

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF080418\  
 Data File : VF059870.D  
 Acq On : 4 Aug 2018 7:57  
 Operator : VA/AP  
 Sample : VF0802SBL02  
 Misc : 5.00µ/5mL/MSVOA F/SOIL  
 ALS Vial : 100 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Aug 06 02:16:25 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Aug 04 07:08:36 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.05  | 168  | 208772   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.78  | 114  | 312306   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.93  | 117  | 301694   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.64 | 152  | 203329   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.03   | 65  | 188793   | 50.16 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.32% |      |
| 35) Dibromofluoromethane  | 4.30   | 113 | 160849   | 51.76 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.52% |      |
| 50) Toluene-d8            | 7.72   | 98  | 375264   | 56.76 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 113.52% |      |
| 62) 4-Bromofluorobenzene  | 11.52  | 95  | 190737   | 51.34 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.68% |      |

## Target Compounds

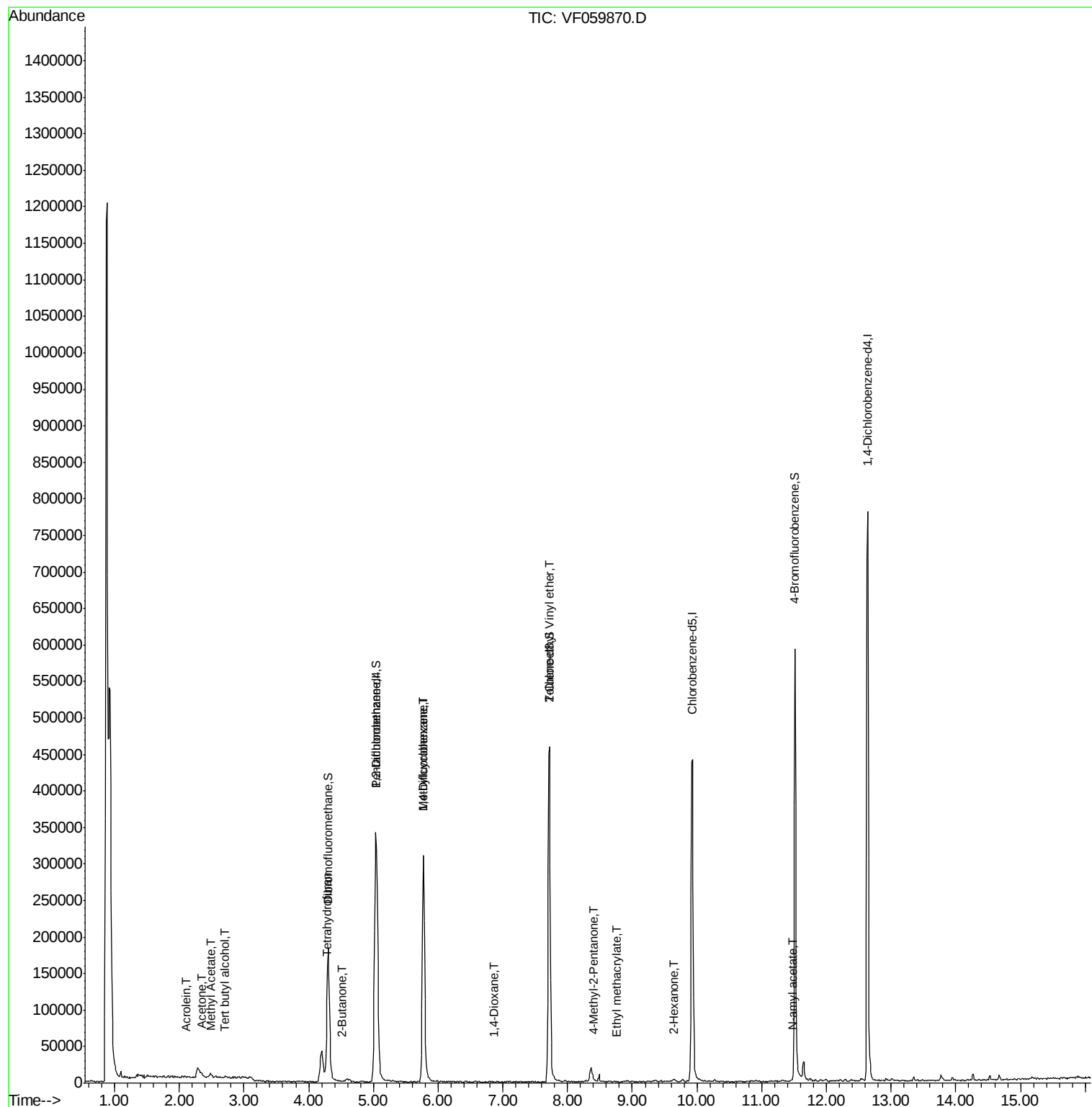
|                               |       |    |      |           | Qvalue |     |
|-------------------------------|-------|----|------|-----------|--------|-----|
| 11) Tert butyl alcohol        | 2.69  | 59 | 586  | 3.860     | ug/l # | 74  |
| 13) Acrolein                  | 2.10  | 56 | 460  | 5.056     | ug/l # | 72  |
| 16) Acetone                   | 2.35  | 43 | 3257 | 4.687     | ug/l # | 91  |
| 18) Methyl Acetate            | 2.51  | 43 | 1528 | 1.304     | ug/l # | 56  |
| 20) Methylene Chloride        | 2.28  | 84 | 7708 | Below Cal |        | 91  |
| 25) 2-Butanone                | 4.53  | 43 | 1137 | 1.505     | ug/l # | 60  |
| 29) Tetrahydrofuran           | 4.27  | 42 | 292  | 1.050     | ug/l # | 38  |
| 39) Methylcyclohexane         | 5.78  | 83 | 4970 | 1.835     | ug/l # | 37  |
| 40) Benzene                   | 4.82  | 78 | 100  | Below Cal | #      | 49  |
| 49) 1,4-Dioxane               | 6.87  | 88 | 81   | 88.774    | ug/l # | 16  |
| 51) 4-Methyl-2-Pentanone      | 8.41  | 43 | 1830 | 1.121     | ug/l # | 80  |
| 56) Ethyl methacrylate        | 8.77  | 69 | 65   | 3.390     | ug/l # | 18  |
| 58) 2-Chloroethyl Vinyl ether | 7.73  | 63 | 1017 | 4.680     | ug/l   | 100 |
| 59) 2-Hexanone                | 9.64  | 43 | 3620 | 3.138     | ug/l   | 100 |
| 74) N-amyl acetate            | 11.48 | 43 | 1967 | 3.549     | ug/l # | 87  |

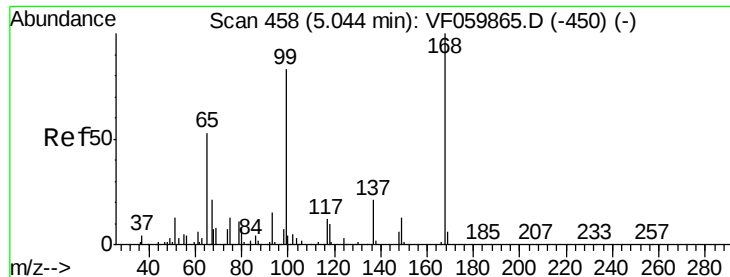
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF080418\  
Data File : VF059870.D  
Acq On : 4 Aug 2018 7:57  
Operator : VA/AP  
Sample : VF0802SBL02  
Misc : 5.00µ/5mL/MSVOA F/SOIL  
ALS Vial : 100 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :

Quant Time: Aug 06 02:16:25 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
Quant Title : SW846 8260  
QLast Update : Sat Aug 04 07:08:36 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.05 min Scan# 458

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

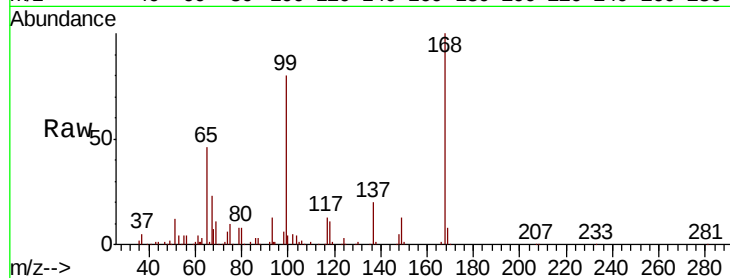
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:168 Resp: 208772

