

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF061019\  
 Data File : VF062915.D  
 Acq On : 10 Jun 2019 19:21  
 Operator : FY/SY  
 Sample : K3273-08RE  
 Misc : 4.60µ/5mL/MSVOA F/SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Jun 11 01:20:58 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F053019S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 31 04:18:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.06  | 168  | 609575   | 50.00 | ug/l  | -0.01    |
| 34) 1,4-Difluorobenzene    | 5.79  | 114  | 1037150  | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.92  | 117  | 764602   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.61 | 152  | 373448   | 50.00 | ug/l  | -0.01    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.04  | 65   | 218454   | 51.82 | ug/l    | -0.01    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 103.64% |          |
| 35) Dibromofluoromethane    | 4.32  | 113  | 417275   | 53.24 | ug/l    | -0.01    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 106.48% |          |
| 50) Toluene-d8              | 7.71  | 98   | 858300   | 43.31 | ug/l    | -0.02    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 86.62%  |          |
| 62) 4-Bromofluorobenzene    | 11.50 | 95   | 343526   | 48.19 | ug/l    | -0.01    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 96.38%  |          |

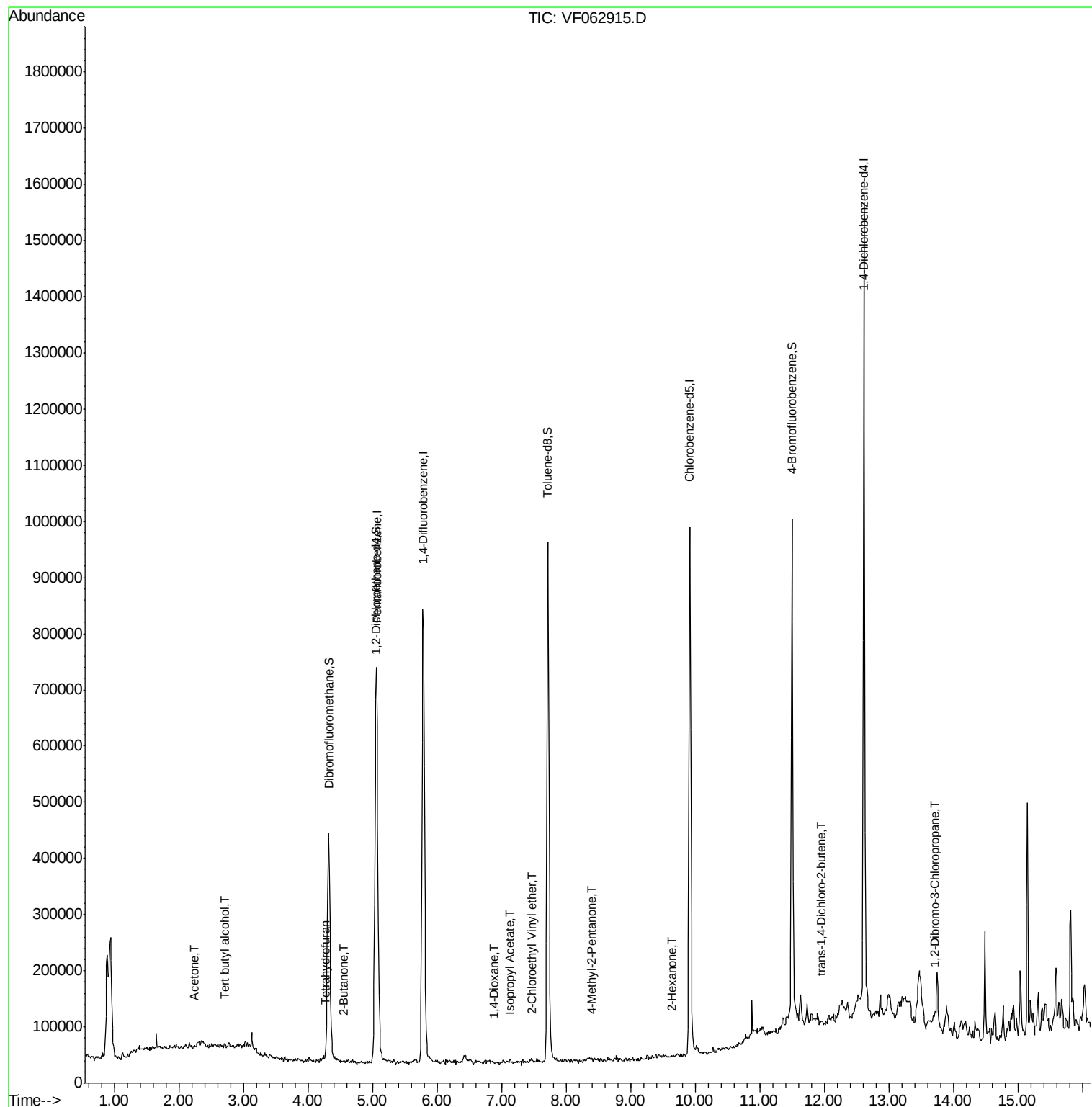
| Target Compounds               | R.T.  | QIon | Response | Conc          | Units | Qvalue |
|--------------------------------|-------|------|----------|---------------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.02  | 85   | 1540     | Below Cal     |       | 99     |
| 11) Tert butyl alcohol         | 2.72  | 59   | 893      | 3.497 ug/l #  |       | 1      |
| 13) Acrolein                   | 2.25  | 56   | 668      | Below Cal     |       | 87     |
| 16) Acetone                    | 2.23  | 43   | 965      | 1.000 ug/l    |       | 94     |
| 20) Methylene Chloride         | 2.36  | 84   | 7200     | Below Cal #   |       | 77     |
| 25) 2-Butanone                 | 4.56  | 43   | 3580     | 1.593 ug/l    |       | 92     |
| 29) Tetrahydrofuran            | 4.26  | 42   | 2834     | 3.298 ug/l #  |       | 67     |
| 43) Isopropyl Acetate          | 7.13  | 43   | 7330     | 1.520 ug/l #  |       | 71     |
| 49) 1,4-Dioxane                | 6.89  | 88   | 515      | 15.724 ug/l # |       | 46     |
| 51) 4-Methyl-2-Pentanone       | 8.40  | 43   | 6546     | 1.902 ug/l #  |       | 80     |
| 58) 2-Chloroethyl Vinyl ether  | 7.46  | 63   | 3317     | 1.978 ug/l #  |       | 53     |
| 59) 2-Hexanone                 | 9.63  | 43   | 3337     | 1.360 ug/l    |       | 72     |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 2191     | 1.403 ug/l #  |       | 56     |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 1486     | 2.451 ug/l #  |       | 1      |

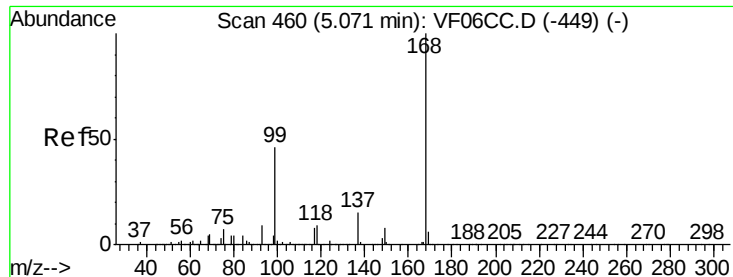
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF061019\  
Data File : VF062915.D  
Acq On : 10 Jun 2019 19:21  
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Sample : K3273-08RE  
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ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :

Quant Time: Jun 11 01:20:58 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F053019S.M  
Quant Title : SW846 8260  
QLast Update : Fri May 31 04:18:30 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.06 min Scan# 459

Delta R.T. -0.01 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

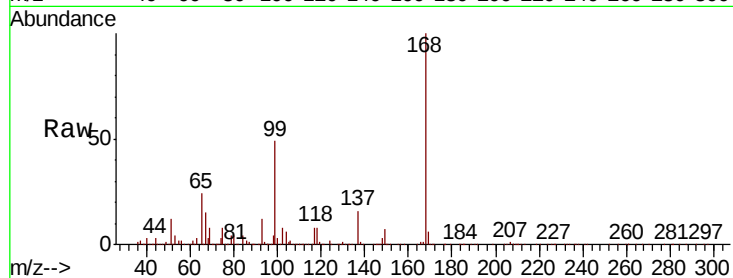
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:168 Resp: 609575

