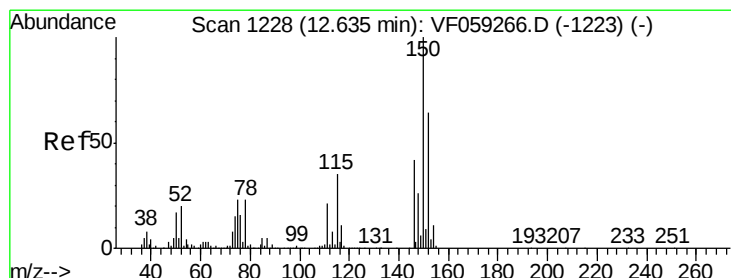
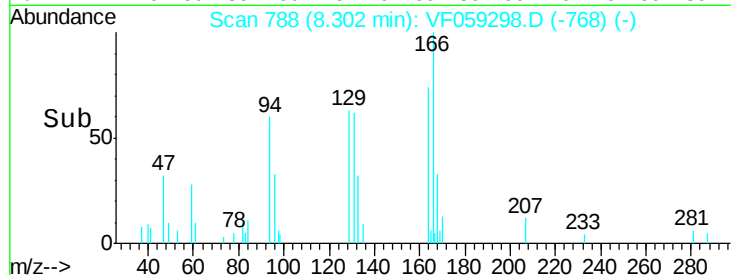
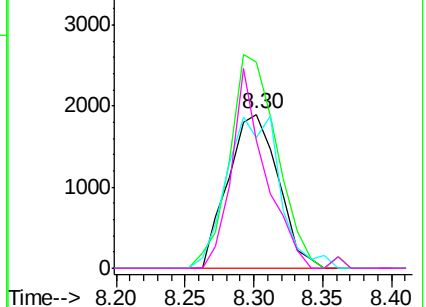


Abundance Ion 163.85 (163.55 to 164.55): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.90 (128.60 to 129.60): V

Ion 130.90 (130.60 to 131.60): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.63 min Scan# 1227

Delta R.T. -0.01 min

Lab File: VF059298.D

Acq: 23 Jun 2018 2:34

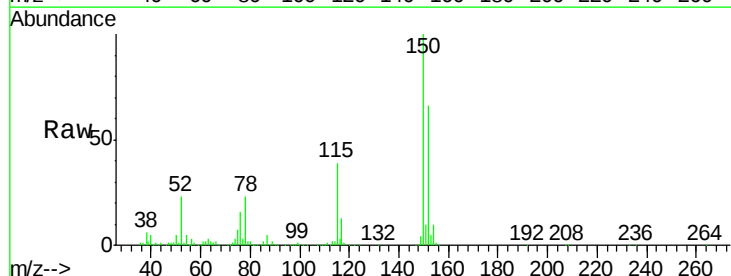
Tgt Ion:152 Resp: 156403

Ion Ratio Lower Upper

152 100

115 58.5 27.8 83.3

150 151.8 0.0 313.8



Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V

