

Data File : VF061312.D  
Acq On : 9 Jan 2019 20:29  
Operator : VA/AP  
Sample : K1087-03  
Misc : 5.52g/5mL/MSVOA-F/SOIL  
ALS Vial : 21 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
MH-448-10.0-11.0

Quant Time: Jan 10 05:59:47 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 09 07:13:51 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.88  | 168  | 227545   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.61  | 114  | 432226   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.78  | 117  | 402944   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.56 | 152  | 212673   | 50.00 | ug/l  | 0.00     |

System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 4.86   | 65  | 149395   | 58.99 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 117.98% |      |
| 35) Dibromofluoromethane  | 4.13   | 113 | 171253   | 51.78 | ug/l    | 0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.56% |      |
| 50) Toluene-d8            | 7.57   | 98  | 422744   | 43.19 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 86.38%  |      |
| 62) 4-Bromofluorobenzene  | 11.42  | 95  | 212380   | 49.70 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.40%  |      |

Target Compounds

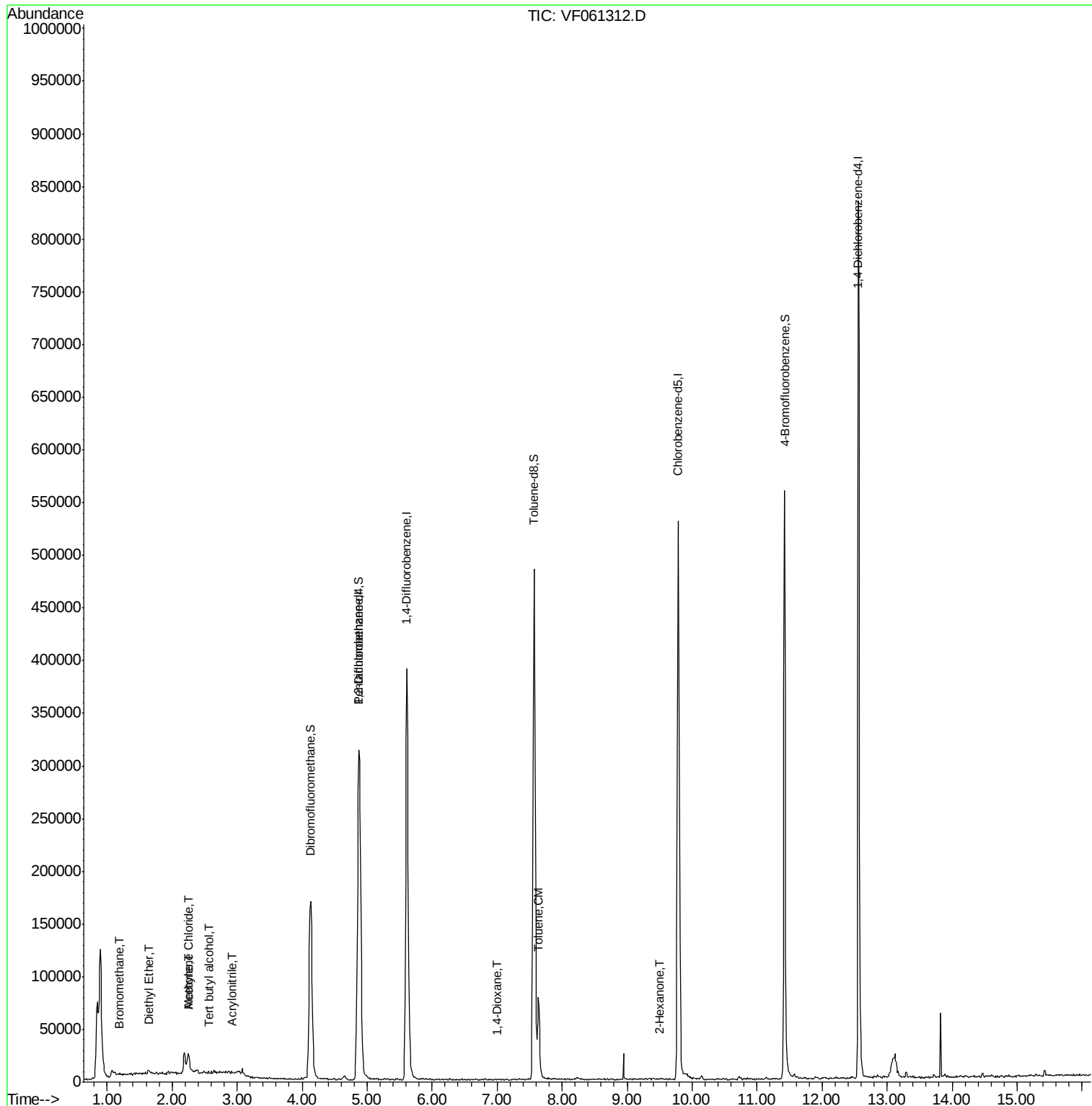
|                        |      |    |       |           |        | Qvalue |
|------------------------|------|----|-------|-----------|--------|--------|
| 5) Bromomethane        | 1.19 | 94 | 374   | 3.035     | ug/l   | 87     |
| 8) Diethyl Ether       | 1.64 | 74 | 1193  | 1.435     | ug/l   | 83     |
| 11) Tert butyl alcohol | 2.56 | 59 | 287   | 2.830     | ug/l # | 25     |
| 13) Acrolein           | 1.99 | 56 | 375   | Below Cal | #      | 37     |
| 15) Acrylonitrile      | 2.93 | 53 | 424   | 1.179     | ug/l # | 31     |
| 16) Acetone            | 2.25 | 43 | 15201 | 25.801    | ug/l   | 94     |
| 20) Methylene Chloride | 2.24 | 84 | 7610  | 3.053     | ug/l   | 88     |
| 49) 1,4-Dioxane        | 7.00 | 88 | 61    | 6.138     | ug/l # | 20     |
| 52) Toluene            | 7.63 | 92 | 40345 | 5.327     | ug/l   | 87     |
| 59) 2-Hexanone         | 9.51 | 43 | 1322  | 1.019     | ug/l   | 82     |

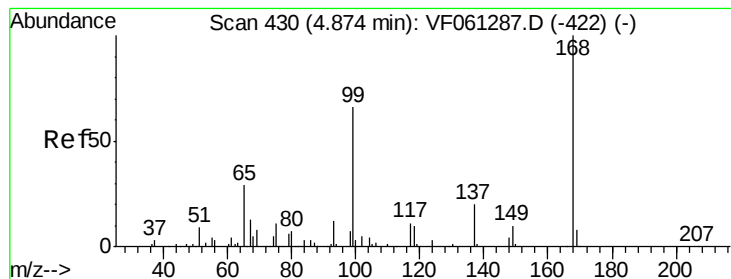
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : VF061312.D  
Acq On : 9 Jan 2019 20:29  
Operator : VA/AP  
Sample : K1087-03  
Misc : 5.52g/5mL/MSVOA-F/SOIL  
ALS Vial : 21 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
MH-448-10.0-11.0