Ion Ratio Lower Upper

168 100

99 80.3 66.3 99.5



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.05

80000

60000

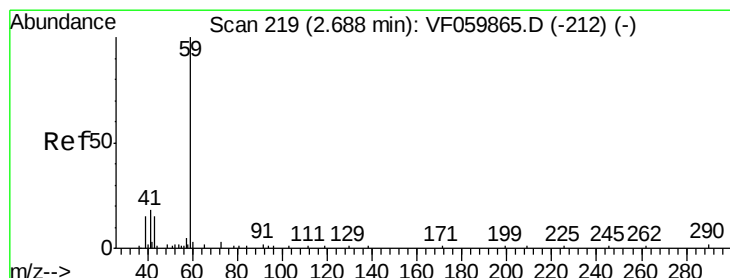
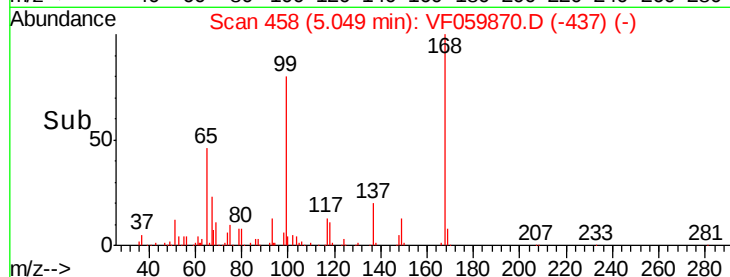
40000

20000

0

Time-->

4.90 5.00 5.10 5.20



#11

Tert butyl alcohol

Concen: 3.860 ug/l

RT: 2.69 min Scan# 219

Delta R.T. 0.01 min

Lab File: VF059870.D

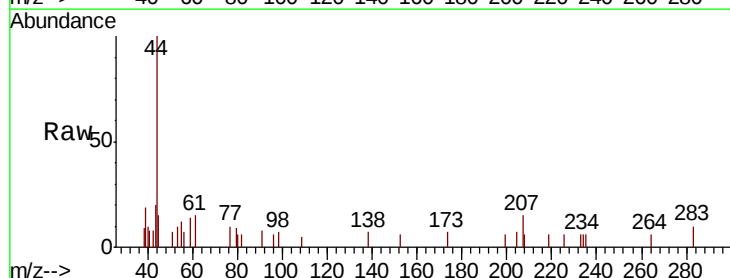
Acq: 4 Aug 2018 7:57

Tgt Ion: 59 Resp: 586

Ion Ratio Lower Upper

59 100

57 0.0 7.6 11.4#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.69

300

250

200

150

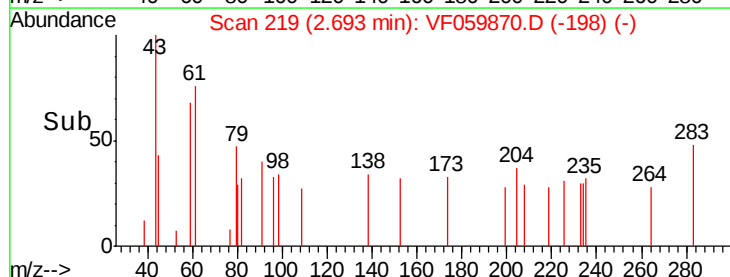
100

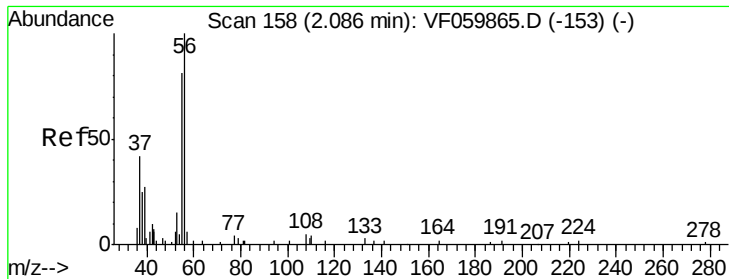
50

0

Time-->

2.60 2.65 2.70 2.75





#13

Acrolein

Concen: 5.056 ug/l

RT: 2.10 min Scan# 159

Delta R.T. 0.02 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

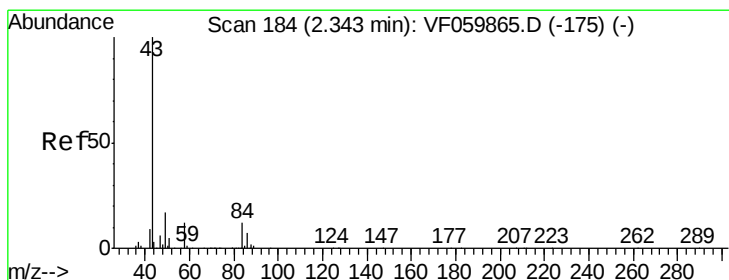
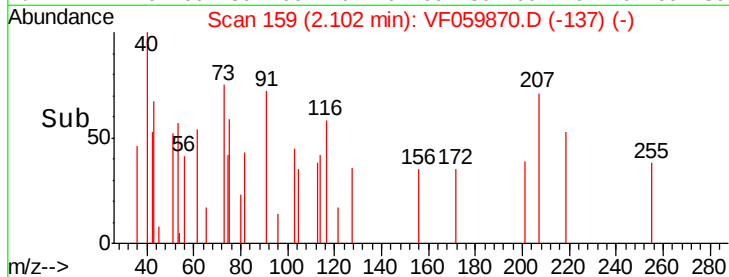
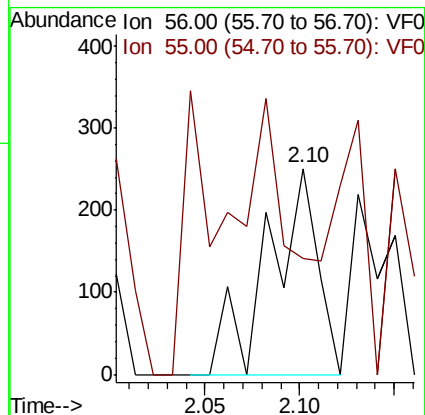
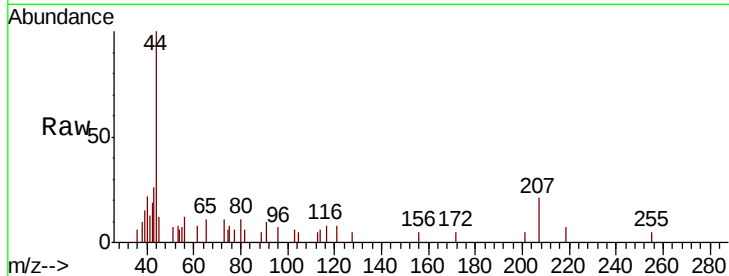
Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 56 Resp: 460

Ion Ratio Lower Upper

56 100

55 56.2 64.6 96.8#



#16

Acetone

Concen: 4.687 ug/l

RT: 2.35 min Scan# 184

Delta R.T. 0.01 min

Lab File: VF059870.D

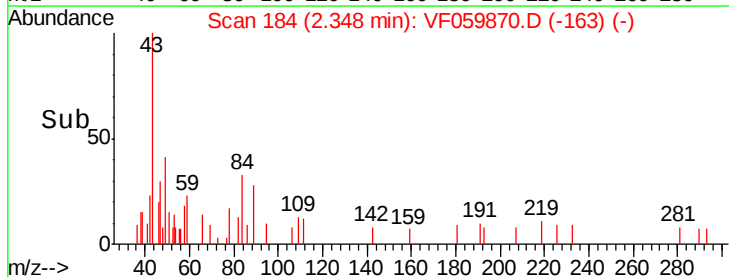
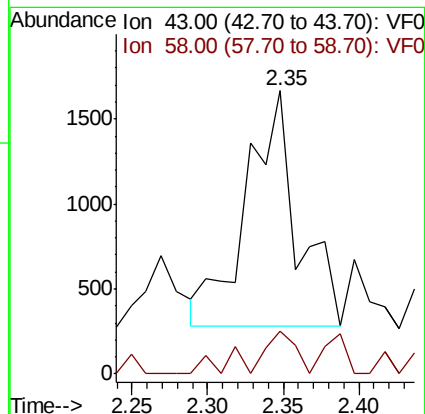
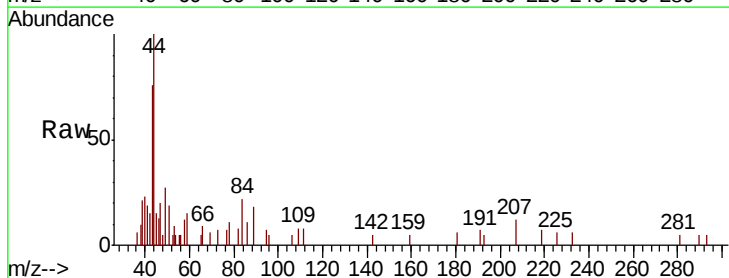
Acq: 4 Aug 2018 7:57

