

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF092818\  
 Data File : VF060381.D  
 Acq On : 28 Sep 2018 21:45  
 Operator : VA/AP  
 Sample : J5170-13  
 Misc : 8.48/5mL/MSVOA F/SOIL  
 ALS Vial : 44 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HC-SOIL-3

Quant Time: Sep 29 00:20:49 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F091918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 20 02:58:42 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 0.00  | 168  | 0        | 0.00  | ug/l  | -5.04    |
| 34) 1,4-Difluorobenzene    | 5.71  | 114  | 93       | 50.00 | ug/l  | -0.04    |
| 63) Chlorobenzene-d5       | 9.71  | 117  | 63       | 50.00 | ug/l  | -0.20    |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 67       | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|--------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.83   | 65   | 133      | 0.00  | ug/l    | -0.17    |
| Spiked Amount               | 50.000 |      | Recovery | =     | 0.00%   |          |
| 35) Dibromofluoromethane    | 4.11   | 113  | 82       | 98.91 | ug/l    | -0.17    |
| Spiked Amount               | 50.000 |      | Recovery | =     | 197.82% |          |
| 50) Toluene-d8              | 7.74   | 98   | 91       | 42.15 | ug/l    | 0.03     |
| Spiked Amount               | 50.000 |      | Recovery | =     | 84.30%  |          |
| 62) 4-Bromofluorobenzene    | 11.40  | 95   | 61       | 65.36 | ug/l    | -0.10    |
| Spiked Amount               | 50.000 |      | Recovery | =     | 130.72% |          |

| Target Compounds              | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------------|-------|------|----------|-----------|--------|--------|
| 36) 1,1-Dichloropropene       | 4.42  | 75   | 77       | 66.377    | ug/l # | 16     |
| 37) Ethyl Acetate             | 4.23  | 43   | 322      | 656.009   | ug/l # | 1      |
| 38) Carbon Tetrachloride      | 4.03  | 117  | 104      | 83.466    | ug/l # | 14     |
| 39) Methylcyclohexane         | 5.50  | 83   | 96       | 76.356    | ug/l # | 69     |
| 40) Benzene                   | 4.79  | 78   | 72       | 27.372    | ug/l # | 53     |
| 41) Methacrylonitrile         | 4.86  | 41   | 807      | 3029.914  | ug/l # | 23     |
| 42) 1,2-Dichloroethane        | 4.90  | 62   | 82       | 84.695    | ug/l   | 79     |
| 43) Isopropyl Acetate         | 7.02  | 43   | 260      | 439.997   | ug/l # | 48     |
| 45) 1,2-Dichloropropane       | 6.44  | 63   | 79       | 116.047   | ug/l # | 1      |
| 47) Bromodichloromethane      | 6.52  | 83   | 67       | 57.295    | ug/l # | 26     |
| 48) Methyl methacrylate       | 6.83  | 41   | 304      | 732.877   | ug/l # | 75     |
| 49) 1,4-Dioxane               | 6.80  | 88   | 63       | 17000.213 | ug/l # | 19     |
| 51) 4-Methyl-2-Pentanone      | 8.31  | 43   | 328      | 720.182   | ug/l # | 35     |
| 52) Toluene                   | 7.73  | 92   | 67       | 40.263    | ug/l # | 1      |
| 53) t-1,3-Dichloropropene     | 8.47  | 75   | 63       | 66.790    | ug/l # | 42     |
| 54) cis-1,3-Dichloropropene   | 7.36  | 75   | 80       | 67.323    | ug/l # | 1      |
| 55) 1,1,2-Trichloroethane     | 8.55  | 97   | 90       | 178.199   | ug/l # | 17     |
| 56) Ethyl methacrylate        | 8.73  | 69   | 137      | 224.601   | ug/l # | 20     |
| 57) 1,3-Dichloropropane       | 8.95  | 76   | 96       | 114.797   | ug/l # | 40     |
| 58) 2-Chloroethyl Vinyl ether | 7.73  | 63   | 76       | 1409.413  | ug/l   | 100    |
| 59) 2-Hexanone                | 9.52  | 43   | 402      | 1239.682  | ug/l   | 94     |
| 61) 1,2-Dibromoethane         | 9.17  | 107  | 62       | 110.239   | ug/l # | 4      |
| 65) Chlorobenzene             | 9.94  | 112  | 69       | 48.324    | ug/l # | 41     |
| 67) Ethyl Benzene             | 10.05 | 91   | 67       | 25.378    | ug/l # | 46     |
| 68) m/p-Xylenes               | 10.20 | 106  | 118      | 129.372   | ug/l # | 3      |
| 69) o-Xylene                  | 10.88 | 106  | 70       | 68.423    | ug/l # | 1      |
| 71) Bromoform                 | 10.93 | 173  | 72       | 221.244   | ug/l # | 31     |
| 73) Isopropylbenzene          | 11.35 | 105  | 107      | 17.790    | ug/l # | 51     |
| 74) N-amyl acetate            | 11.46 | 43   | 770      | 600.334   | ug/l # | 46     |
| 75) 1,1,2,2-Tetrachloroethane | 11.76 | 83   | 129      | 121.019   | ug/l # | 27     |
| 76) 1,2,3-Trichloropropane    | 11.85 | 75   | 59       | 77.303    | ug/l # | 34     |
| 78) n-propylbenzene           | 11.66 | 91   | 219      | 34.330    | ug/l # | 57     |
| 79) 2-Chlorotoluene           | 11.80 | 91   | 73       | 17.992    | ug/l # | 42     |
| 80) 1,3,5-Trimethylbenzene    | 11.92 | 105  | 73       | 15.077    | ug/l # | 28     |

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 Sample : J5170-13  
 Misc : 8.48/5mL/MSVOA F/SOIL  
 ALS Vial : 44 Sample Multiplier: 1

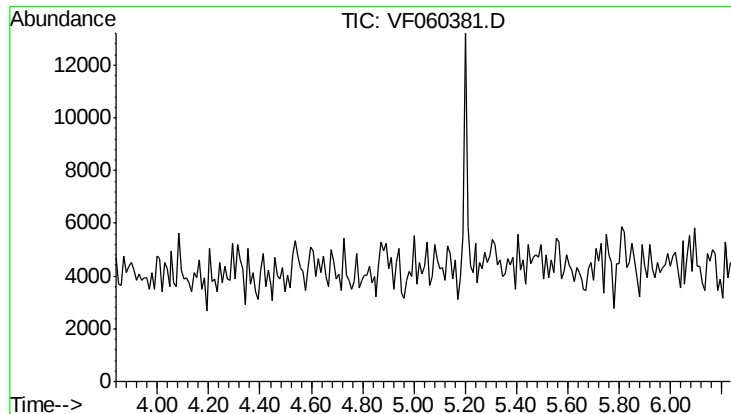
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HC-SOIL-3

Quant Time: Sep 29 00:20:49 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F091918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 20 02:58:42 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 100      | 247.924 | ug/l # | 20       |
| 82) 4-Chlorotoluene            | 11.95 | 91   | 98       | 24.031  | ug/l # | 43       |
| 83) tert-Butylbenzene          | 12.20 | 119  | 64       | 13.040  | ug/l # | 29       |
| 84) 1,2,4-Trimethylbenzene     | 12.26 | 105  | 59       | 12.001  | ug/l # | 31       |
| 85) sec-Butylbenzene           | 12.37 | 105  | 103      | 11.604  | ug/l # | 58       |
| 86) p-Isopropyltoluene         | 12.60 | 119  | 133      | 25.196  | ug/l # | 1        |
| 87) 1,3-Dichlorobenzene        | 12.67 | 146  | 71       | 29.312  | ug/l # | 24       |
| 88) 1,4-Dichlorobenzene        | 12.67 | 146  | 71       | 29.656  | ug/l # | 25       |
| 89) n-Butylbenzene             | 12.96 | 91   | 92       | 14.008  | ug/l # | 28       |
| 90) Hexachloroethane           | 13.04 | 117  | 90       | 65.530  | ug/l # | 22       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.69 | 75   | 105      | 524.648 | ug/l # | 1        |
| 93) 1,2,4-Trichlorobenzene     | 14.25 | 180  | 75       | 44.657  | ug/l # | 10       |
| 94) Hexachlorobutadiene        | 14.09 | 225  | 131      | 115.384 | ug/l # | 47       |
| 95) Naphthalene                | 14.53 | 128  | 75       | 25.471  | ug/l # | 68       |
| 96) 1,2,3-Trichlorobenzene     | 14.72 | 180  | 73       | 47.040  | ug/l # | 12       |

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





#1

Pentafluorobenzene

Concen: 0.000 ug/l

Expected RT: 5.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Tot Ion: 168

Sig Exp Ratio

168 100

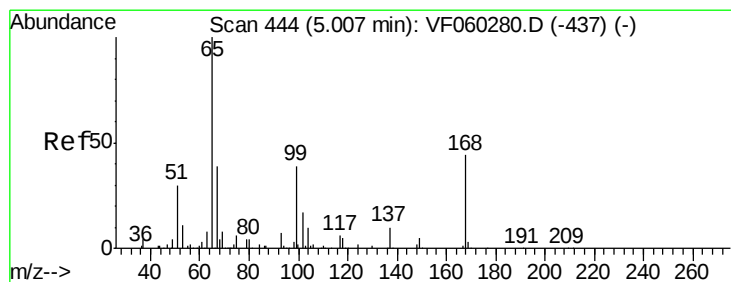
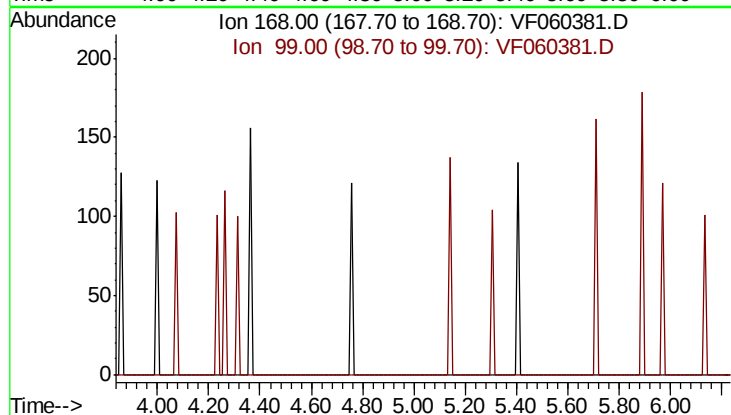
99 68.5

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3



#33

1,2-Dichloroethane-d4

Concen: 0.000 ug/l

RT: 4.83 min Scan# 426

Delta R.T. -0.17 min

Lab File: VF060381.D

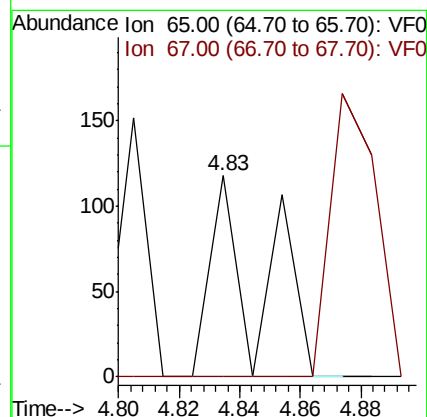
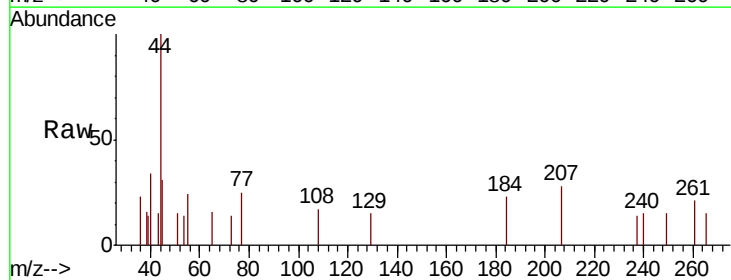
Acq: 28 Sep 2018 21:45

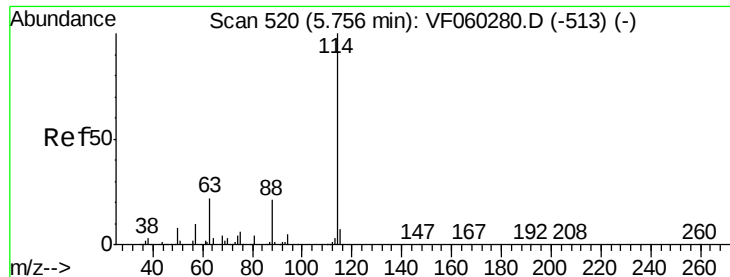
Tgt Ion: 65 Resp: 133

Ion Ratio Lower Upper

65 100

67 0.0 0.0 94.4





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.71 min Scan# 515

Delta R.T. -0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

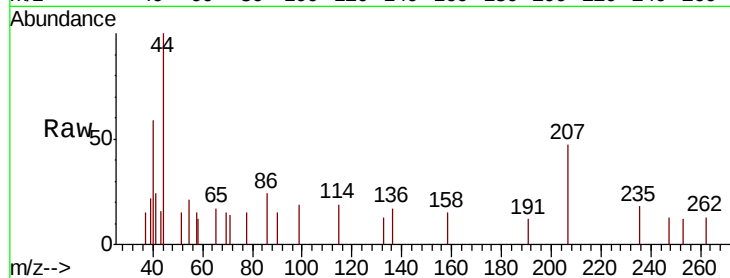
Tot Ion:114 Resp: 93

Ion Ratio Lower Upper

114 100

63 0.0 0.0 43.8

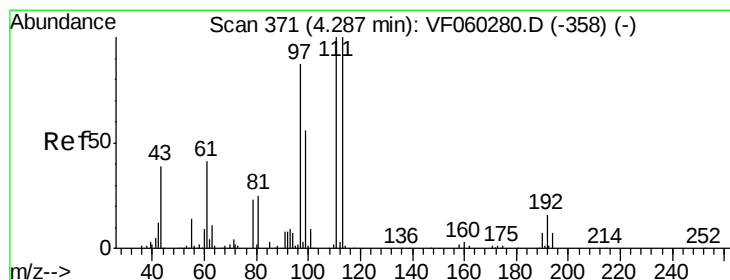
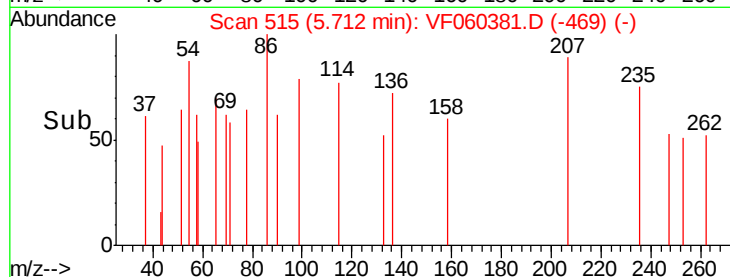
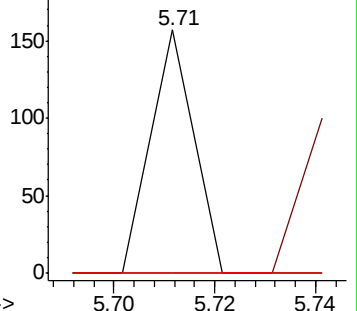
88 0.0 0.0 41.2



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: 98.911 ug/l

RT: 4.11 min Scan# 353

Delta R.T. -0.17 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

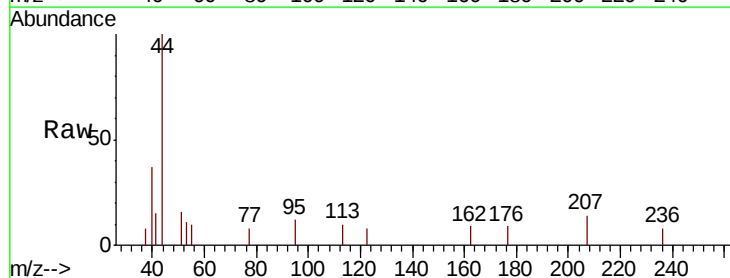
Tgt Ion:113 Resp: 82

Ion Ratio Lower Upper

113 100

111 0.0 79.6 119.4#

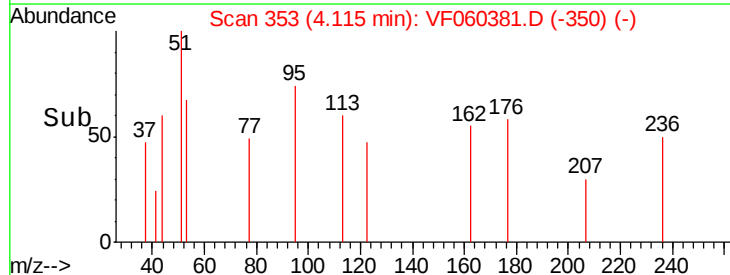
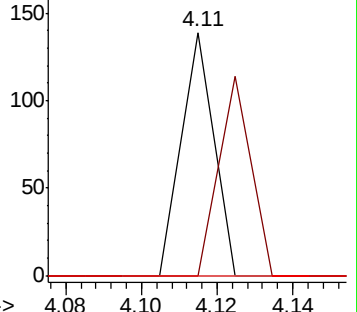
192 0.0 13.0 19.6#

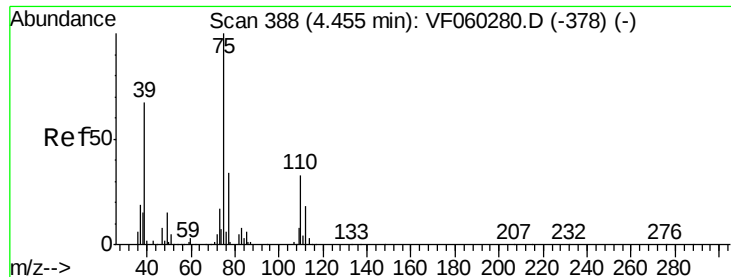


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V





#36

1,1-Dichloropropene

Concen: 66.377 ug/l

RT: 4.42 min Scan# 384

Delta R.T. -0.03 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

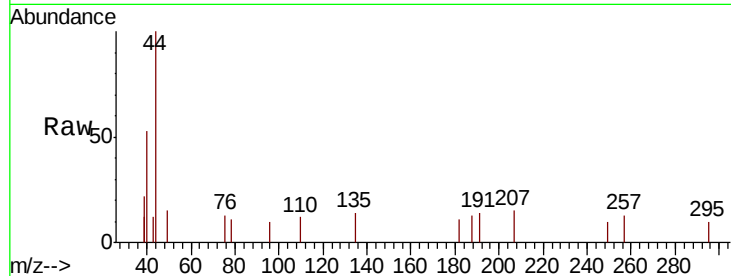
Tot Ion: 75 Resp: 77

Ion Ratio Lower Upper

75 100

110 94.6 16.4 49.2#

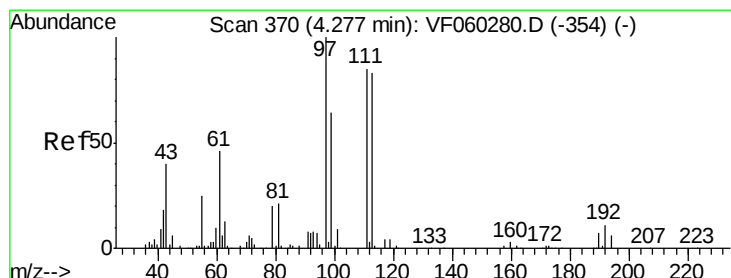
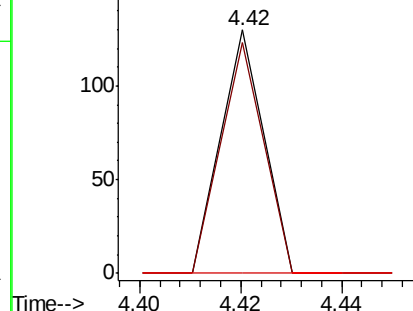
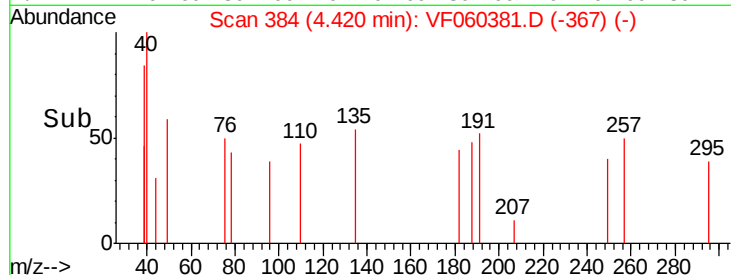
77 0.0 27.3 40.9#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 110.00 (109.70 to 110.70): V

