

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF082318\  
 Data File : VF060081.D  
 Acq On : 24 Aug 2018 5:59  
 Operator : VA/AP  
 Sample : J4612-01  
 Misc : 5.21g/5mL/MSVOA F/SOIL  
 ALS Vial : 47 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Aug 24 08:48:16 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F082118S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 22 04:43:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T. | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.02 | 168  | 126      | 50.00 | ug/l  | -0.03    |
| 34) 1,4-Difluorobenzene    | 5.76 | 114  | 63       | 50.00 | ug/l  | -0.02    |
| 63) Chlorobenzene-d5       | 0.00 | 117  | 0        | 0.00  | ug/l  | -9.93    |
| 72) 1,4-Dichlorobenzene-d4 | 0.00 | 152  | 0        | 0.00  | ug/l  | -12.64   |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 0.00   | 65  | 0        | 0.00  | ug/l    |       |
| Spiked Amount             | 50.000 |     | Recovery | =     | 0.00%   |       |
| 35) Dibromofluoromethane  | 0.00   | 113 | 0        | 0.00  | ug/l    |       |
| Spiked Amount             | 50.000 |     | Recovery | =     | 0.00%   |       |
| 50) Toluene-d8            | 7.70   | 98  | 73       | 51.96 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.92% |       |
| 62) 4-Bromofluorobenzene  | 0.00   | 95  | 0        | 0.00  | ug/l    |       |
| Spiked Amount             | 50.000 |     | Recovery | =     | 0.00%   |       |

## Target Compounds

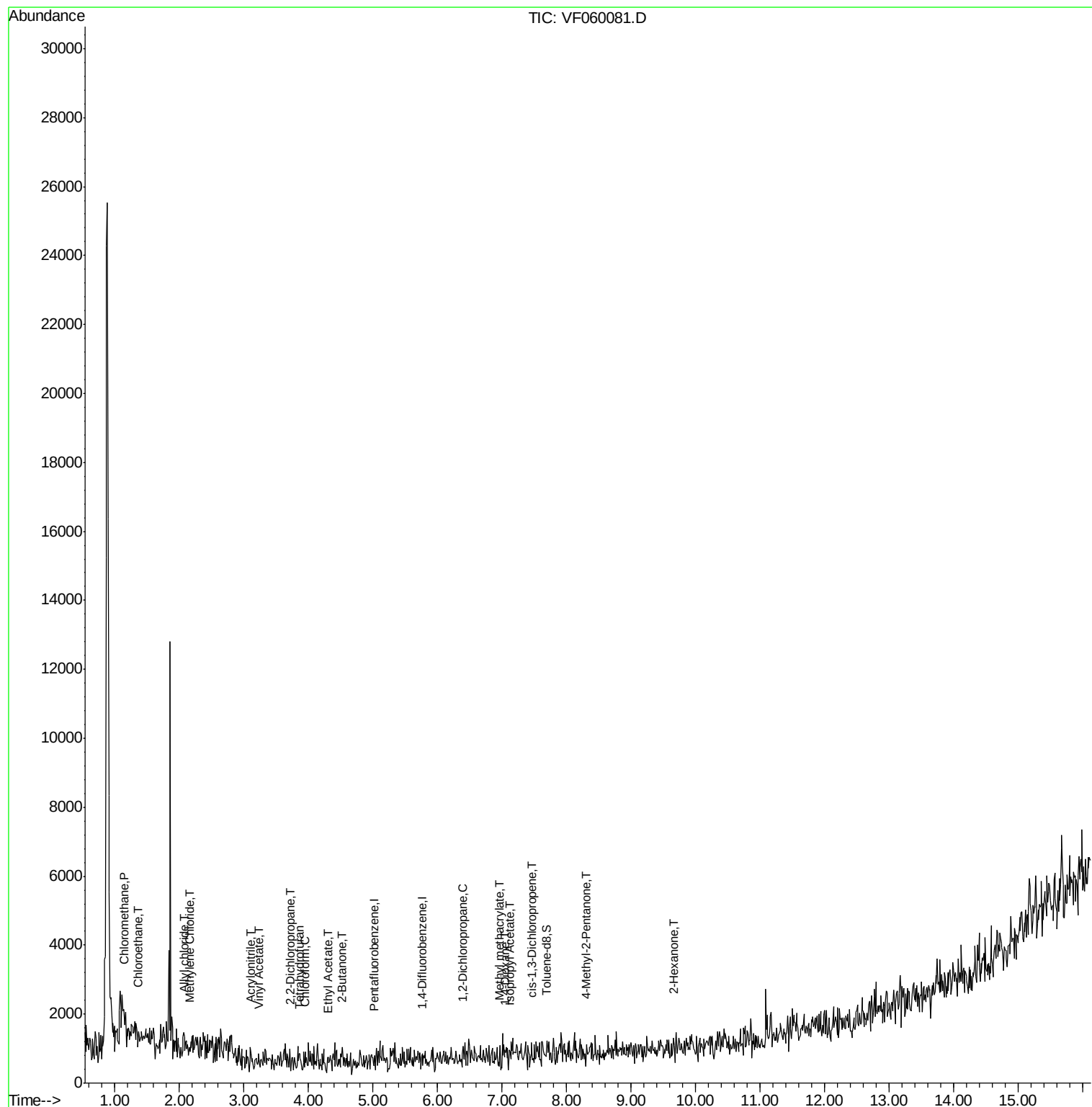
|                             |      |    |     |          |        | Qvalue |
|-----------------------------|------|----|-----|----------|--------|--------|
| 3) Chloromethane            | 1.13 | 50 | 97  | 93.29    | ug/l # | 40     |
| 6) Chloroethane             | 1.37 | 64 | 515 | 1268.49  | ug/l # | 45     |
| 14) Allyl chloride          | 2.09 | 41 | 65  | 45.69    | ug/l # | 1      |
| 15) Acrylonitrile           | 3.11 | 53 | 137 | 756.73   | ug/l # | 11     |
| 20) Methylene Chloride      | 2.16 | 84 | 60  | 69.19    | ug/l # | 1      |
| 23) Vinyl Acetate           | 3.23 | 43 | 82  | 48.59    | ug/l # | 80     |
| 25) 2-Butanone              | 4.53 | 43 | 124 | 210.63   | ug/l # | 58     |
| 26) 2,2-Dichloropropane     | 3.70 | 77 | 76  | 37.33    | ug/l # | 57     |
| 29) Tetrahydrofuran         | 3.87 | 42 | 75  | 337.43   | ug/l # | 37     |
| 30) Chloroform              | 3.95 | 83 | 68  | 24.62    | ug/l # | 19     |
| 37) Ethyl Acetate           | 4.31 | 43 | 118 | 333.27   | ug/l # | 1      |
| 43) Isopropyl Acetate       | 7.12 | 43 | 72  | 161.57   | ug/l # | 45     |
| 45) 1,2-Dichloropropane     | 6.38 | 63 | 76  | 207.75   | ug/l # | 45     |
| 48) Methyl methacrylate     | 6.97 | 41 | 60  | 203.47   | ug/l # | 15     |
| 49) 1,4-Dioxane             | 7.04 | 88 | 88  | 31085.83 | ug/l # | 18     |
| 51) 4-Methyl-2-Pentanone    | 8.32 | 43 | 63  | 163.71   | ug/l # | 39     |
| 54) cis-1,3-Dichloropropene | 7.46 | 75 | 85  | 121.47   | ug/l # | 24     |
| 59) 2-Hexanone              | 9.66 | 43 | 99  | 317.85   | ug/l # | 30     |

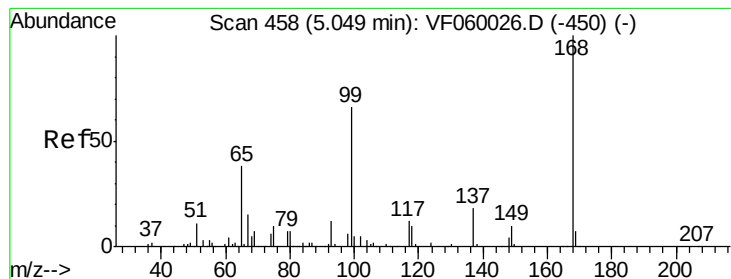
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF082318\  
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Sample : J4612-01  
Misc : 5.21a/5mL/MSVOA F/SOIL  
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Instrument :  
MSVOA\_F  
ClientSampleId :

Quant Time: Aug 24 08:48:16 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F082118S.M  
Quant Title : SW846 8260  
QLast Update : Wed Aug 22 04:43:43 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.02 min Scan# 456

Delta R.T. -0.03 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

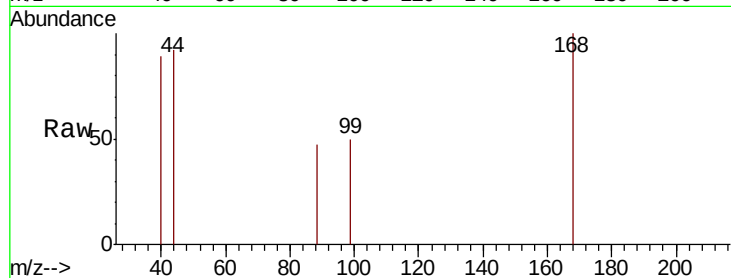
ClientSampleId :