Ion Ratio Lower Upper

168 100

99 48.9 39.1 58.7



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.06

200000

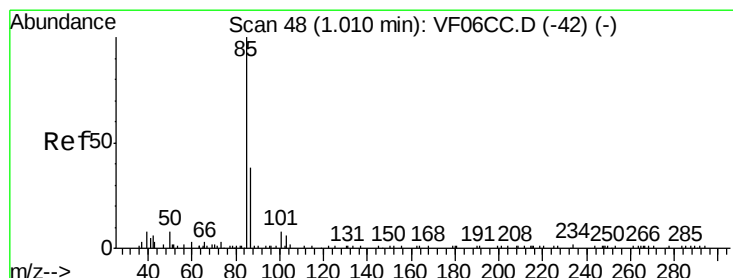
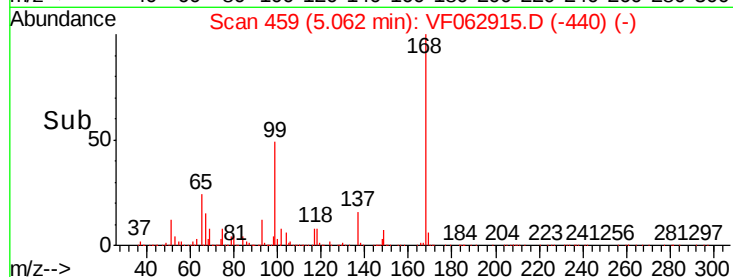
150000

100000

50000

0

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.02 min Scan# 49

Delta R.T. 0.01 min

Lab File: VF062915.D

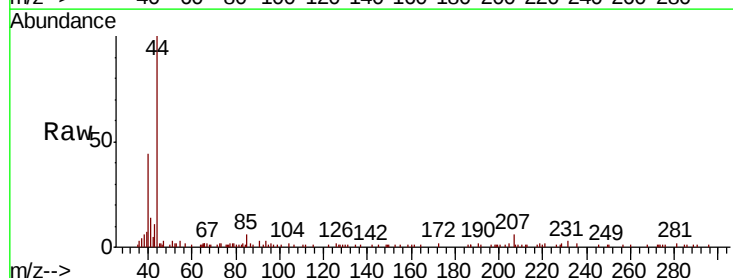
Acq: 10 Jun 2019 19:21

Tgt Ion: 85 Resp: 1540

Ion Ratio Lower Upper

85 100

87 34.5 17.6 52.9



Abundance Ion 85.00 (84.70 to 85.70): VF0

Ion 87.00 (86.70 to 87.70): VF0

1.02

800

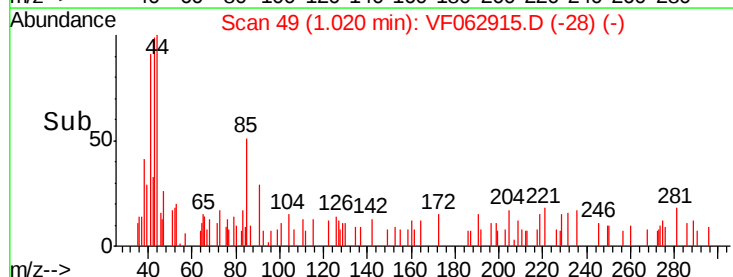
600

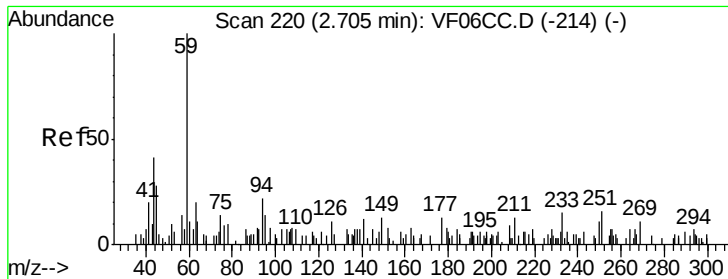
400

200

0

Time-->

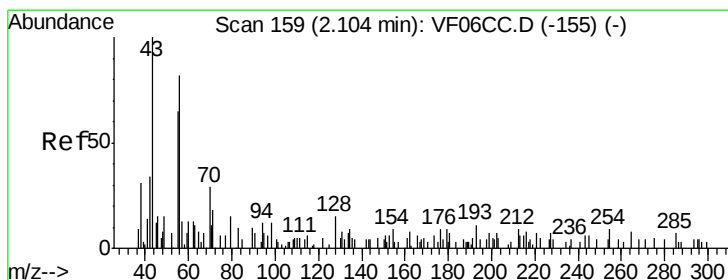
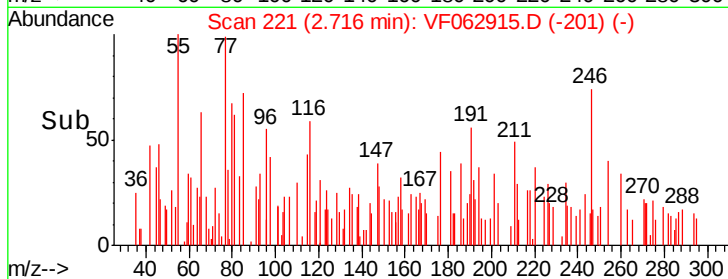
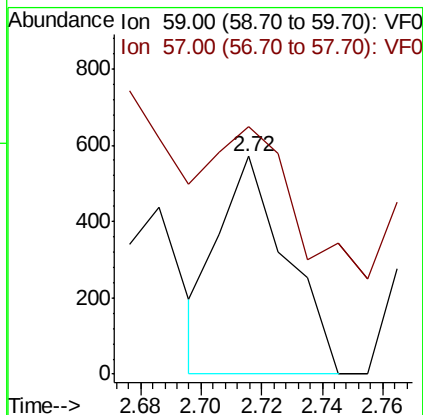
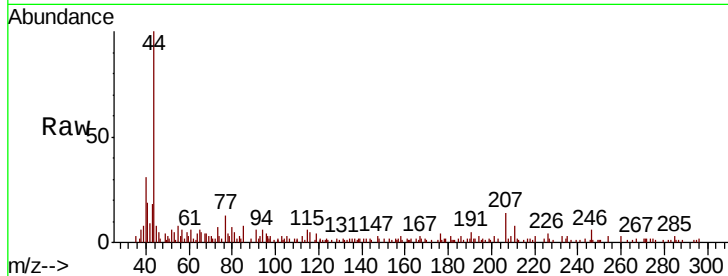




#11  
Tert butvl alcohol  
Concen: 3.497 ug/l  
RT: 2.72 min Scan# 221  
Delta R.T. -0.00 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

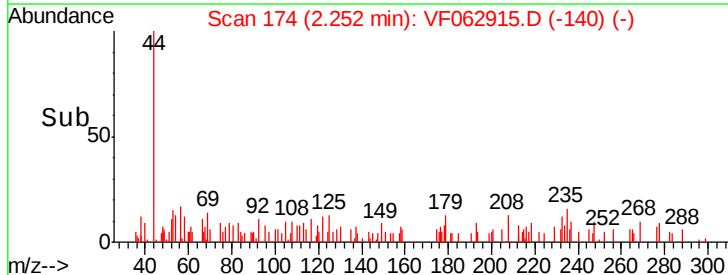
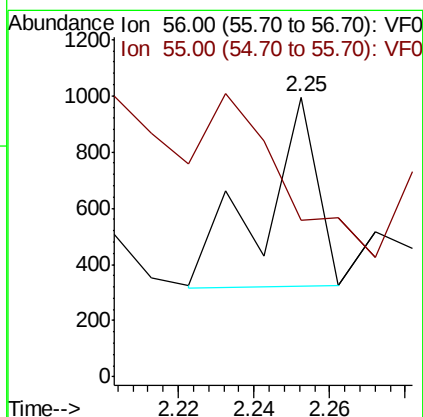
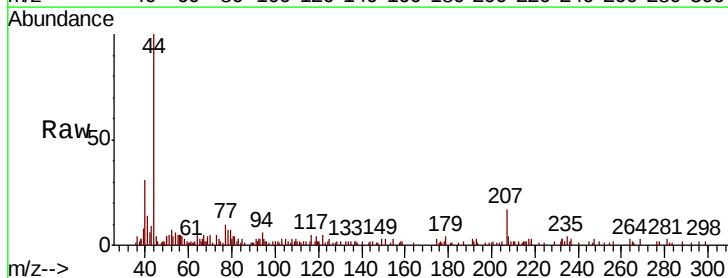
Instrument :  
MSVOA\_F  
ClientSampled :