Ion 77.00 (76.70 to 77.70): VF0



#37

Ethyl Acetate

Concen: 656.009 ug/l

RT: 4.23 min Scan# 365

Delta R.T. -0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

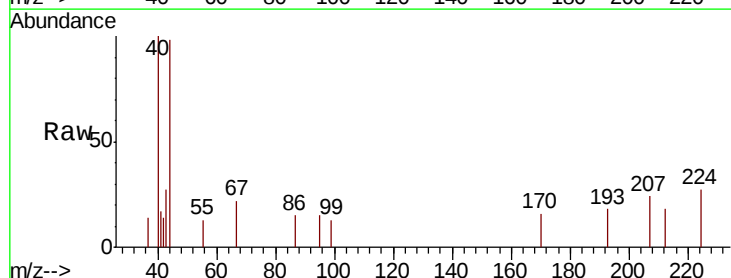
Tgt Ion: 43 Resp: 322

Ion Ratio Lower Upper

43 100

61 0.0 91.1 136.7#

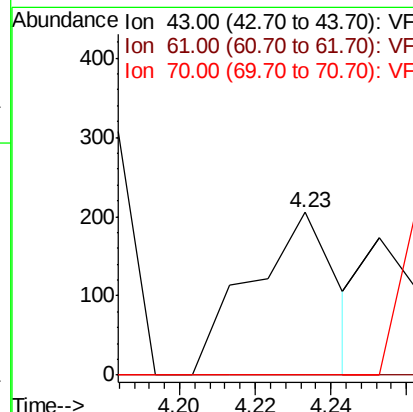
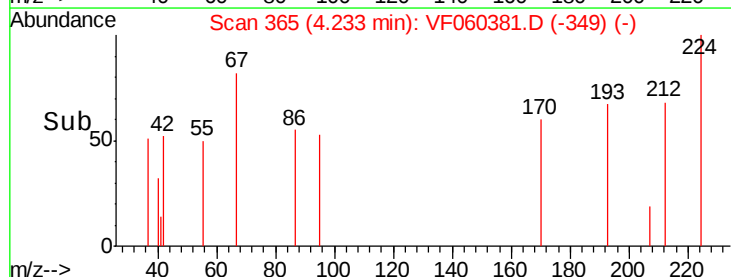
70 0.0 6.9 10.3#

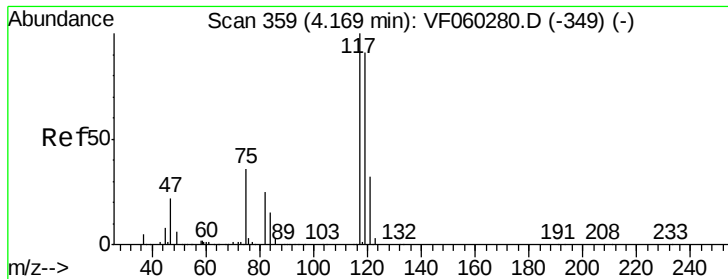


Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 70.00 (69.70 to 70.70): VF0





#38

Carbon Tetrachloride

Concen: 83.466 ug/l

RT: 4.03 min Scan# 344

Delta R.T. -0.14 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

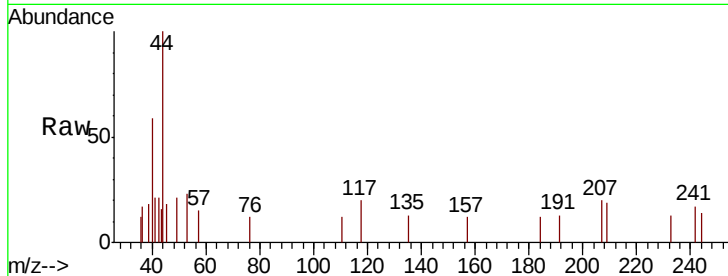
Tot Ion:117 Resp: 104

Ion Ratio Lower Upper

117 100

119 0.0 73.0 109.6#

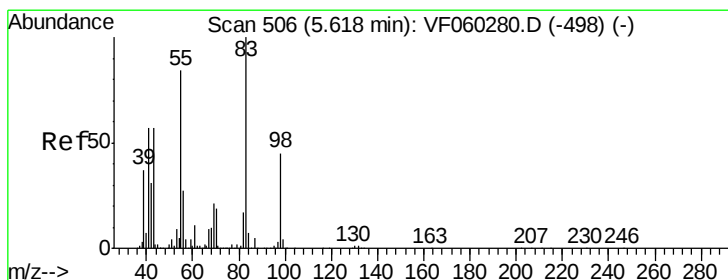
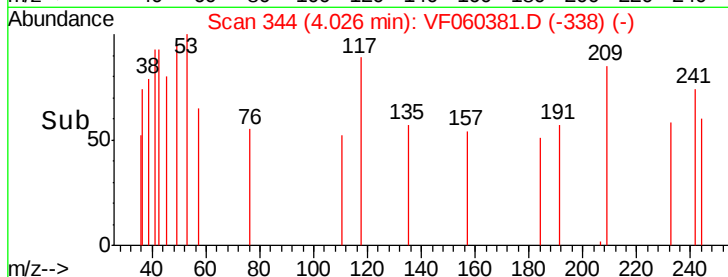
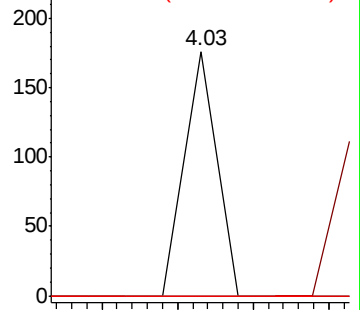
121 0.0 25.4 38.2#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#39

Methylcyclohexane

Concen: 76.356 ug/l

RT: 5.50 min Scan# 494

Delta R.T. -0.11 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

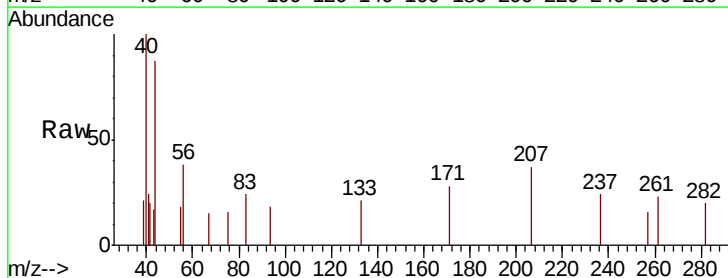
Tgt Ion: 83 Resp: 96

Ion Ratio Lower Upper

83 100

55 74.2 67.3 100.9

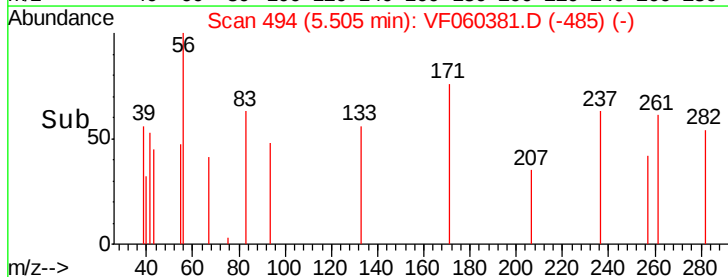
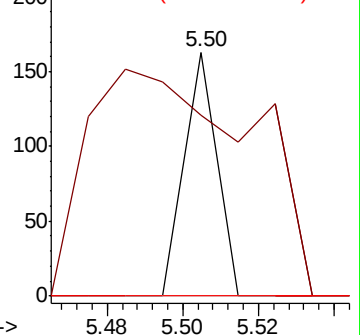
98 0.0 36.1 54.1#

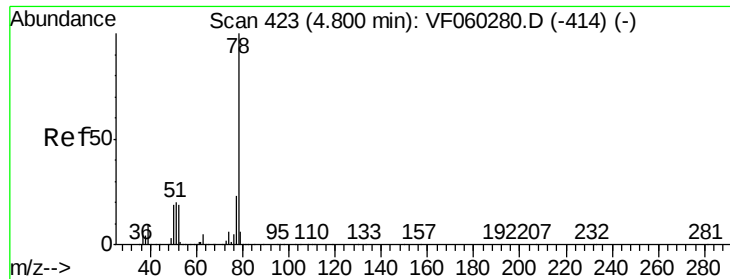


Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 98.00 (97.70 to 98.70): VF0





#40

Benzene

Concen: 27.372 ug/l

RT: 4.79 min Scan# 421

Delta R.T. -0.01 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

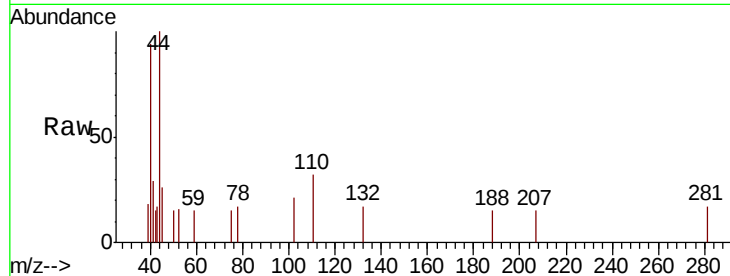
Instrument :  
MSVOA\_F  
ClientSampled :  
HC-SOIL-3

Tot Ion: 78 Resp: 72

Ion Ratio Lower Upper

78 100

77 0.0 18.4 27.6#



Abundance Ion 78.10 (77.80 to 78.80): VF0

Ion 77.00 (76.70 to 77.70): VF0

150

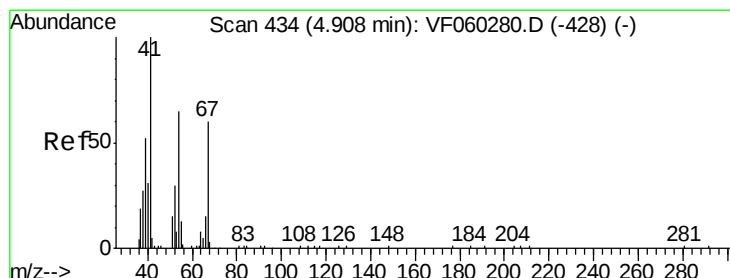
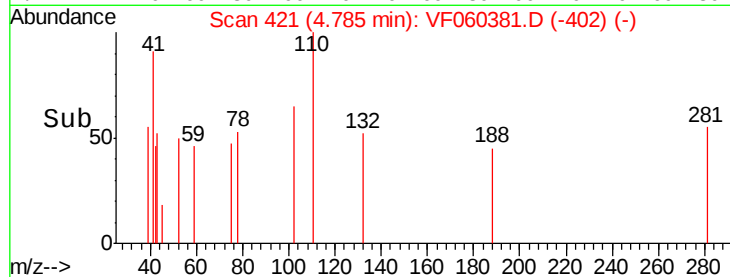
100

50

0

4.76 4.78 4.80

Time-->



#41

Methacrylonitrile

Concen: 3029.914 ug/l

RT: 4.86 min Scan# 429

Delta R.T. -0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Tgt Ion: 41 Resp: 807

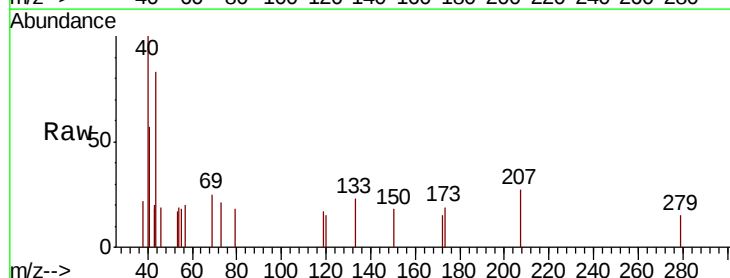
Ion Ratio Lower Upper

41 100

39 0.0 49.1 73.7#

67 0.0 48.2 72.4#

52 0.0 35.8 53.8#



Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

600

500

400

300

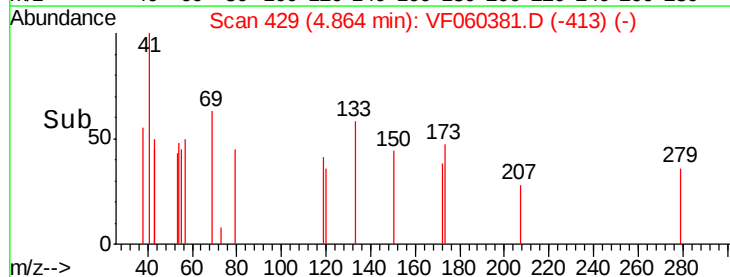
200

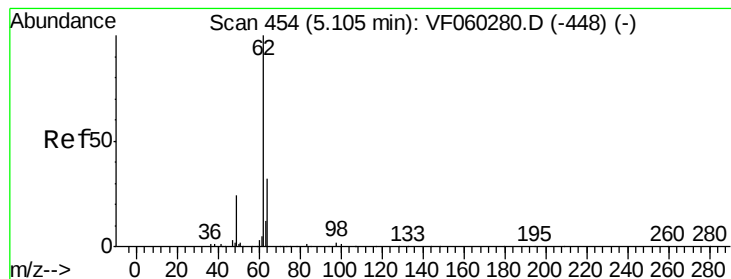
100

0

4.80 4.85 4.90

Time-->





#42

1,2-Dichloroethane

Concen: 84.695 ug/l

RT: 4.90 min Scan# 433

Delta R.T. -0.20 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

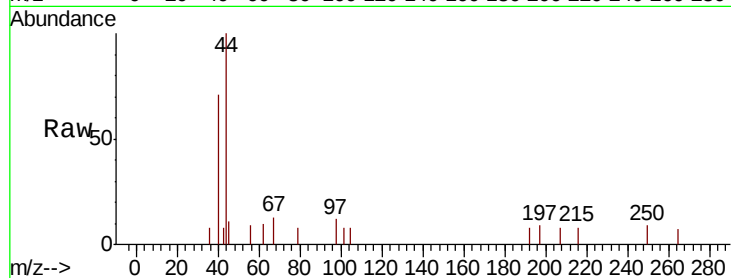
HC-SOIL-3

Tot Ion: 62 Resp: 82

Ion Ratio Lower Upper

62 100

98 0.0 0.0 14.4



Abundance Ion 62.00 (61.70 to 62.70): VF0

Ion 98.00 (97.70 to 98.70): VF0

4.90

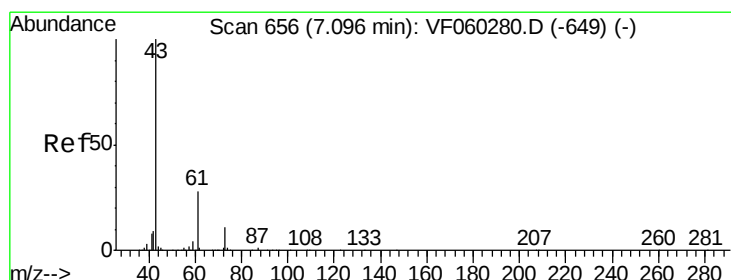
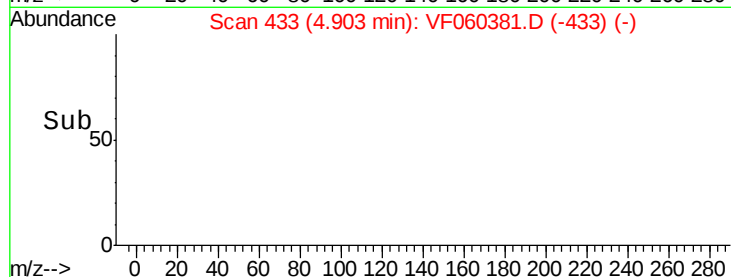
150

100

50

0

Time--> 4.88 4.90 4.92



#43

Isopropyl Acetate

Concen: 439.997 ug/l

RT: 7.02 min Scan# 648

Delta R.T. -0.07 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

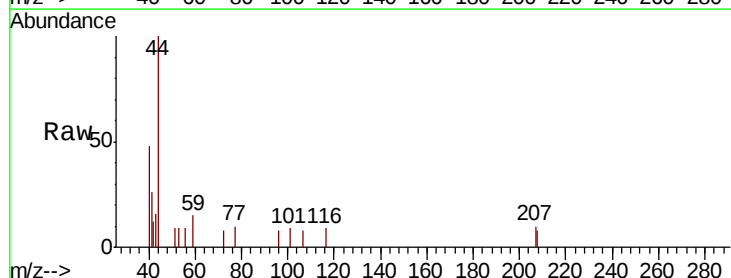
Tgt Ion: 43 Resp: 260

Ion Ratio Lower Upper

43 100

61 0.0 22.4 33.6#

87 0.0 0.6 0.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 87.00 (86.70 to 87.70): VF0

250

200

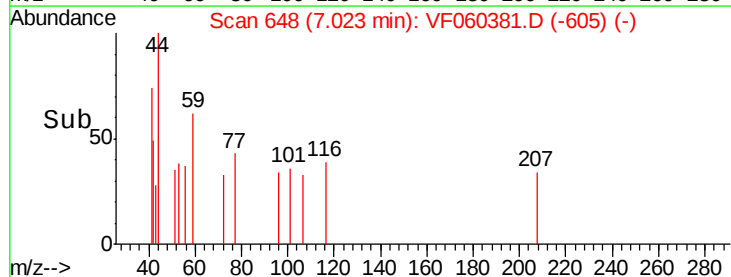
150

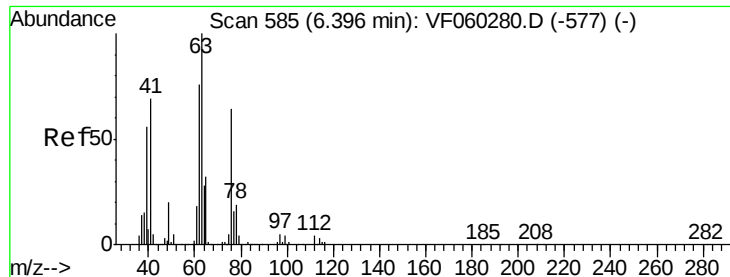
100

50

0

Time--> 7.00 7.02 7.04 7.06





#45

1,2-Dichloropropane

Concen: 116.047 ug/l

RT: 6.44 min Scan# 589

Delta R.T. 0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

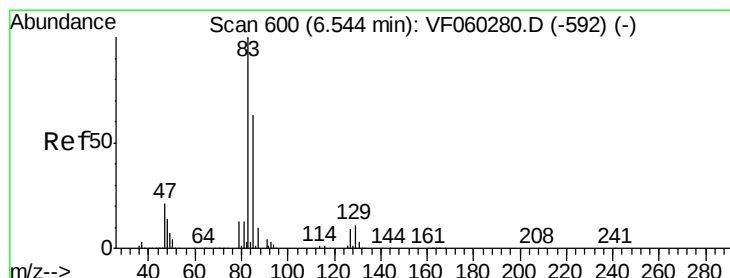
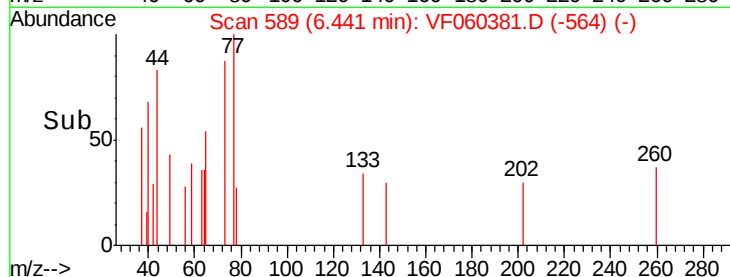
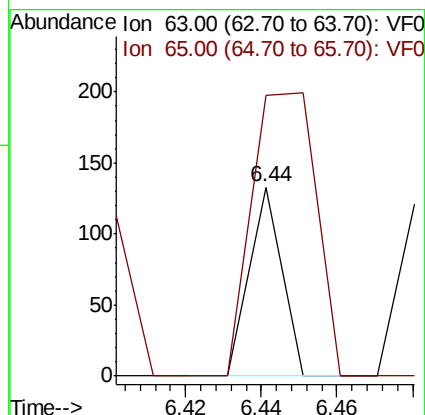
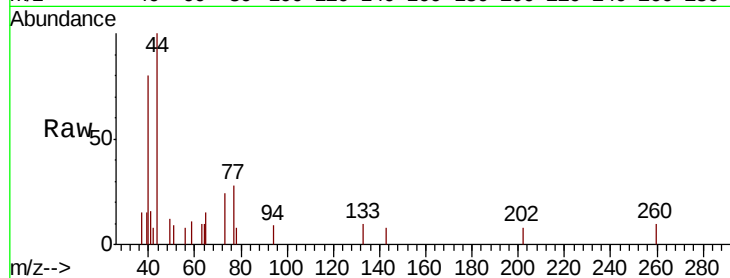
HC-SOIL-3