Tot Ion:168 Resp: 126

Ion Ratio Lower Upper

168 100

99 49.8 52.6 79.0#



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.02

200

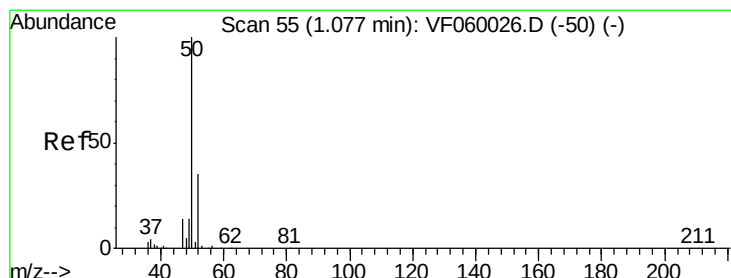
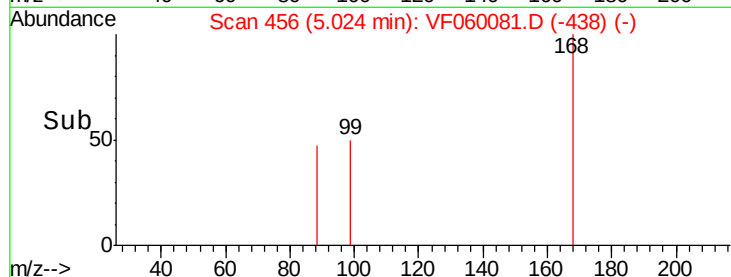
150

100

50

0

Time-->



#3

Chloromethane

Concen: 93.29 ug/l

RT: 1.13 min Scan# 61

Delta R.T. 0.05 min

Lab File: VF060081.D

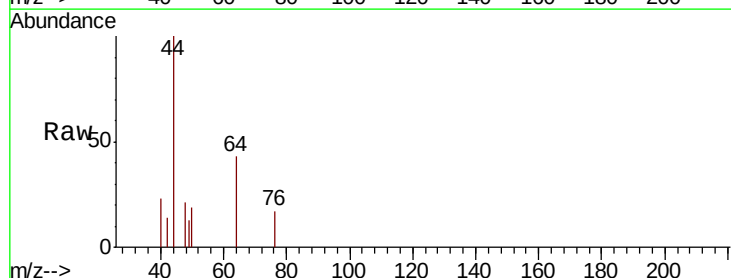
Acq: 24 Aug 2018 5:59

Tgt Ion: 50 Resp: 97

Ion Ratio Lower Upper

50 100

52 0.0 27.6 41.4#



Abundance Ion 50.00 (49.70 to 50.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

1.13

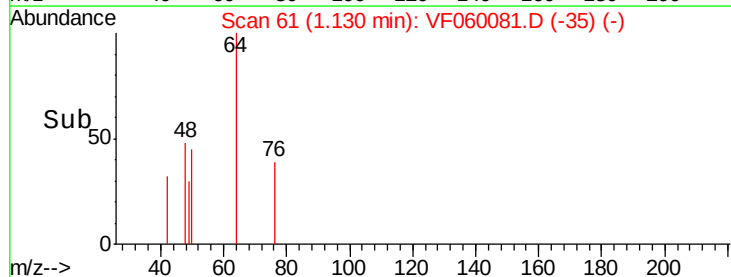
150

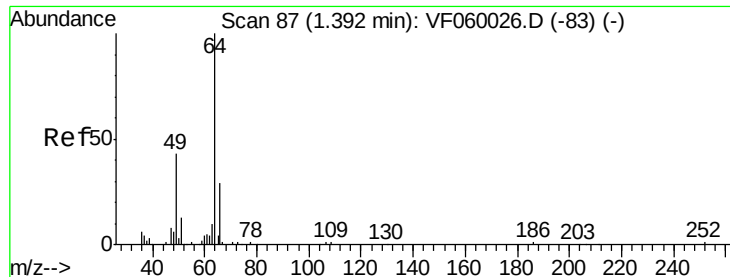
100

50

0

Time-->





#6

Chloroethane

Concen: 1268.49 ug/l

RT: 1.37 min Scan# 85

Delta R.T. -0.03 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

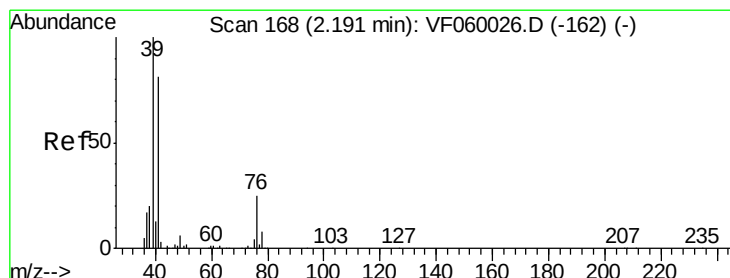
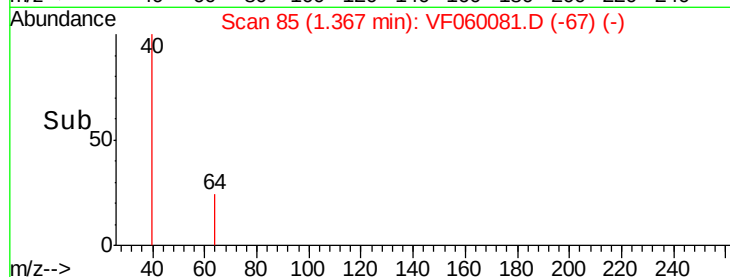
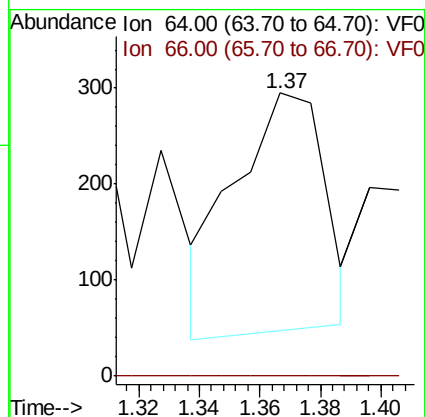
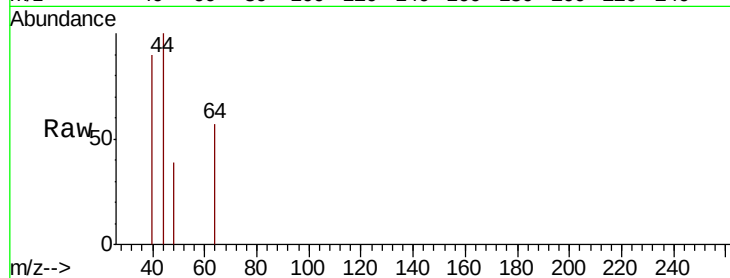
ClientSampleId :

Tot Ion: 64 Resp: 515

Ion Ratio Lower Upper

64 100

66 0.0 24.1 36.1#



#14

Allyl chloride

Concen: 45.69 ug/l

RT: 2.09 min Scan# 158

Delta R.T. -0.10 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

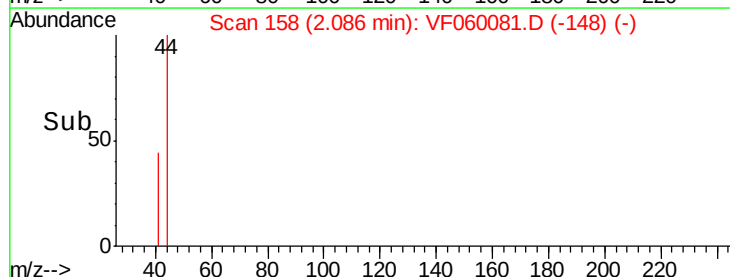
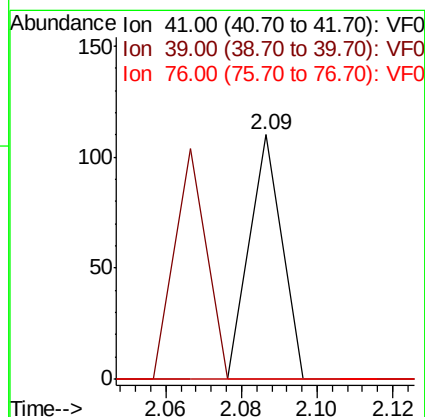
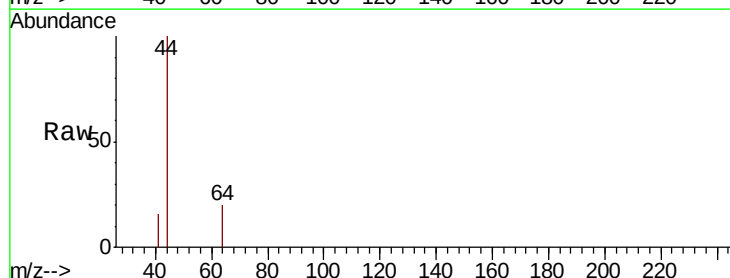
Tgt Ion: 41 Resp: 65