Quant Time: Jan 10 05:59:47 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 09 07:13:51 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.88 min Scan# 431

Delta R.T. 0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

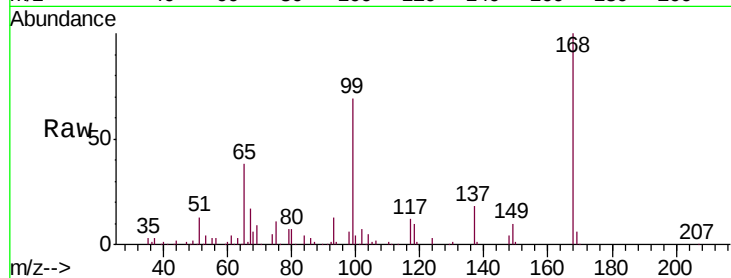
MH-448-10.0-11.0

Tgt Ion:168 Resp: 227545

Ion Ratio Lower Upper

168 100

99 69.5 52.7 79.1



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.88

80000

60000

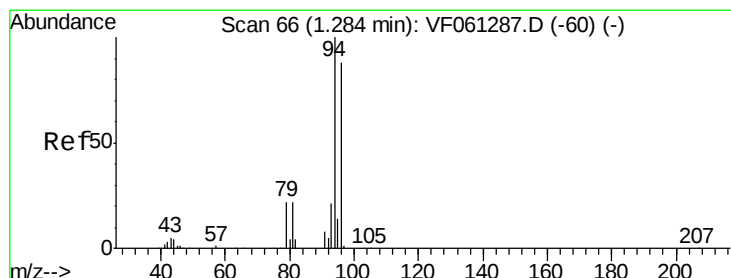
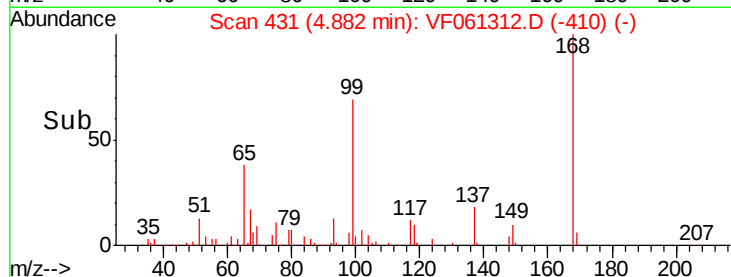
40000

20000

0

Time-->

4.70 4.80 4.90 5.00 5.10



#5

Bromomethane

Concen: 3.035 ug/l

RT: 1.19 min Scan# 57

Delta R.T. -0.09 min

Lab File: VF061312.D

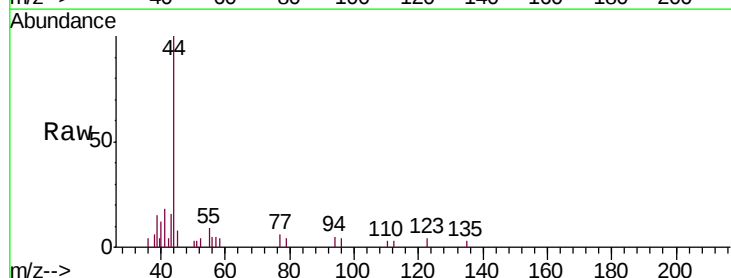
Acq: 9 Jan 2019 20:29

Tgt Ion: 94 Resp: 374

Ion Ratio Lower Upper

94 100

96 75.7 70.2 105.4



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

200

150

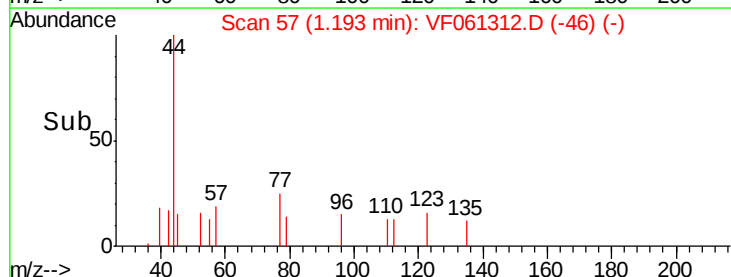
100

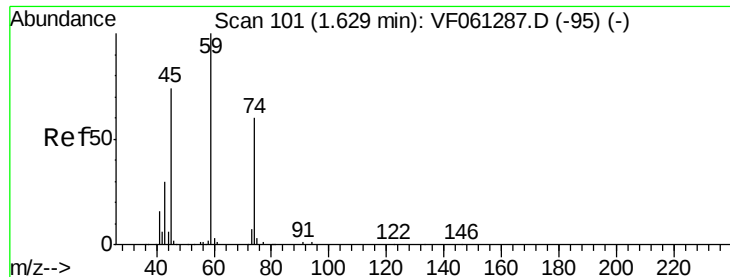
50

0

Time-->

1.18 1.20 1.22





#8

Diethyl Ether

Concen: 1.435 ug/l

RT: 1.64 min Scan# 102

Delta R.T. 0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

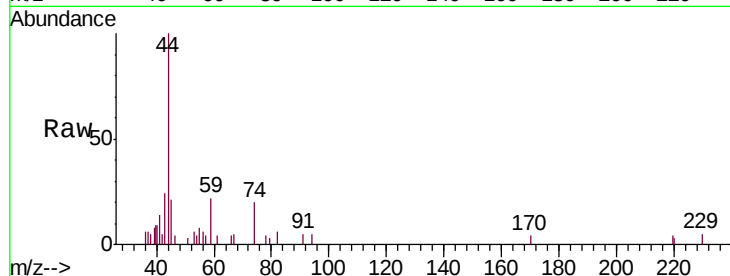
MH-448-10.0-11.0

Tgt Ion: 74 Resp: 1193

Ion Ratio Lower Upper

74 100

45 104.8 62.1 186.3



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0

800

600

400

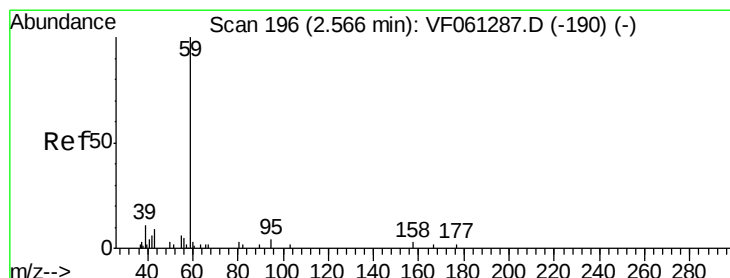
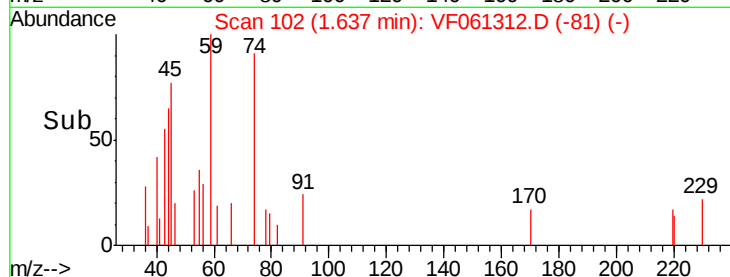
200