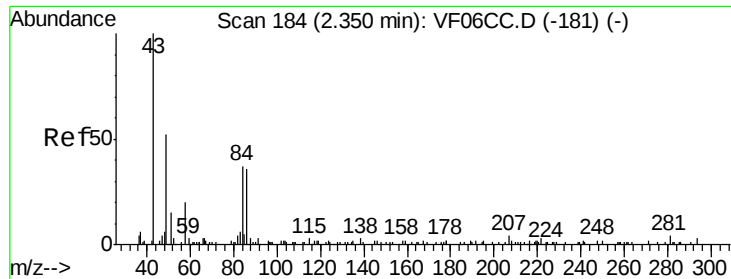
Tot Ion: 59 Resp: 893  
Ion Ratio Lower Upper  
59 100  
57 113.9 9.2 13.8#



#13  
Acrolein  
Concen: Below Cal  
RT: 2.25 min Scan# 174  
Delta R.T. 0.14 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

Tgt Ion: 56 Resp: 668  
Ion Ratio Lower Upper  
56 100  
55 56.1 52.9 79.3





#16

Acetone

Concen: 1.000 ug/l

RT: 2.23 min Scan# 172

Delta R.T. -0.13 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

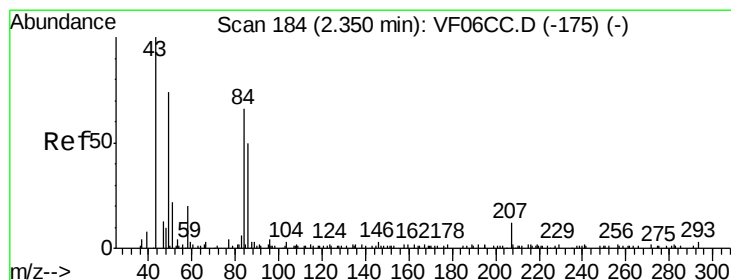
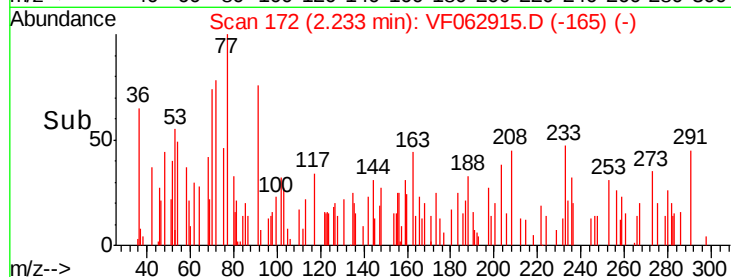
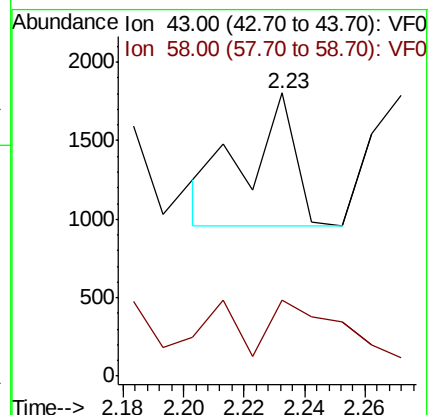
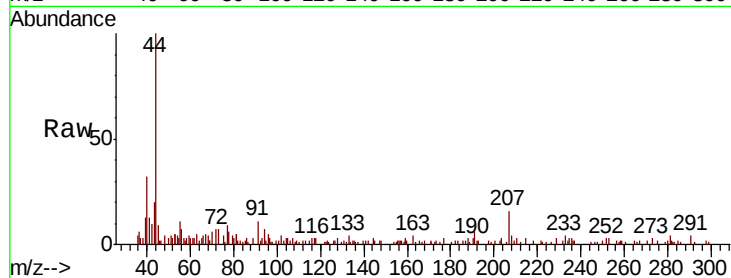
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 43 Resp: 965

Ion Ratio Lower Upper

43 100

58 26.8 19.0 28.4



#20

Methylene Chloride

Concen: Below Cal

RT: 2.36 min Scan# 185

Delta R.T. -0.00 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Tgt Ion: 84 Resp: 7200

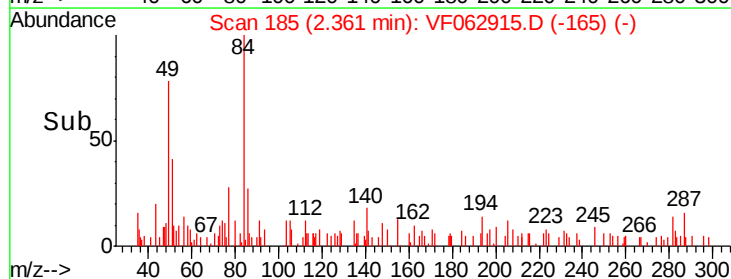
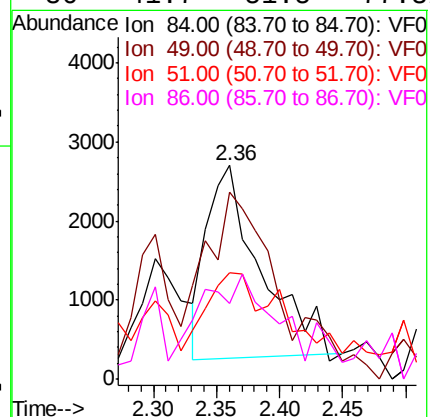
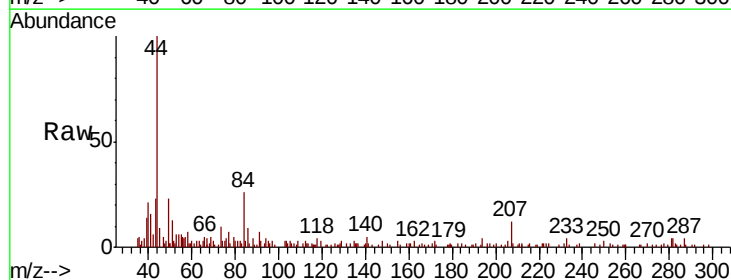
Ion Ratio Lower Upper

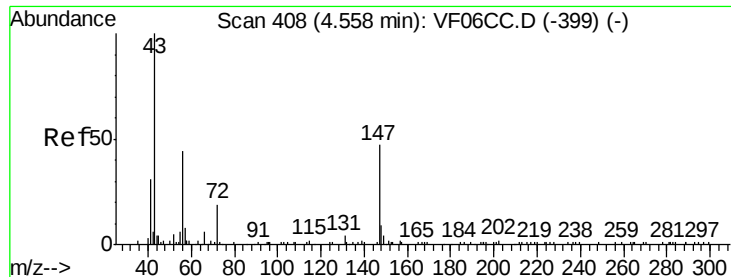
84 100

49 87.4 82.6 123.8

51 49.6 25.0 37.4#

86 41.7 51.5 77.3#

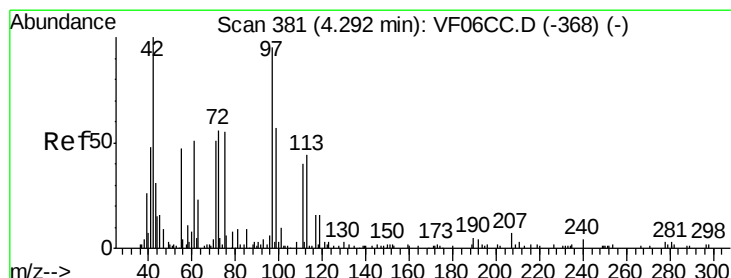
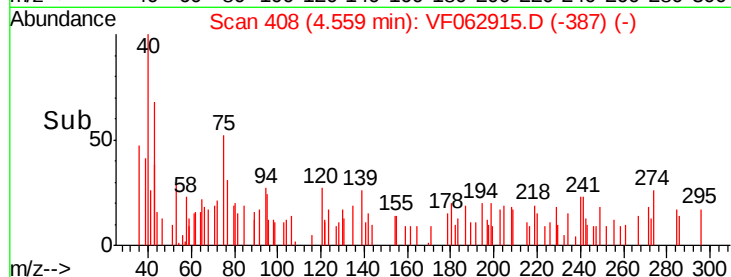
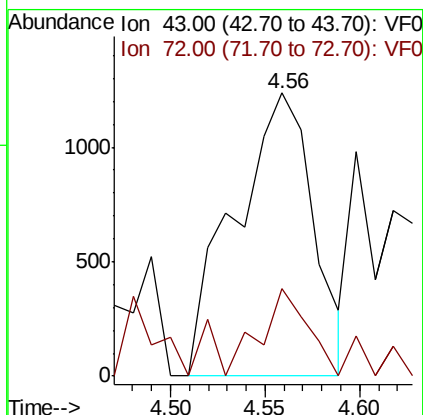
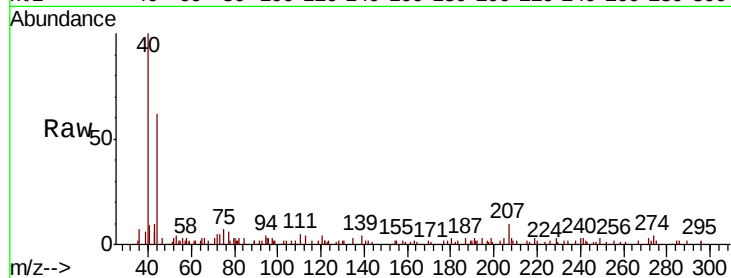