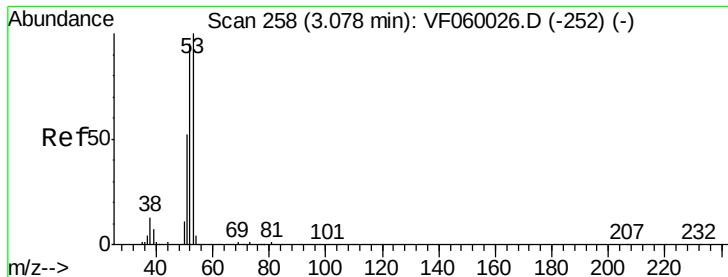
Ion Ratio Lower Upper

41 100

39 0.0 99.3 148.9#

76 0.0 24.3 36.5#





#15

Acrylonitrile

Concen: 756.73 ug/l

RT: 3.11 min Scan# 262

Delta R.T. 0.03 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

ClientSampleId :

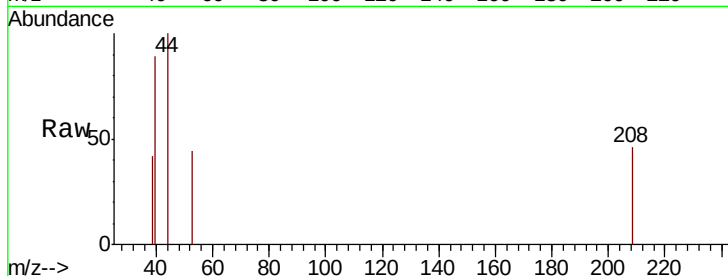
Tot Ion: 53 Resp: 137

Ion Ratio Lower Upper

53 100

52 0.0 75.8 113.8#

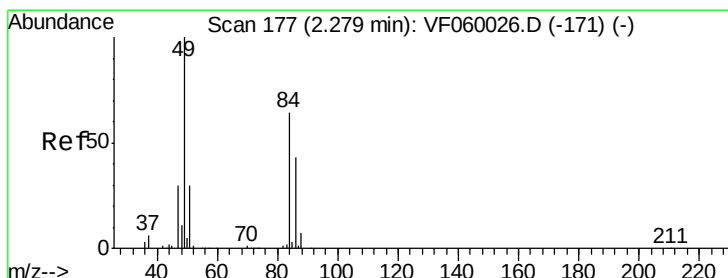
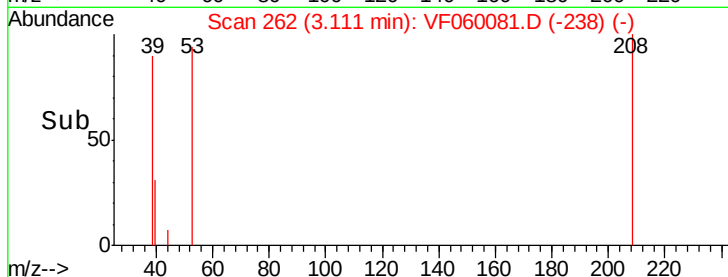
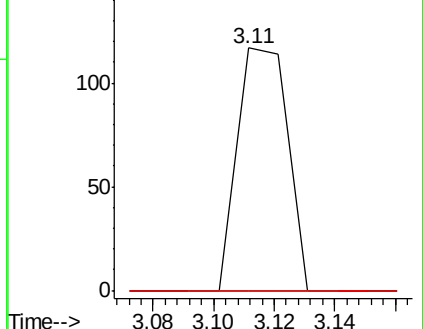
51 0.0 42.1 63.1#



Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0



#20

Methylene Chloride

Concen: 69.19 ug/l

RT: 2.16 min Scan# 165

Delta R.T. -0.12 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Tgt Ion: 84 Resp: 60

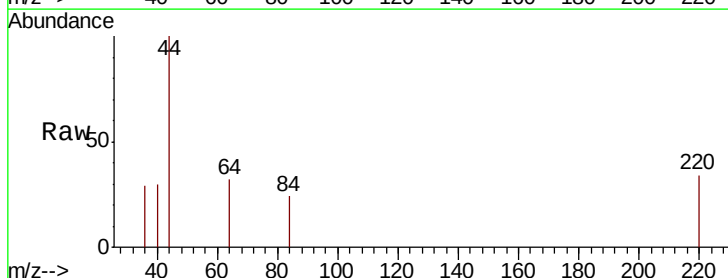
Ion Ratio Lower Upper

84 100

49 0.0 125.4 188.0#

51 0.0 38.3 57.5#

86 0.0 53.3 79.9#

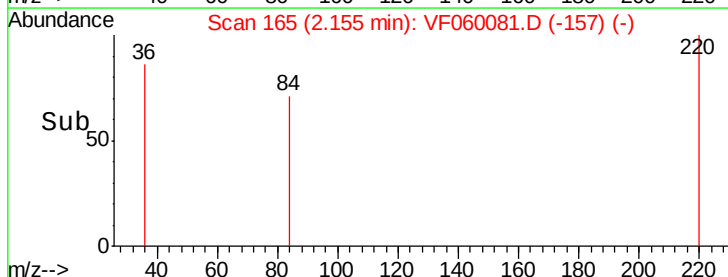
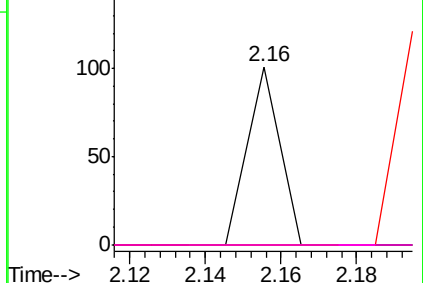


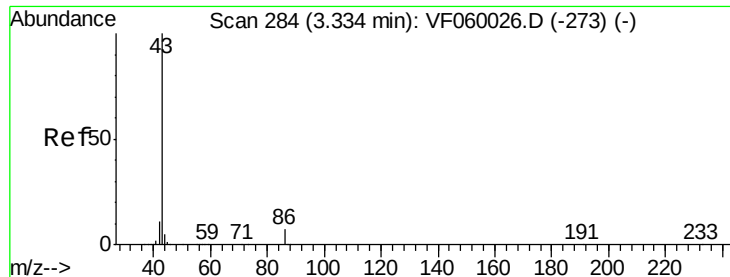
Abundance Ion 84.00 (83.70 to 84.70): VF0

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





#23

Vinyl Acetate

Concen: 48.59 ug/l

RT: 3.23 min Scan# 274

Delta R.T. -0.10 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

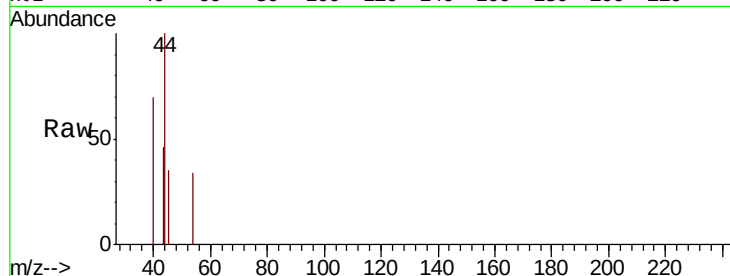
ClientSampleId :

Tot Ion: 43 Resp: 82

Ion Ratio Lower Upper

43 100

86 0.0 5.6 8.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 86.00 (85.70 to 86.70): VF0

3.23

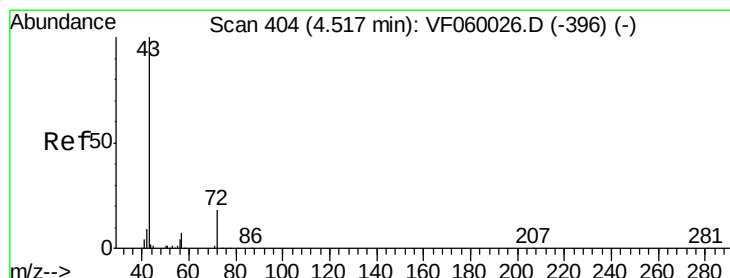
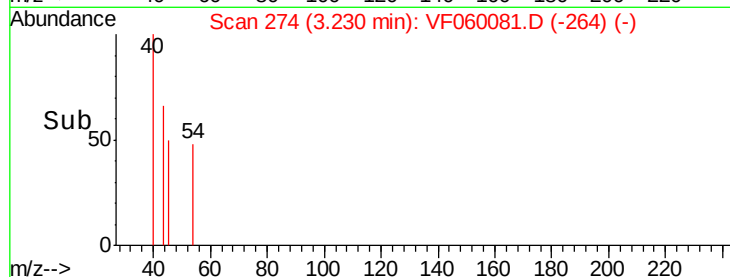
150