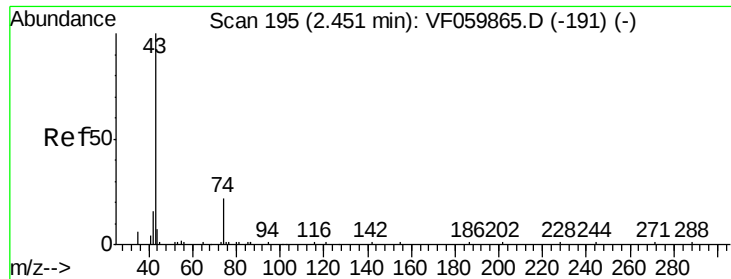
Tgt Ion: 43 Resp: 3257

Ion Ratio Lower Upper

43 100

58 15.2 9.4 14.0#

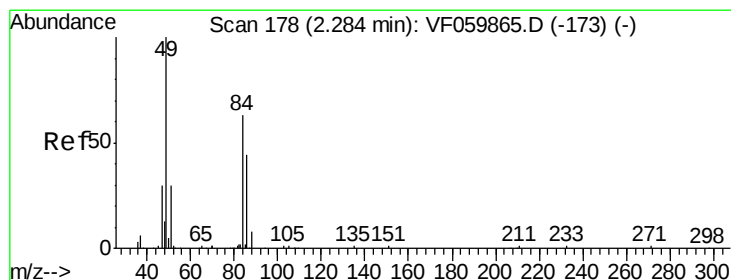
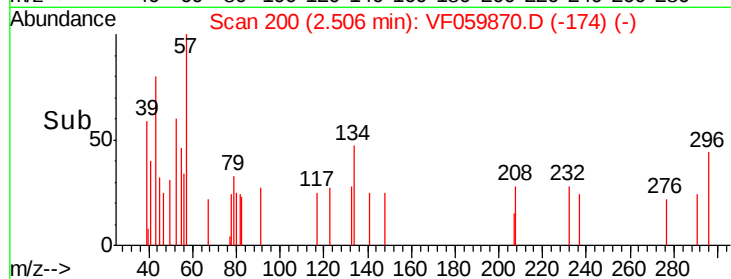
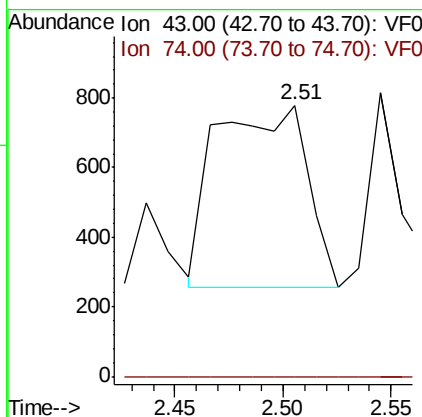
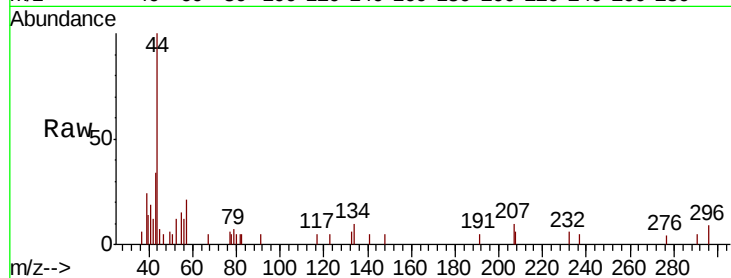




#18  
Methyl Acetate  
Concen: 1.304 ug/l  
RT: 2.51 min Scan# 200  
Delta R.T. 0.05 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

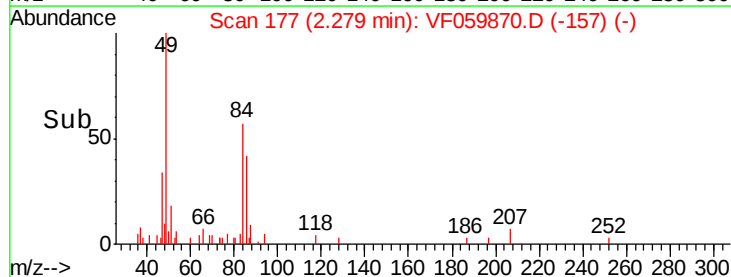
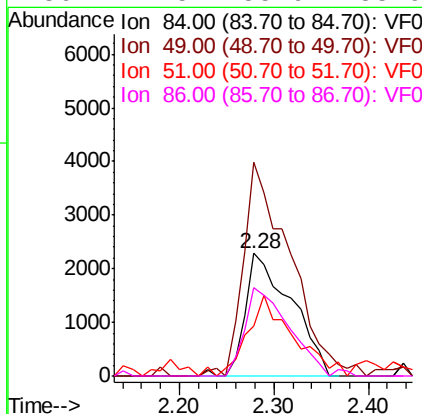
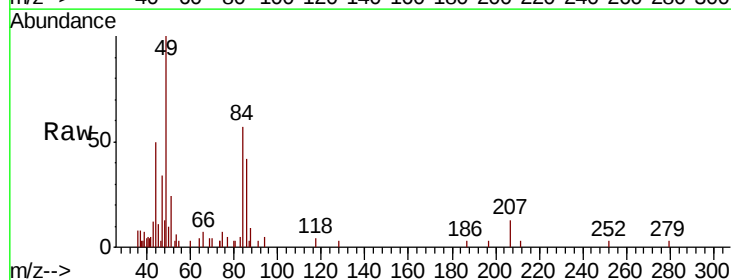
Instrument :  
MSVOA\_F  
ClientSampled :

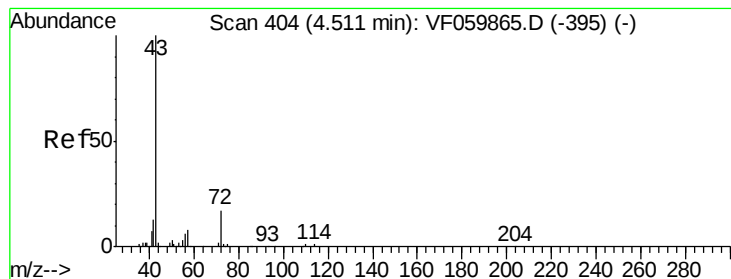
Tot Ion: 43 Resp: 1528  
Ion Ratio Lower Upper  
43 100  
74 0.0 16.3 24.5#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.28 min Scan# 177  
Delta R.T. -0.00 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

Tgt Ion: 84 Resp: 7708  
Ion Ratio Lower Upper  
84 100  
49 174.1 128.7 193.1  
51 41.1 39.3 58.9  
86 72.5 55.9 83.9





#25

2-Butanone

Concen: 1.505 ug/l

RT: 4.53 min Scan# 405

Delta R.T. 0.02 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

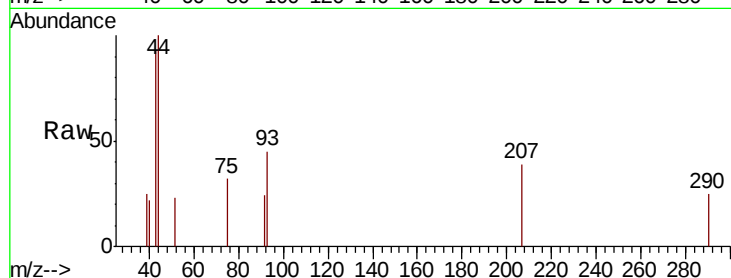
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 43 Resp: 1137

Ion Ratio Lower Upper

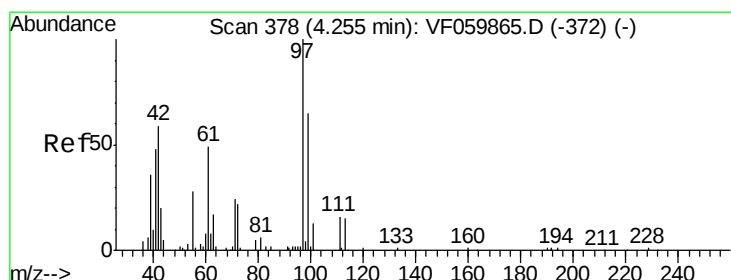
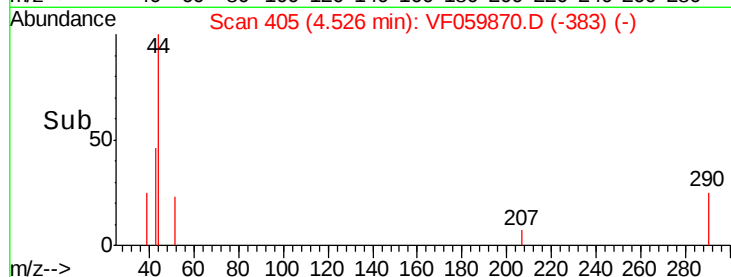
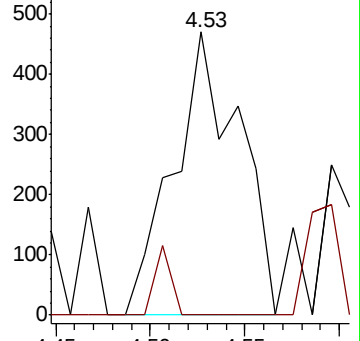
43 100