Tot Ion: 63 Resp: 79

Ion Ratio Lower Upper

63 100

65 148.9 26.2 39.4#



#47

Bromodichloromethane

Concen: 57.295 ug/l

RT: 6.52 min Scan# 597

Delta R.T. -0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

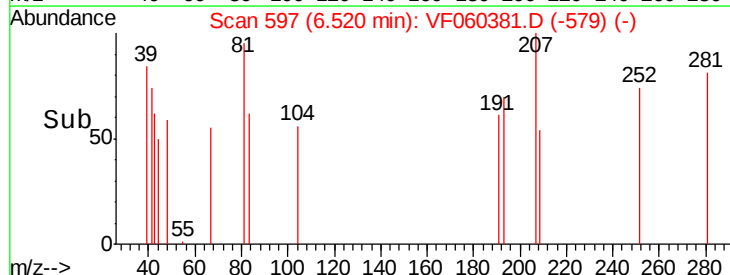
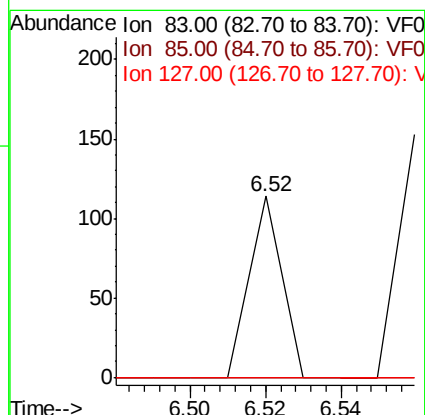
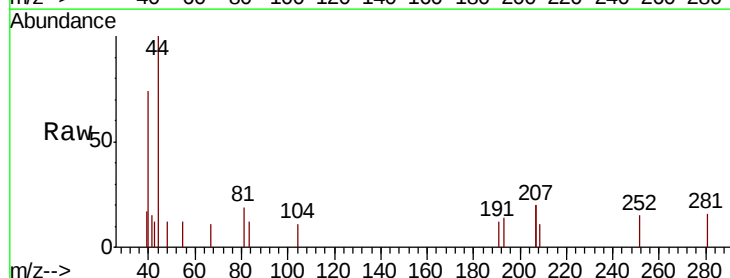
Tgt Ion: 83 Resp: 67

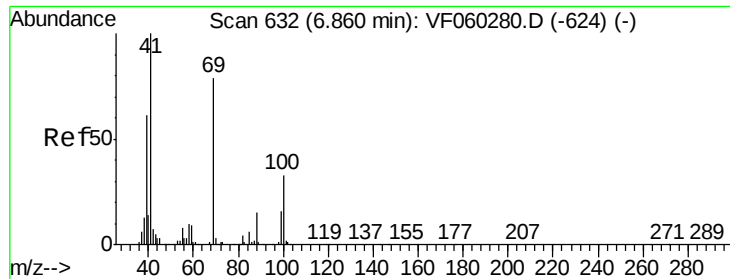
Ion Ratio Lower Upper

83 100

85 0.0 50.6 76.0#

127 0.0 7.1 10.7#

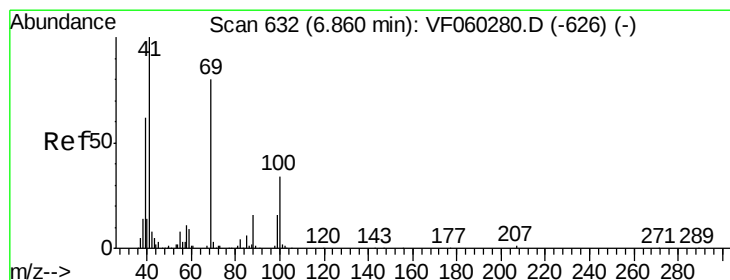
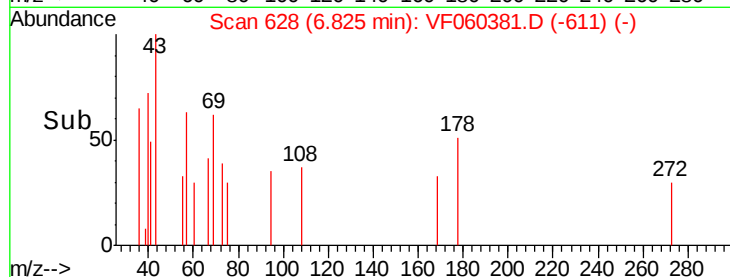
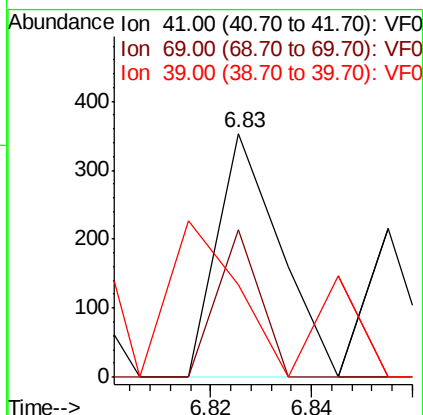
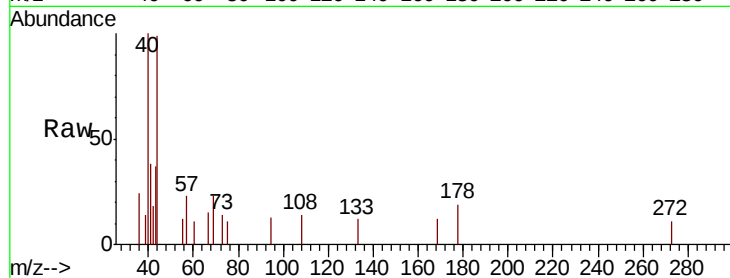




#48  
Methyl methacrylate  
Concen: 732.877 ug/l  
RT: 6.83 min Scan# 628  
Delta R.T. -0.03 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

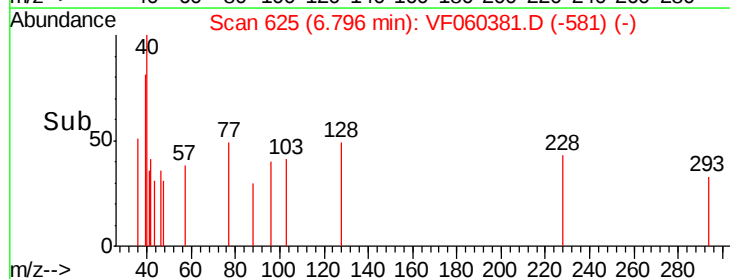
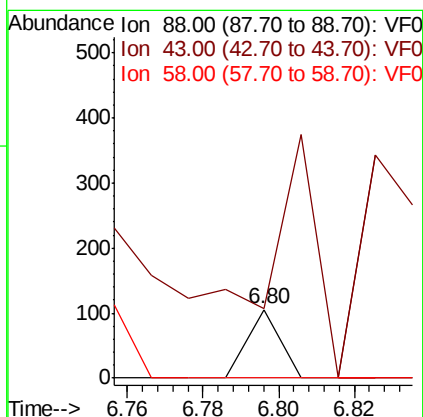
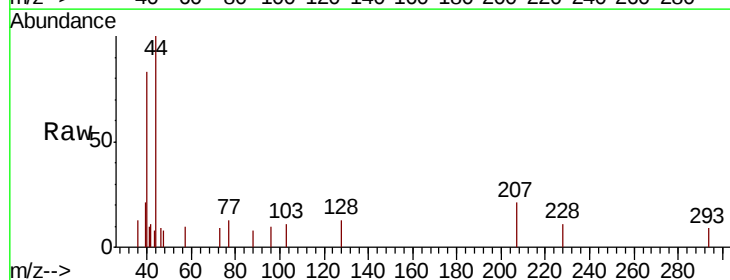
Instrument :  
MSVOA\_F  
ClientSampled :  
HC-SOIL-3

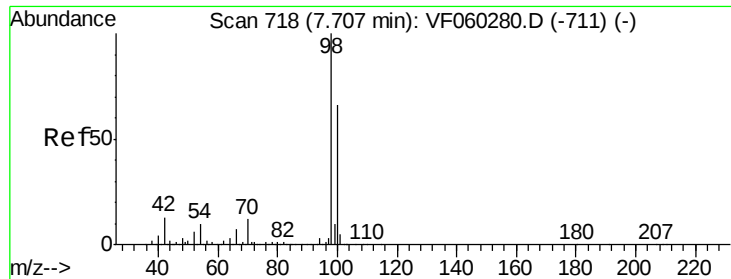
Tot Ion: 41 Resp: 304  
Ion Ratio Lower Upper  
41 100  
69 60.3 62.6 94.0#  
39 38.0 49.1 73.7#



#49  
1,4-Dioxane  
Concen: 17000.213 ug/l  
RT: 6.80 min Scan# 625  
Delta R.T. -0.06 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Tgt Ion: 88 Resp: 63  
Ion Ratio Lower Upper  
88 100  
43 100.9 40.2 60.4#  
58 0.0 56.7 85.1#

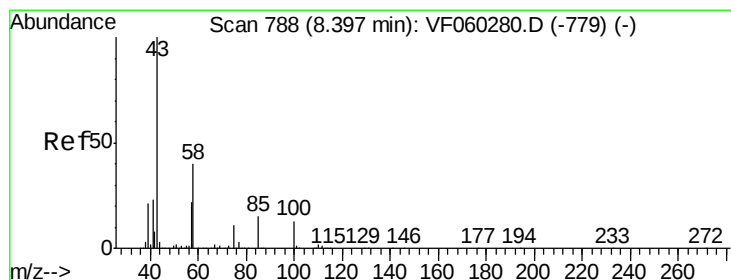
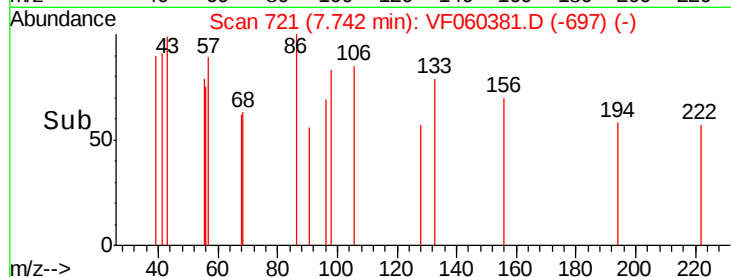
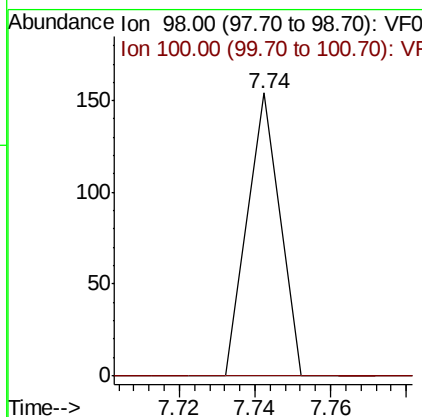
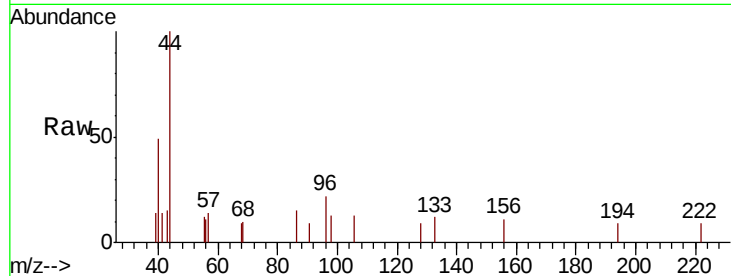




#50  
Toluene-d8  
Concen: 42.150 ug/l  
RT: 7.74 min Scan# 721  
Delta R.T. 0.03 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

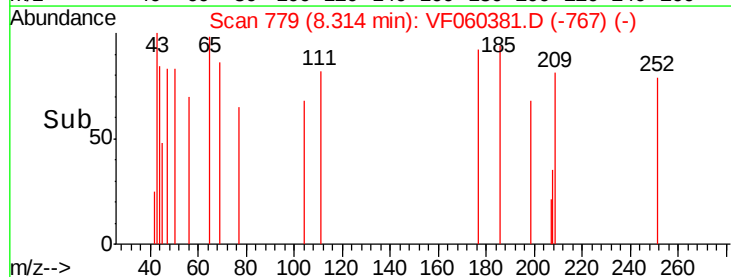
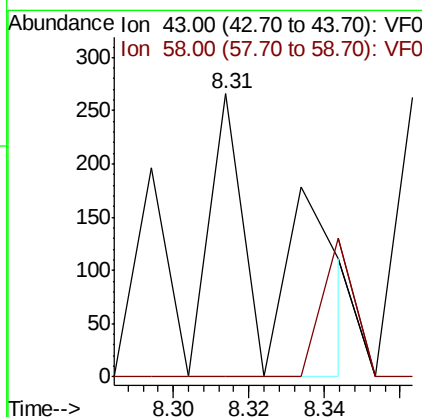
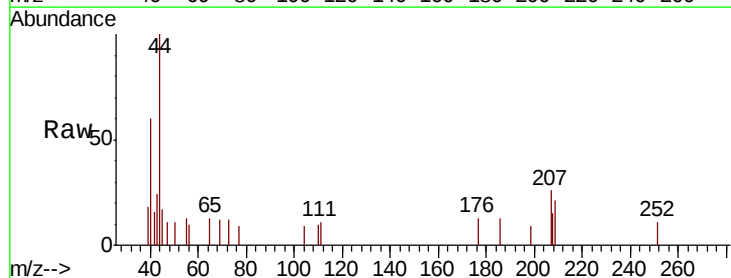
Instrument :  
MSVOA\_F  
ClientSampleId :  
HC-SOIL-3

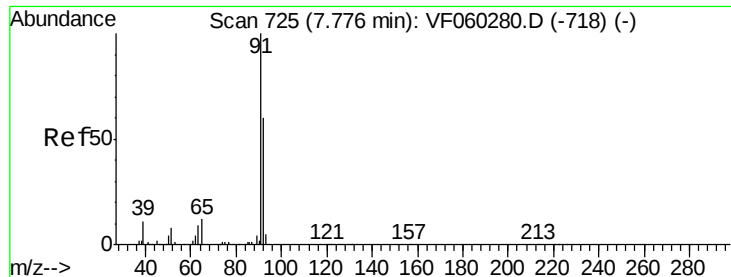
Tot Ion: 98 Resp: 91  
Ion Ratio Lower Upper  
98 100  
100 0.0 53.0 79.6#



#51  
4-Methyl-2-Pentanone  
Concen: 720.182 ug/l  
RT: 8.31 min Scan# 779  
Delta R.T. -0.08 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Tgt Ion: 43 Resp: 328  
Ion Ratio Lower Upper  
43 100  
58 0.0 31.8 47.8#





#52

Toluene

Concen: 40.263 ug/l

RT: 7.73 min Scan# 720

Delta R.T. -0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

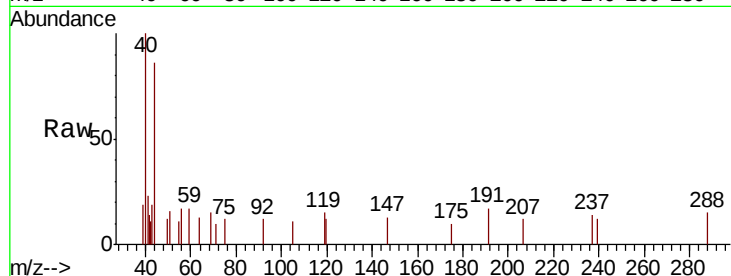
HC-SOIL-3

Tot Ion: 92 Resp: 67

Ion Ratio Lower Upper

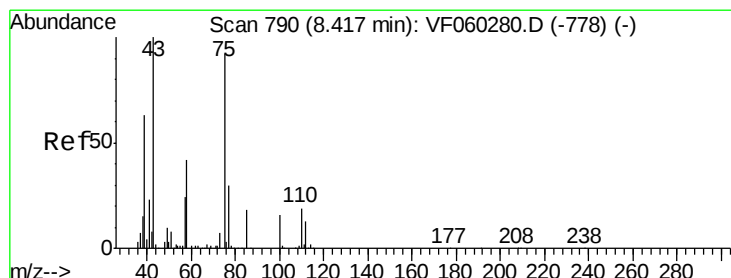
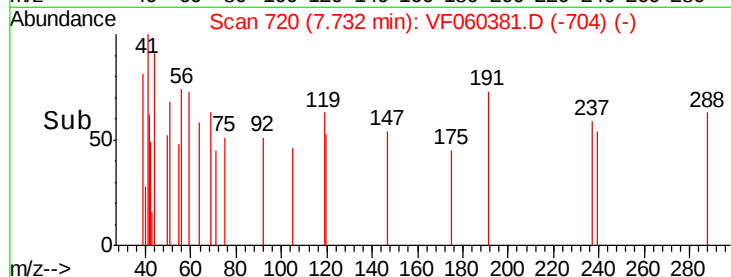
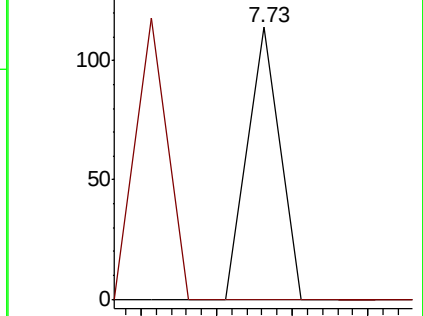
92 100

91 0.0 133.3 199.9#



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0



#53

t-1,3-Dichloropropene

Concen: 66.790 ug/l

RT: 8.47 min Scan# 795

Delta R.T. 0.05 min

Lab File: VF060381.D

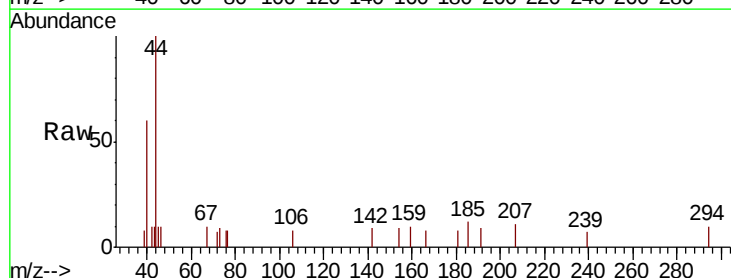
Acq: 28 Sep 2018 21:45

Tgt Ion: 75 Resp: 63

Ion Ratio Lower Upper

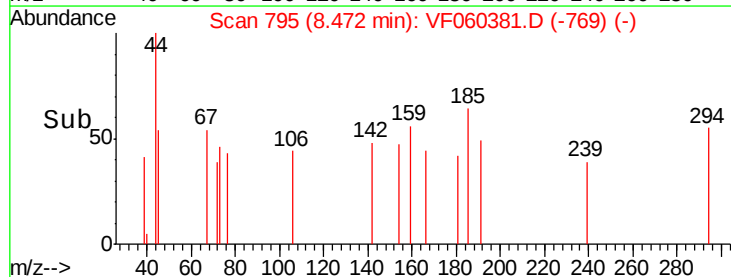
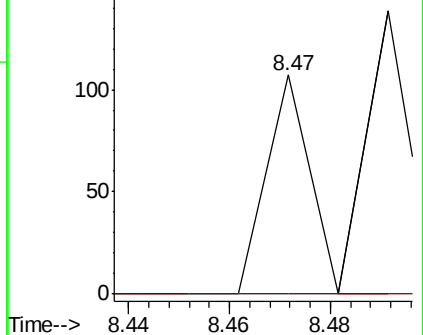
75 100