100

50

0

Time-->



#25

2-Butanone

Concen: 210.63 ug/l

RT: 4.53 min Scan# 406

Delta R.T. 0.01 min

Lab File: VF060081.D

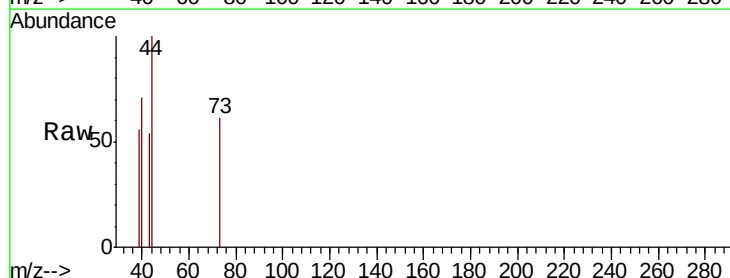
Acq: 24 Aug 2018 5:59

Tgt Ion: 43 Resp: 124

Ion Ratio Lower Upper

43 100

72 0.0 15.0 22.6#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

4.53

120

100

80

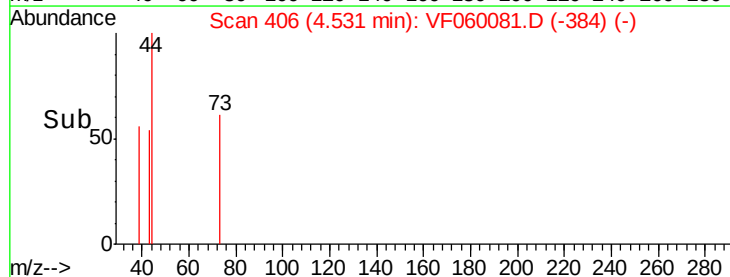
60

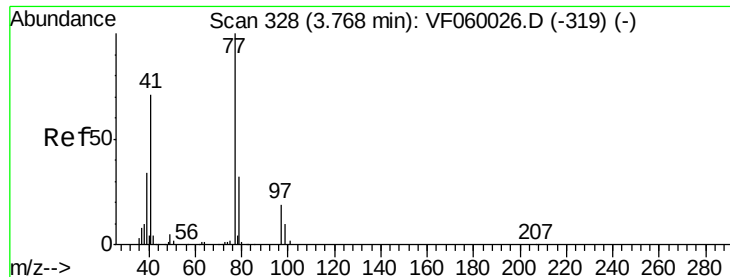
40

20

0

Time-->





#26

2,2-Dichloropropane

Concen: 37.33 ug/l

RT: 3.70 min Scan# 322

Delta R.T. -0.06 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

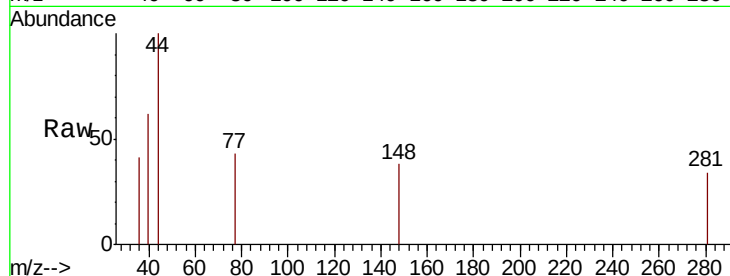
ClientSampled :

Tot Ion: 77 Resp: 76

Ion Ratio Lower Upper

77 100

97 0.0 9.7 29.1#



Abundance Ion 77.00 (76.70 to 77.70): VF0

Ion 97.00 (96.70 to 97.70): VF0

3.70

150

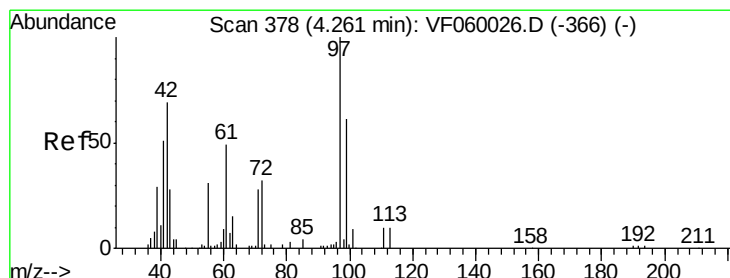
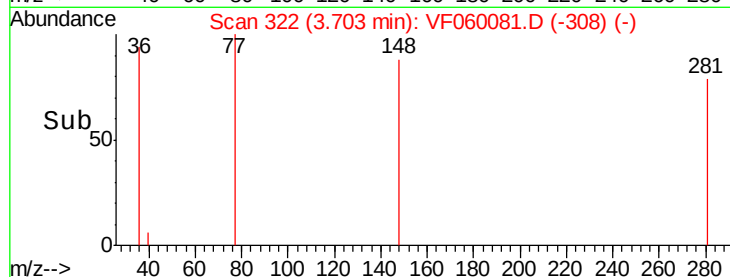
100

50

0

3.68 3.70 3.72

Time-->



#29

Tetrahydrofuran

Concen: 337.43 ug/l

RT: 3.87 min Scan# 339

Delta R.T. -0.39 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

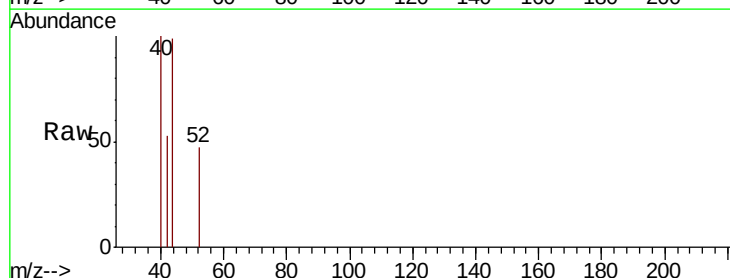
Tgt Ion: 42 Resp: 75

Ion Ratio Lower Upper

42 100

72 0.0 31.4 47.2#

71 0.0 29.7 44.5#



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

150

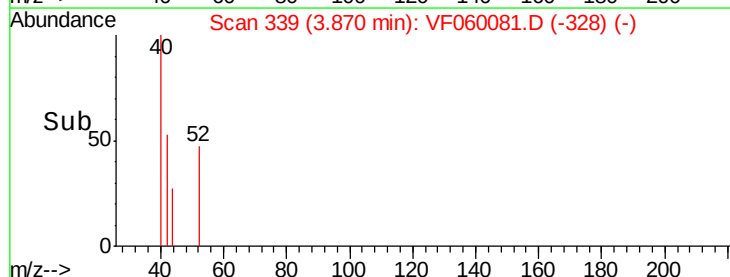
100

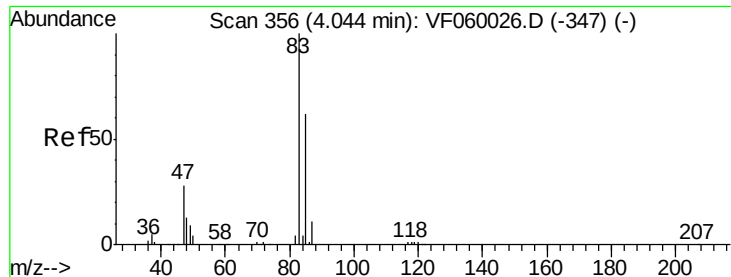
50

0

3.84 3.86 3.88 3.90

Time-->

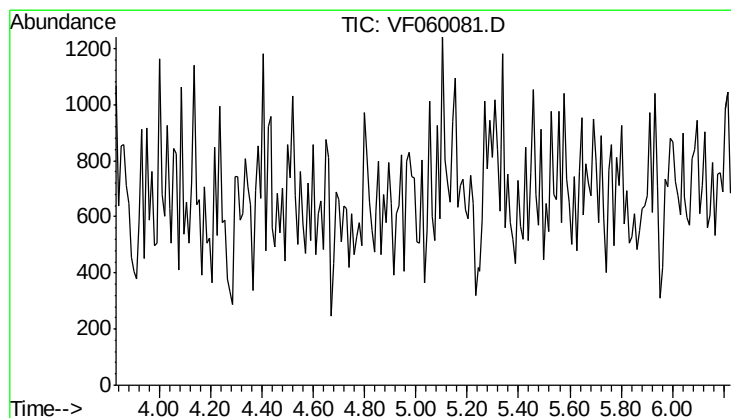
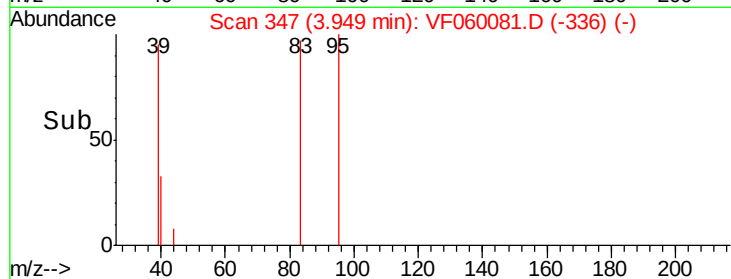
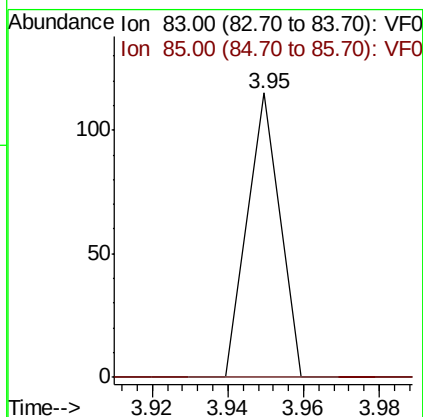
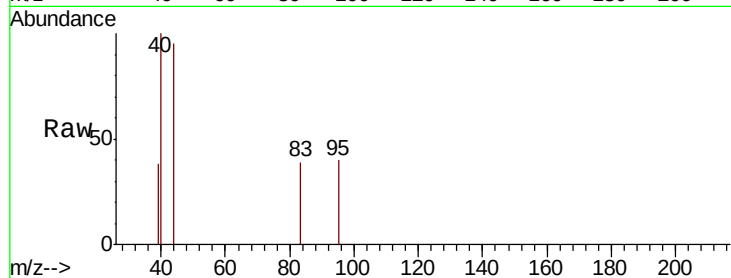