72 0.0 13.9 20.9#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0



#29

Tetrahydrofuran

Concen: 1.050 ug/l

RT: 4.27 min Scan# 379

Delta R.T. 0.02 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

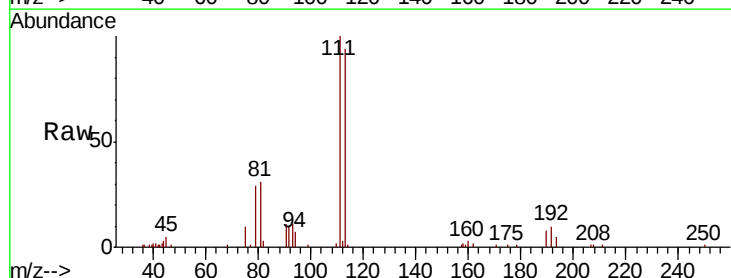
Tgt Ion: 42 Resp: 292

Ion Ratio Lower Upper

42 100

72 0.0 29.3 43.9#

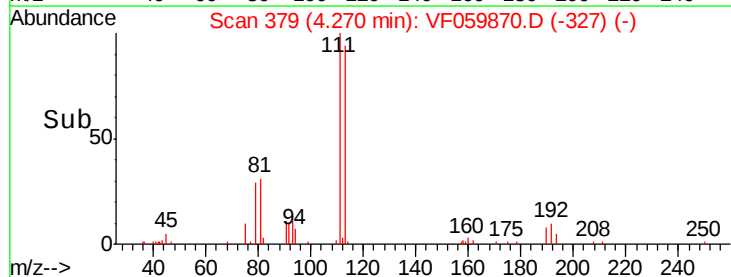
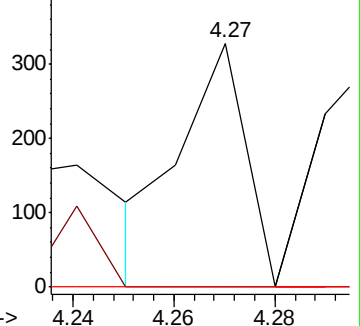
71 0.0 30.0 45.0#

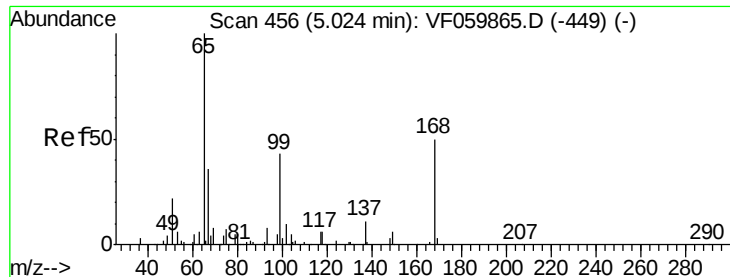


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

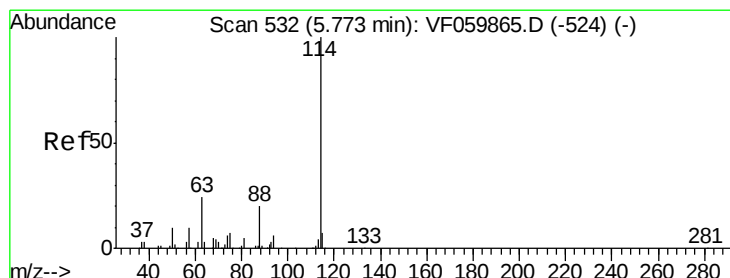
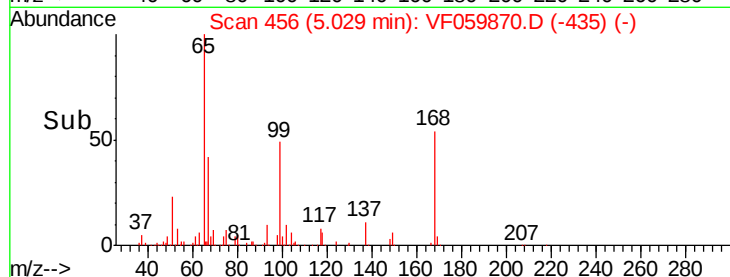
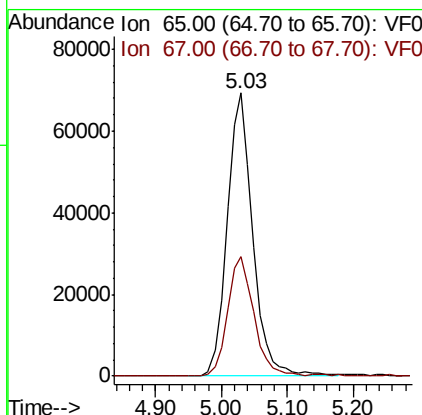
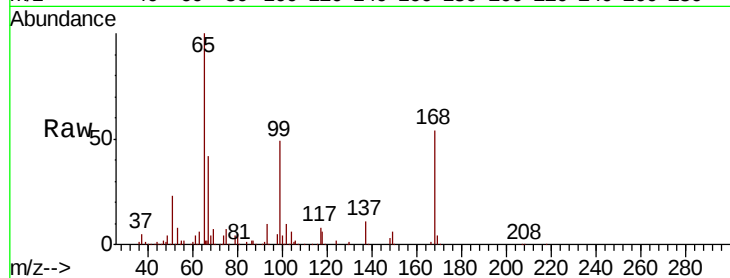




#33  
 1,2-Dichloroethane-d4  
 Concen: 50.160 ug/l  
 RT: 5.03 min Scan# 456  
 Delta R.T. 0.01 min  
 Lab File: VF059870.D  
 Acq: 4 Aug 2018 7:57

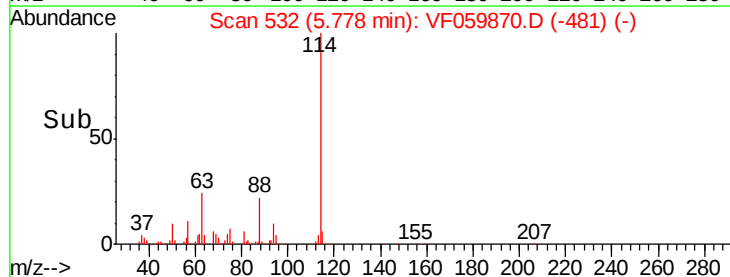
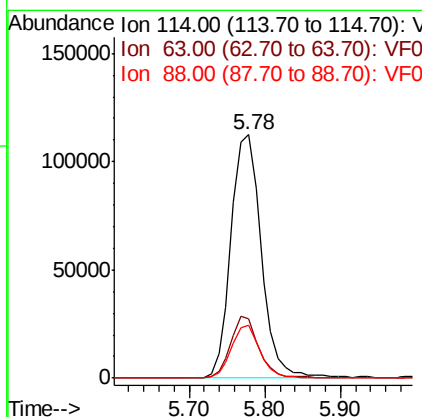
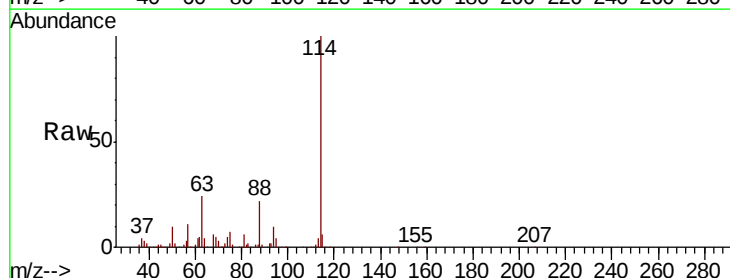
Instrument :  
 MSVOA\_F  
 ClientSampleId :

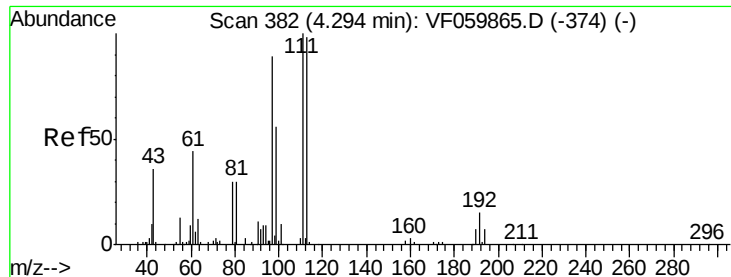
Tot Ion: 65 Resp: 188793  
 Ion Ratio Lower Upper  
 65 100  
 67 42.0 0.0 77.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.78 min Scan# 532  
 Delta R.T. 0.01 min  
 Lab File: VF059870.D  
 Acq: 4 Aug 2018 7:57

Tgt Ion: 114 Resp: 312306  
 Ion Ratio Lower Upper  
 114 100  
 63 24.4 0.0 48.0  
 88 21.6 0.0 39.4