#25  
2-Butanone  
Concen: 1.593 ug/l  
RT: 4.56 min Scan# 408  
Delta R.T. 0.01 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

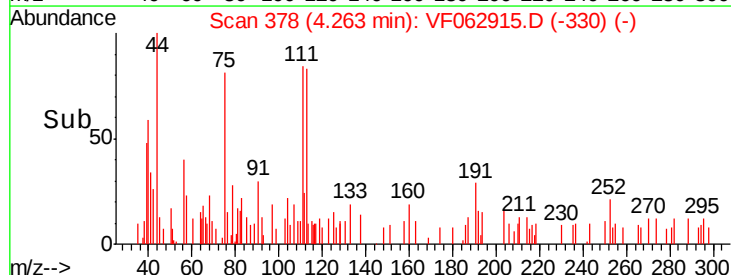
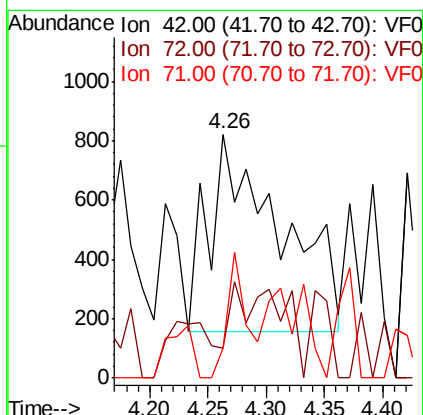
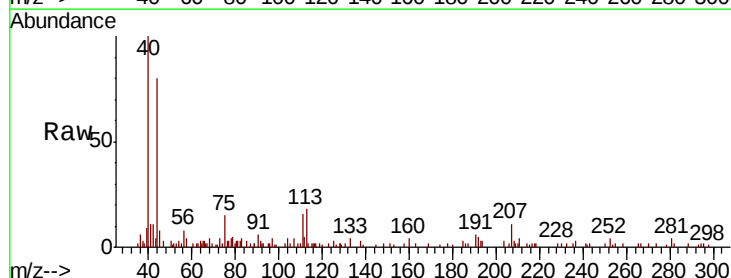
Instrument :  
MSVOA\_F  
ClientSampled :

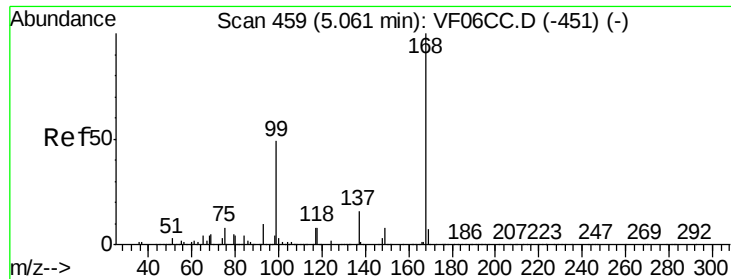
Tot Ion: 43 Resp: 3580  
Ion Ratio Lower Upper  
43 100  
72 30.7 21.4 32.0



#29  
Tetrahydrofuran  
Concen: 3.298 ug/l  
RT: 4.26 min Scan# 378  
Delta R.T. -0.03 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

Tgt Ion: 42 Resp: 2834  
Ion Ratio Lower Upper  
42 100  
72 32.7 39.0 58.6#  
71 17.2 36.9 55.3#

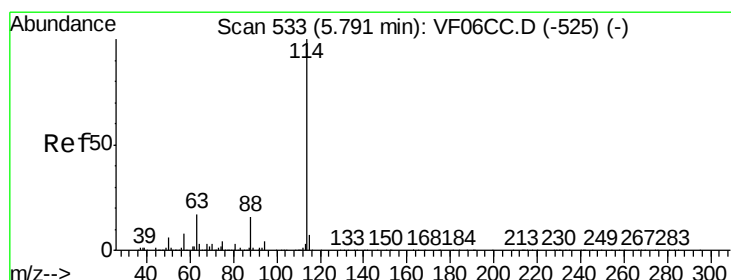
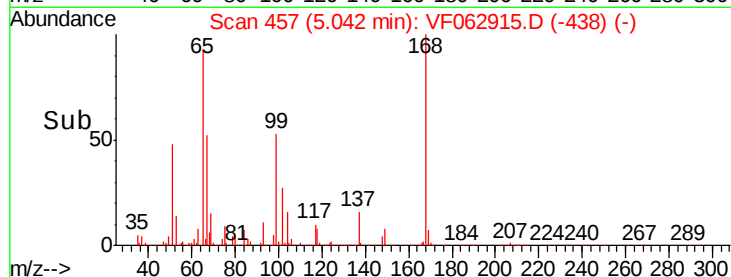
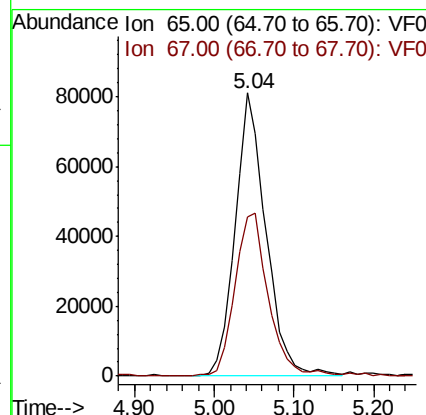
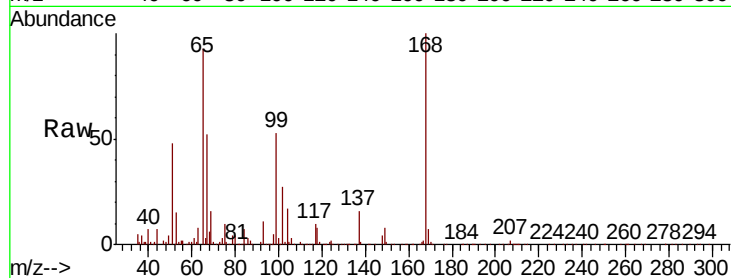




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.825 ug/l  
 RT: 5.04 min Scan# 457  
 Delta R.T. -0.01 min  
 Lab File: VF062915.D  
 Acq: 10 Jun 2019 19:21

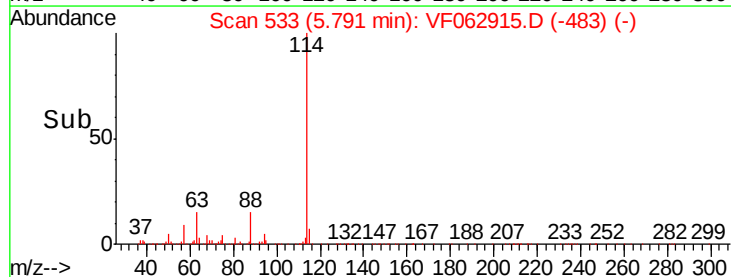
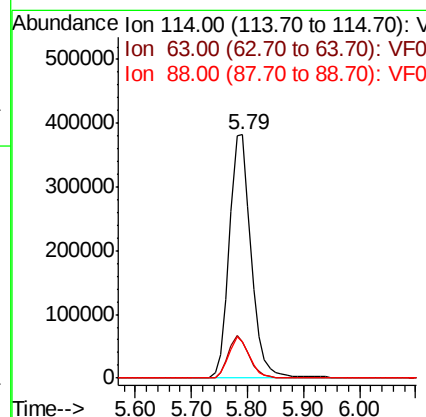
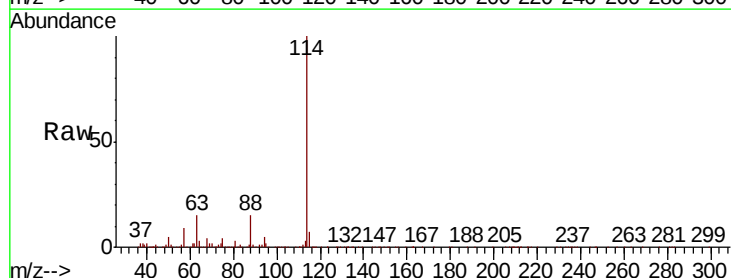
Instrument :  
 MSVOA\_F  
 ClientSampled :