#30  
Chloroform  
Concen: 24.62 ug/l  
RT: 3.95 min Scan# 347  
Delta R.T. -0.09 min  
Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

Instrument :  
MSVOA\_F  
ClientSampleId :

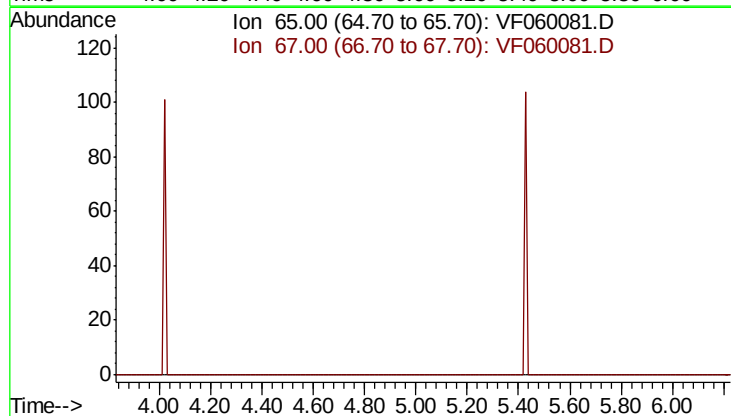
Tot Ion: 83 Resp: 68  
Ion Ratio Lower Upper  
83 100  
85 0.0 49.5 74.3#



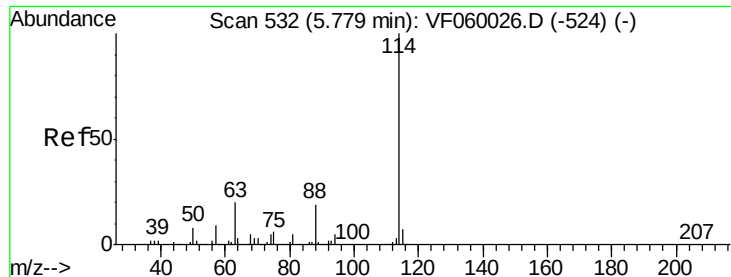
#33  
1,2-Dichloroethane-d4  
Concen: 0.00 ug/l  
Expected RT: 5.03 min

Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

Tgt Ion: 65  
Sig Exp Ratio  
65 100  
67 46.0







#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 5.76 min Scan# 531

Delta R.T. -0.02 min

Lab File: VF060081.D

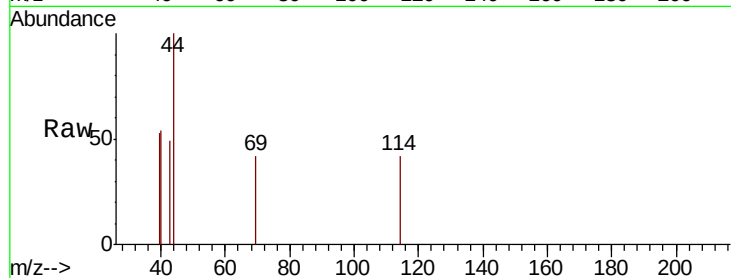
Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

ClientSampleId :

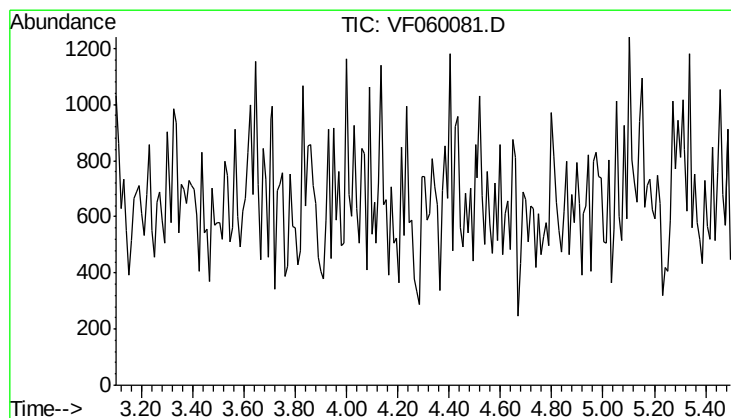
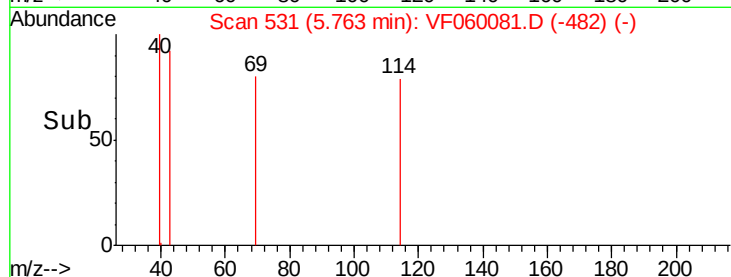
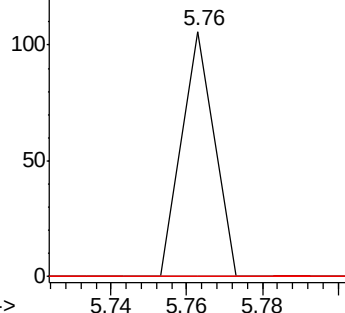
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 114   | Resp: | 63    |
| Ion      | Ratio | Lower | Upper |
| 114      | 100   |       |       |
| 63       | 0.0   | 0.0   | 40.4  |
| 88       | 0.0   | 0.0   | 38.6  |



Abundance Ion 114.00 (113.70 to 114.70): VF060081.D

Ion 63.00 (62.70 to 63.70): VF060081.D

Ion 88.00 (87.70 to 88.70): VF060081.D



#35

Dibromofluoromethane

Concen: 0.00 ug/l

Expected RT: 4.30 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

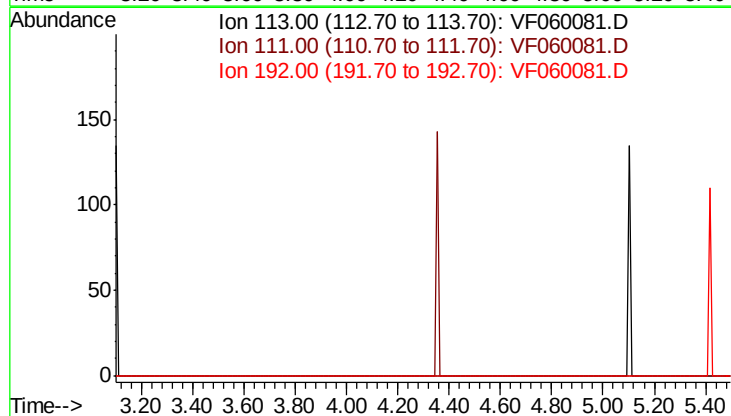
Tgt Ion: 113

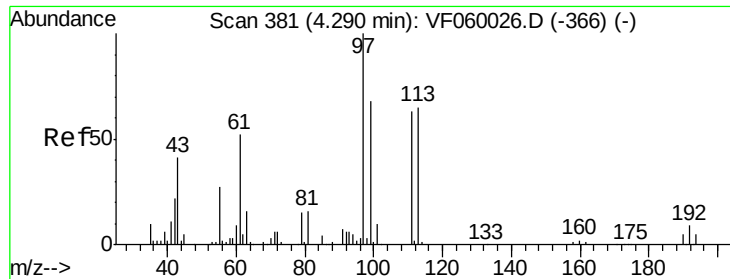
Sig Exp Ratio

113 100

111 103.4

192 16.2

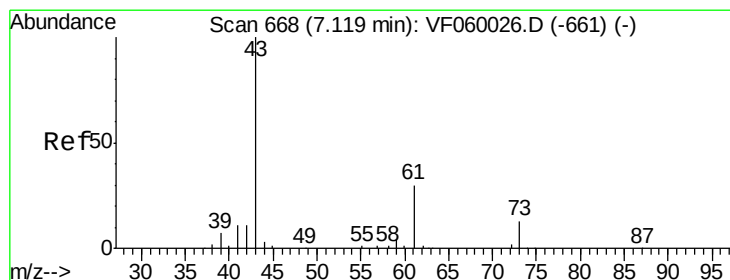
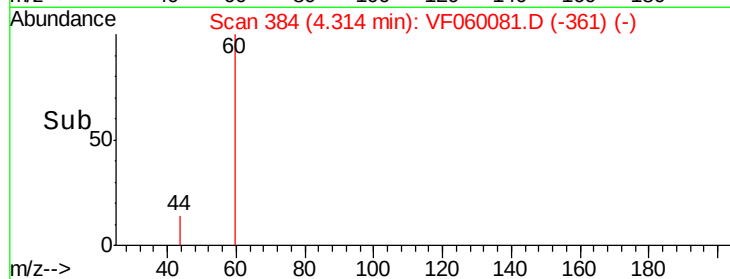
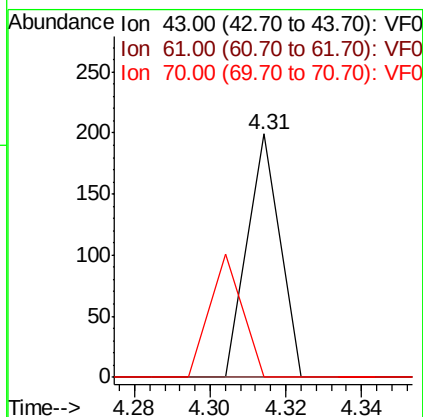
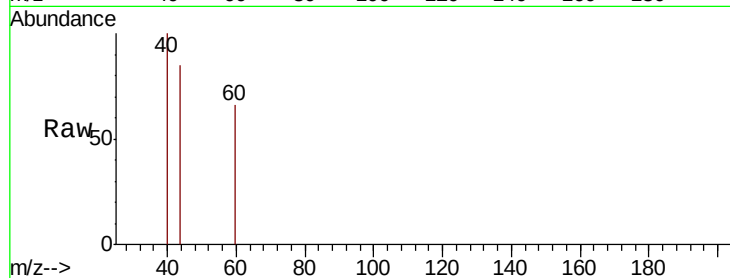