0

1.64

1.60 1.65 1.70

Time-->



#11

Tert butyl alcohol

Concen: 2.830 ug/l

RT: 2.56 min Scan# 196

Delta R.T. -0.00 min

Lab File: VF061312.D

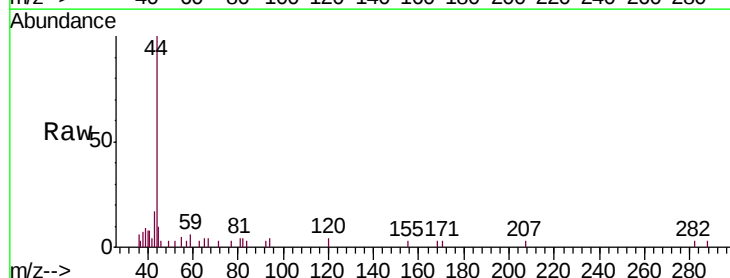
Acq: 9 Jan 2019 20:29

Tgt Ion: 59 Resp: 287

Ion Ratio Lower Upper

59 100

57 52.5 15.1 22.7#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

250

200

150

100

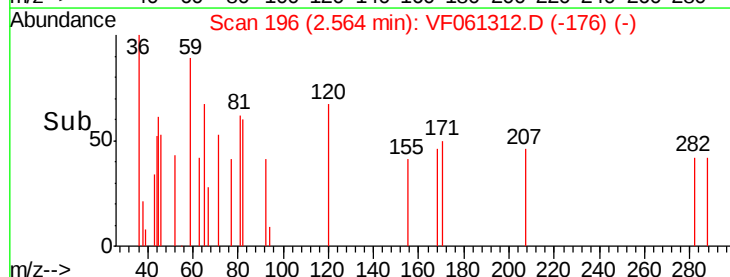
50

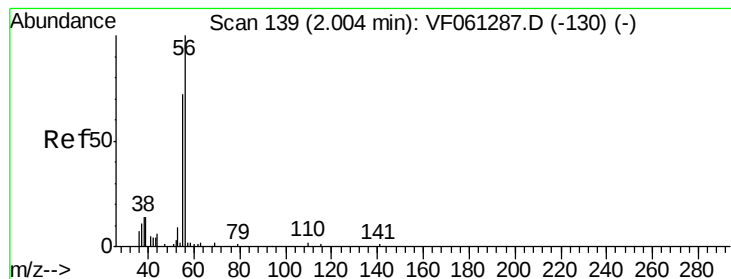
0

2.56

2.55 2.60

Time-->





#13

Acrolein

Concen: Below Cal

RT: 1.99 min Scan# 138

Delta R.T. -0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

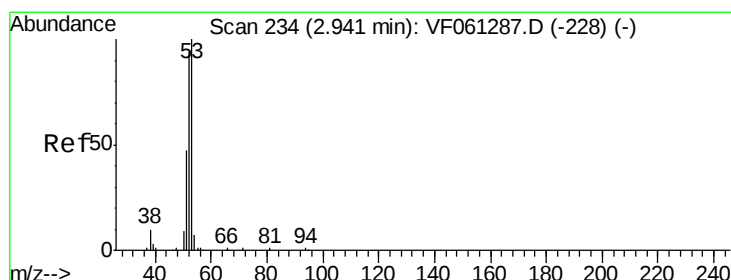
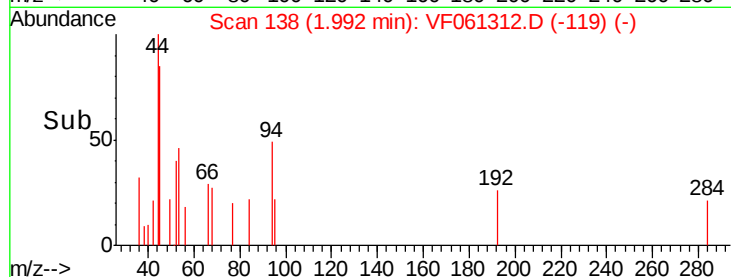
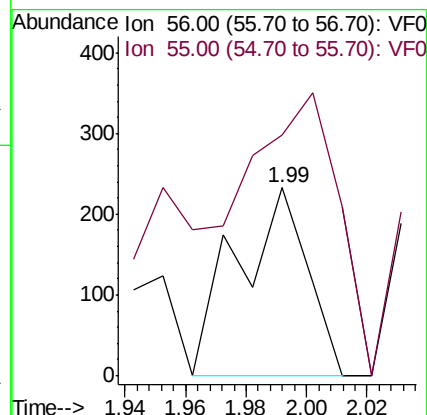
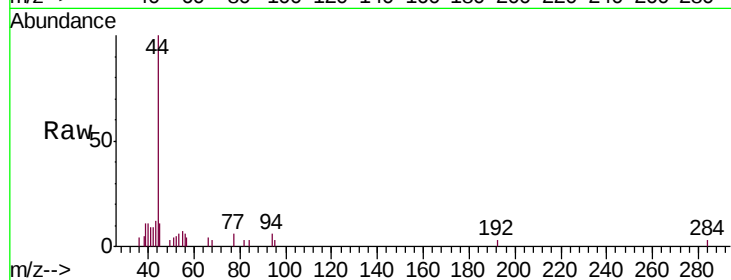
MH-448-10.0-11.0