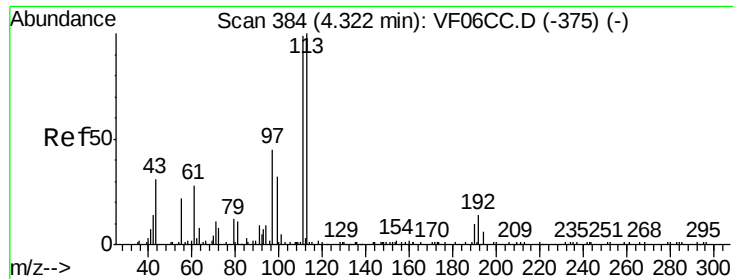
Tot Ion: 65 Resp: 218454  
 Ion Ratio Lower Upper  
 65 100  
 67 56.4 0.0 121.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.79 min Scan# 533  
 Delta R.T. -0.01 min  
 Lab File: VF062915.D  
 Acq: 10 Jun 2019 19:21

Tgt Ion: 114 Resp: 1037150  
 Ion Ratio Lower Upper  
 114 100  
 63 14.8 0.0 34.2  
 88 15.1 0.0 31.2

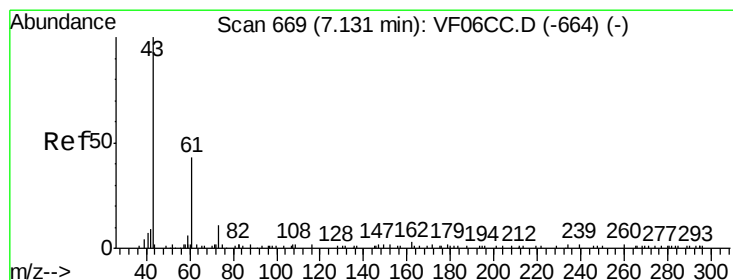
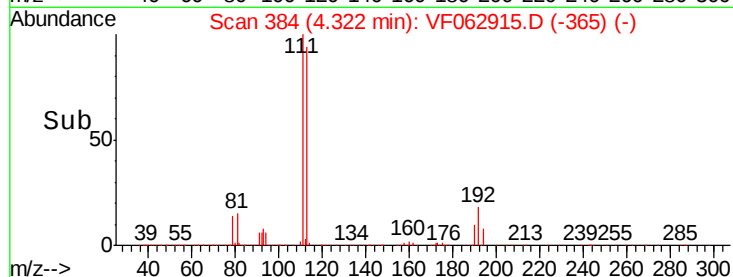
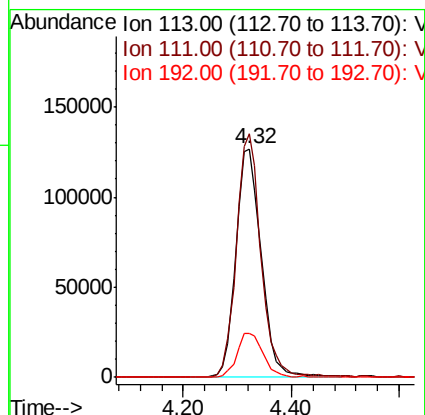
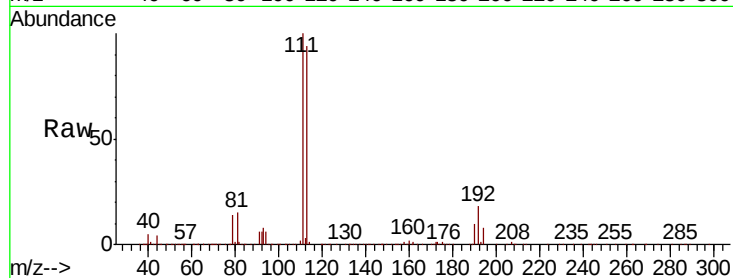




#35  
 Dibromofluoromethane  
 Concen: 53.243 ug/l  
 RT: 4.32 min Scan# 384  
 Delta R.T. -0.01 min  
 Lab File: VF062915.D  
 Acq: 10 Jun 2019 19:21

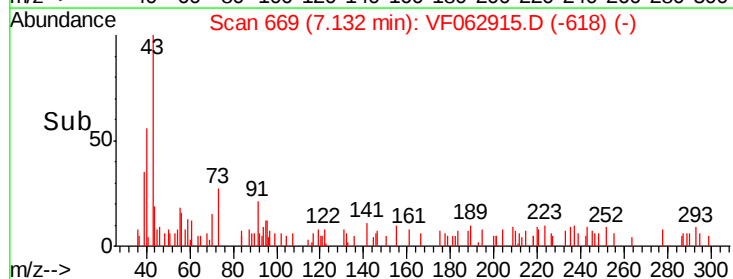
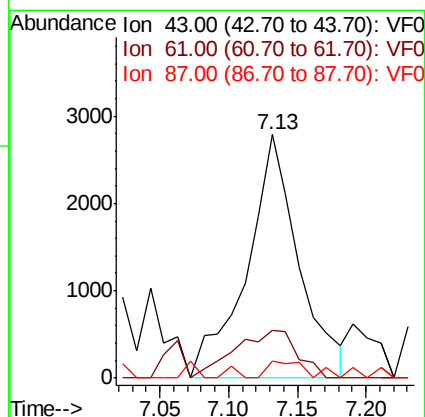
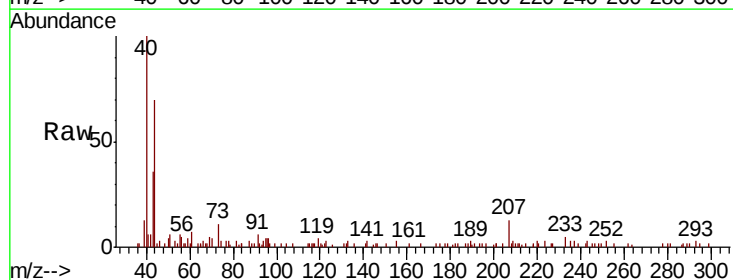
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 MSVOA\_F  
 ClientSampleId :

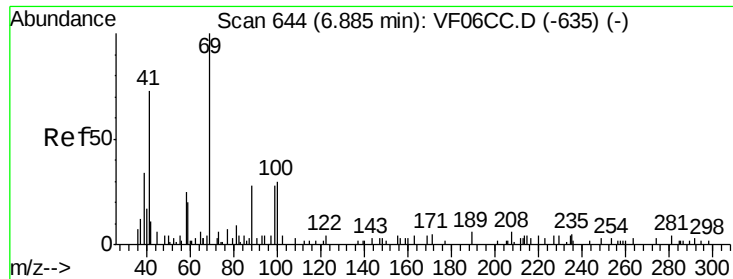
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 106.5 | 81.9  | 122.9 |
| 192     | 19.1  | 15.1  | 22.7  |



#43  
 Isopropyl Acetate  
 Concen: 1.520 ug/l  
 RT: 7.13 min Scan# 669  
 Delta R.T. -0.00 min  
 Lab File: VF062915.D  
 Acq: 10 Jun 2019 19:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 61      | 19.5  | 29.8  | 44.6# |
| 87      | 6.9   | 0.3   | 0.5#  |





#49

1,4-Dioxane

Concen: 15.724 ug/l

RT: 6.89 min Scan# 644

Delta R.T. -0.00 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Instrument :  
MSVOA\_F  
ClientSampled :