#37  
Ethyl Acetate  
Concen: 333.27 ug/l  
RT: 4.31 min Scan# 384  
Delta R.T. 0.02 min  
Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

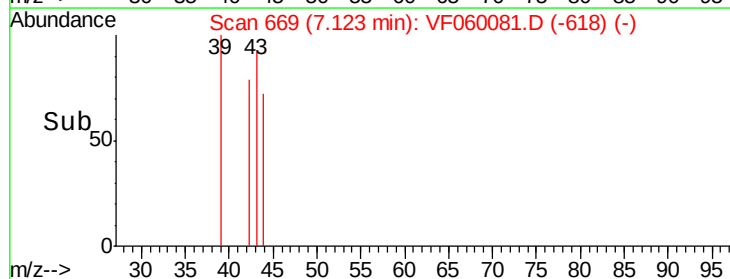
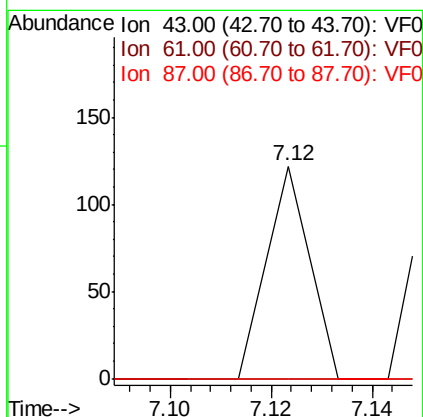
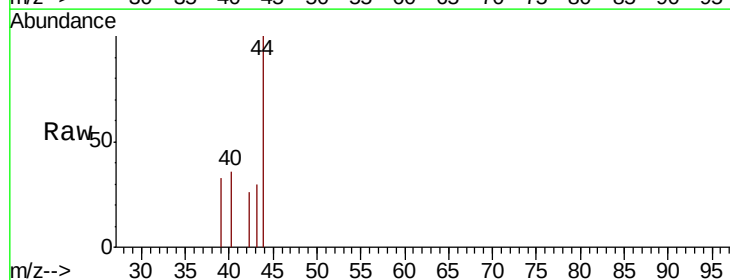
Instrument :  
MSVOA\_F  
ClientSampled :

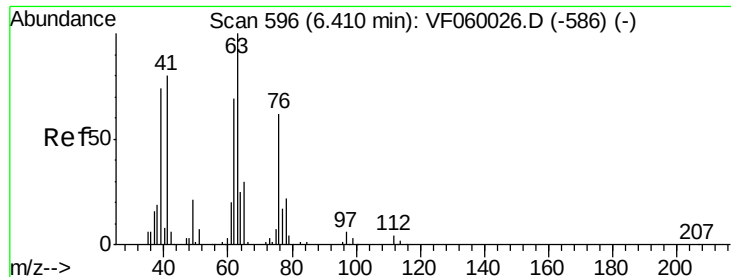
Tot Ion: 43 Resp: 118  
Ion Ratio Lower Upper  
43 100  
61 0.0 101.5 152.3#  
70 0.0 6.4 9.6#



#43  
Isopropyl Acetate  
Concen: 161.57 ug/l  
RT: 7.12 min Scan# 669  
Delta R.T. 0.00 min  
Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

Tgt Ion: 43 Resp: 72  
Ion Ratio Lower Upper  
43 100  
61 0.0 23.8 35.6#  
87 0.0 0.2 0.4#





#45

1,2-Dichloropropane

Concen: 207.75 ug/l

RT: 6.38 min Scan# 594

Delta R.T. -0.03 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

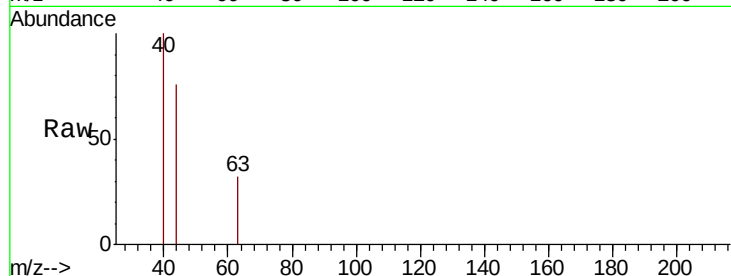
Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 63 Resp: 76

Ion Ratio Lower Upper

63 100

65 0.0 23.8 35.6#



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 65.00 (64.70 to 65.70): VF0

150

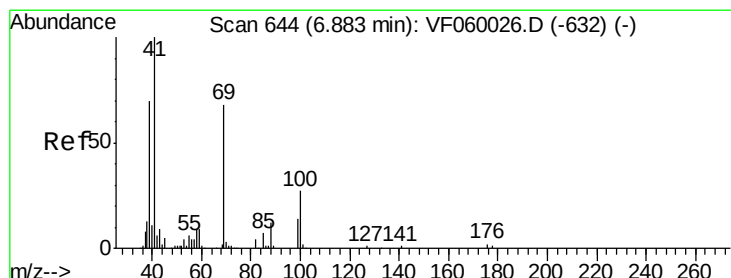
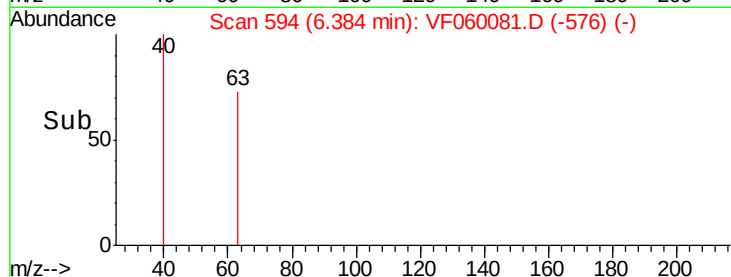
100

50

0

6.36 6.38 6.40

Time-->



#48

Methyl methacrylate

Concen: 203.47 ug/l

RT: 6.97 min Scan# 653

Delta R.T. 0.08 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

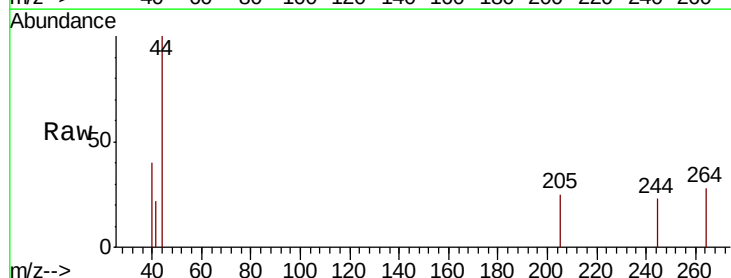
Tgt Ion: 41 Resp: 60

Ion Ratio Lower Upper

41 100

69 0.0 54.6 81.8#

39 0.0 56.5 84.7#



Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

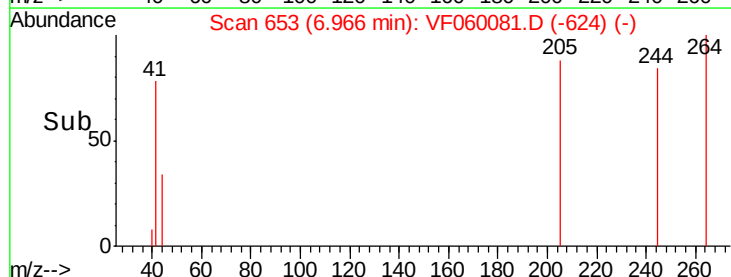
100

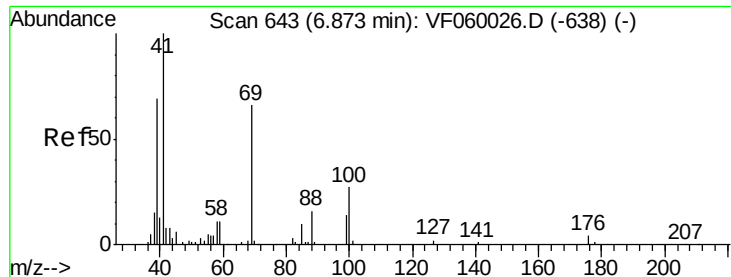
50

0

6.94 6.96 6.98

Time-->





#49

1,4-Dioxane

Concen: 31085.83 ug/l

RT: 7.04 min Scan# 661

Delta R.T. 0.17 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :  
MSVOA\_F  
ClientSampled :