Tgt Ion: 56 Resp: 375

Ion Ratio Lower Upper

56 100

55 127.9 59.4 89.0#



#15

Acrylonitrile

Concen: 1.179 ug/l

RT: 2.93 min Scan# 233

Delta R.T. -0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

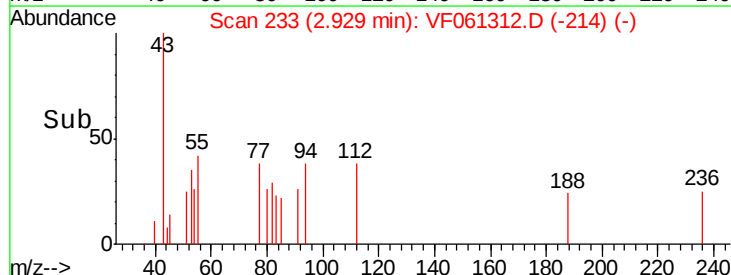
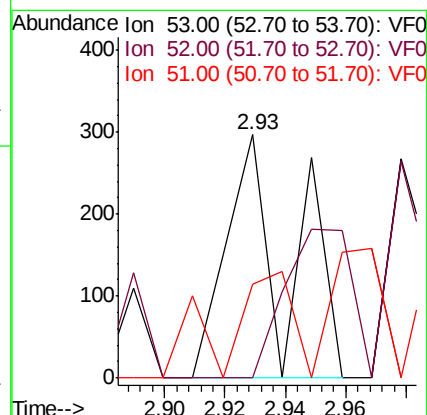
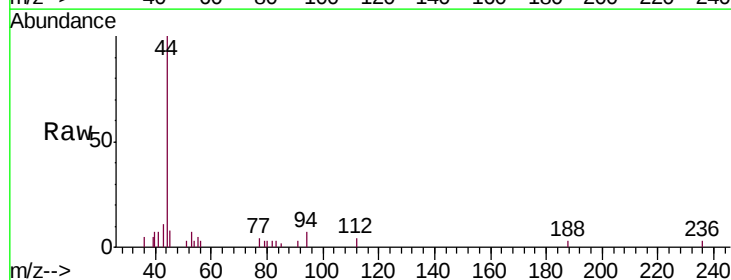
Tgt Ion: 53 Resp: 424

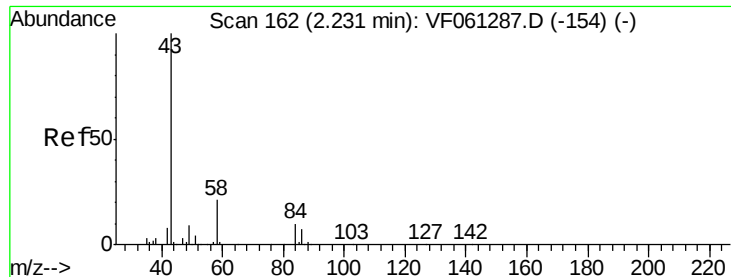
Ion Ratio Lower Upper

53 100

52 0.0 74.6 111.8#

51 38.7 37.8 56.6





#16

Acetone

Concen: 25.801 ug/l

RT: 2.25 min Scan# 164

Delta R.T. 0.02 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

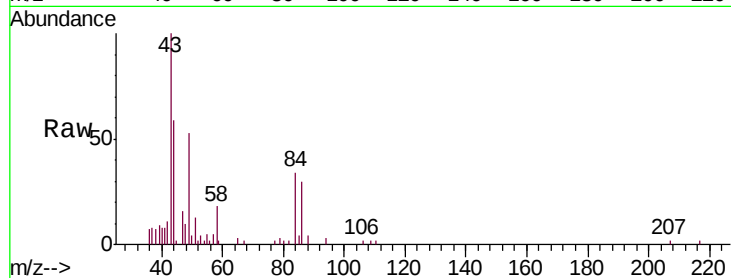
MH-448-10.0-11.0

Tgt Ion: 43 Resp: 15201

Ion Ratio Lower Upper

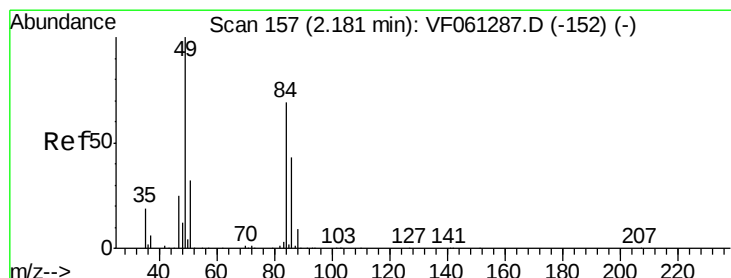
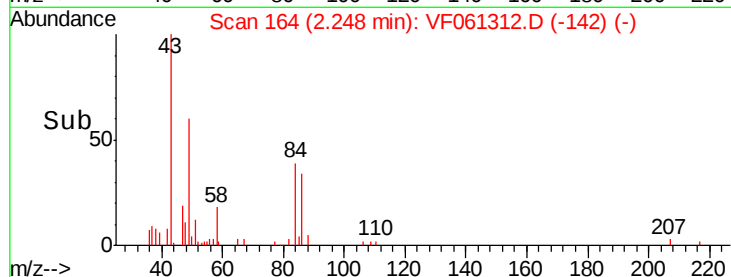
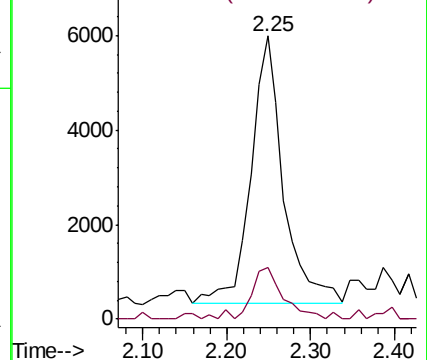
43 100

58 18.1 16.6 25.0



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#20

Methylene Chloride

Concen: 3.053 ug/l

RT: 2.24 min Scan# 163

Delta R.T. 0.06 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Tgt Ion: 84 Resp: 7610

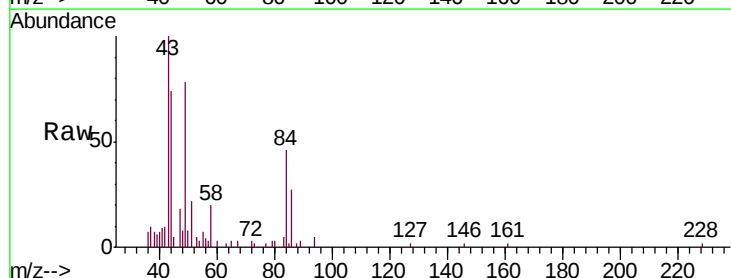
Ion Ratio Lower Upper

84 100

49 169.1 116.6 175.0

51 46.9 37.7 56.5

86 59.1 49.8 74.8

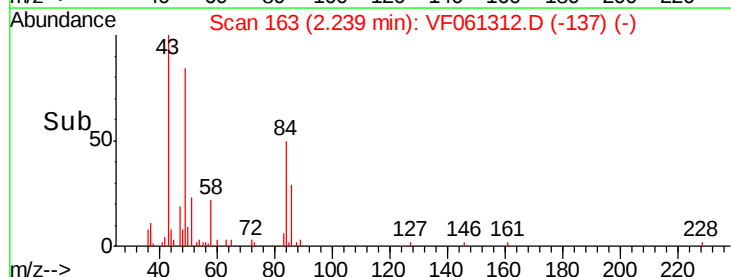
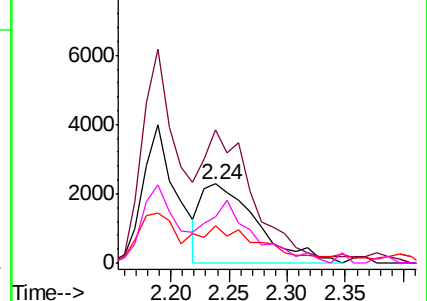