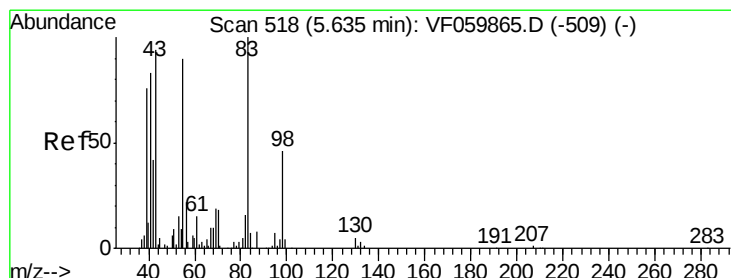
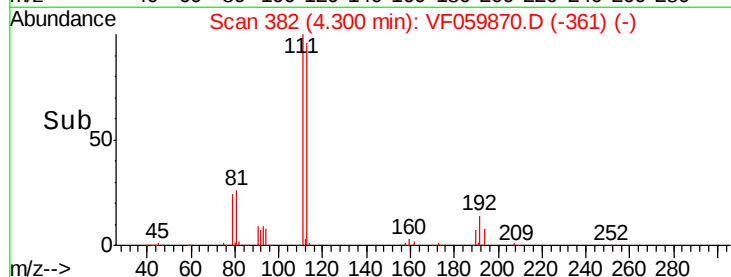
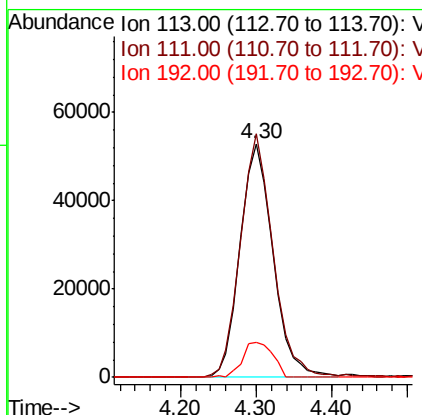
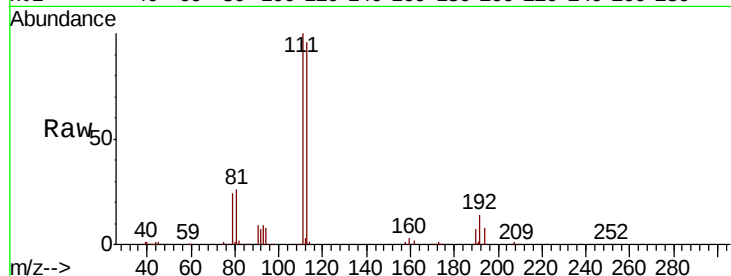




#35  
 Dibromofluoromethane  
 Concen: 51.765 ug/l  
 RT: 4.30 min Scan# 382  
 Delta R.T. 0.01 min  
 Lab File: VF059870.D  
 Acq: 4 Aug 2018 7:57

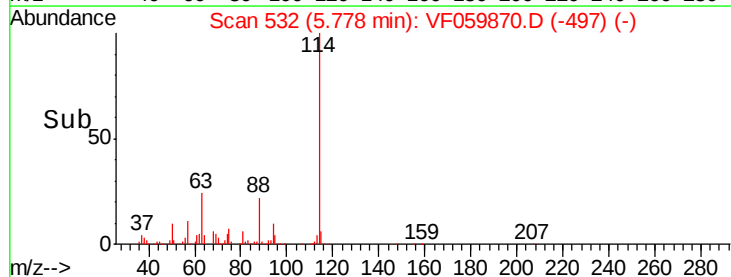
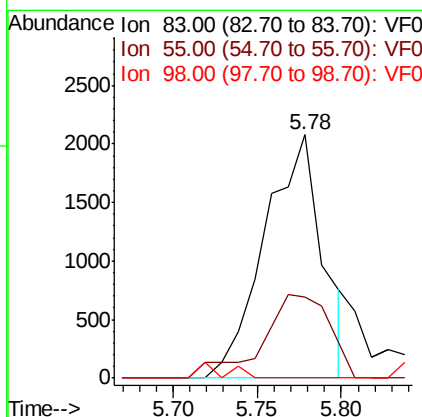
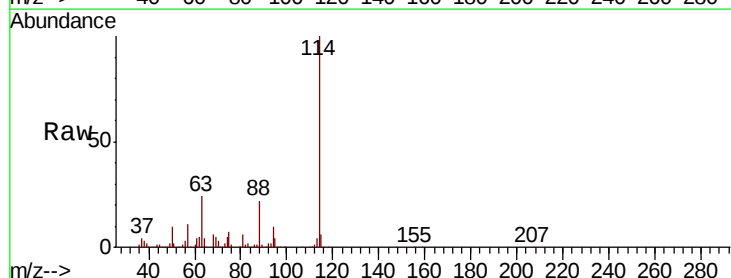
Instrument :  
 MSVOA\_F  
 ClientSampleId :

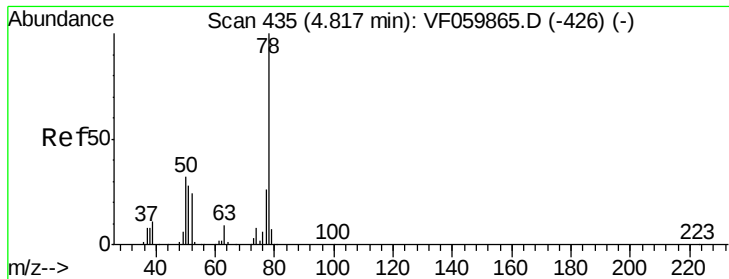
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 104.2 | 81.8  | 122.8 |
| 192     | 15.0  | 12.4  | 18.6  |



#39  
 Methylcyclohexane  
 Concen: 1.835 ug/l  
 RT: 5.78 min Scan# 532  
 Delta R.T. 0.14 min  
 Lab File: VF059870.D  
 Acq: 4 Aug 2018 7:57

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 83      | 100   |       |        |
| 55      | 33.6  | 72.0  | 108.0# |
| 98      | 0.0   | 36.6  | 54.8#  |





#40

Benzene

Concen: Below Cal

RT: 4.82 min Scan# 435

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

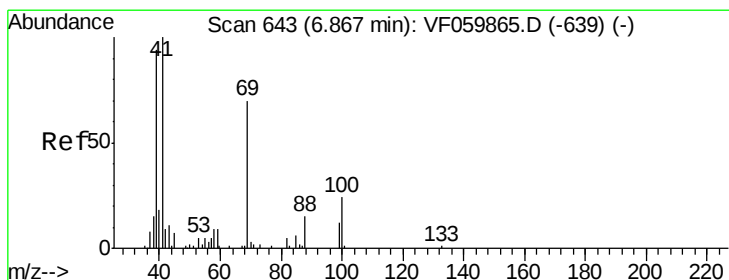
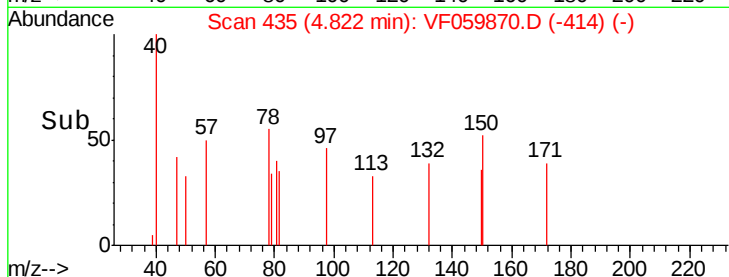
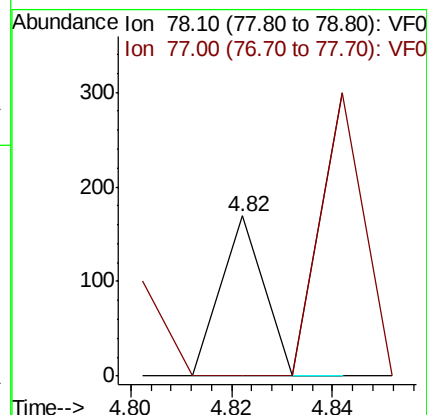
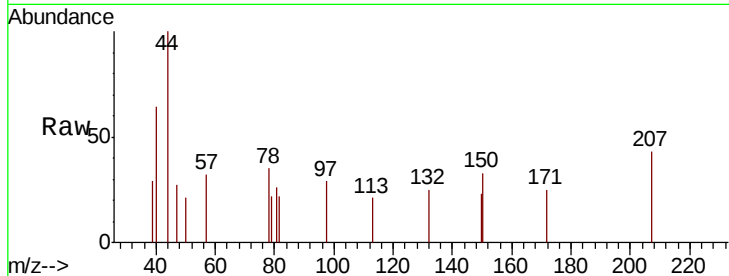
Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 78 Resp: 100

