

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF122218\  
 Data File : VF061146.D  
 Acq On : 22 Dec 2018 15:59  
 Operator : VA/AP  
 Sample : J6192-03RE  
 Misc : 7.73g/5mL/MSVOA-F/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

Quant Time: Dec 24 02:57:04 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.89  | 168  | 2146     | 50.00 | ug/l  | 0.02     |
| 34) 1,4-Difluorobenzene    | 5.61  | 114  | 3193     | 50.00 | ug/l  | 0.02     |
| 63) Chlorobenzene-d5       | 9.80  | 117  | 1350     | 50.00 | ug/l  | 0.02     |
| 72) 1,4-Dichlorobenzene-d4 | 12.57 | 152  | 276      | 50.00 | ug/l  | 0.02     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 4.88   | 65  | 653      | 23.66 | ug/l    | 0.04 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 47.32%  |      |
| 35) Dibromofluoromethane    | 4.14   | 113 | 1223     | 47.81 | ug/l    | 0.03 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 95.62%  |      |
| 50) Toluene-d8              | 7.59   | 98  | 3980     | 54.91 | ug/l    | 0.03 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 109.82% |      |
| 62) 4-Bromofluorobenzene    | 11.43  | 95  | 620      | 18.55 | ug/l    | 0.02 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 37.10%  |      |

| Target Compounds              |      |     |      |         |        | Qvalue |
|-------------------------------|------|-----|------|---------|--------|--------|
| 3) Chloromethane              | 1.13 | 50  | 164  | 6.002   | ug/l # | 42     |
| 4) Vinyl Chloride             | 1.15 | 62  | 73   | 2.880   | ug/l # | 37     |
| 5) Bromomethane               | 1.34 | 94  | 749  | 42.600  | ug/l # | 48     |
| 8) Diethyl Ether              | 1.76 | 74  | 95   | 14.333  | ug/l   | 59     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.76 | 101 | 65   | 2.590   | ug/l # | 21     |
| 11) Tert butyl alcohol        | 2.69 | 59  | 62   | 55.664  | ug/l # | 1      |
| 12) 1,1-Dichloroethene        | 1.85 | 96  | 133  | 7.031   | ug/l # | 1      |
| 13) Acrolein                  | 2.07 | 56  | 658  | 817.551 | ug/l   | 96     |
| 14) Allyl chloride            | 2.05 | 41  | 741  | 37.641  | ug/l # | 41     |
| 15) Acrylonitrile             | 2.92 | 53  | 903  | 350.599 | ug/l # | 34     |
| 16) Acetone                   | 2.18 | 43  | 2030 | 367.901 | ug/l   | 97     |
| 17) Carbon Disulfide          | 1.97 | 76  | 102  | 1.784   | ug/l # | 1      |
| 18) Methyl Acetate            | 2.38 | 43  | 1161 | 101.701 | ug/l # | 66     |
| 19) Methyl tert-butyl Ether   | 2.53 | 73  | 349  | 8.312   | ug/l # | 18     |
| 20) Methylene Chloride        | 2.21 | 84  | 186  | 6.655   | ug/l # | 12     |
| 21) trans-1,2-Dichloroethene  | 2.32 | 96  | 385  | 19.029  | ug/l # | 1      |
| 22) Diisopropyl ether         | 2.79 | 45  | 907  | 13.832  | ug/l # | 30     |
| 23) Vinyl Acetate             | 3.21 | 43  | 478  | 15.801  | ug/l # | 78     |
| 24) 1,1-Dichloroethane        | 2.85 | 63  | 304  | 7.824   | ug/l # | 88     |
| 25) 2-Butanone                | 4.37 | 43  | 283  | 31.624  | ug/l # | 57     |
| 26) 2,2-Dichloropropane       | 3.68 | 77  | 81   | 3.633   | ug/l # | 62     |
| 27) cis-1,2-Dichloroethene    | 3.48 | 96  | 72   | 2.324   | ug/l   | 1      |
| 28) Bromochloromethane        | 3.82 | 49  | 63   | 3.196   | ug/l # | 10     |
| 29) Tetrahydrofuran           | 4.06 | 42  | 208  | 57.107  | ug/l # | 37     |
| 31) Cyclohexane               | 3.73 | 56  | 62   | 1.538   | ug/l # | 15     |
| 32) 1,1,1-Trichloroethane     | 4.22 | 97  | 74   | 2.119   | ug/l # | 23     |
| 36) 1,1-Dichloropropene       | 4.28 | 75  | 96   | 2.491   | ug/l # | 43     |
| 37) Ethyl Acetate             | 4.12 | 43  | 120  | 6.833   | ug/l # | 21     |
| 39) Methylcyclohexane         | 5.60 | 83  | 68   | 1.967   | ug/l # | 7      |
| 41) Methacrylonitrile         | 4.78 | 41  | 253  | 31.083  | ug/l # | 27     |
| 43) Isopropyl Acetate         | 6.97 | 43  | 82   | 4.406   | ug/l # | 45     |
| 48) Methyl methacrylate       | 6.75 | 41  | 102  | 7.851   | ug/l # | 19     |
| 51) 4-Methyl-2-Pentanone      | 8.29 | 43  | 355  | 27.815  | ug/l # | 38     |
| 52) Toluene                   | 7.67 | 92  | 156  | 2.843   | ug/l # | 57     |