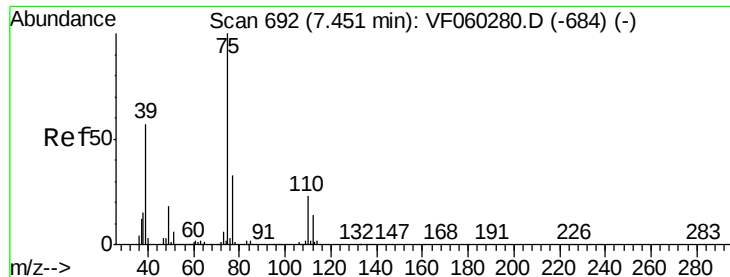
77 0.0 25.9 38.9#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 77.00 (76.70 to 77.70): VF0





#54

cis-1,3-Dichloropropene

Concen: 67.323 ug/l

RT: 7.36 min Scan# 682

Delta R.T. -0.09 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

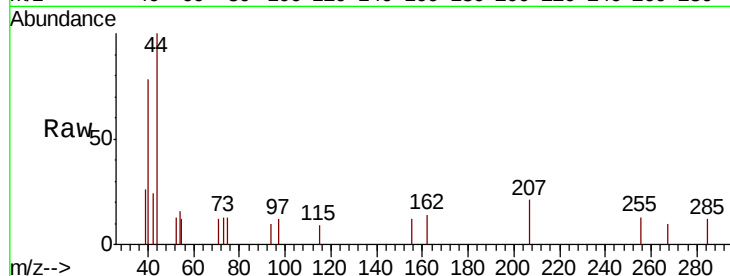
Tot Ion: 75 Resp: 80

Ion Ratio Lower Upper

75 100

77 0.0 26.3 39.5#

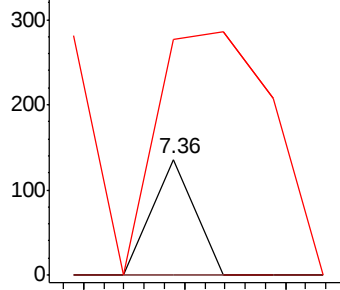
39 202.9 46.1 69.1#



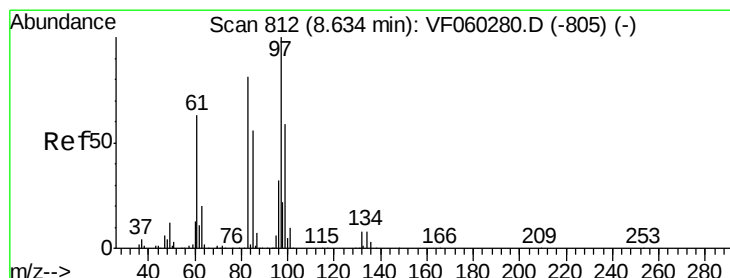
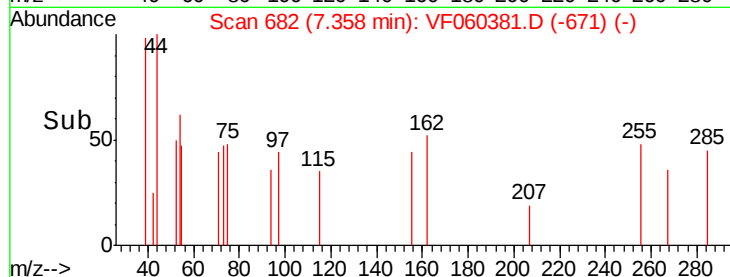
Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 77.00 (76.70 to 77.70): VF0

Ion 39.00 (38.70 to 39.70): VF0



Time-->



#55

1,1,2-Trichloroethane

Concen: 178.199 ug/l

RT: 8.55 min Scan# 803

Delta R.T. -0.08 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Tgt Ion: 97 Resp: 90

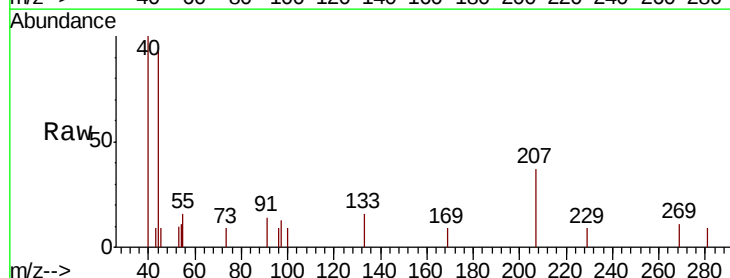
Ion Ratio Lower Upper

97 100

83 0.0 65.3 97.9#

85 0.0 44.7 67.1#

99 0.0 47.0 70.4#

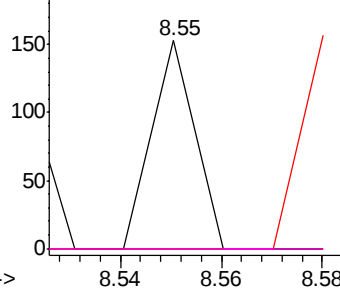


Abundance Ion 97.00 (96.70 to 97.70): VF0

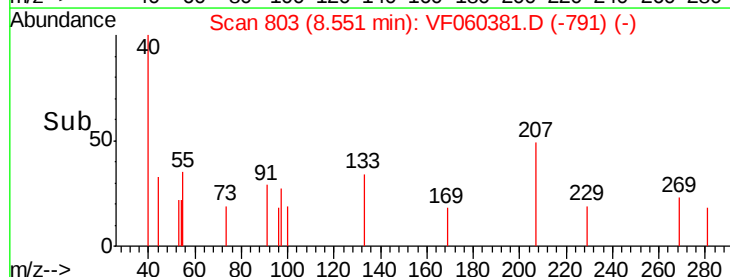
Ion 82.95 (82.65 to 83.65): VF0

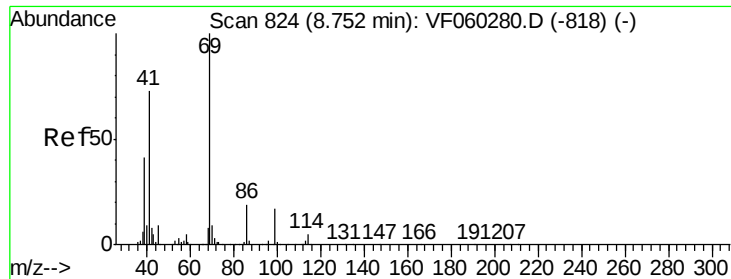
Ion 84.95 (84.65 to 85.65): VF0

Ion 98.95 (98.65 to 99.65): VF0



Time-->





#56

Ethyl methacrylate

Concen: 224.601 ug/l

RT: 8.73 min Scan# 821

Delta R.T. -0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleID :

HC-SOIL-3

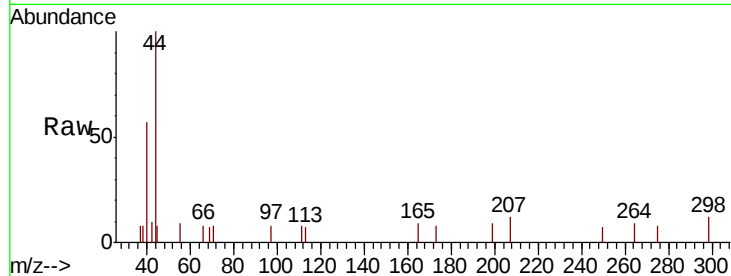
Tot Ion: 69 Resp: 137

Ion Ratio Lower Upper

69 100

41 0.0 59.4 89.2#

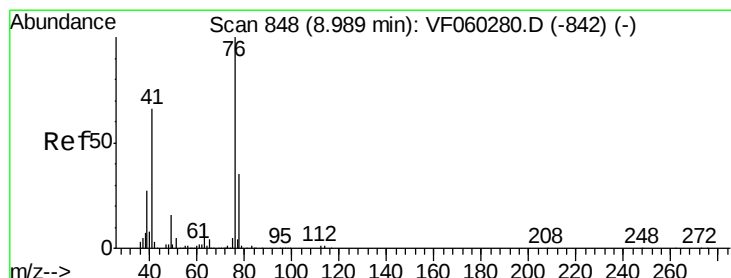
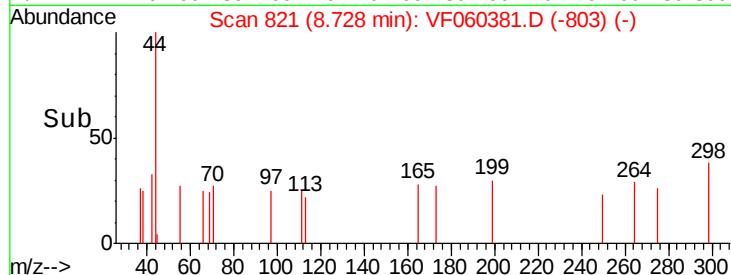
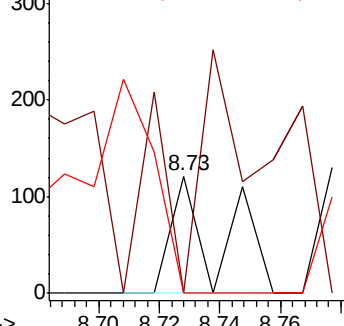
39 0.0 33.5 50.3#



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



#57

1,3-Dichloropropane

Concen: 114.797 ug/l

RT: 8.95 min Scan# 844

Delta R.T. -0.03 min

Lab File: VF060381.D

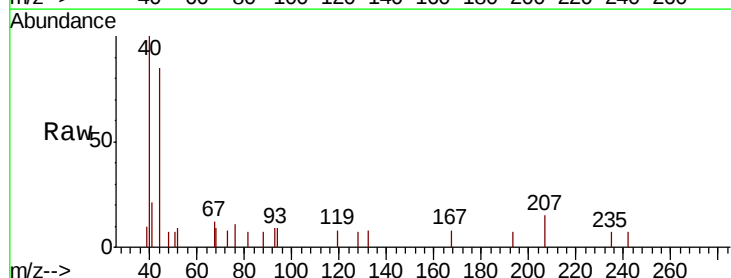
Acq: 28 Sep 2018 21:45

Tgt Ion: 76 Resp: 96

Ion Ratio Lower Upper

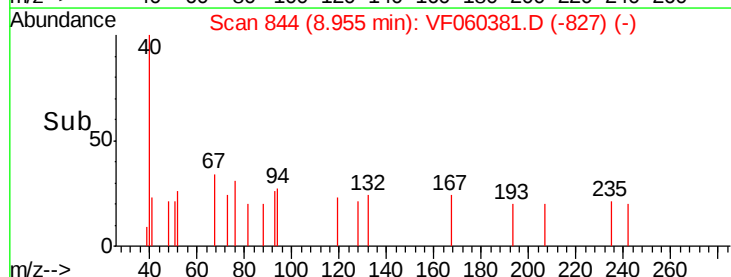
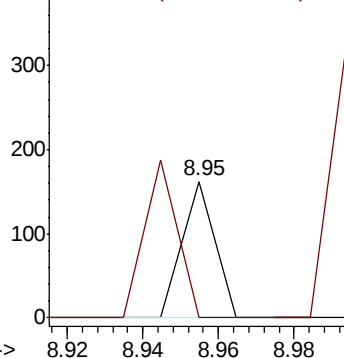
76 100

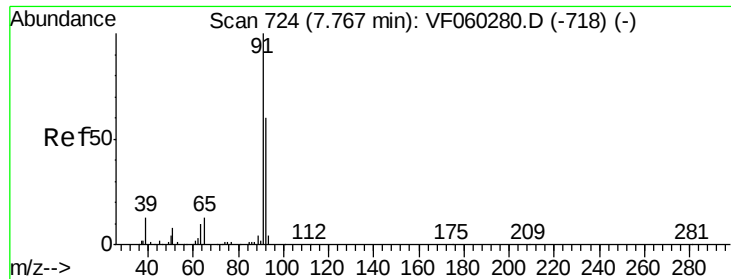
78 0.0 28.2 42.2#



Abundance Ion 76.00 (75.70 to 76.70): VF0

Ion 78.00 (77.70 to 78.70): VF0





#58

2-Chloroethyl Vinyl ether

Concen: 1409.413 ug/l

RT: 7.73 min Scan# 720

Delta R.T. -0.03 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampled :

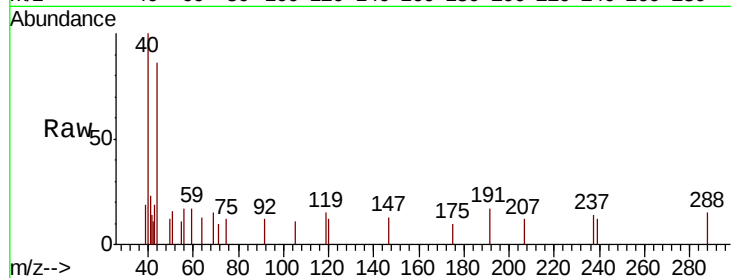
HC-SOIL-3

Tot Ion: 63 Resp: 76

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): VF0

7.73

150

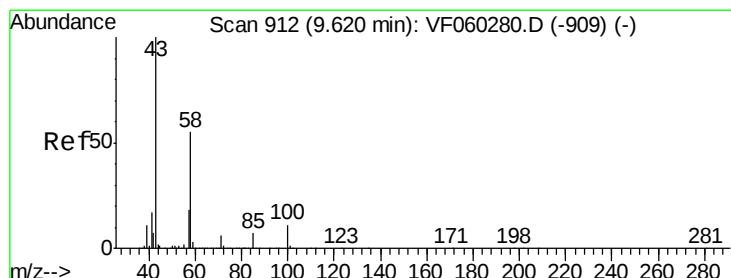
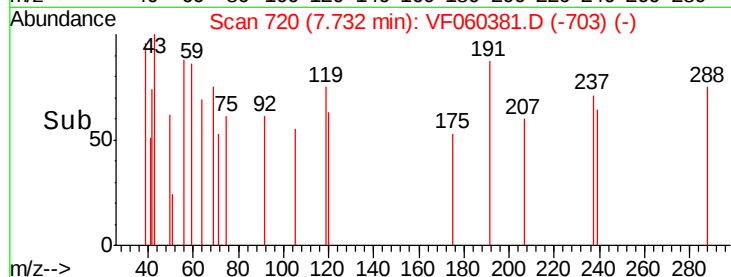
100

50

0

7.70 7.72 7.74 7.76

Time-->



#59

2-Hexanone

Concen: 1239.682 ug/l

RT: 9.52 min Scan# 901

Delta R.T. -0.10 min

Lab File: VF060381.D

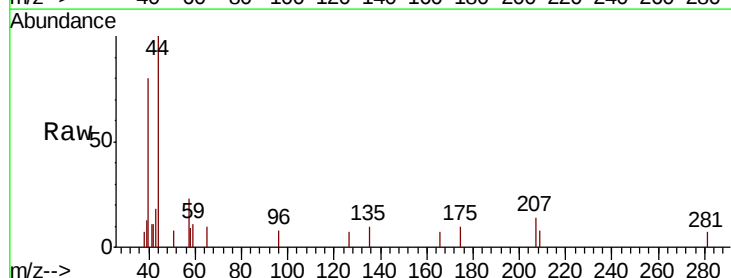
Acq: 28 Sep 2018 21:45

Tgt Ion: 43 Resp: 402

Ion Ratio Lower Upper

43 100

58 47.3 25.9 77.6



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

9.52

300

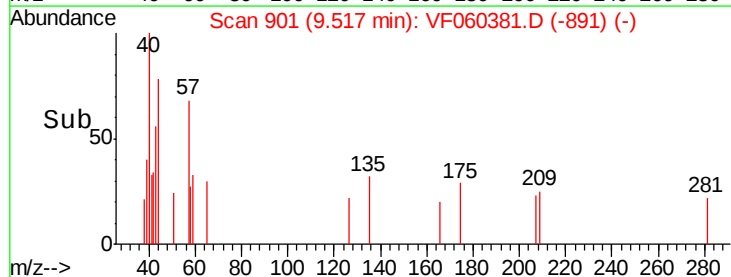
200

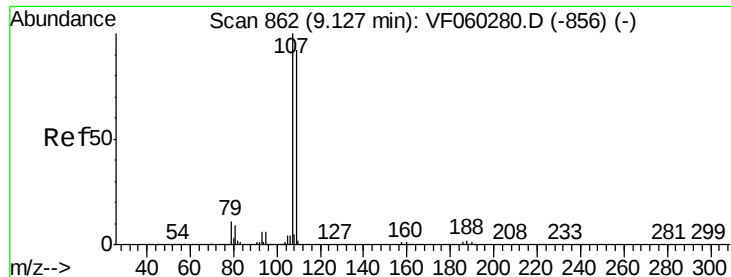
100

0

9.50 9.52 9.54 9.56

Time-->





#61

1,2-Dibromoethane

Concen: 110.239 ug/l

RT: 9.17 min Scan# 866

Delta R.T. 0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

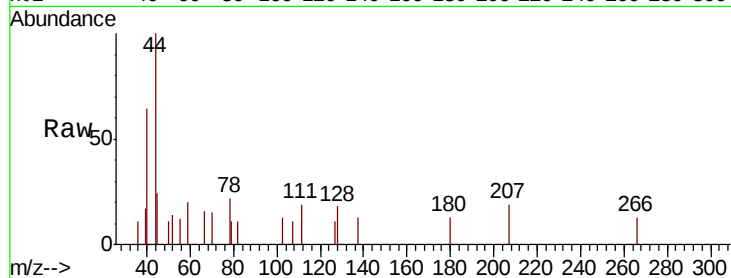
HC-SOIL-3

Tot Ion: 107 Resp: 62

Ion Ratio Lower Upper

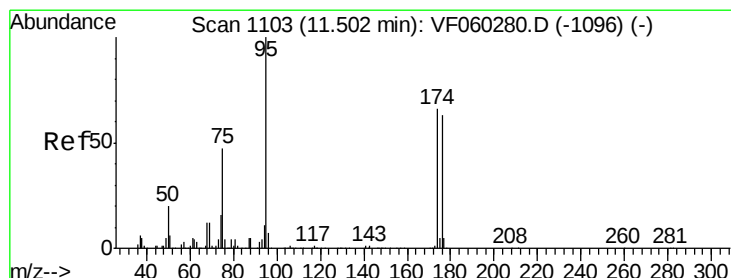
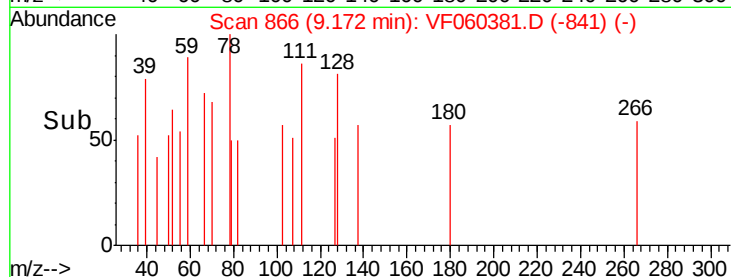
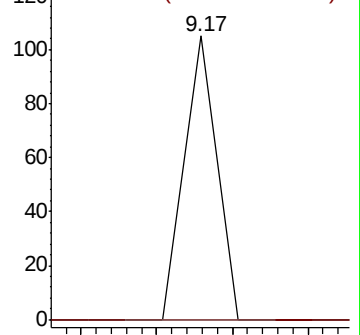
107 100