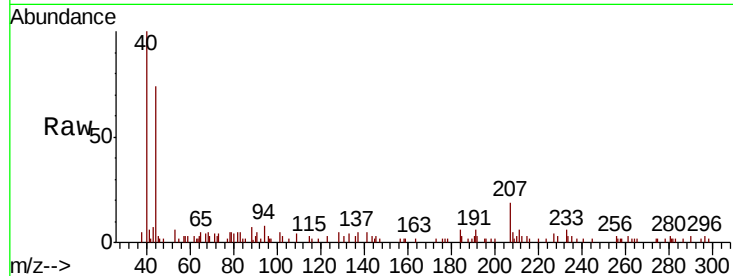
Tot Ion: 88 Resp: 515

Ion Ratio Lower Upper

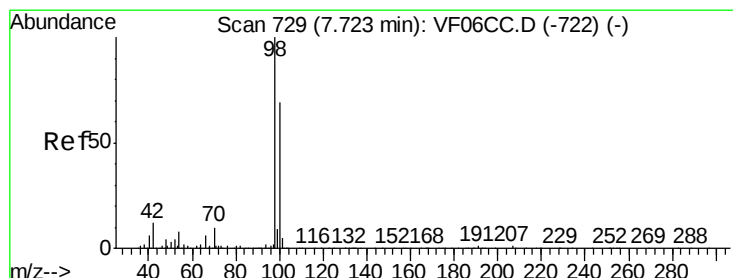
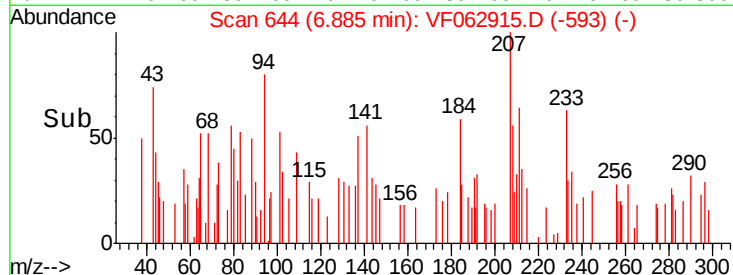
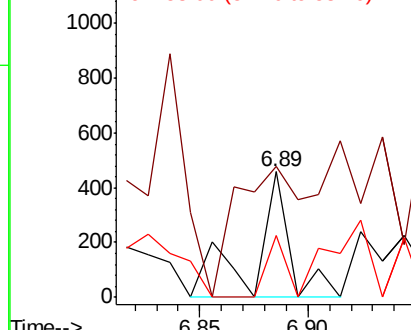
88 100

43 104.6 34.8 52.2#

58 49.1 59.9 89.9#



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: 43.308 ug/l

RT: 7.71 min Scan# 728

Delta R.T. -0.02 min

Lab File: VF062915.D

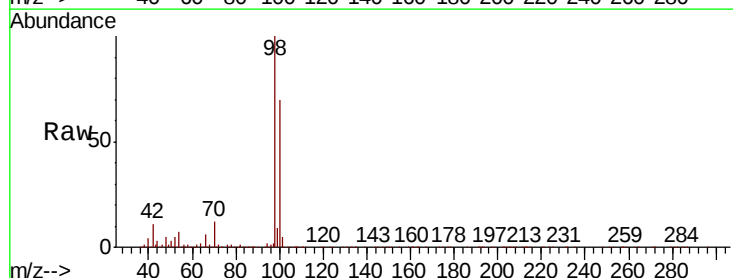
Acq: 10 Jun 2019 19:21

Tgt Ion: 98 Resp: 858300

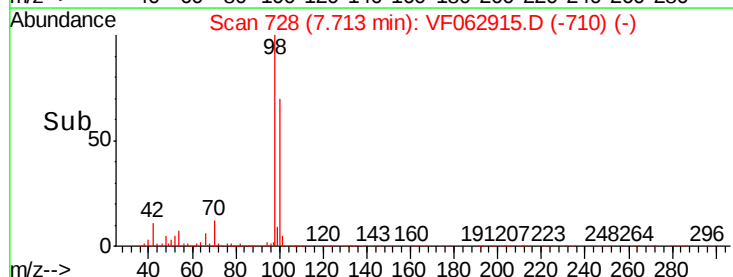
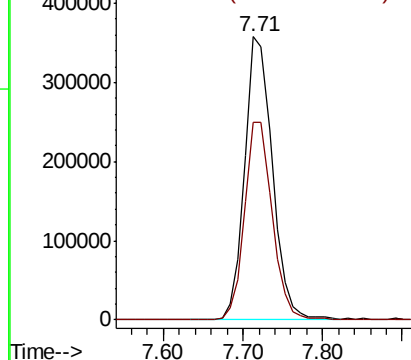
Ion Ratio Lower Upper

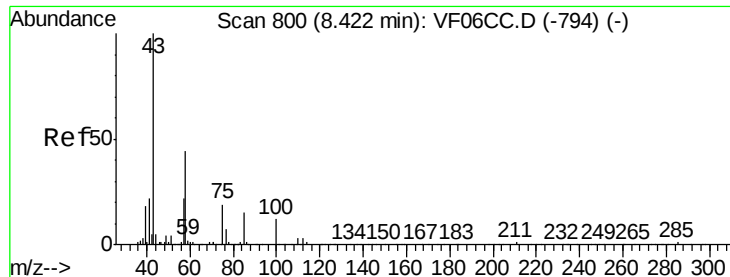
98 100

100 69.6 59.8 89.8



Abundance Ion 98.00 (97.70 to 98.70): VF0  
Ion 100.00 (99.70 to 100.70): VF0





#51

4-Methyl-2-Pentanone

Concen: 1.902 ug/l

RT: 8.40 min Scan# 798

Delta R.T. -0.02 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Instrument :

MSVOA\_F

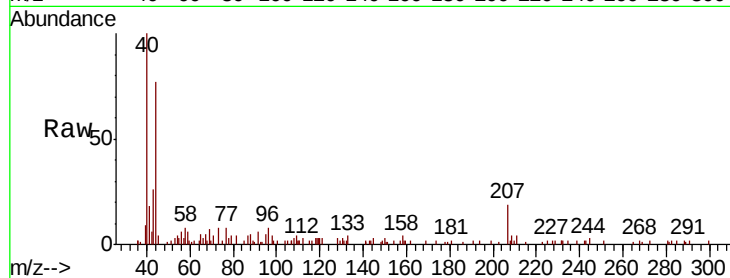
ClientSampled :

Tot Ion: 43 Resp: 6546

Ion Ratio Lower Upper

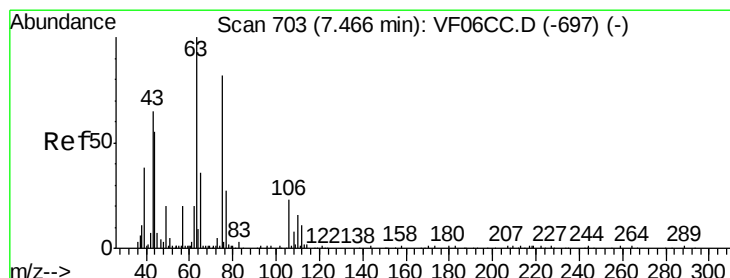
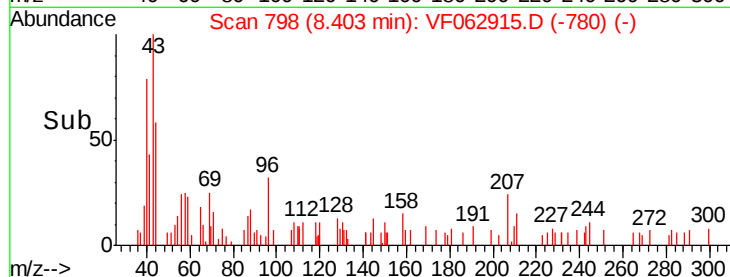
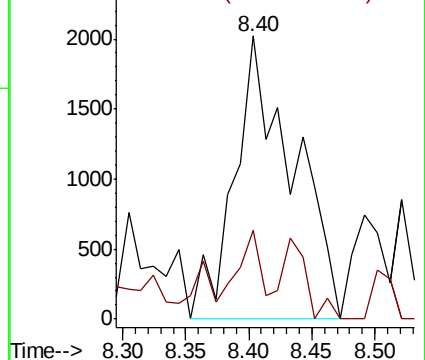
43 100