Ion Ratio Lower Upper

78 100

77 0.0 20.7 31.1#



#49

1,4-Dioxane

Concen: 88.774 ug/l

RT: 6.87 min Scan# 643

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

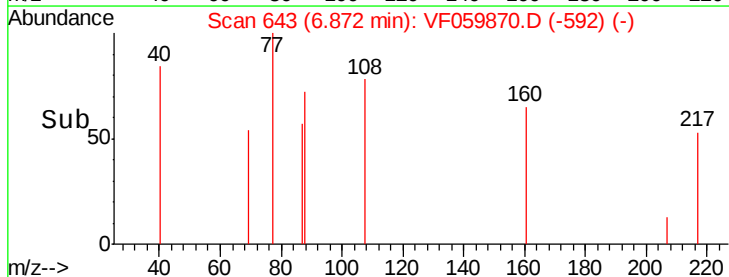
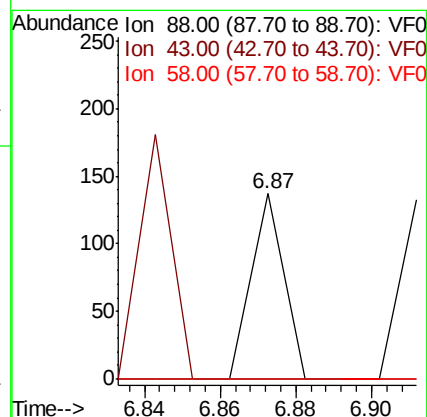
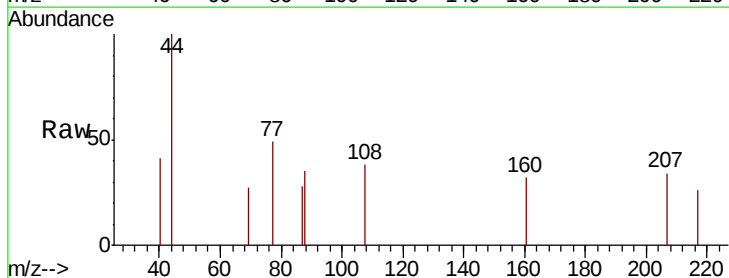
Tgt Ion: 88 Resp: 81

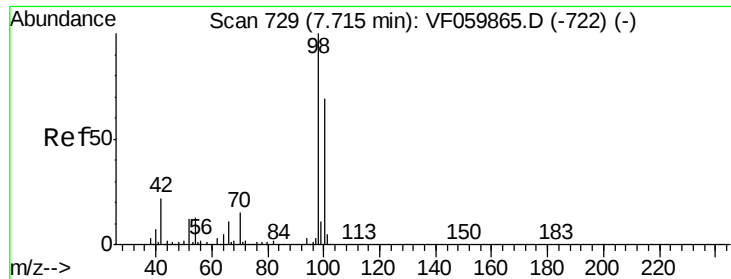
Ion Ratio Lower Upper

88 100

43 0.0 58.3 87.5#

58 0.0 49.4 74.2#





#50

Toluene-d8

Concen: 56.760 ug/l

RT: 7.72 min Scan# 729

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

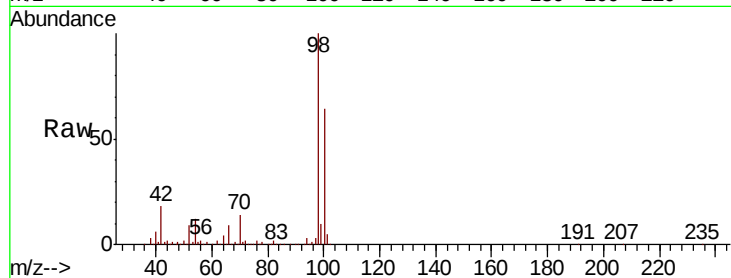
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 98 Resp: 375264

Ion Ratio Lower Upper

98 100

100 64.4 55.0 82.6



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF

7.72

150000

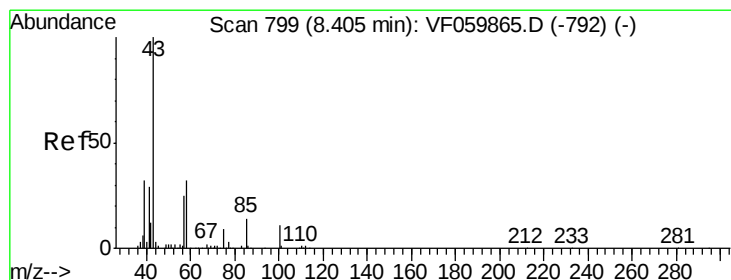
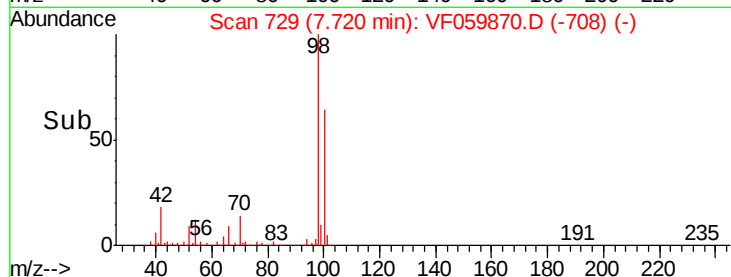
100000

50000

0

Time-->

7.60 7.70 7.80 7.90



#51

4-Methyl-2-Pentanone

Concen: 1.121 ug/l

RT: 8.41 min Scan# 799

Delta R.T. 0.01 min

Lab File: VF059870.D

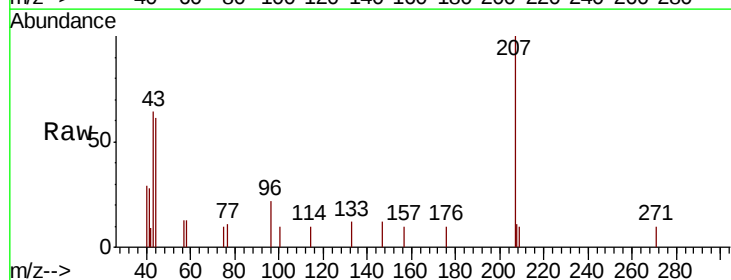
Acq: 4 Aug 2018 7:57

Tgt Ion: 43 Resp: 1830

Ion Ratio Lower Upper

43 100

58 20.6 25.4 38.0#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

800

600

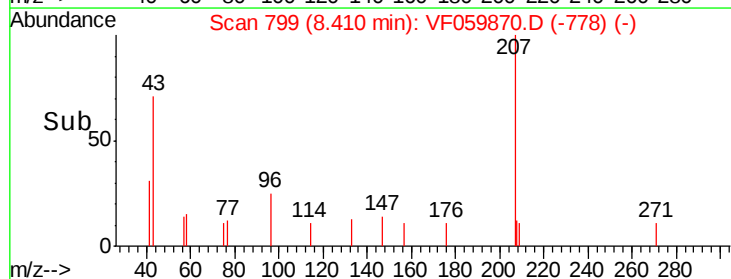
400

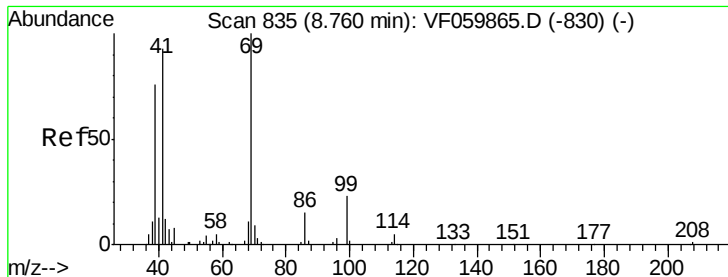
200

0

Time-->

8.30 8.35 8.40 8.45 8.50





#56

Ethyl methacrylate

Concen: 3.390 ug/l

RT: 8.77 min Scan# 835

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

Instrument :  
MSVOA\_F  
ClientSampled :