109 0.0 73.2 109.8#



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V



#62

4-Bromofluorobenzene

Concen: 65.363 ug/l

RT: 11.40 min Scan# 1092

Delta R.T. -0.10 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

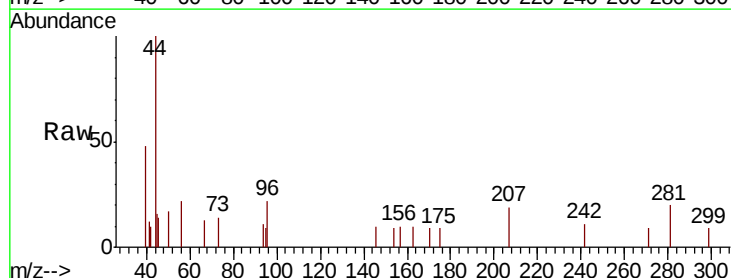
Tgt Ion: 95 Resp: 61

Ion Ratio Lower Upper

95 100

174 0.0 0.0 131.2

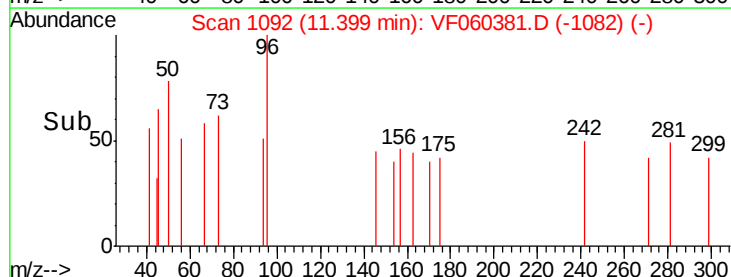
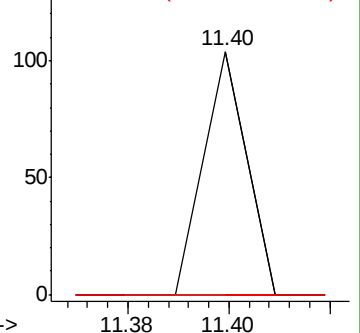
176 0.0 0.0 126.6

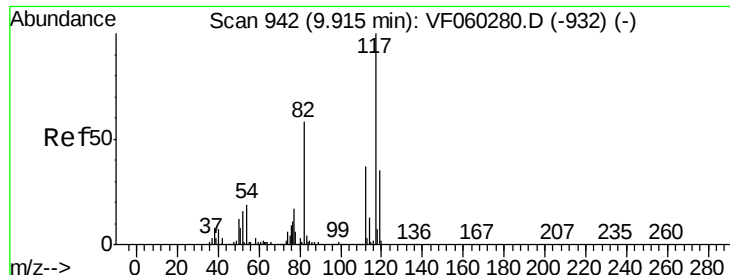


Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V

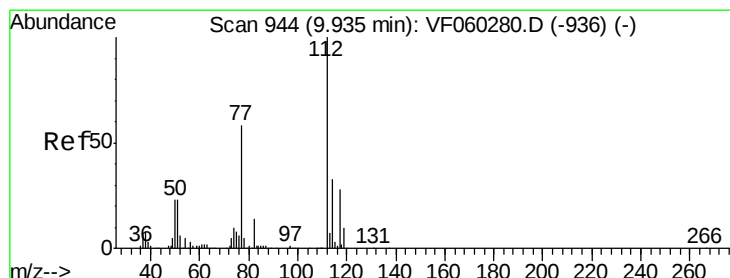
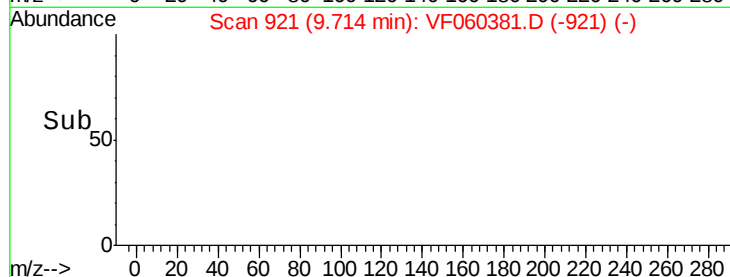
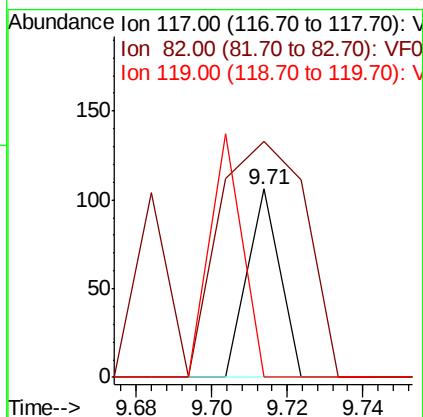
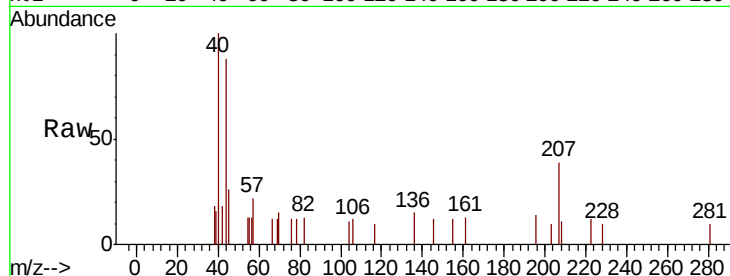




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.71 min Scan# 921  
Delta R.T. -0.20 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

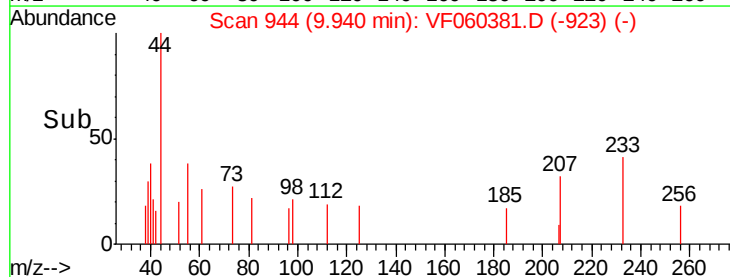
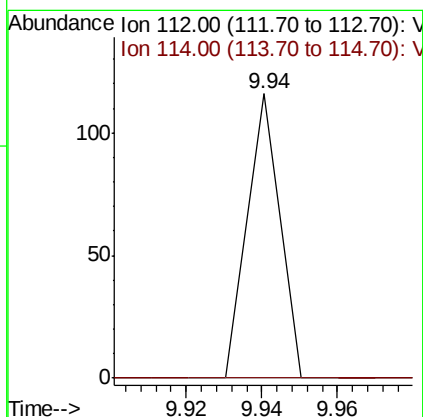
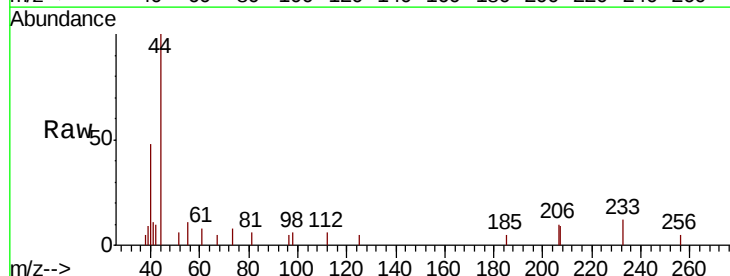
Instrument :  
MSVOA\_F  
ClientSampleId :  
HC-SOIL-3

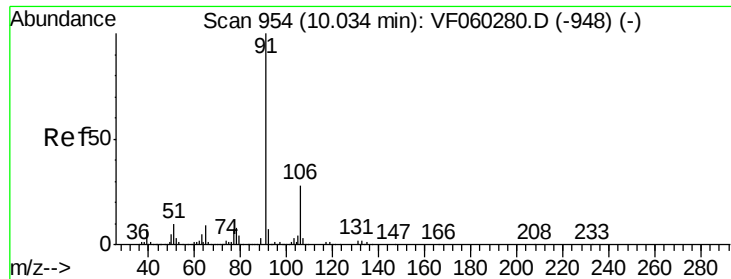
Tot Ion:117 Resp: 63  
Ion Ratio Lower Upper  
117 100  
82 125.5 46.2 69.2#  
119 0.0 27.8 41.6#



#65  
Chlorobenzene  
Concen: 48.324 ug/l  
RT: 9.94 min Scan# 944  
Delta R.T. 0.01 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Tgt Ion:112 Resp: 69  
Ion Ratio Lower Upper  
112 100  
114 0.0 26.6 40.0#





#67

Ethyl Benzene

Concen: 25.378 ug/l

RT: 10.05 min Scan# 955

Delta R.T. 0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampled :

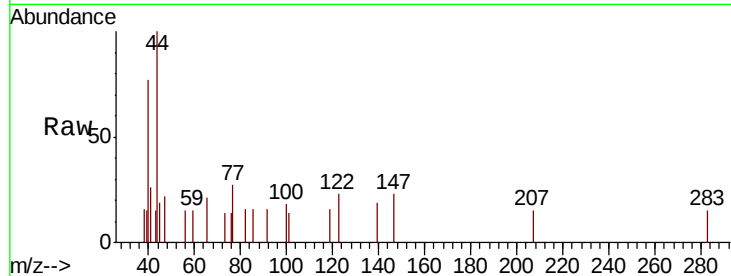
HC-SOIL-3

Tot Ion: 91 Resp: 67

Ion Ratio Lower Upper

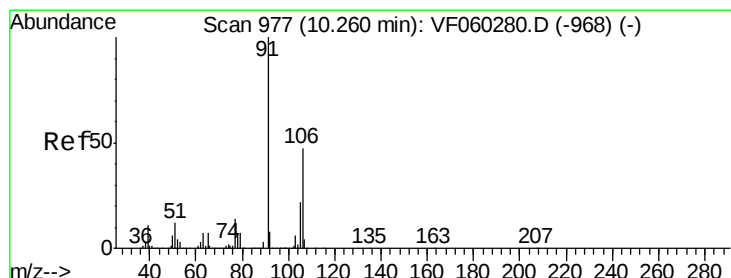
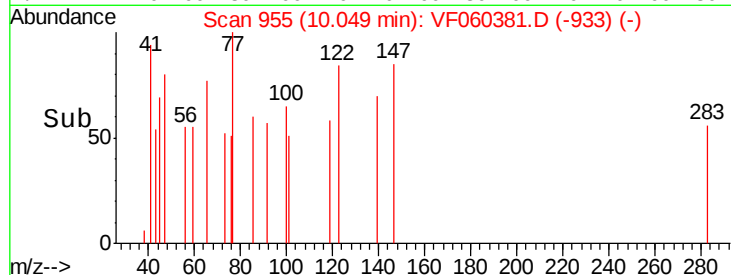
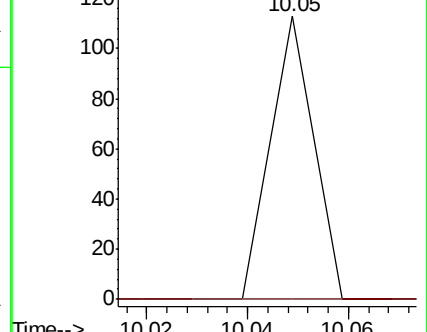
91 100

106 0.0 22.7 34.1#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 106.00 (105.70 to 106.70): V



#68

m/p-Xylenes

Concen: 129.372 ug/l

RT: 10.20 min Scan# 970

Delta R.T. -0.06 min

Lab File: VF060381.D

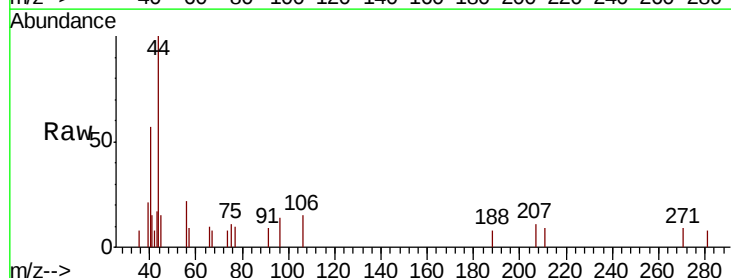
Acq: 28 Sep 2018 21:45

Tgt Ion: 106 Resp: 118

Ion Ratio Lower Upper

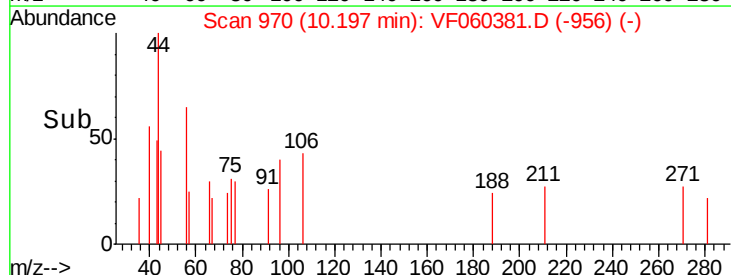
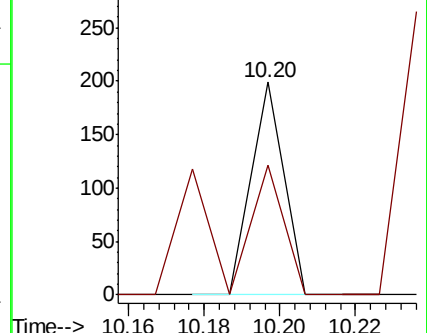
106 100

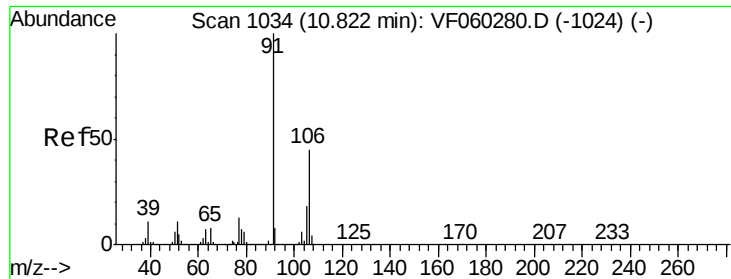
91 61.3 172.3 258.5#



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VF0

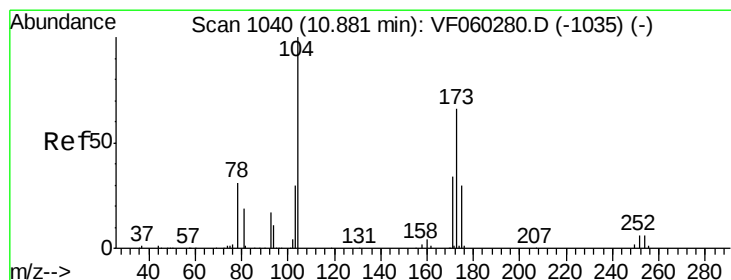
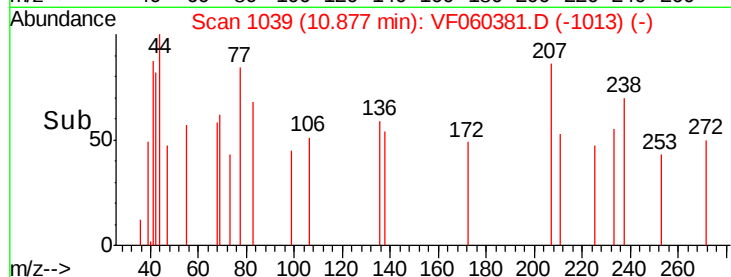
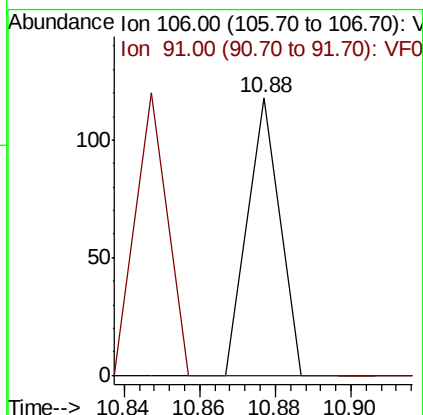
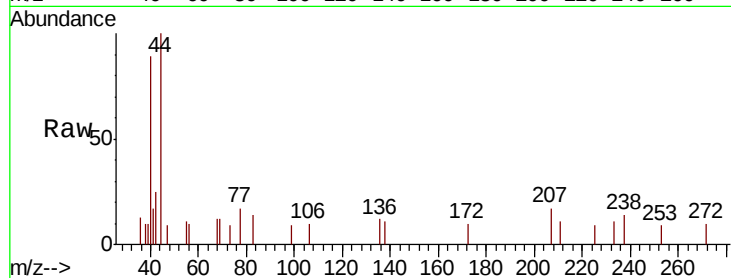




#69  
o-Xylene  
Concen: 68.423 ug/l  
RT: 10.88 min Scan# 1039  
Delta R.T. 0.05 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

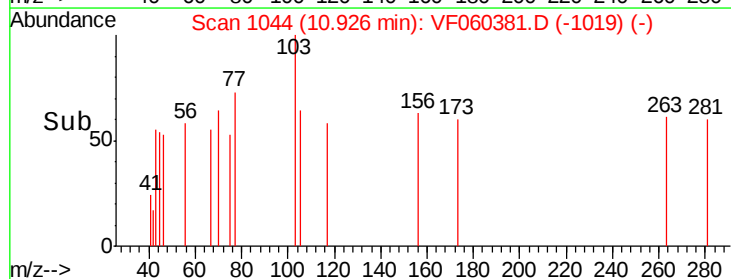
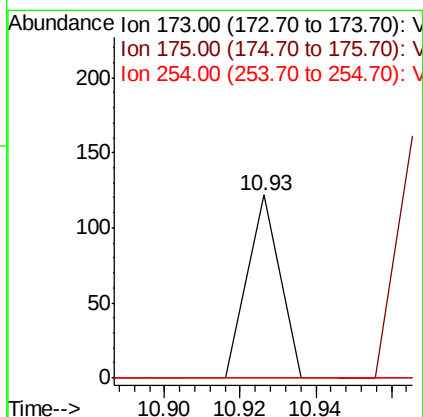
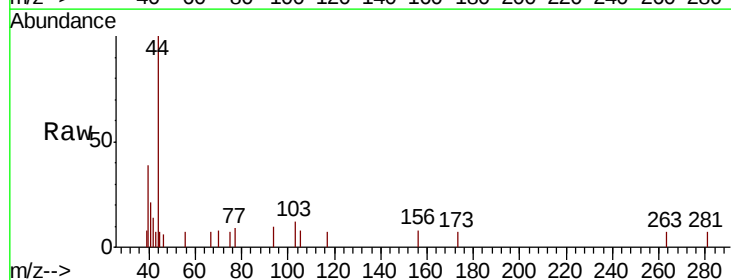
Instrument :  
MSVOA\_F  
ClientSampleId :  
HC-SOIL-3

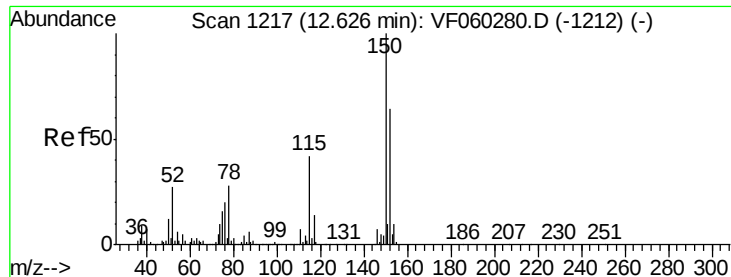
Tot Ion:106 Resp: 70  
Ion Ratio Lower Upper  
106 100  
91 0.0 110.9 332.6#



#71  
Bromoform  
Concen: 221.244 ug/l  
RT: 10.93 min Scan# 1044  
Delta R.T. 0.04 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Tgt Ion:173 Resp: 72  
Ion Ratio Lower Upper  
173 100  
175 0.0 22.3 66.9#  
254 0.0 0.0 0.0



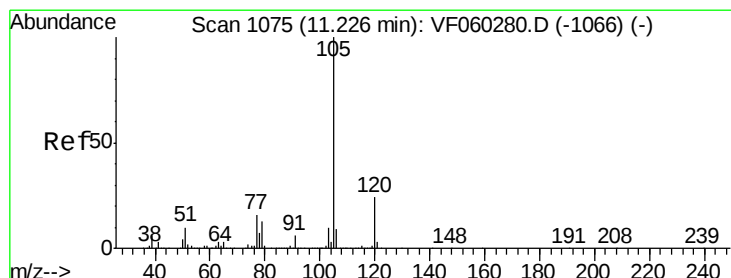
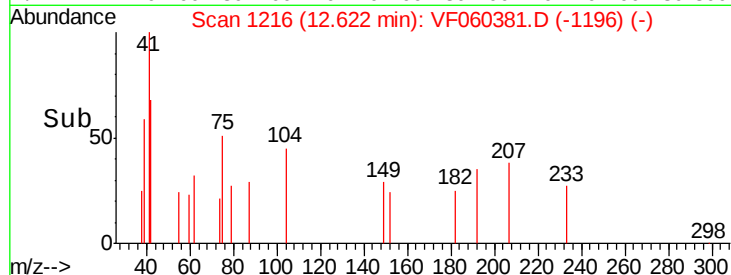
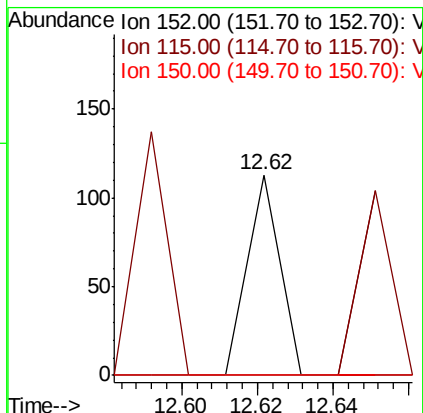
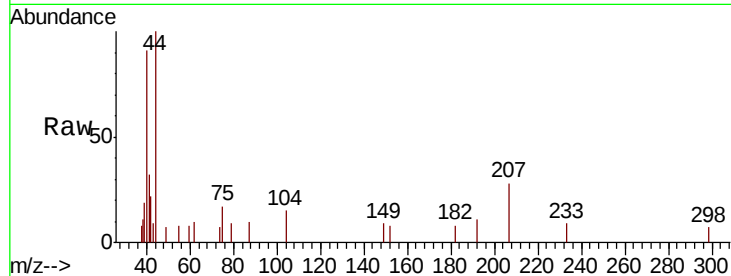