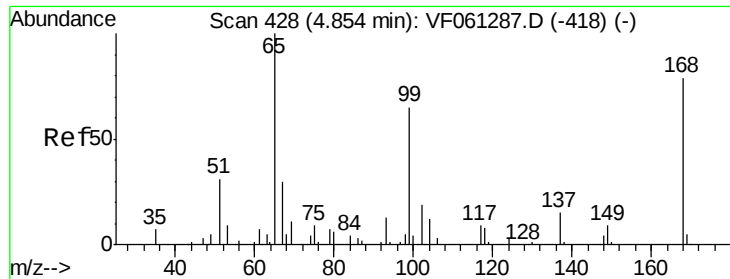
Abundance Ion 84.00 (83.70 to 84.70): VF0

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





#33

1,2-Dichloroethane-d4

Concen: 58.986 ug/l

RT: 4.86 min Scan# 429

Delta R.T. 0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

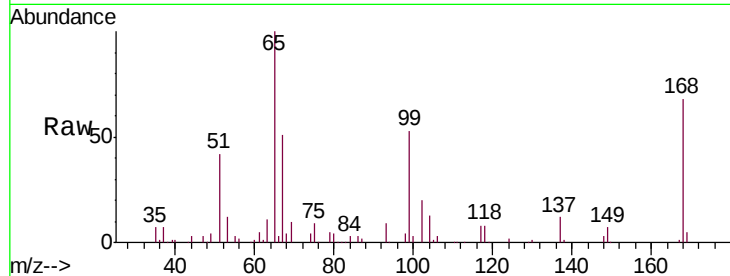
MH-448-10.0-11.0

Tgt Ion: 65 Resp: 149395

Ion Ratio Lower Upper

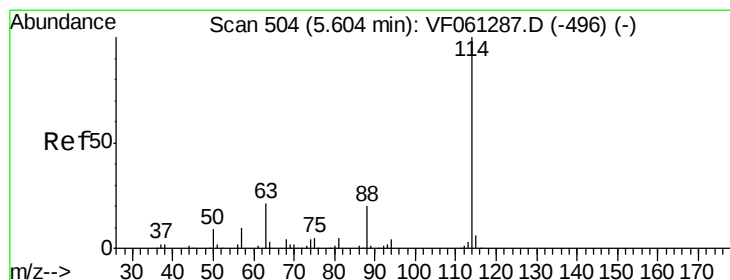
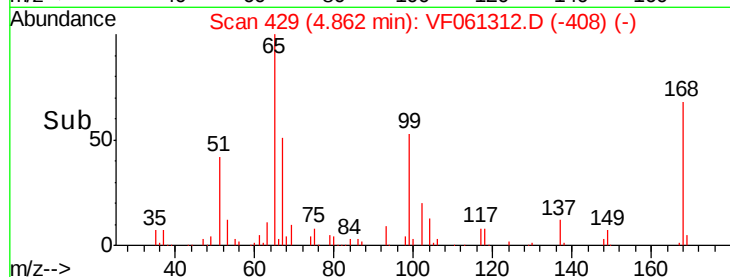
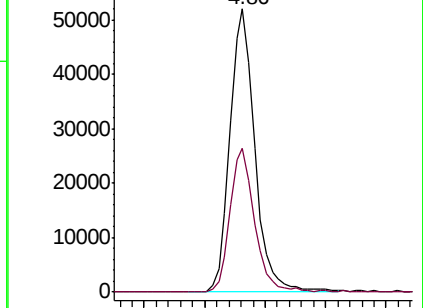
65 100

67 50.9 0.0 98.2



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.61 min Scan# 505

Delta R.T. 0.01 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

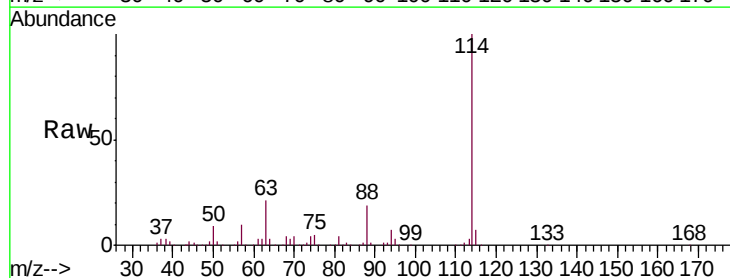
Tgt Ion: 114 Resp: 432226

Ion Ratio Lower Upper

114 100

63 20.8 0.0 42.8

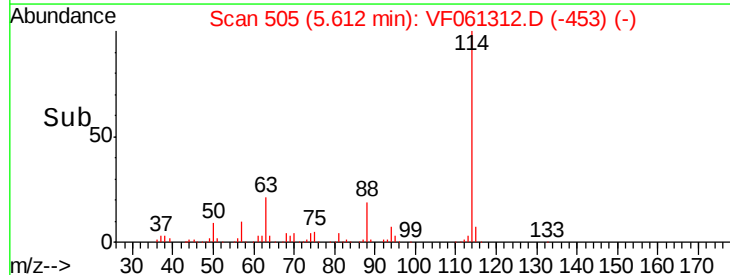
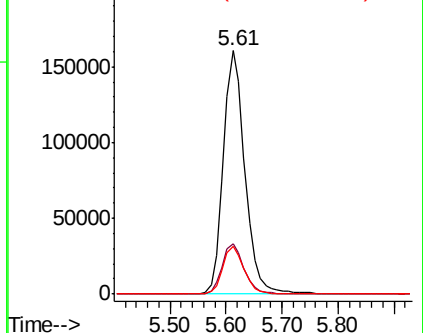
88 19.4 0.0 40.0