58 31.4 35.5 53.3#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#58

2-Chloroethyl Vinyl ether

Concen: 1.978 ug/l

RT: 7.46 min Scan# 702

Delta R.T. -0.01 min

Lab File: VF062915.D

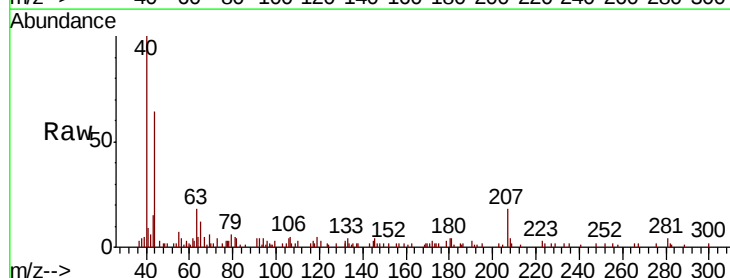
Acq: 10 Jun 2019 19:21

Tgt Ion: 63 Resp: 3317

Ion Ratio Lower Upper

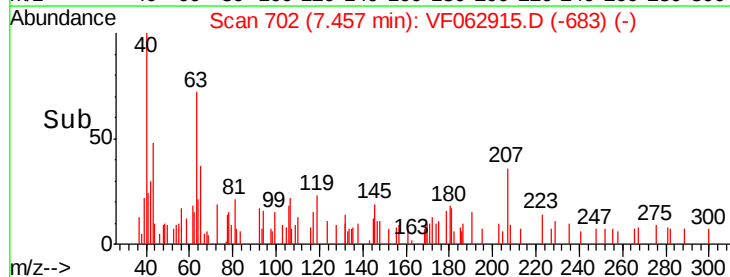
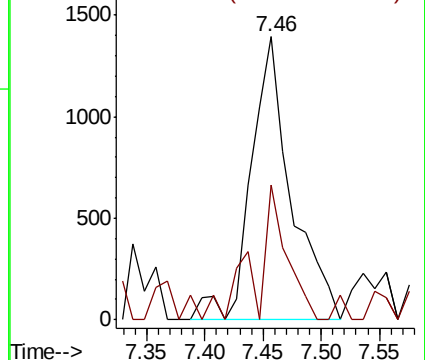
63 100

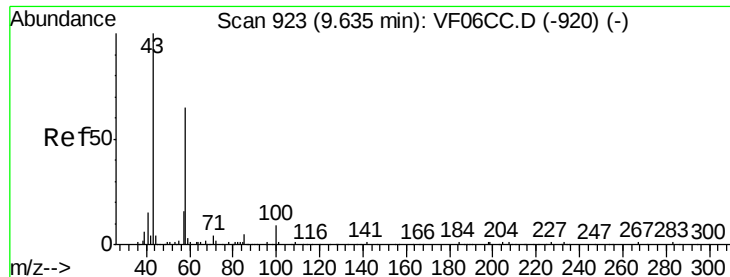
106 47.7 19.5 29.3#



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 106.00 (105.70 to 106.70): V

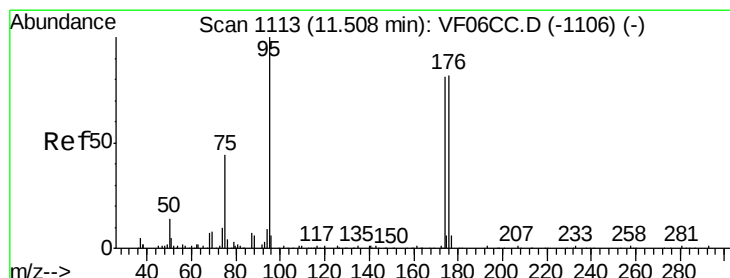
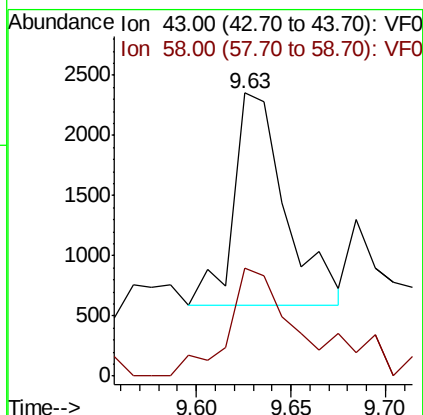
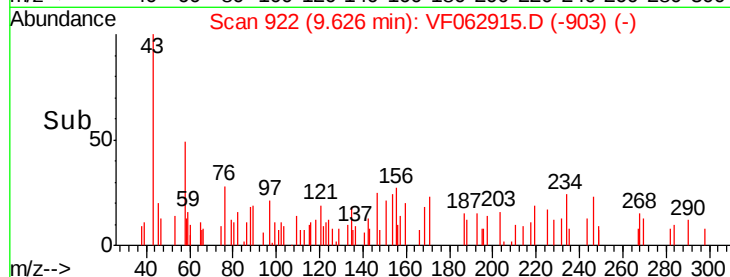
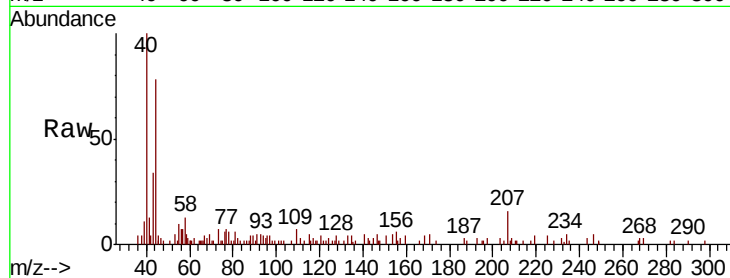




#59  
2-Hexanone  
Concen: 1.360 ug/l  
RT: 9.63 min Scan# 922  
Delta R.T. -0.01 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

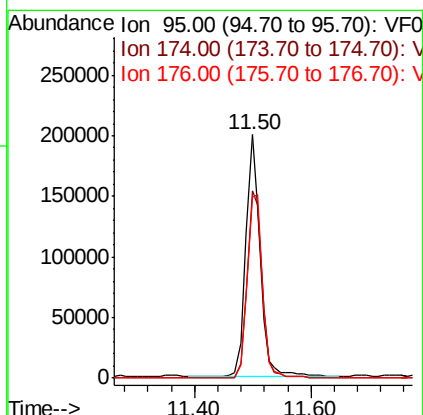
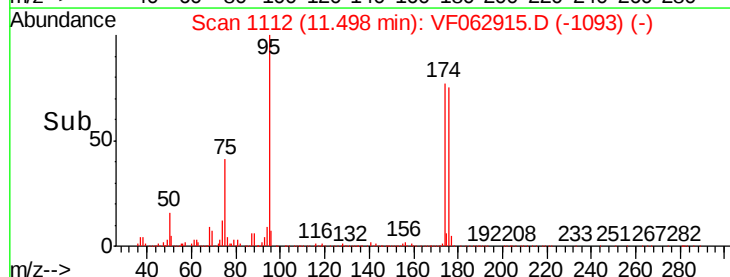
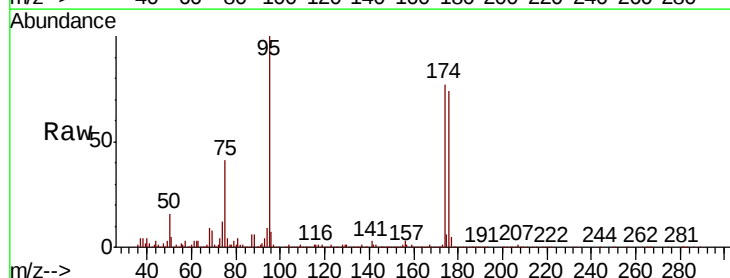
Instrument :  
MSVOA\_F  
ClientSampleId :

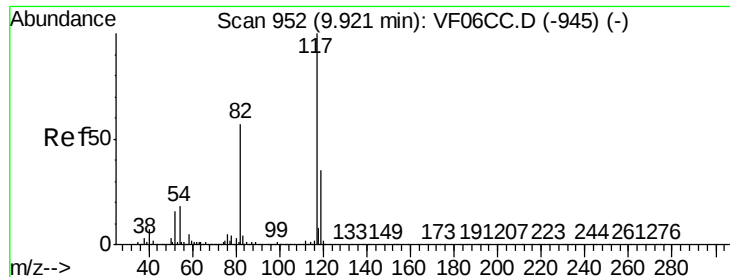
Tot Ion: 43 Resp: 3337  
Ion Ratio Lower Upper  
43 100  
58 38.0 29.3 87.9



#62  
4-Bromofluorobenzene  
Concen: 48.187 ug/l  
RT: 11.50 min Scan# 1112  
Delta R.T. -0.01 min  
Lab File: VF062915.D  
Acq: 10 Jun 2019 19:21

Tgt Ion: 95 Resp: 343526  
Ion Ratio Lower Upper  
95 100  
174 76.8 0.0 170.6  
176 74.4 0.0 170.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.92 min Scan# 952

Delta R.T. -0.01 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Instrument :

MSVOA\_F

ClientSampleId :