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.62 min Scan# 1216  
Delta R.T. -0.00 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Instrument :  
MSVOA\_F  
ClientSampleId :  
HC-SOIL-3

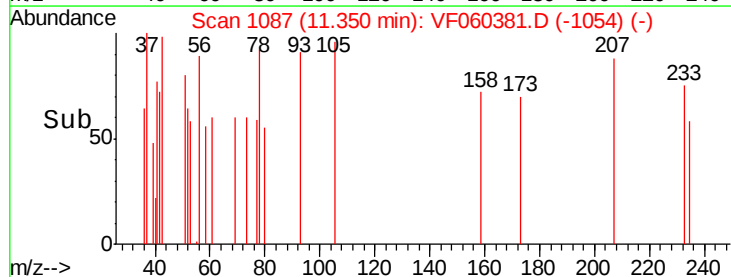
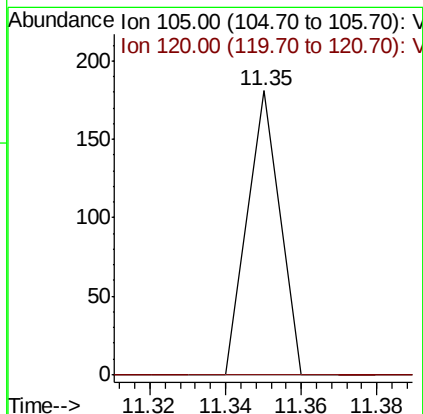
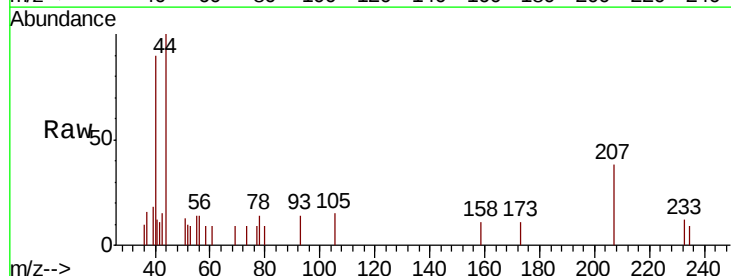
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 0.0   | 32.6  | 97.8# |
| 150     | 0.0   | 0.0   | 314.2 |

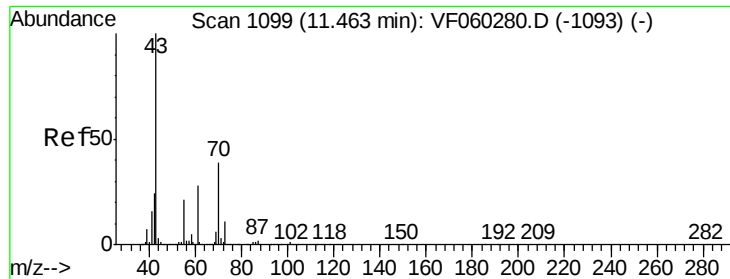


#73

Isopropylbenzene  
Concen: 17.790 ug/l  
RT: 11.35 min Scan# 1087  
Delta R.T. 0.12 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 0.0   | 12.2  | 36.6# |





#74

N-amvl acetate

Concen: 600.334 ug/l

RT: 11.46 min Scan# 1098

Delta R.T. -0.00 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

Tot Ion: 43 Resp: 770

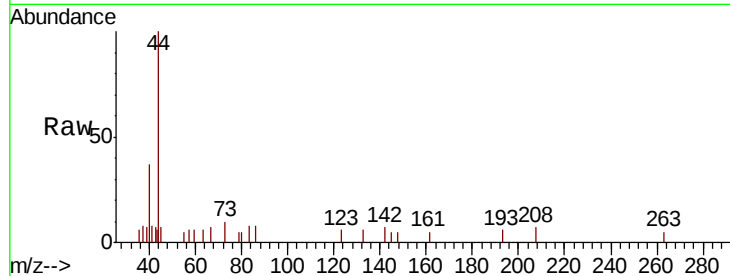
Ion Ratio Lower Upper

43 100

70 0.0 31.4 47.2#

55 37.2 16.8 25.2#

61 0.0 22.6 34.0#

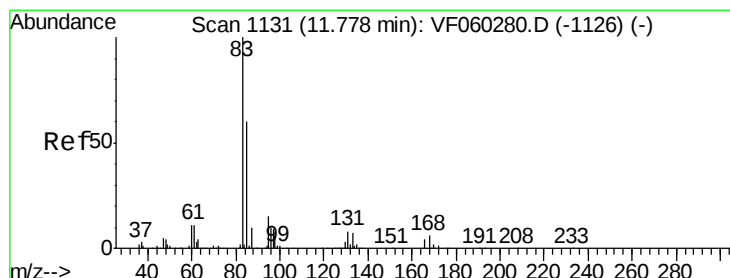
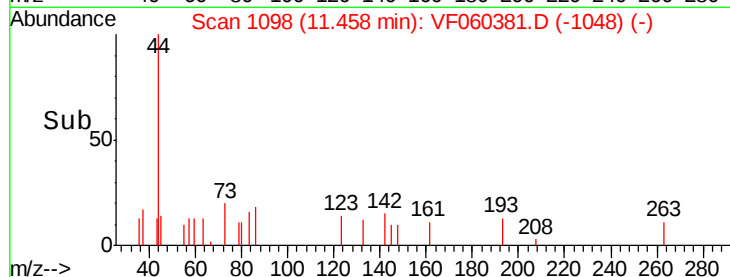
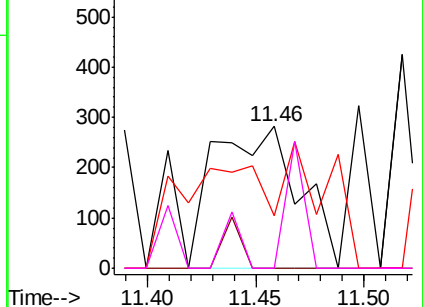


Abundance Ion 43.00 (42.70 to 43.70): VF0

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



#75

1,1,2,2-Tetrachloroethane

Concen: 121.019 ug/l

RT: 11.76 min Scan# 1129

Delta R.T. -0.01 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

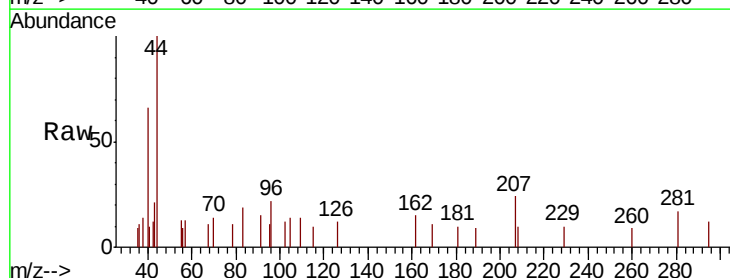
Tgt Ion: 83 Resp: 129

Ion Ratio Lower Upper

83 100

131 0.0 4.2 12.4#

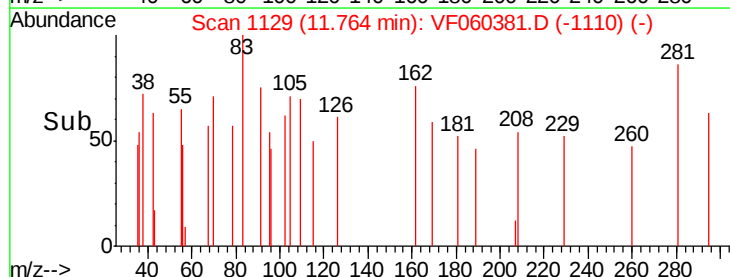
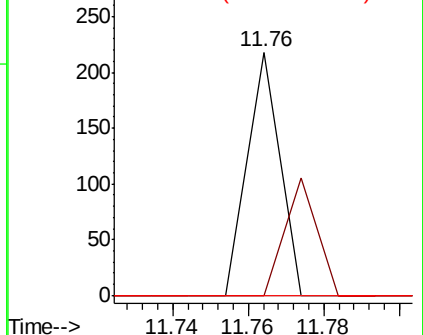
85 0.0 30.1 90.5#

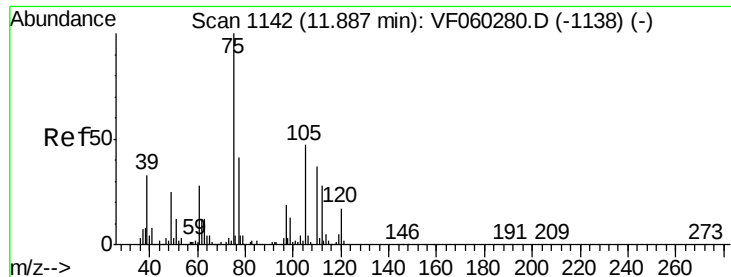


Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VF0





#76

1,2,3-Trichloropropane

Concen: 77.303 ug/l

RT: 11.85 min Scan# 1138

Delta R.T. -0.03 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

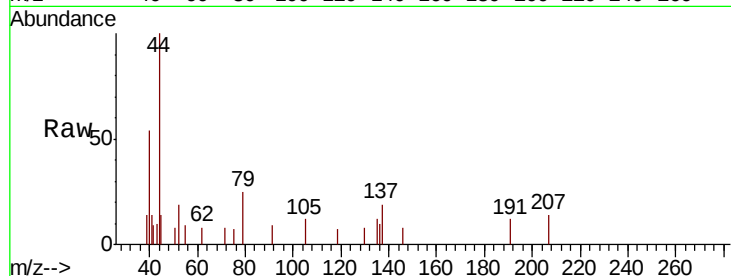
HC-SOIL-3

Tot Ion: 75 Resp: 59

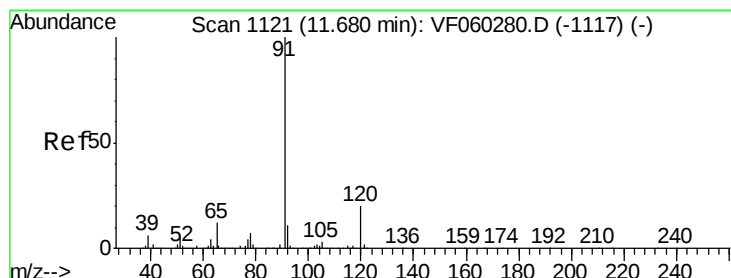
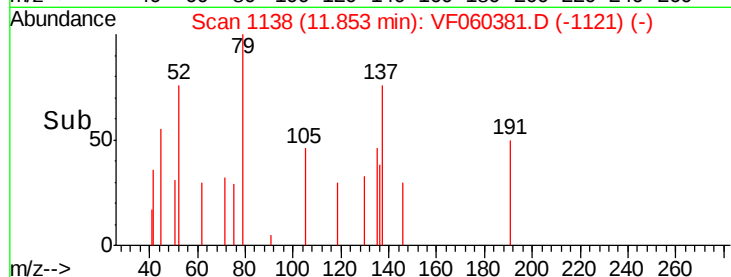
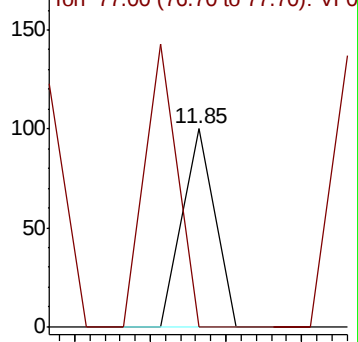
Ion Ratio Lower Upper

75 100

77 0.0 20.5 61.5#



Abundance Ion 75.00 (74.70 to 75.70): VF0



#78

n-propylbenzene

Concen: 34.330 ug/l

RT: 11.66 min Scan# 1118

Delta R.T. -0.02 min

Lab File: VF060381.D

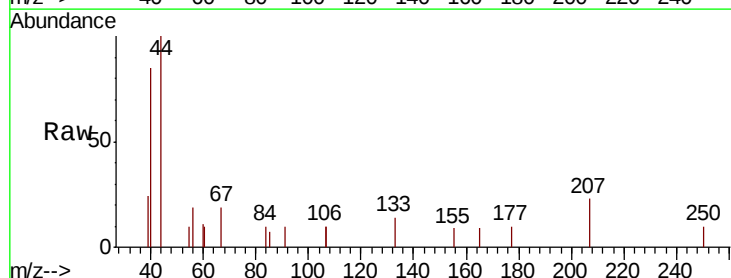
Acq: 28 Sep 2018 21:45

Tgt Ion: 91 Resp: 219

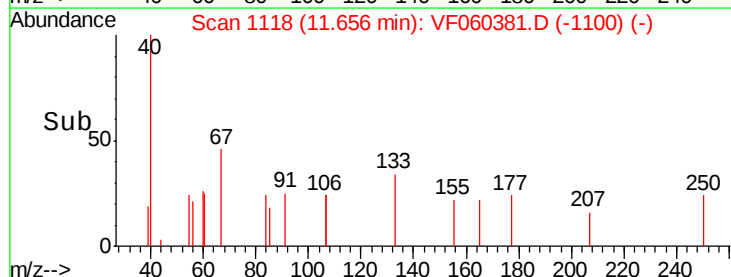
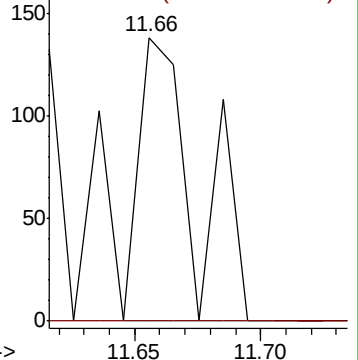
Ion Ratio Lower Upper

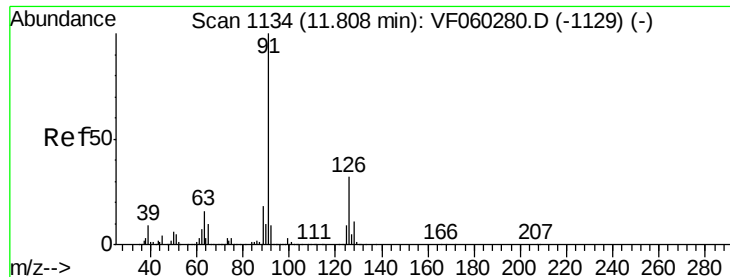
91 100

120 0.0 10.0 29.8#



Abundance Ion 91.00 (90.70 to 91.70): VF0





#79

2-Chlorotoluene

Concen: 17.992 ug/l

RT: 11.80 min Scan# 1133

Delta R.T. -0.00 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

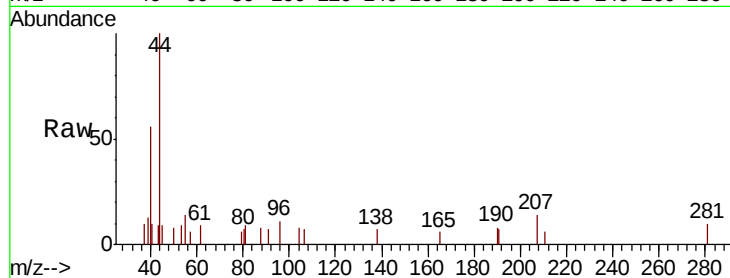
HC-SOIL-3

Tot Ion: 91 Resp: 73

Ion Ratio Lower Upper

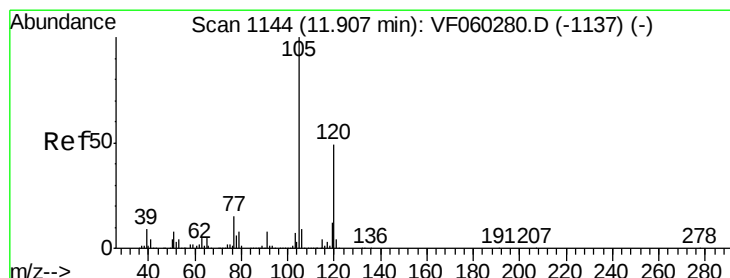
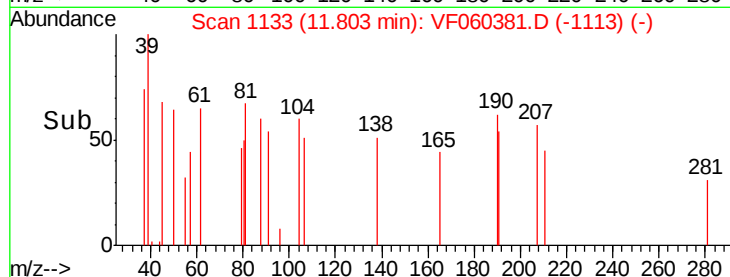
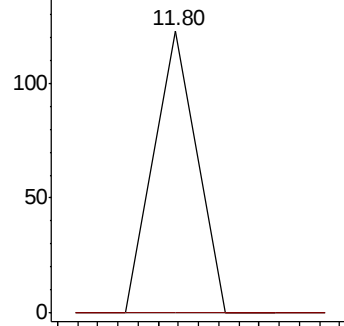
91 100

126 0.0 16.1 48.3#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 126.00 (125.70 to 126.70): V



#80

1,3,5-Trimethylbenzene

Concen: 15.077 ug/l

RT: 11.92 min Scan# 1145

Delta R.T. 0.02 min

Lab File: VF060381.D

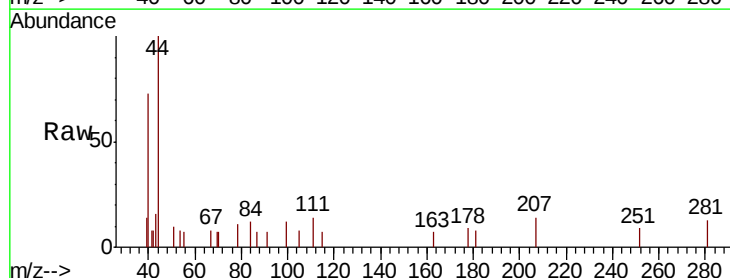
Acq: 28 Sep 2018 21:45

Tgt Ion: 105 Resp: 73

Ion Ratio Lower Upper

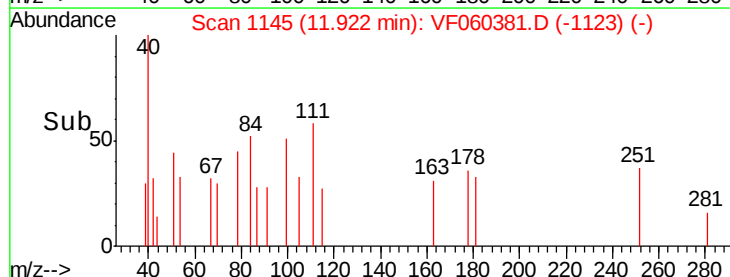
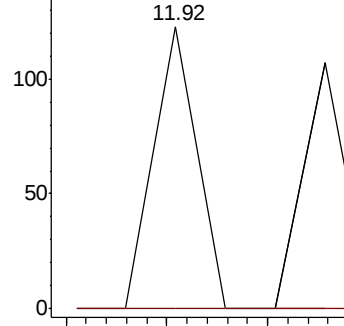
105 100