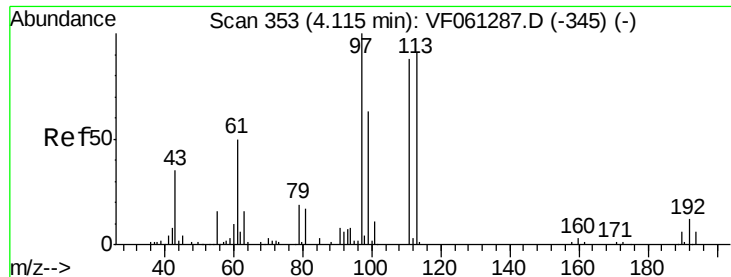


Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0





#35

Dibromofluoromethane

Concen: 51.781 ug/l

RT: 4.13 min Scan# 355

Delta R.T. 0.02 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

MH-448-10.0-11.0

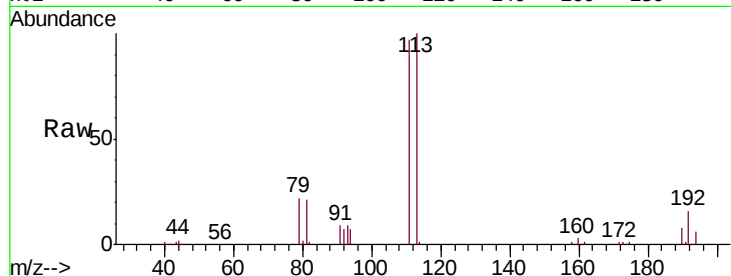
Tgt Ion:113 Resp: 171253

Ion Ratio Lower Upper

113 100

111 97.4 78.0 117.0

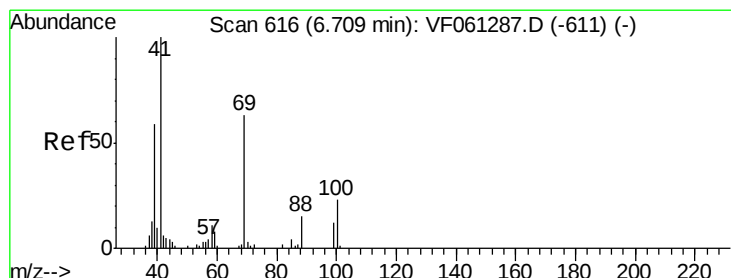
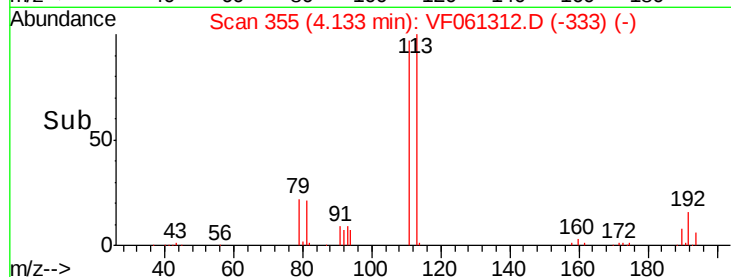
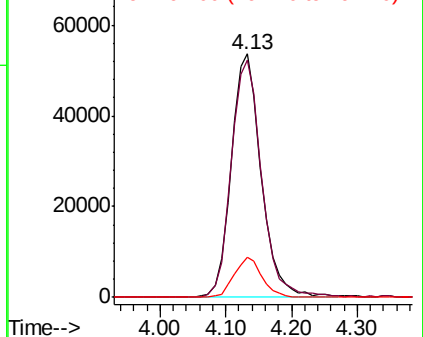
192 16.3 10.6 16.0#



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



#49

1,4-Dioxane

Concen: 6.138 ug/l

RT: 7.00 min Scan# 646

Delta R.T. 0.29 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

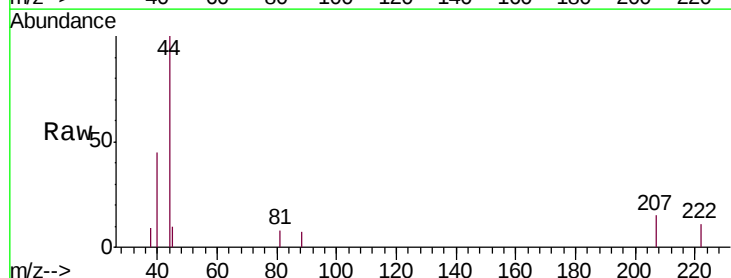
Tgt Ion: 88 Resp: 61

Ion Ratio Lower Upper

88 100

43 0.0 38.5 57.7#

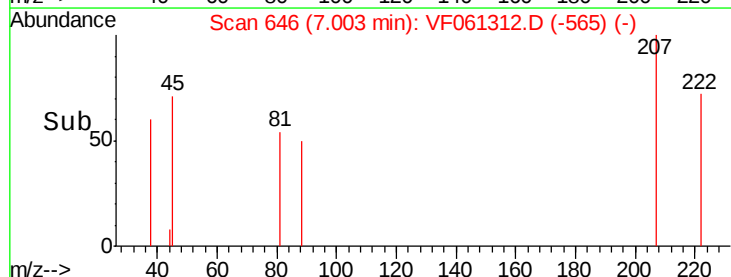
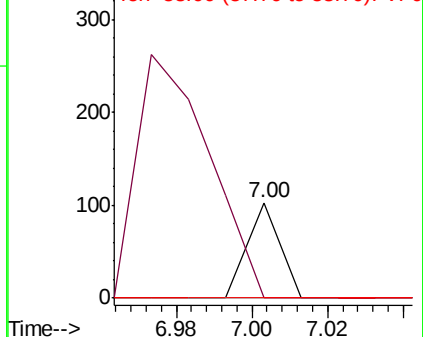
58 0.0 57.0 85.4#

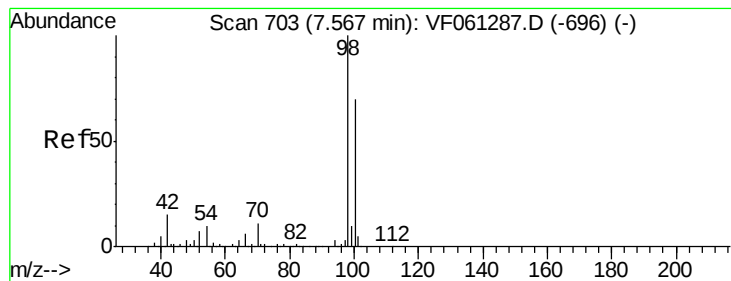


Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#50

Toluene-d8

Concen: 43.195 ug/l

RT: 7.57 min Scan# 703

Delta R.T. -0.00 min

Lab File: VF061312.D

Acq: 9 Jan 2019 20:29

Instrument :

MSVOA\_F

ClientSampleId :