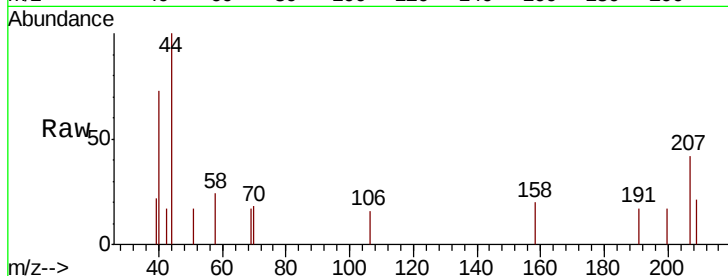
Tot Ion: 69 Resp: 65

Ion Ratio Lower Upper

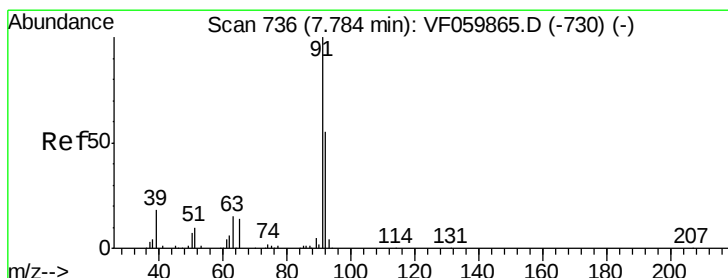
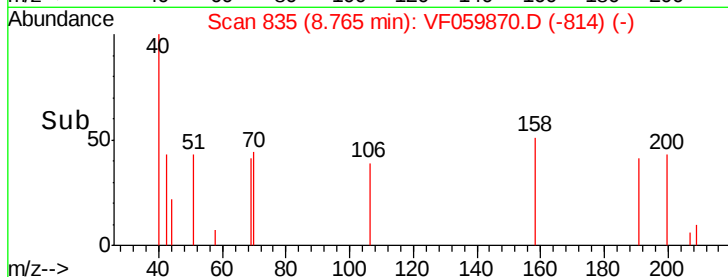
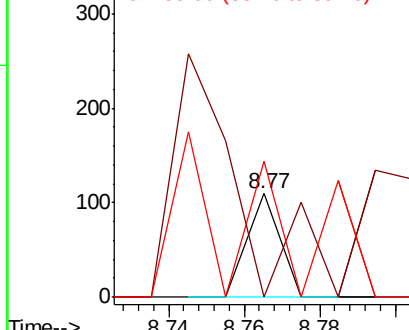
69 100

41 0.0 74.7 112.1#

39 130.9 61.1 91.7#



Abundance Ion 69.00 (68.70 to 69.70): VF0  
Ion 41.00 (40.70 to 41.70): VF0  
Ion 39.00 (38.70 to 39.70): VF0



#58

2-Chloroethyl Vinyl ether

Concen: 4.680 ug/l

RT: 7.73 min Scan# 730

Delta R.T. -0.05 min

Lab File: VF059870.D

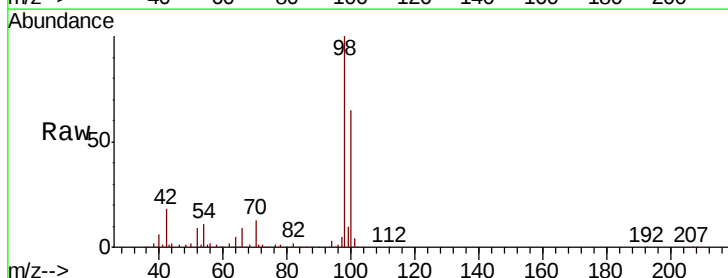
Acq: 4 Aug 2018 7:57

Tgt Ion: 63 Resp: 1017

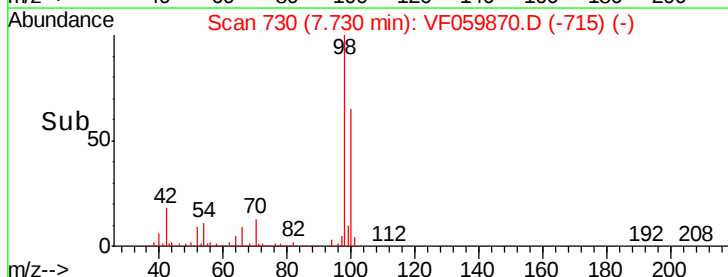
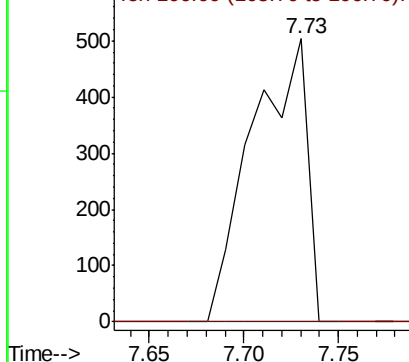
Ion Ratio Lower Upper

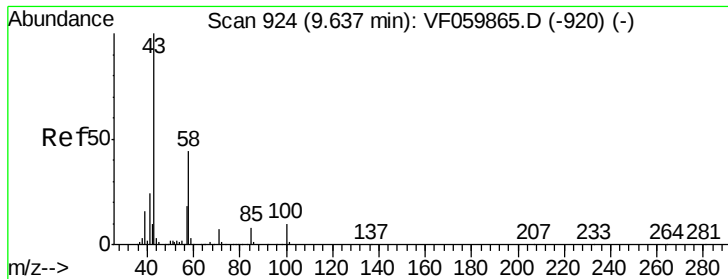
63 100

106 0.0 0.0 0.0



Abundance Ion 63.00 (62.70 to 63.70): VF0  
Ion 106.00 (105.70 to 106.70): V

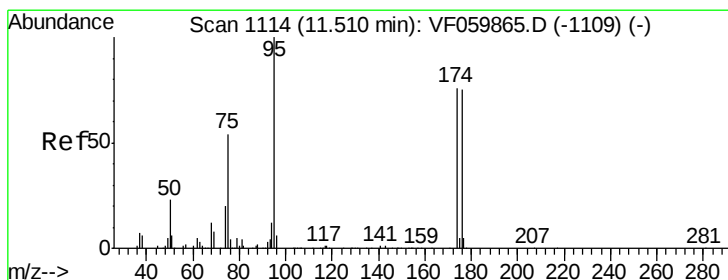
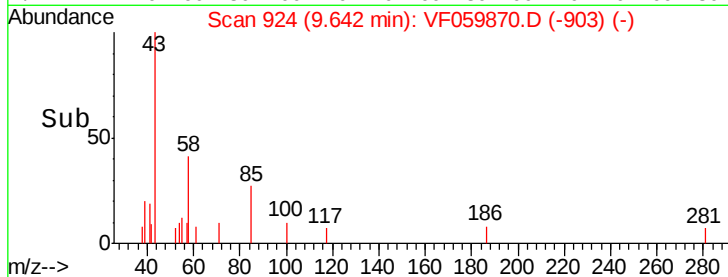
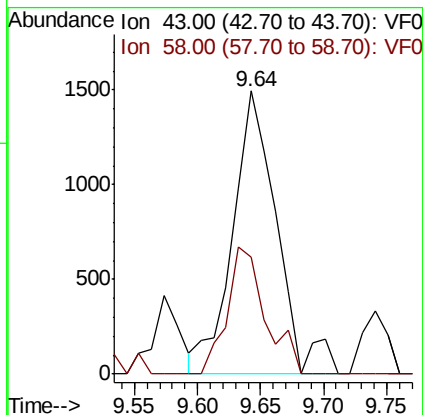
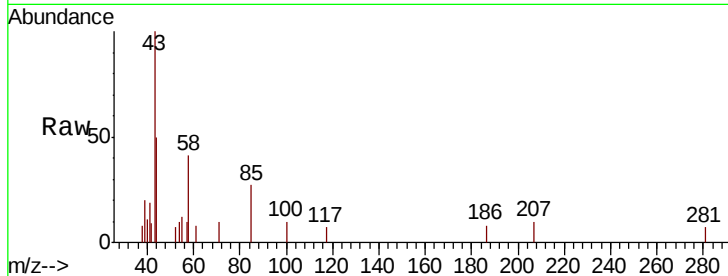




#59  
2-Hexanone  
Concen: 3.138 ug/l  
RT: 9.64 min Scan# 924  
Delta R.T. 0.01 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

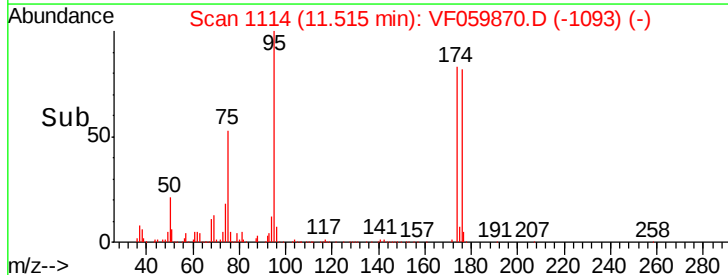
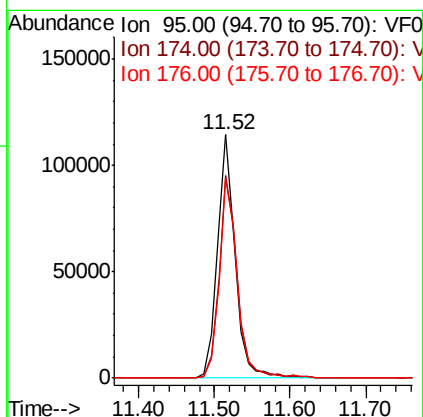
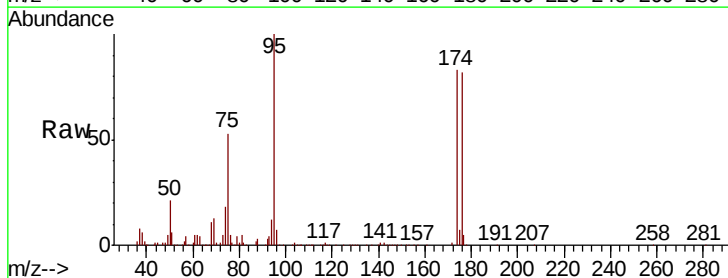
Instrument :  
MSVOA\_F  
ClientSampleId :