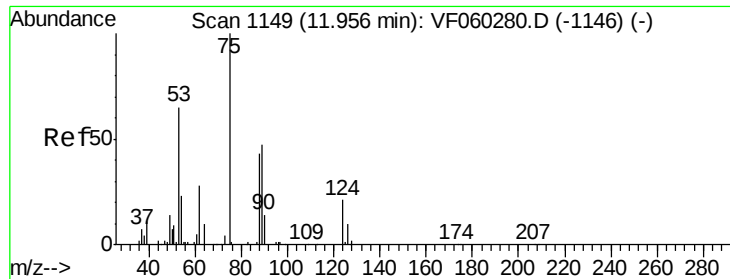
120 0.0 24.4 73.2#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#81

trans-1,4-Dichloro-2-butene

Concen: 247.924 ug/l

RT: 11.95 min Scan# 1148

Delta R.T. -0.00 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

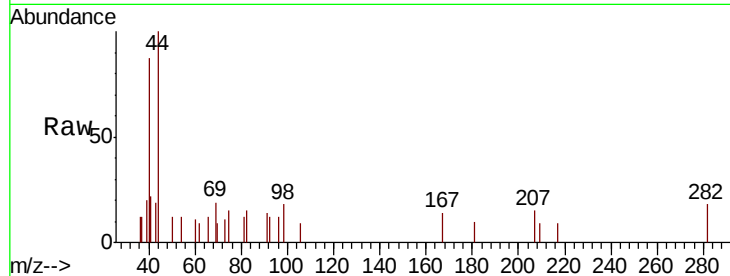
Tot Ion: 75 Resp: 100

Ion Ratio Lower Upper

75 100

53 0.0 56.5 84.7#

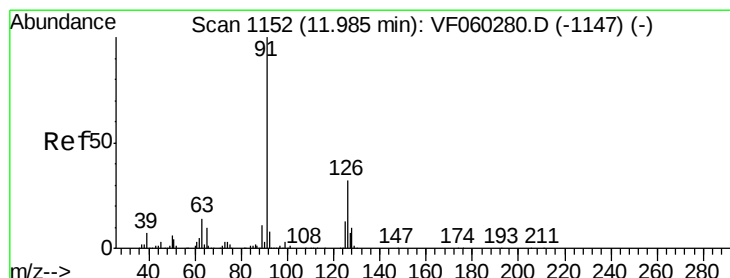
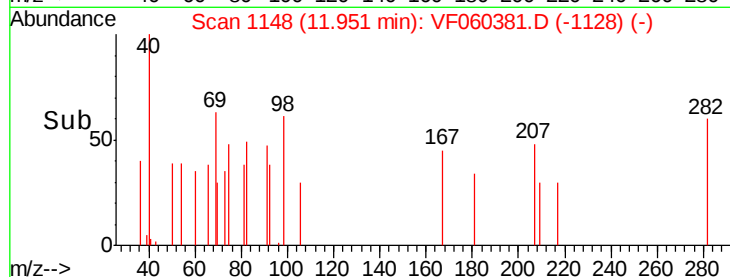
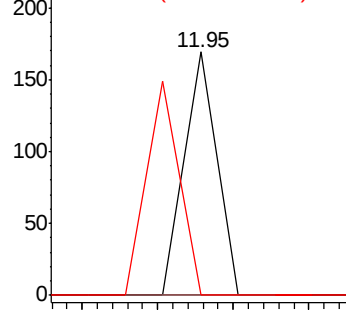
89 0.0 40.6 60.8#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 53.00 (52.70 to 53.70): VF0

Ion 89.00 (88.70 to 89.70): VF0



#82

4-Chlorotoluene

Concen: 24.031 ug/l

RT: 11.95 min Scan# 1148

Delta R.T. -0.03 min

Lab File: VF060381.D

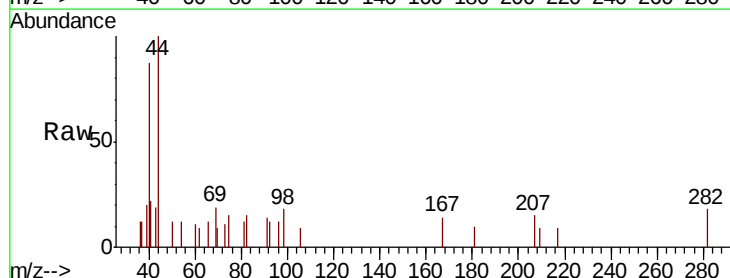
Acq: 28 Sep 2018 21:45

Tgt Ion: 91 Resp: 98

Ion Ratio Lower Upper

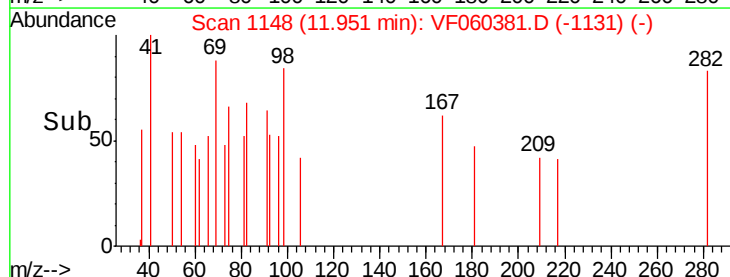
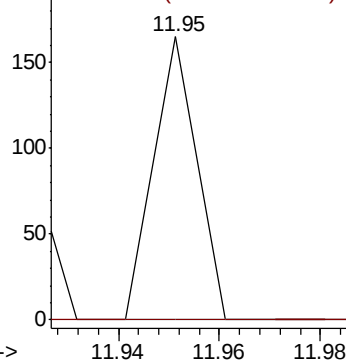
91 100

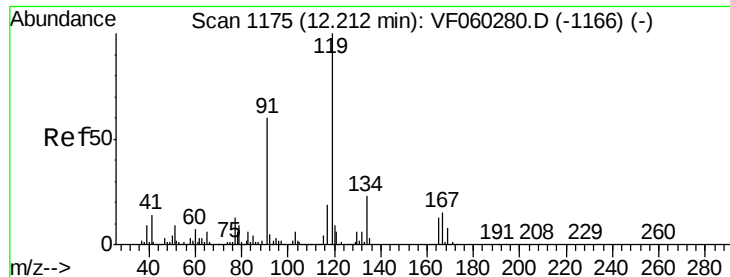
126 0.0 16.1 48.2#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 126.00 (125.70 to 126.70): V

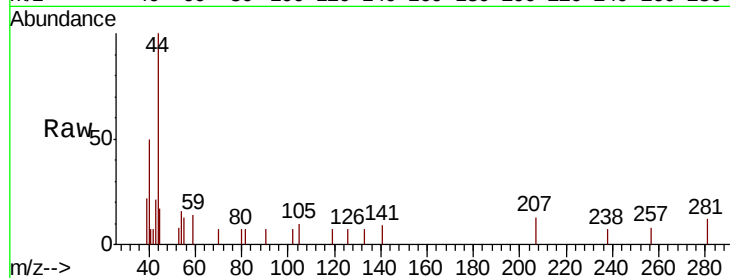




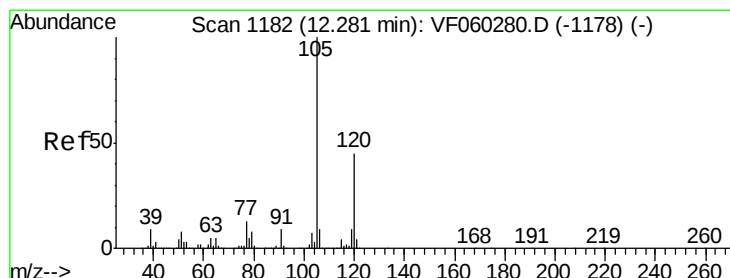
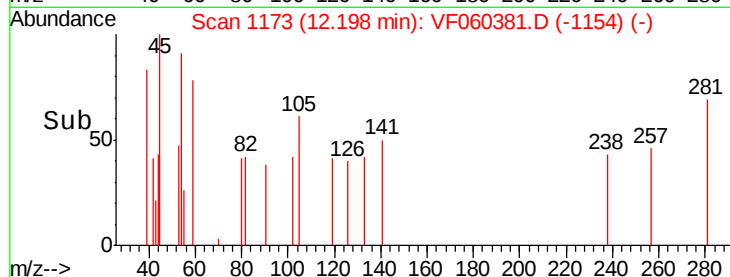
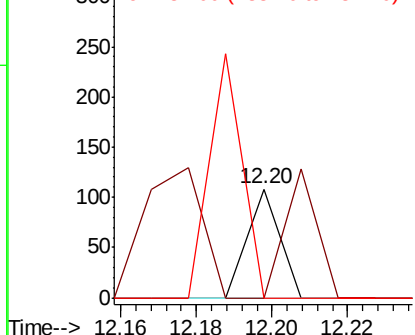
#83  
tert-Butylbenzene  
Concen: 13.040 ug/l  
RT: 12.20 min Scan# 1173  
Delta R.T. -0.01 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Instrument :  
MSVOA\_F  
ClientSampleID :  
HC-SOIL-3

Tot Ion:119 Resp: 64  
Ion Ratio Lower Upper  
119 100  
91 0.0 30.3 91.0#  
134 0.0 11.6 34.8#

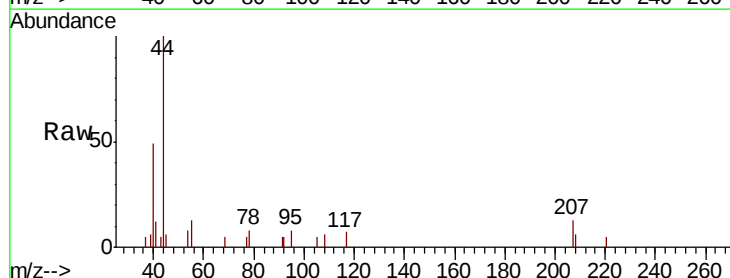


Abundance Ion 119.00 (118.70 to 119.70): V  
Ion 91.00 (90.70 to 91.70): VF0  
Ion 134.00 (133.70 to 134.70): V

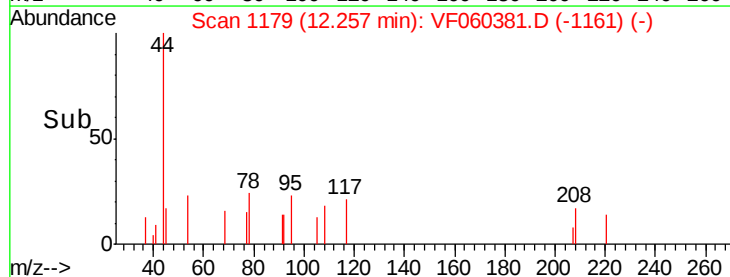
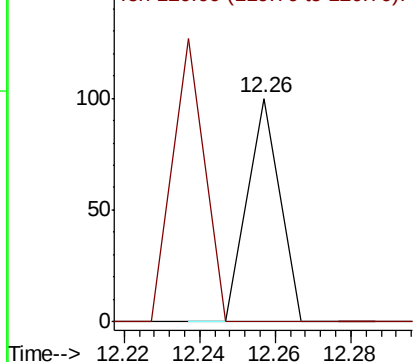


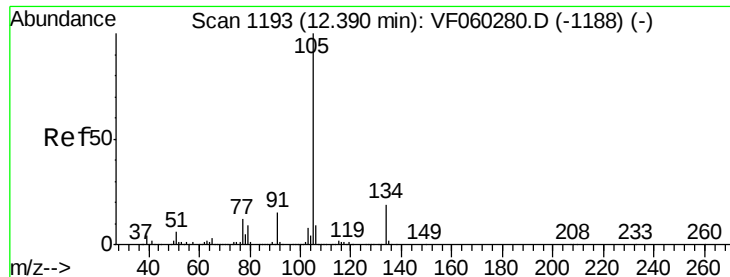
#84  
1,2,4-Trimethylbenzene  
Concen: 12.001 ug/l  
RT: 12.26 min Scan# 1179  
Delta R.T. -0.02 min  
Lab File: VF060381.D  
Acq: 28 Sep 2018 21:45

Tgt Ion:105 Resp: 59  
Ion Ratio Lower Upper  
105 100  
120 0.0 22.4 67.0#



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V





#85

sec-Butylbenzene

Concen: 11.604 ug/l

RT: 12.37 min Scan# 1190

Delta R.T. -0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampled :

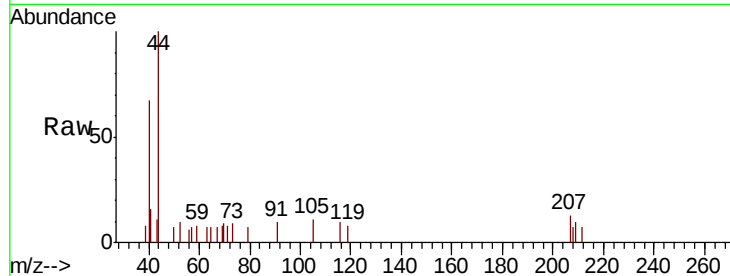
HC-SOIL-3

Tot Ion:105 Resp: 103

Ion Ratio Lower Upper

105 100

134 0.0 9.6 28.6#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V

12.37

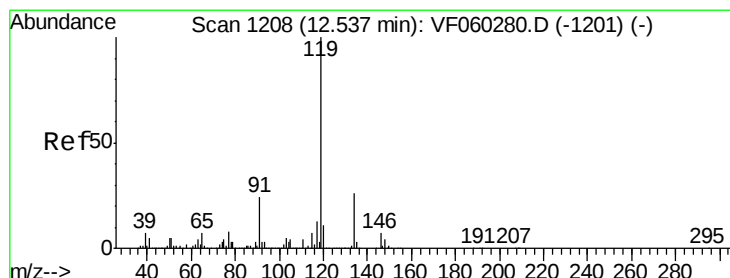
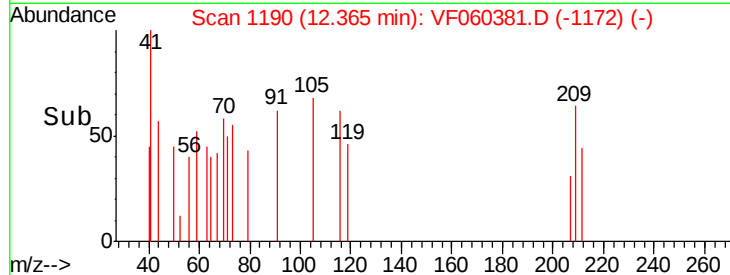
150

100

50

0

Time-->



#86

p-Isopropyltoluene

Concen: 25.196 ug/l

RT: 12.60 min Scan# 1214

Delta R.T. 0.06 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

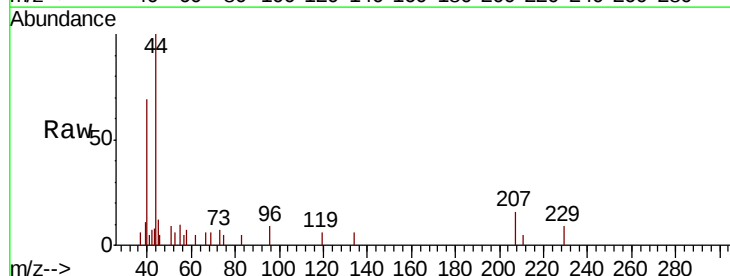
Tgt Ion:119 Resp: 133

Ion Ratio Lower Upper

119 100

134 107.0 12.9 38.7#

91 0.0 11.9 35.7#



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): VF0

12.60

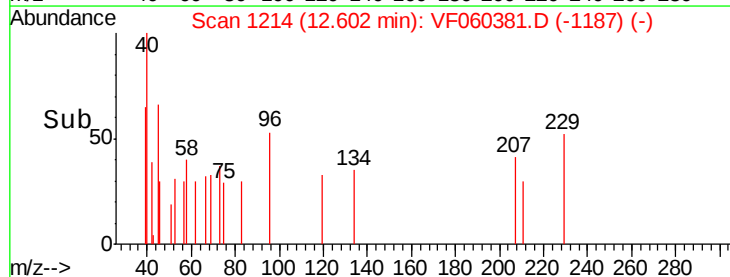
150

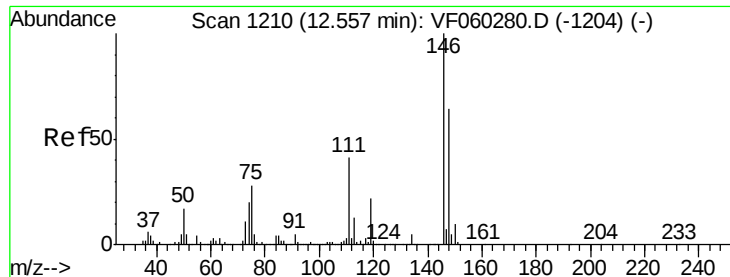
100

50

0

Time-->





#87

1,3-Dichlorobenzene

Concen: 29.312 ug/l

RT: 12.67 min Scan# 1221

Delta R.T. 0.11 min

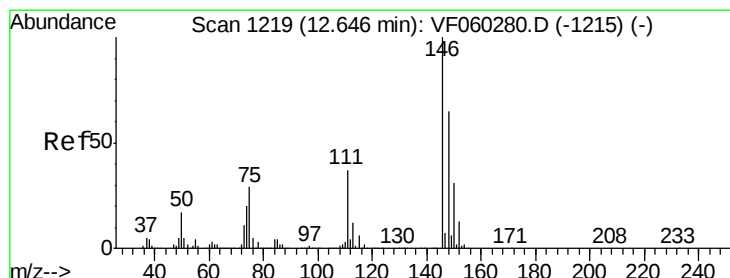
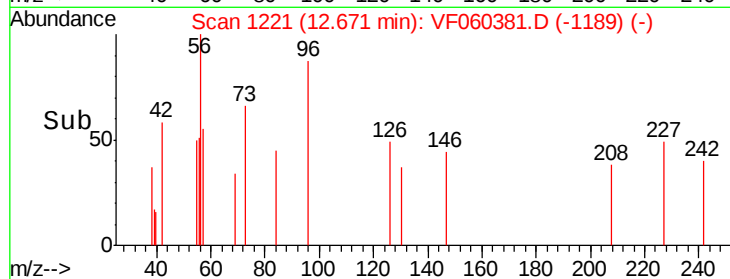
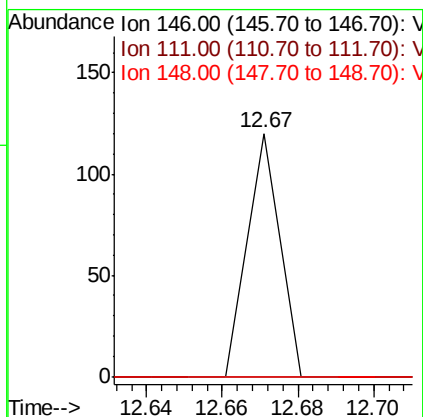
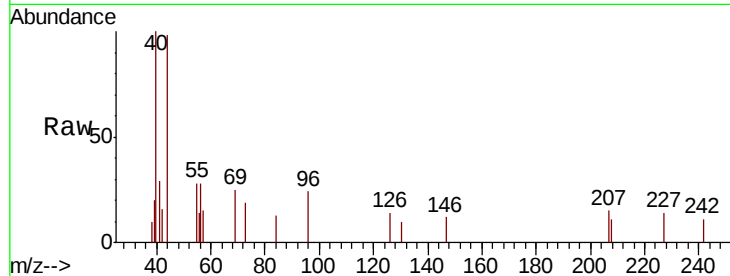
Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :  
MSVOA\_F  
ClientSampleId :  
HC-SOIL-3

Tot Ion:146 Resp: 71

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 146 | 100   |       |       |
| 111 | 0.0   | 20.5  | 61.6# |
| 148 | 0.0   | 32.2  | 96.6# |