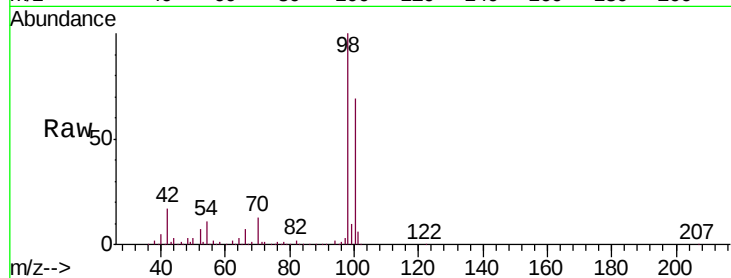
MH-448-10.0-11.0

Tgt Ion: 98 Resp: 422744

Ion Ratio Lower Upper

98 100

100 69.3 55.6 83.4



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF

7.57

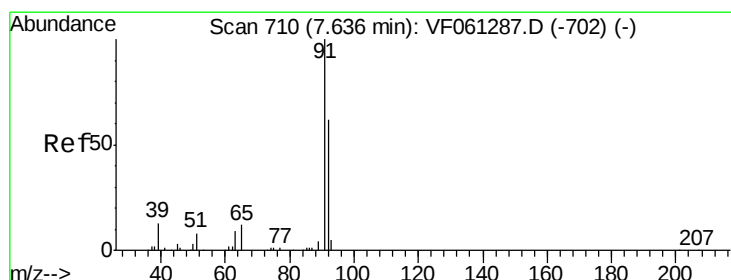
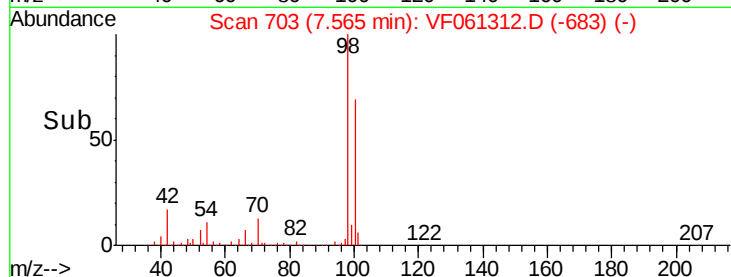
150000

100000

50000

0

Time--> 7.40 7.50 7.60 7.70 7.80



#52

Toluene

Concen: 5.327 ug/l

RT: 7.63 min Scan# 710

Delta R.T. -0.00 min

Lab File: VF061312.D

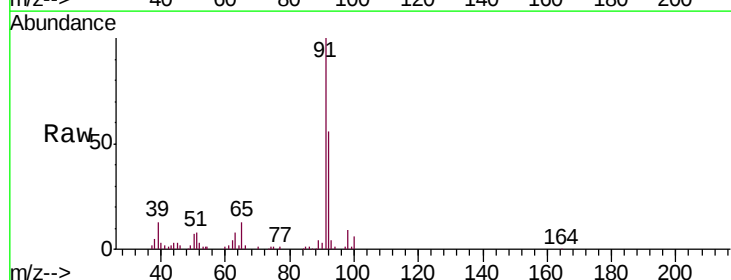
Acq: 9 Jan 2019 20:29

Tgt Ion: 92 Resp: 40345

Ion Ratio Lower Upper

92 100

91 178.1 129.2 193.8



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

7.63

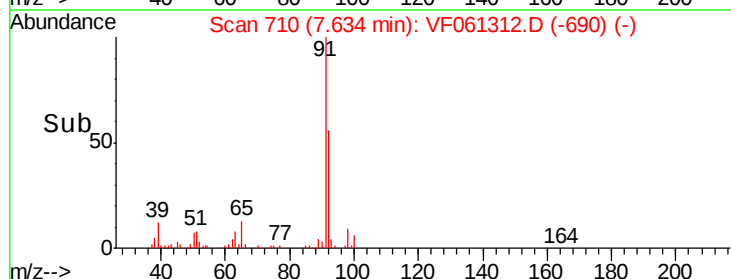
30000

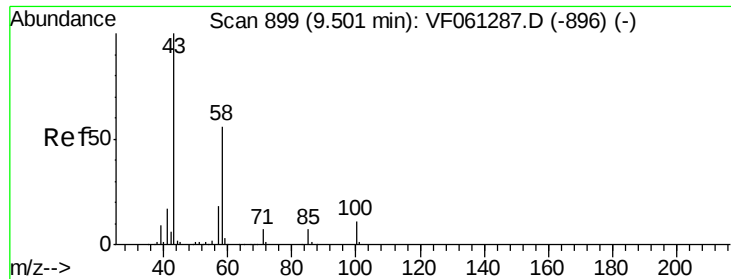
20000

10000

0

Time--> 7.50 7.60 7.70 7.80

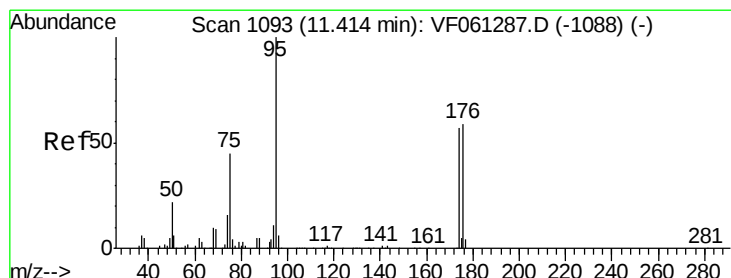
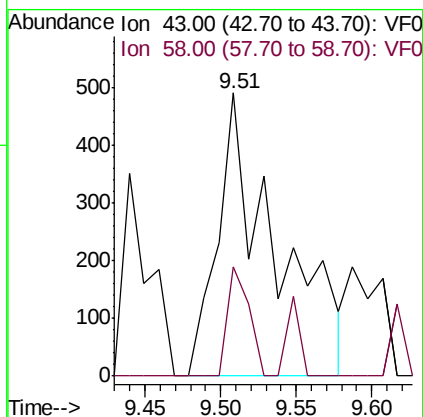
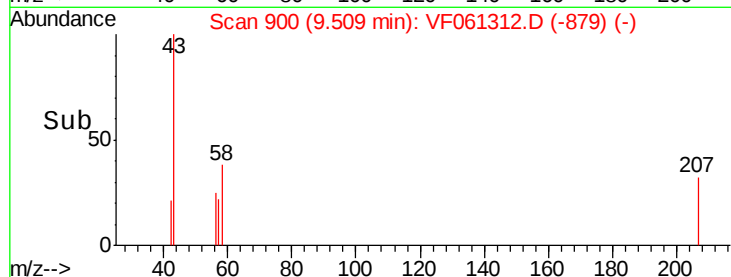
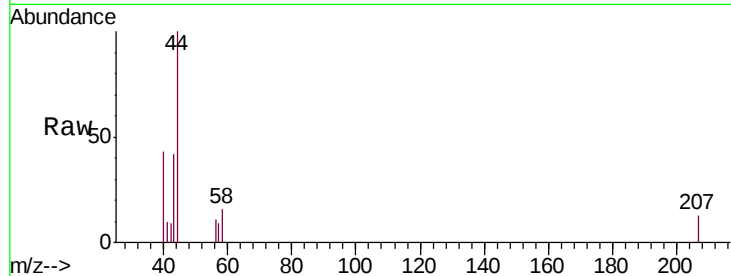




#59  
2-Hexanone  
Concen: 1.019 ug/l  
RT: 9.51 min Scan# 900  
Delta R.T. 0.01 min  
Lab File: VF061312.D  
Acq: 9 Jan 2019 20:29