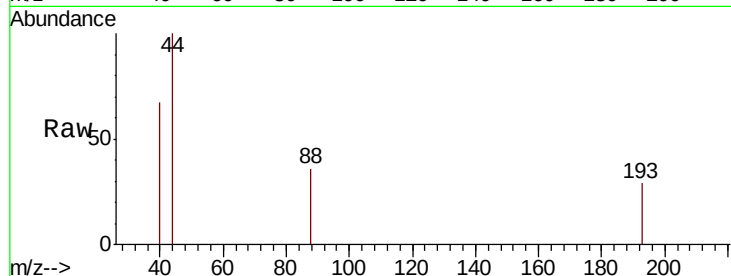
Tot Ion: 88 Resp: 88

Ion Ratio Lower Upper

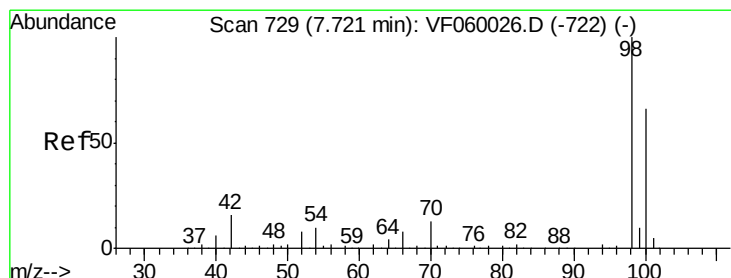
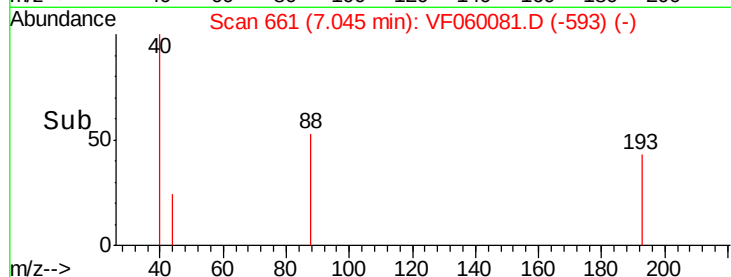
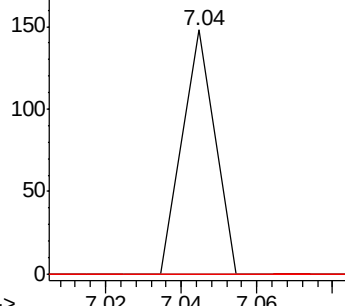
88 100

43 0.0 46.5 69.7#

58 0.0 54.8 82.2#



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: 51.96 ug/l

RT: 7.70 min Scan# 727

Delta R.T. -0.03 min

Lab File: VF060081.D

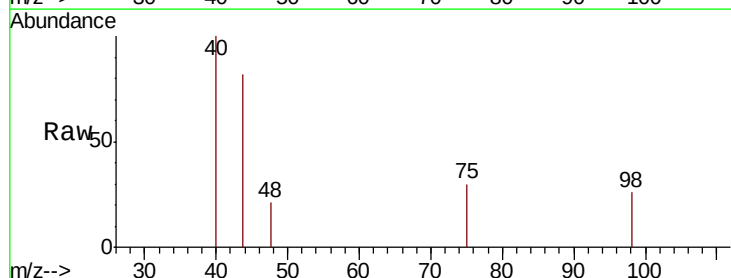
Acq: 24 Aug 2018 5:59

Tgt Ion: 98 Resp: 73

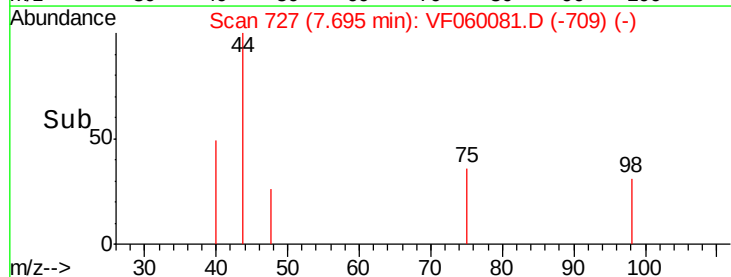
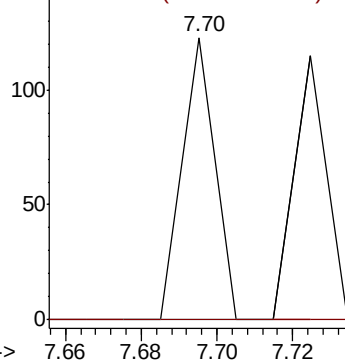
Ion Ratio Lower Upper

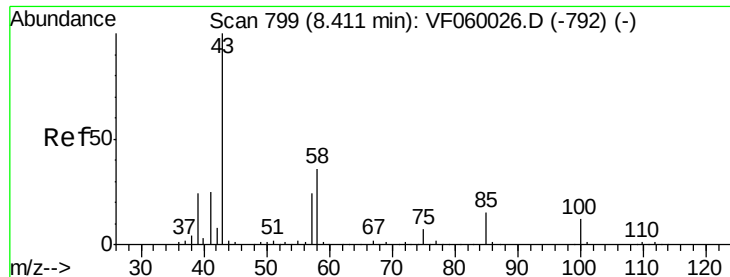
98 100

100 0.0 53.2 79.8#



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: 163.71 ug/l

RT: 8.32 min Scan# 790

Delta R.T. -0.09 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

Instrument :

MSVOA\_F

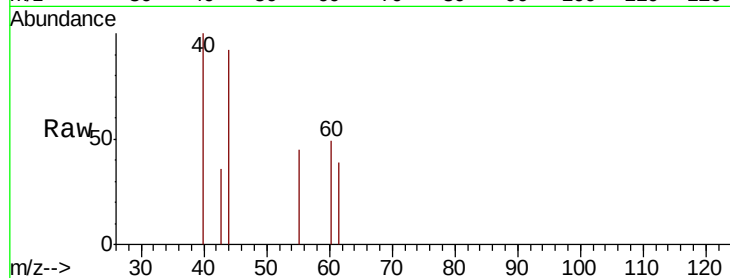
ClientSampleId :

Tot Ion: 43 Resp: 63

Ion Ratio Lower Upper

43 100

58 0.0 28.6 42.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.32

100

80

60

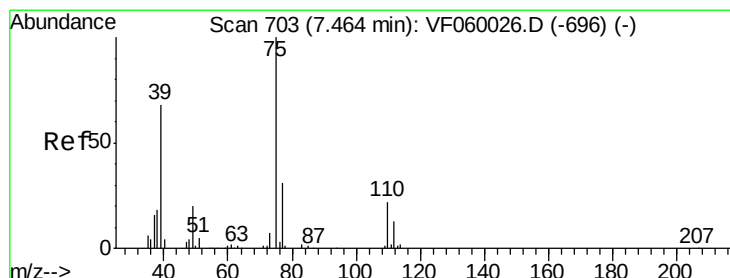
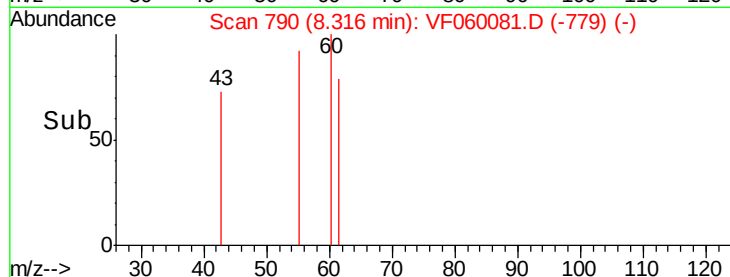
40

20

0

8.30 8.32 8.34

Time-->



#54

cis-1,3-Dichloropropene

Concen: 121.47 ug/l

RT: 7.46 min Scan# 703

Delta R.T. -0.01 min

Lab File: VF060081.D

Acq: 24 Aug 2018 5:59

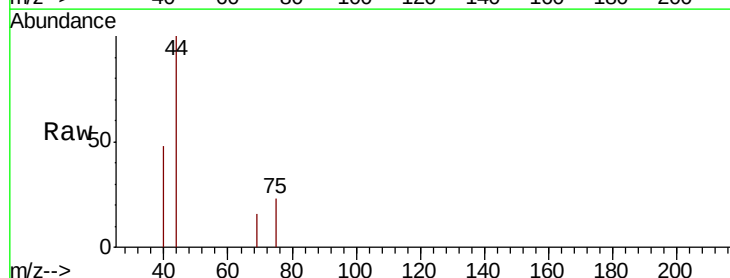
Tgt Ion: 75 Resp: 85

Ion Ratio Lower Upper

75 100

77 0.0 24.6 37.0#

39 0.0 54.6 81.8#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 77.00 (76.70 to 77.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