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 Operator : VA/AP  
 Sample : J6192-03RE  
 Misc : 7.73g/5mL/MSVOA-F/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

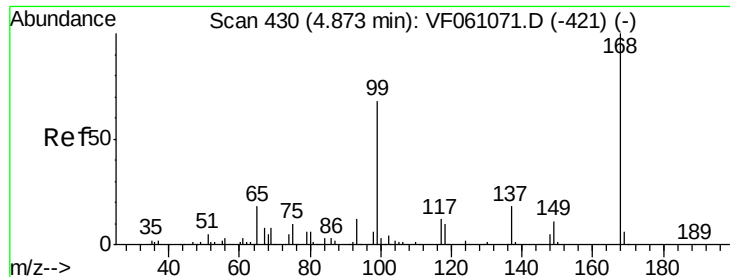
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

Quant Time: Dec 24 02:57:04 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 54) cis-1,3-Dichloropropene | 7.40  | 75   | 76       | 1.975  | ug/l # | 27       |
| 59) 2-Hexanone              | 9.54  | 43   | 353      | 38.245 | ug/l # | 27       |
| 61) 1,2-Dibromoethane       | 8.95  | 107  | 59       | 3.359  | ug/l # | 4        |
| 67) Ethyl Benzene           | 10.02 | 91   | 79       | 1.555  | ug/l # | 47       |
| 74) N-amyl acetate          | 11.35 | 43   | 139      | 26.323 | ug/l # | 46       |
| 77) Bromobenzene            | 11.51 | 156  | 65       | 12.695 | ug/l # | 1        |
| 80) 1,3,5-Trimethylbenzene  | 11.68 | 105  | 61       | 3.115  | ug/l # | 27       |
| 82) 4-Chlorotoluene         | 12.01 | 91   | 92       | 5.451  | ug/l # | 43       |
| 84) 1,2,4-Trimethylbenzene  | 12.23 | 105  | 137      | 7.015  | ug/l # | 29       |
| 85) sec-Butylbenzene        | 12.35 | 105  | 145      | 5.513  | ug/l # | 58       |
| 86) p-Isopropyltoluene      | 12.46 | 119  | 73       | 3.344  | ug/l # | 9        |
| 87) 1,3-Dichlorobenzene     | 12.50 | 146  | 90       | 6.042  | ug/l # | 25       |
| 88) 1,4-Dichlorobenzene     | 12.50 | 146  | 90       | 9.573  | ug/l # | 25       |
| 89) n-Butylbenzene          | 12.87 | 91   | 86       | 3.474  | ug/l # | 26       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.89 min Scan# 432

Delta R.T. 0.02 min

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ClientSampleId :

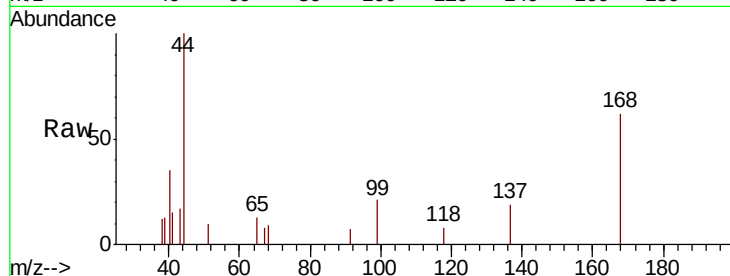
HD-01-122018RE

Tgt Ion: 168 Resp: 2146

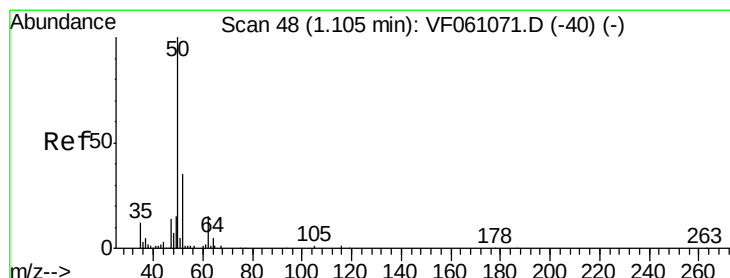
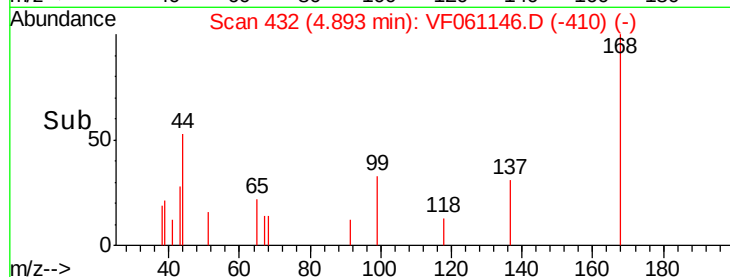
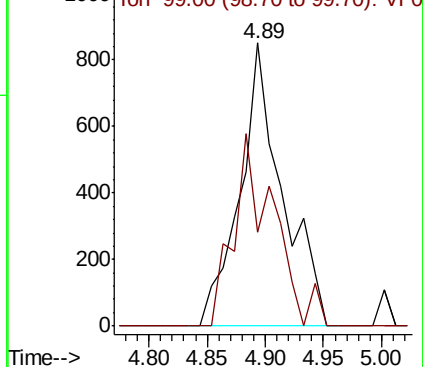
Ion Ratio Lower Upper