#88

1,4-Dichlorobenzene

Concen: 29.656 ug/l

RT: 12.67 min Scan# 1221

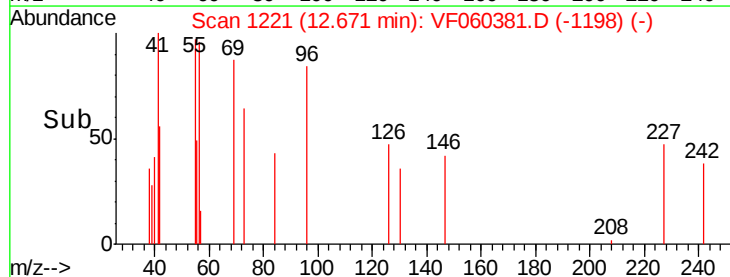
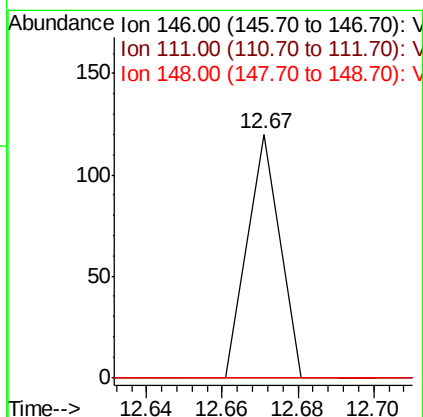
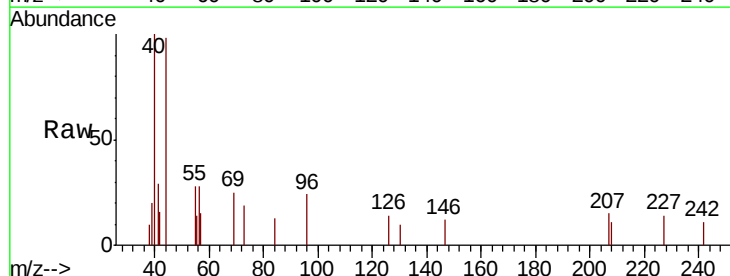
Delta R.T. 0.02 min

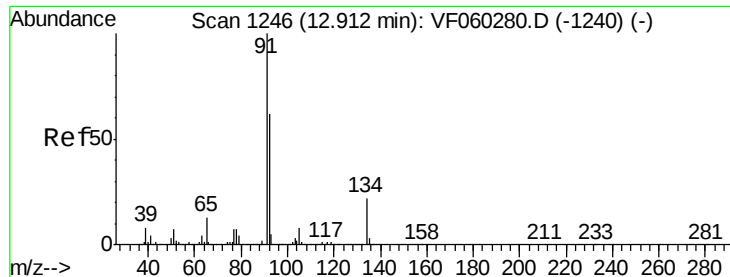
Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Tgt Ion:146 Resp: 71

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 146 | 100   |       |       |
| 111 | 0.0   | 18.7  | 56.1# |
| 148 | 0.0   | 32.4  | 97.0# |





#89

n-Butylbenzene

Concen: 14.008 ug/l

RT: 12.96 min Scan# 1250

Delta R.T. 0.04 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampled :

HC-SOIL-3

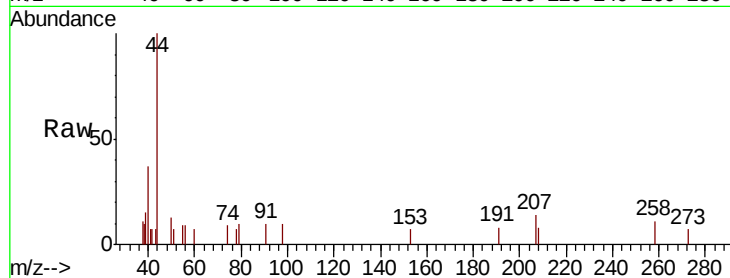
Tot Ion: 91 Resp: 92

Ion Ratio Lower Upper

91 100

92 0.0 31.1 93.5#

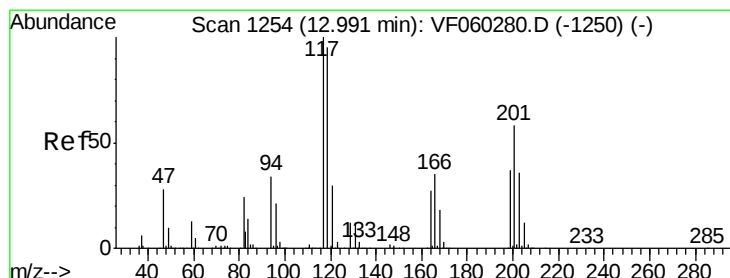
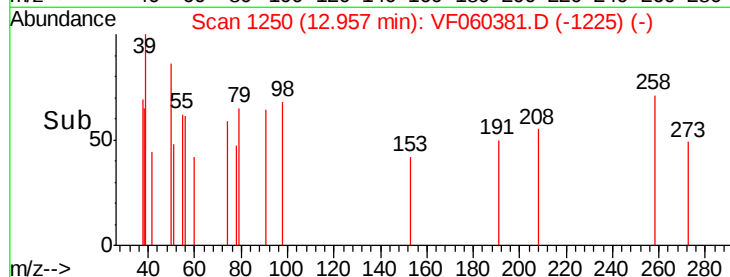
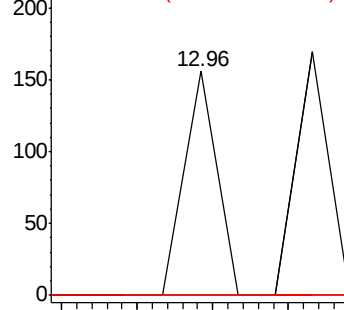
134 0.0 11.0 33.0#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 92.00 (91.70 to 92.70): VF0

Ion 134.00 (133.70 to 134.70): V



#90

Hexachloroethane

Concen: 65.530 ug/l

RT: 13.04 min Scan# 1258

Delta R.T. 0.04 min

Lab File: VF060381.D

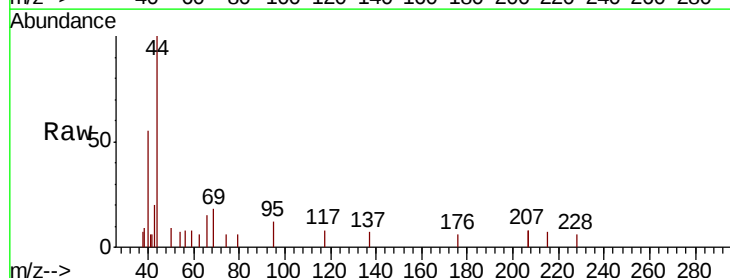
Acq: 28 Sep 2018 21:45

Tgt Ion: 117 Resp: 90

Ion Ratio Lower Upper

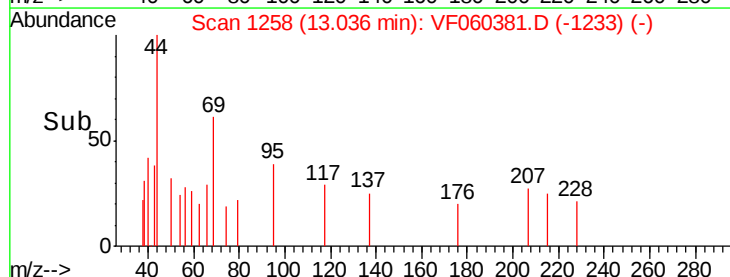
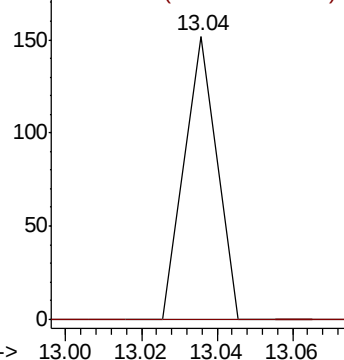
117 100

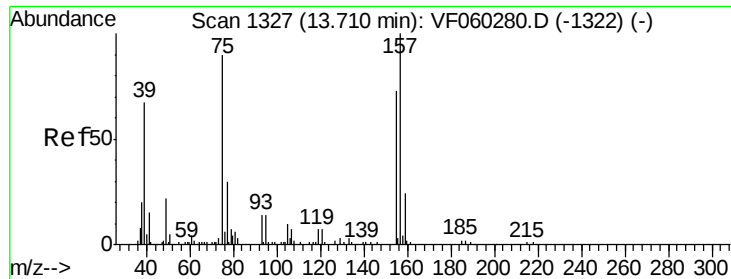
201 0.0 29.0 87.0#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 201.00 (200.70 to 201.70): V





#92

1,2-Dibromo-3-Chloropropane

Concen: 524.648 ug/l

RT: 13.69 min Scan# 1324

Delta R.T. -0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

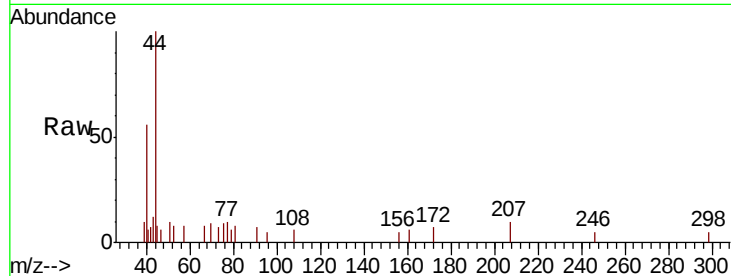
Tot Ion: 75 Resp: 105

Ion Ratio Lower Upper

75 100

155 0.0 41.9 125.7#

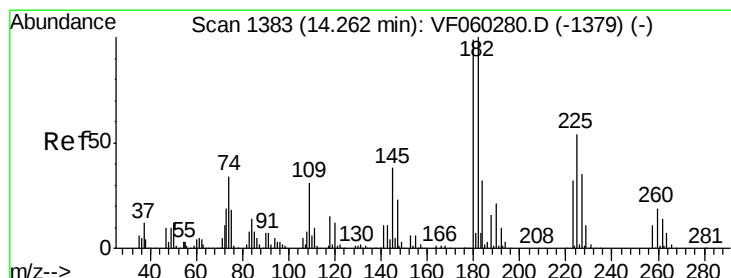
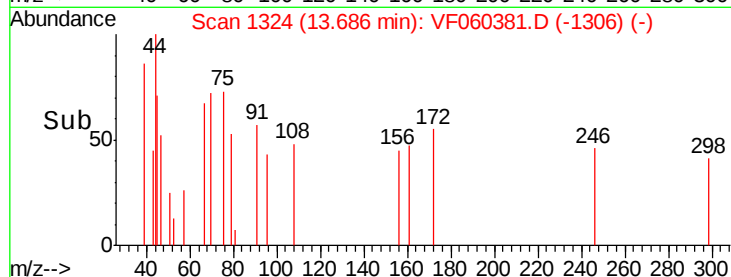
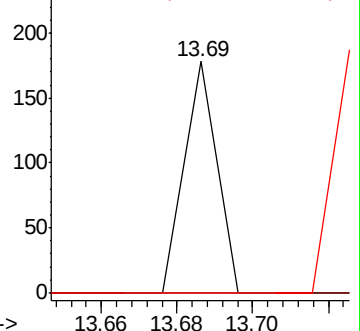
157 0.0 57.4 172.0#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V



#93

1,2,4-Trichlorobenzene

Concen: 44.657 ug/l

RT: 14.25 min Scan# 1381

Delta R.T. -0.01 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

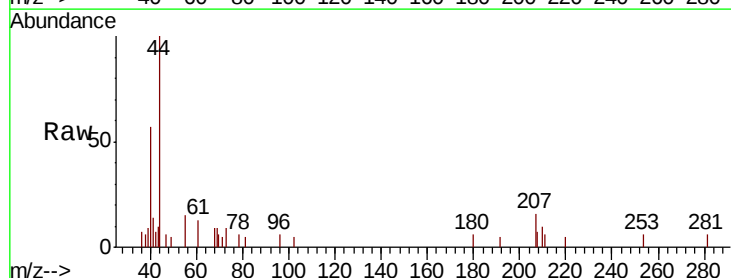
Tgt Ion: 180 Resp: 75

Ion Ratio Lower Upper

180 100

182 0.0 50.3 151.0#

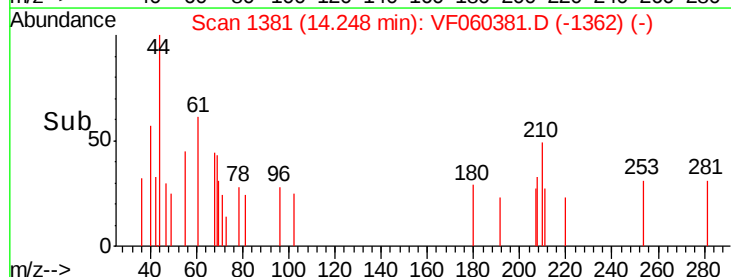
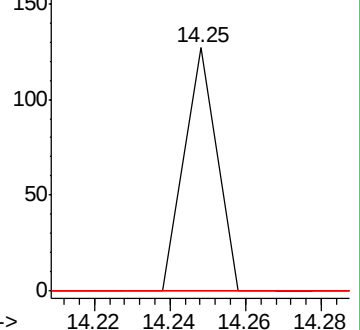
145 0.0 18.9 56.9#

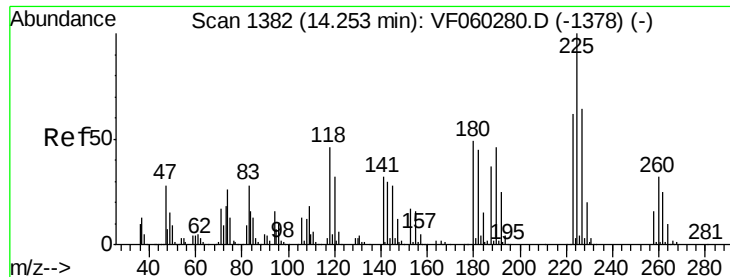


Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#94

Hexachlorobutadiene

Concen: 115.384 ug/l

RT: 14.09 min Scan# 1365

Delta R.T. -0.16 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

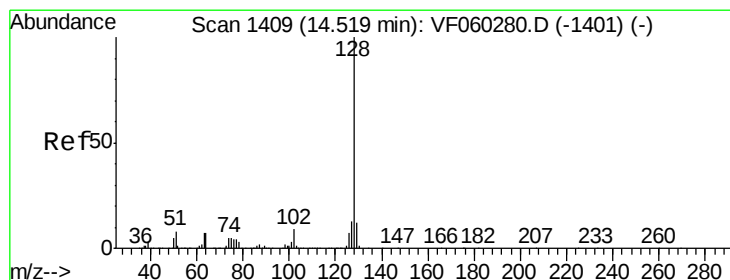
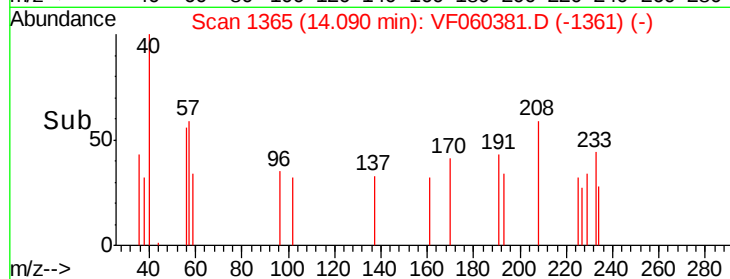
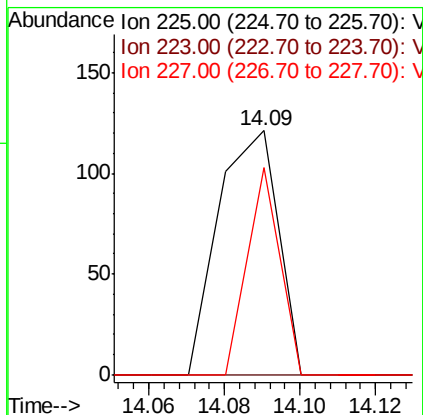
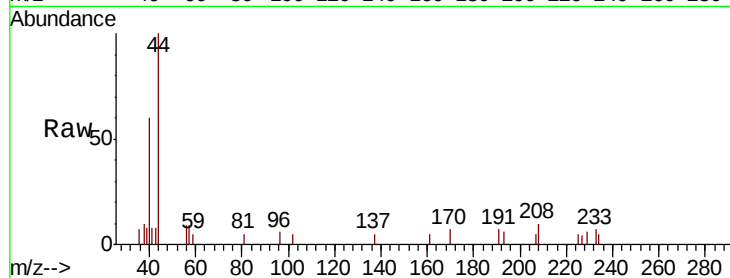
Instrument :

MSVOA\_F

ClientSampled :

HC-SOIL-3

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 225   | Resp: | 131   |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 31.2  | 93.6# |
| 227      | 85.1  | 32.2  | 96.6  |



#95

Naphthalene

Concen: 25.471 ug/l

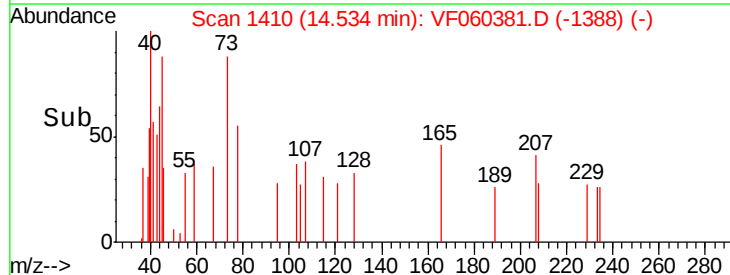
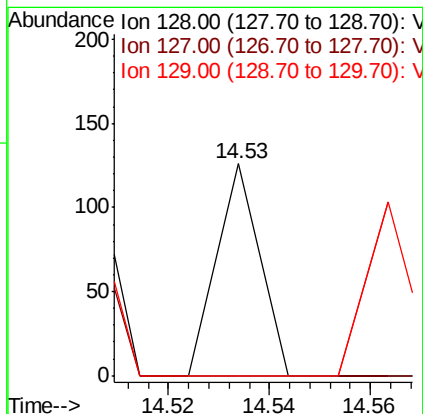
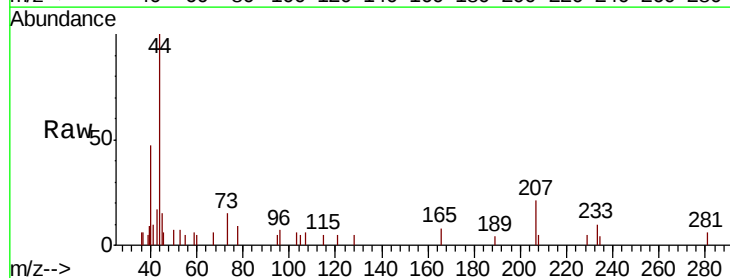
RT: 14.53 min Scan# 1410

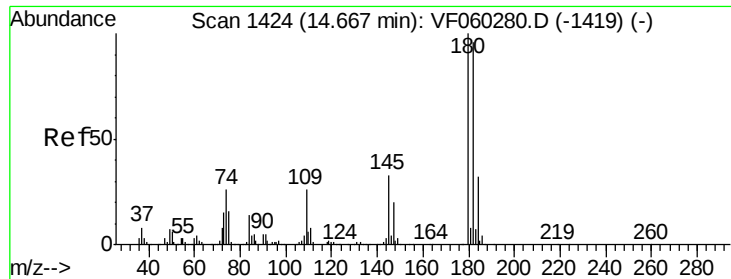
Delta R.T. 0.02 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 75    |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 127      | 0.0   | 10.1  | 15.1# |
| 129      | 0.0   | 9.8   | 14.8# |





#96

1,2,3-Trichlorobenzene

Concen: 47.040 ug/l

RT: 14.72 min Scan# 1429

Delta R.T. 0.05 min

Lab File: VF060381.D

Acq: 28 Sep 2018 21:45

Instrument :

MSVOA\_F

ClientSampleId :

HC-SOIL-3

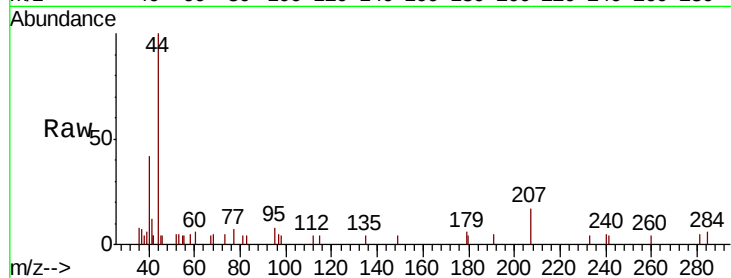
Tot Ion:180 Resp: 73

Ion Ratio Lower Upper

180 100

182 0.0 47.8 143.4#

145 0.0 16.4 49.1#



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