200

150

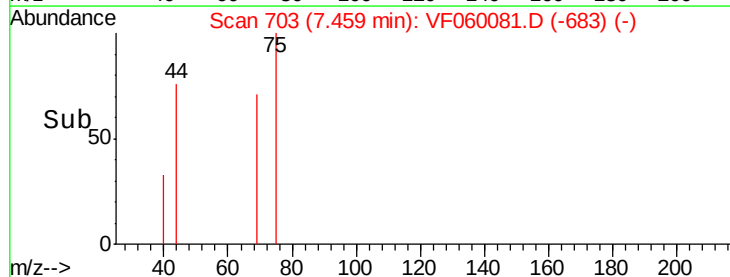
100

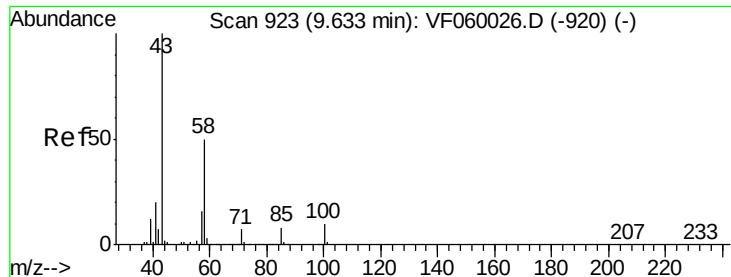
50

0

7.42 7.44 7.46 7.48

Time-->

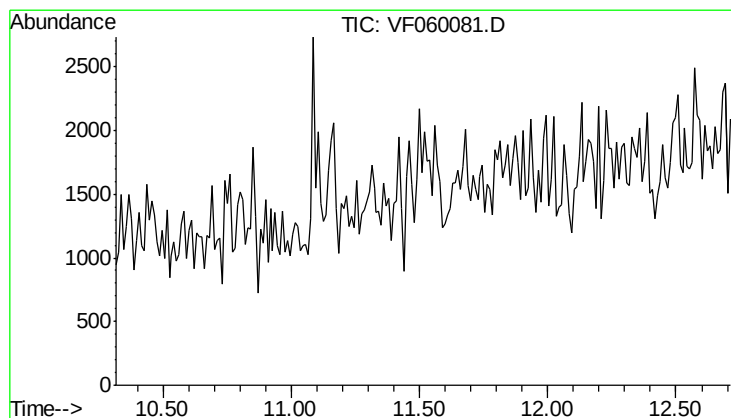
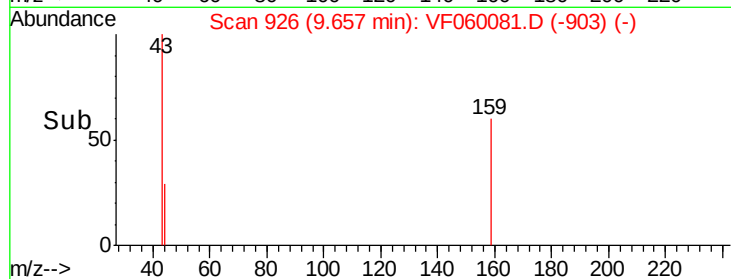
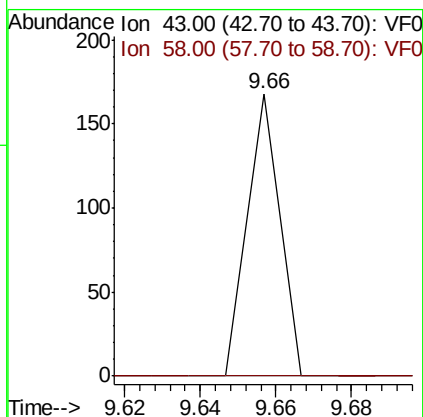
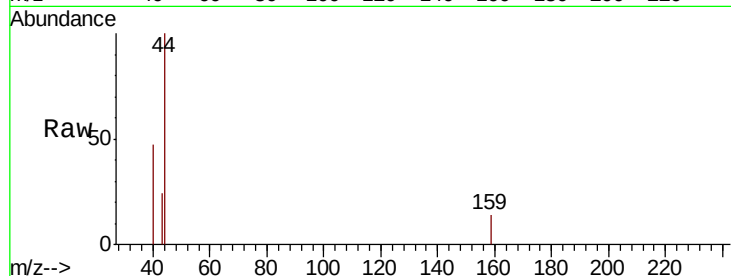




#59  
2-Hexanone  
Concen: 317.85 ug/l  
RT: 9.66 min Scan# 926  
Delta R.T. 0.02 min  
Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

Instrument :  
MSVOA\_F  
ClientSampleId :

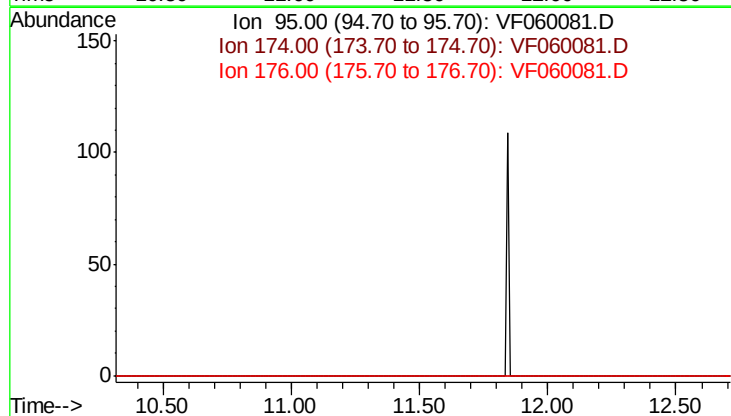
Tot Ion: 43 Resp: 99  
Ion Ratio Lower Upper  
43 100  
58 0.0 23.4 70.2#

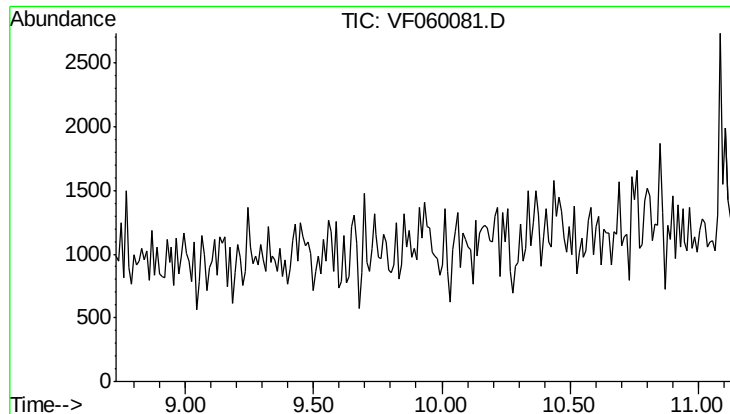


#62  
4-Bromofluorobenzene  
Concen: 0.00 ug/l  
Expected RT: 11.52 min

Lab File: VF060081.D  
Acq: 24 Aug 2018 5:59

Tgt Ion: 95  
Sig Exp Ratio  
95 100  
174 79.2  
176 76.5

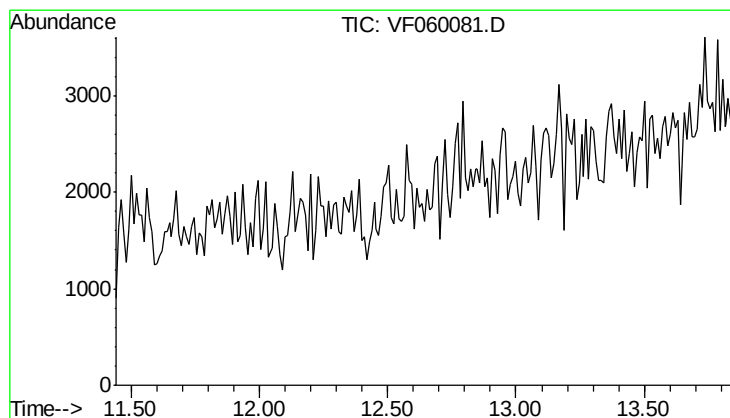
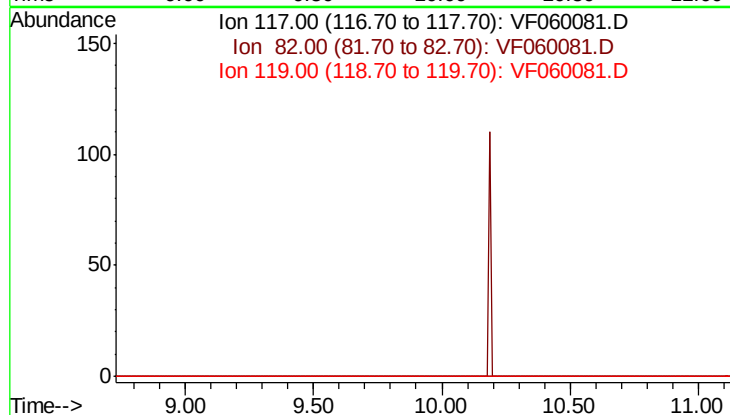




#63  
 Chlorobenzene-d5  
 Concen: 0.00 ug/l  
 Expected RT: 9.93 min  
 Lab File: VF060081.D  
 Acq: 24 Aug 2018 5:59

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Tot Ion: 117  
 Sig Exp Ratio  
 117 100  
 82 54.5  
 119 32.0



#72  
 1,4-Dichlorobenzene-d4  
 Concen: 0.00 ug/l  
 Expected RT: 12.64 min  
 Lab File: VF060081.D  
 Acq: 24 Aug 2018 5:59

Tgt Ion: 152  
 Sig Exp Ratio  
 152 100  
 115 57.3  
 150 156.0