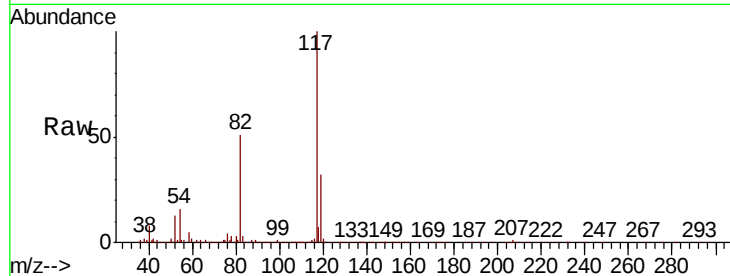
Tot Ion:117 Resp: 764602

Ion Ratio Lower Upper

117 100

82 50.6 42.4 63.6

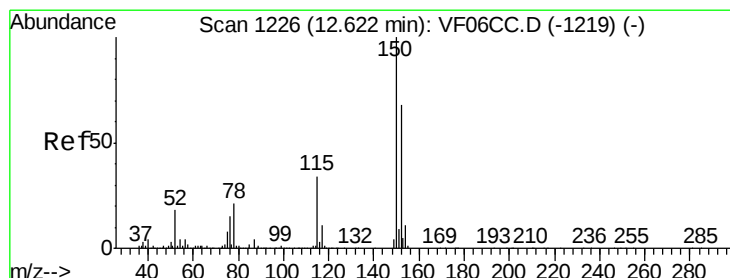
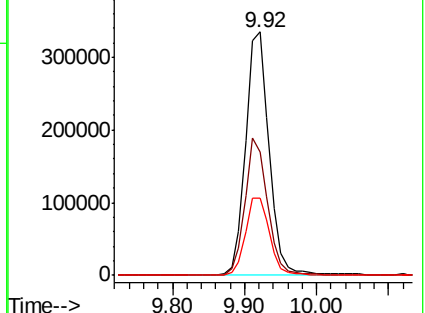
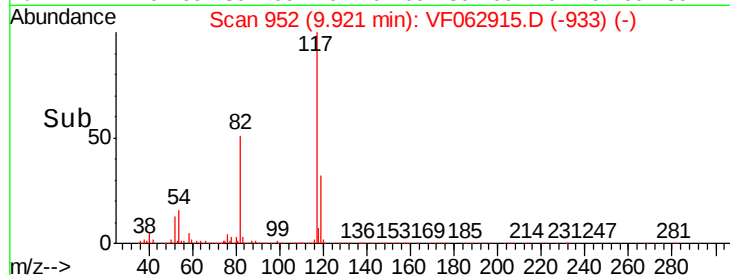
119 31.9 27.1 40.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.61 min Scan# 1225

Delta R.T. -0.01 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

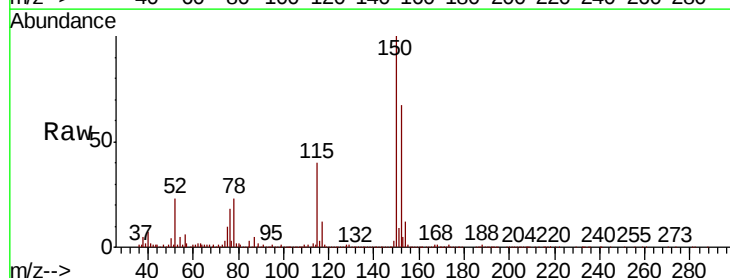
Tgt Ion:152 Resp: 373448

Ion Ratio Lower Upper

152 100

115 59.8 24.6 74.0

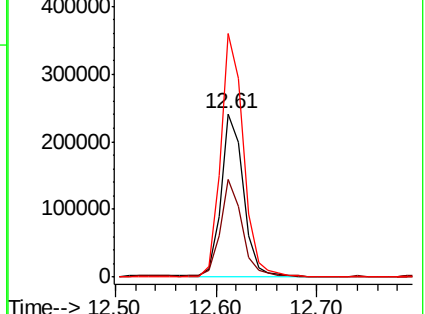
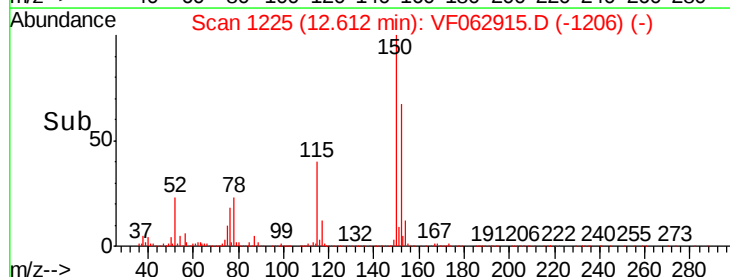
150 149.4 0.0 290.6

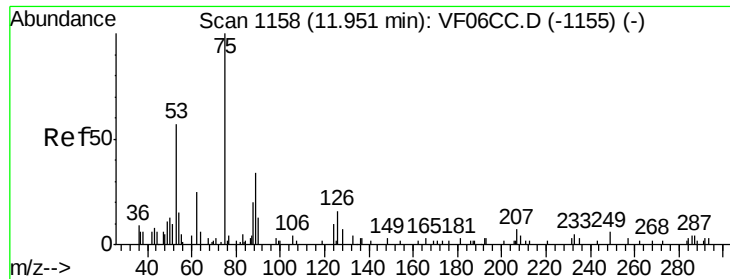


Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V





#81

trans-1,4-Dichloro-2-butene

Concen: 1.403 ug/l

RT: 11.95 min Scan# 1158

Delta R.T. -0.00 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Instrument :

MSVOA\_F

ClientSampled :

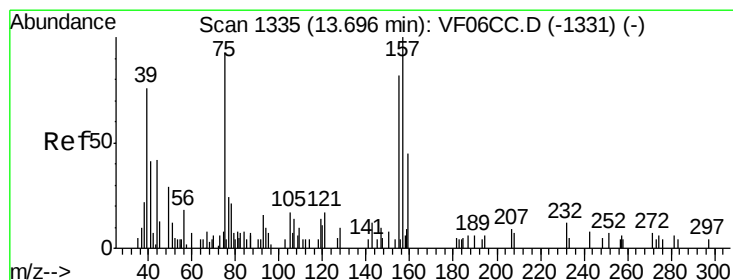
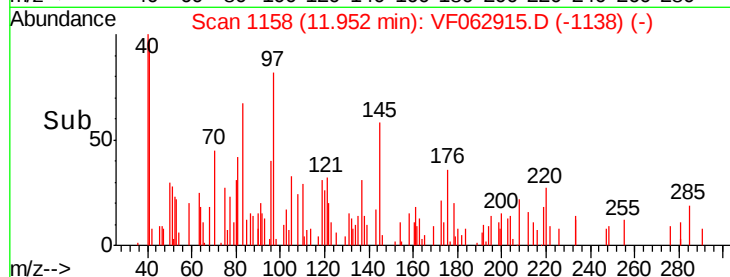
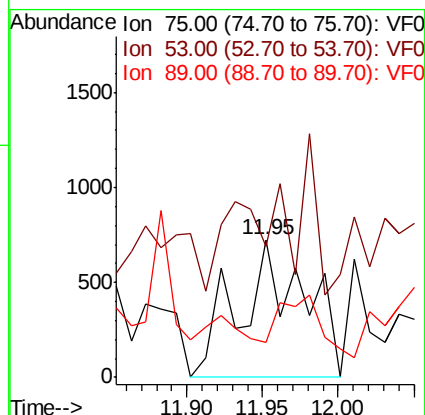
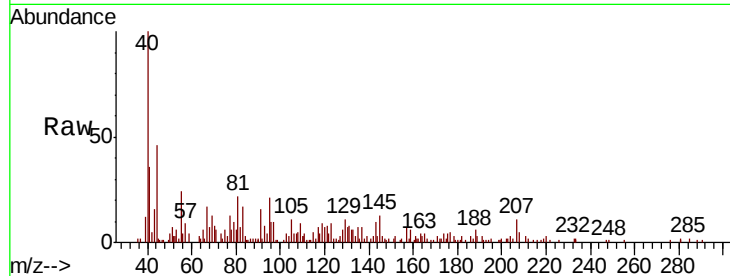
Tot Ion: 75 Resp: 2191

Ion Ratio Lower Upper

75 100

53 95.3 43.5 65.3#

89 25.6 34.3 51.5#



#92

1,2-Dibromo-3-Chloropropane

Concen: 2.451 ug/l

RT: 13.71 min Scan# 1336

Delta R.T. 0.01 min

Lab File: VF062915.D

Acq: 10 Jun 2019 19:21

Tgt Ion: 75 Resp: 1486

Ion Ratio Lower Upper

75 100

155 874.9 51.7 155.1#

157 138.0 66.8 200.6