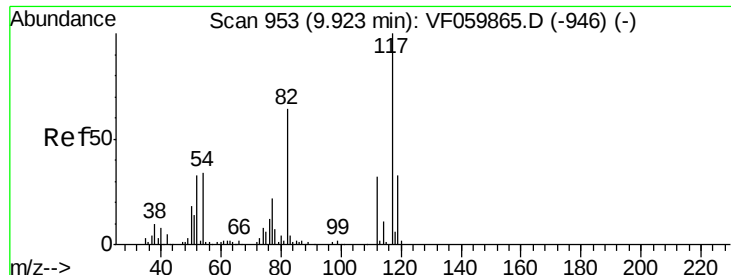
Tot Ion: 43 Resp: 3620  
Ion Ratio Lower Upper  
43 100  
58 41.4 20.8 62.2



#62  
4-Bromofluorobenzene  
Concen: 51.340 ug/l  
RT: 11.52 min Scan# 1114  
Delta R.T. 0.01 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

Tgt Ion: 95 Resp: 190737  
Ion Ratio Lower Upper  
95 100  
174 83.2 0.0 151.6  
176 82.2 0.0 149.8

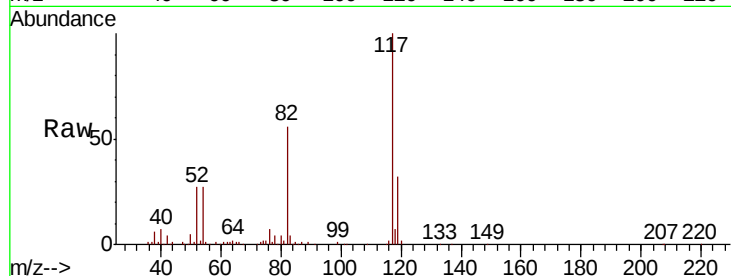




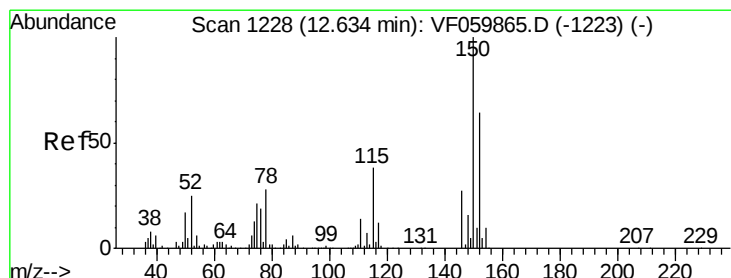
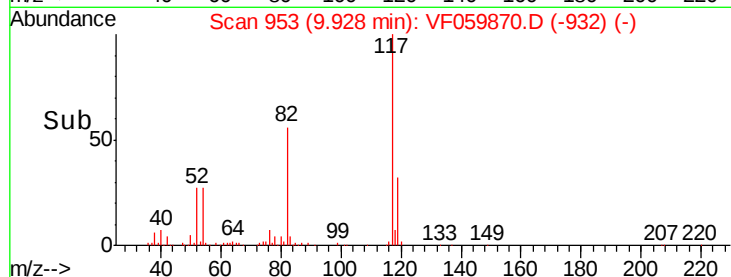
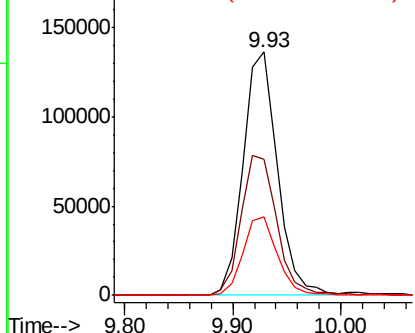
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.93 min Scan# 953  
Delta R.T. 0.01 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:117 Resp: 301694  
Ion Ratio Lower Upper  
117 100  
82 55.9 51.3 76.9  
119 32.4 26.4 39.6

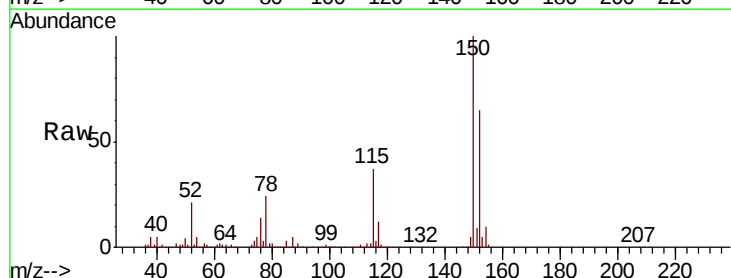


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): VF0  
Ion 119.00 (118.70 to 119.70): V

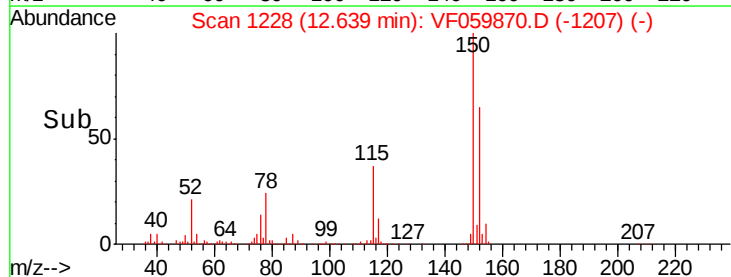
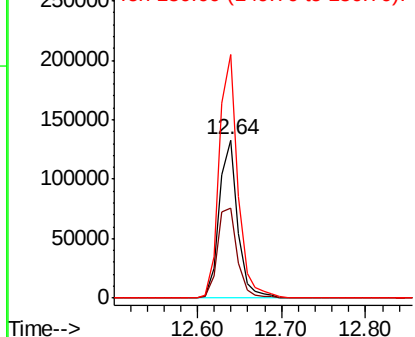


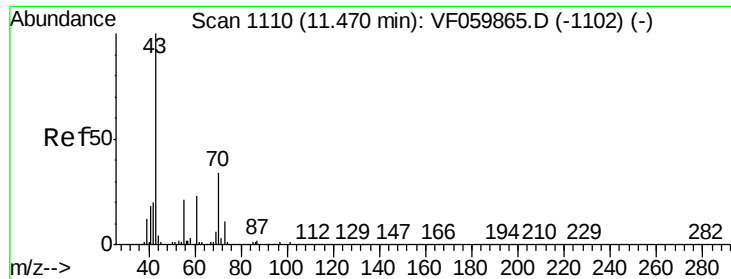
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.64 min Scan# 1228  
Delta R.T. 0.01 min  
Lab File: VF059870.D  
Acq: 4 Aug 2018 7:57

Tgt Ion:152 Resp: 203329  
Ion Ratio Lower Upper  
152 100  
115 57.0 29.8 89.4  
150 154.0 0.0 315.6



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





#74

N-amvl acetate

Concen: 3.549 ug/l

RT: 11.48 min Scan# 1110

Delta R.T. 0.01 min

Lab File: VF059870.D

Acq: 4 Aug 2018 7:57

Instrument :

MSVOA\_F

ClientSampleId :

Tot Ion: 43 Resp: 1967

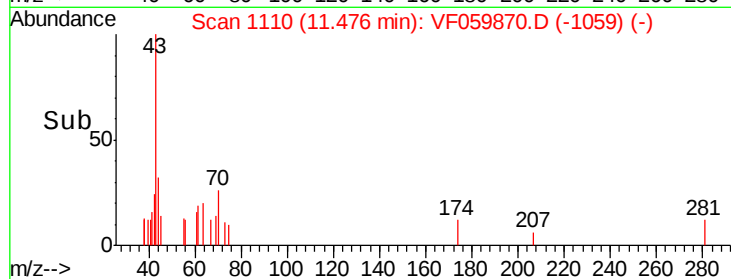
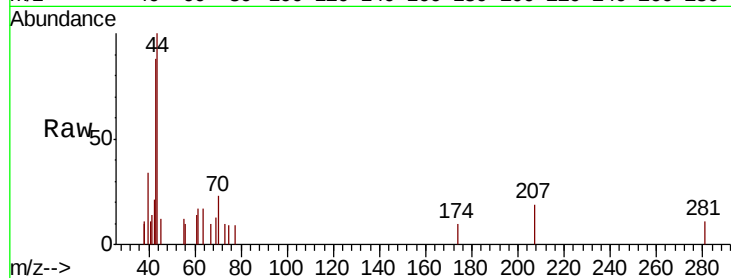
Ion Ratio Lower Upper

43 100

70 26.3 27.5 41.3#

55 13.2 16.6 25.0#

61 19.5 18.2 27.4



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 70.00 (69.70 to 70.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