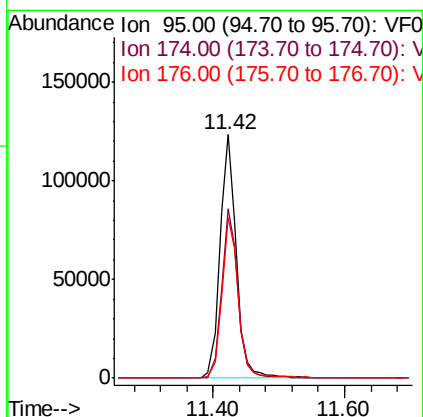
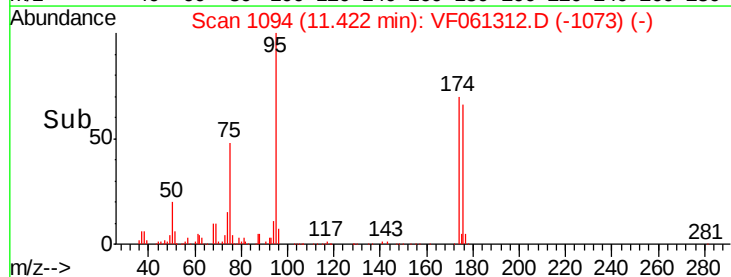
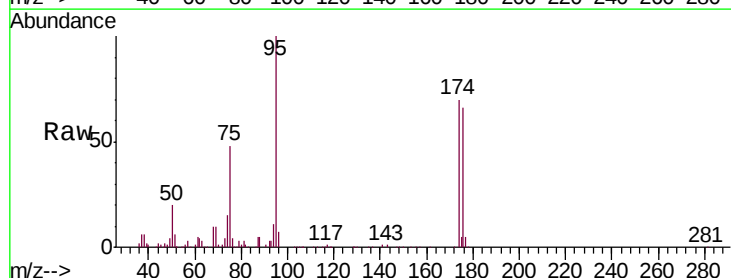
Instrument :  
MSVOA\_F  
ClientSampleId :  
MH-448-10.0-11.0

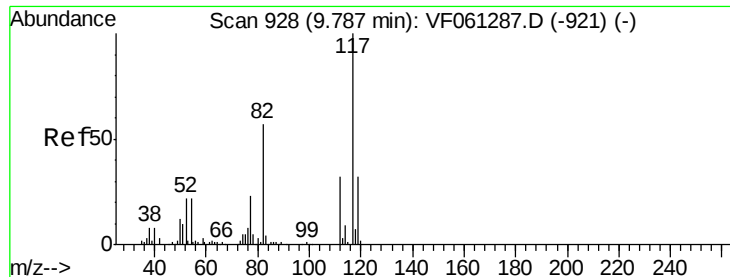
Tgt Ion: 43 Resp: 1322  
Ion Ratio Lower Upper  
43 100  
58 38.5 25.6 76.8



#62  
4-Bromofluorobenzene  
Concen: 49.696 ug/l  
RT: 11.42 min Scan# 1094  
Delta R.T. 0.01 min  
Lab File: VF061312.D  
Acq: 9 Jan 2019 20:29

Tgt Ion: 95 Resp: 212380  
Ion Ratio Lower Upper  
95 100  
174 69.6 0.0 114.2  
176 65.9 0.0 117.8

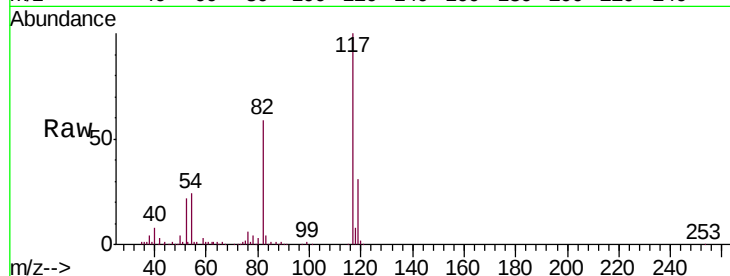




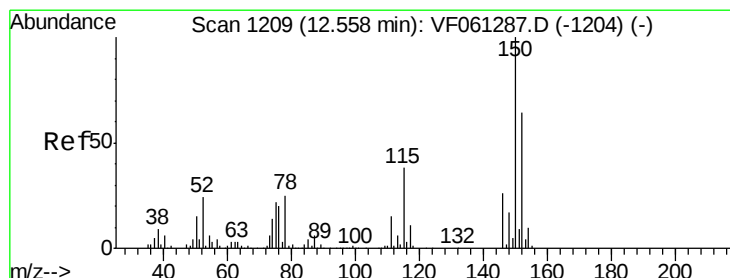
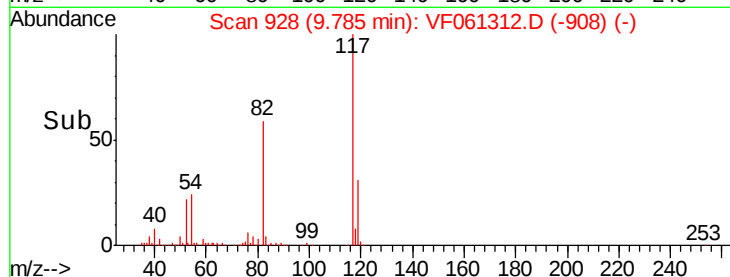
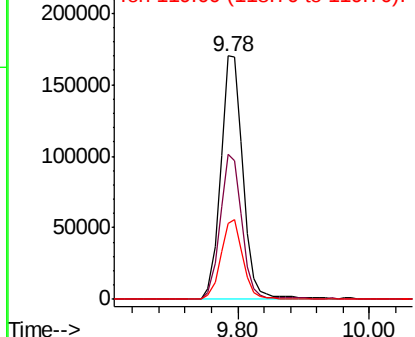
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.78 min Scan# 928  
Delta R.T. -0.00 min  
Lab File: VF061312.D  
Acq: 9 Jan 2019 20:29

Instrument :  
MSVOA\_F  
ClientSampleId :  
MH-448-10.0-11.0

Tgt Ion:117 Resp: 402944  
Ion Ratio Lower Upper  
117 100  
82 59.4 45.3 67.9  
119 31.3 25.4 38.0

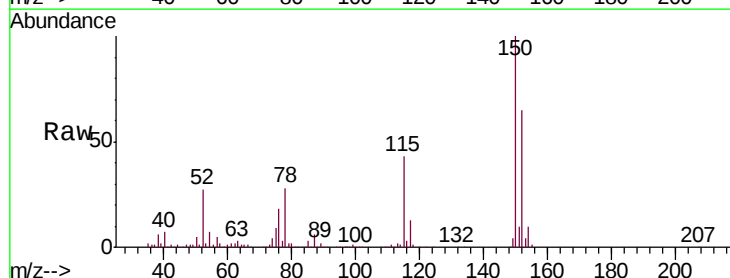


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 119.00 (118.70 to 119.70): V



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.56 min Scan# 1209  
Delta R.T. -0.00 min  
Lab File: VF061312.D  
Acq: 9 Jan 2019 20:29

Tgt Ion:152 Resp: 212673  
Ion Ratio Lower Upper  
152 100  
115 66.2 29.6 88.9  
150 154.4 0.0 315.4



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