168 100

99 33.3 54.4 81.6#



Abundance Ion 168.00 (167.70 to 168.70): VF0



#3

Chloromethane

Concen: 6.002 ug/l

RT: 1.13 min Scan# 50

Delta R.T. 0.02 min

Lab File: VF061146.D

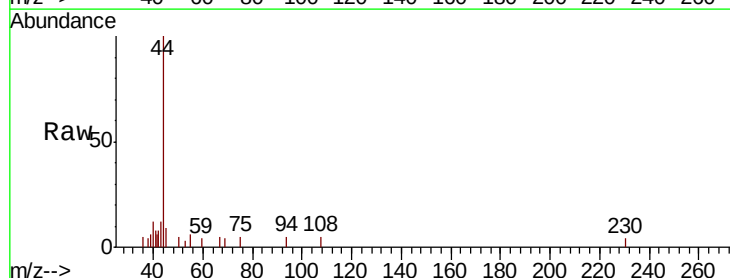
Acq: 22 Dec 2018 15:59

Tgt Ion: 50 Resp: 164

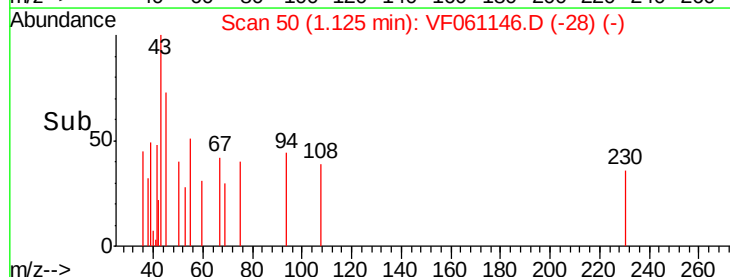
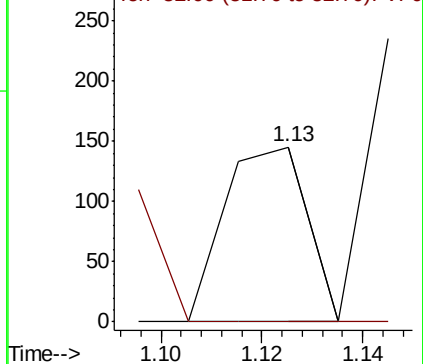
Ion Ratio Lower Upper

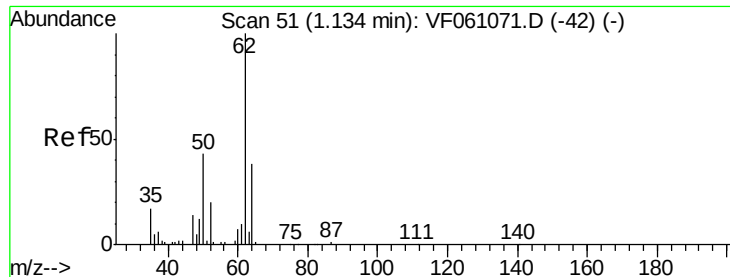
50 100

52 0.0 26.3 39.5#



Abundance Ion 50.00 (49.70 to 50.70): VF0





#4

Vinyl Chloride

Concen: 2.880 ug/l

RT: 1.15 min Scan# 53

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

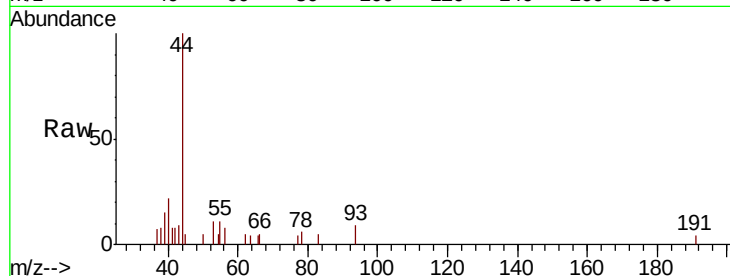
HD-01-122018RE

Tgt Ion: 62 Resp: 73

Ion Ratio Lower Upper

62 100

64 0.0 30.4 45.6#



Abundance Ion 62.00 (61.70 to 62.70): VF0

Ion 64.00 (63.70 to 64.70): VF0

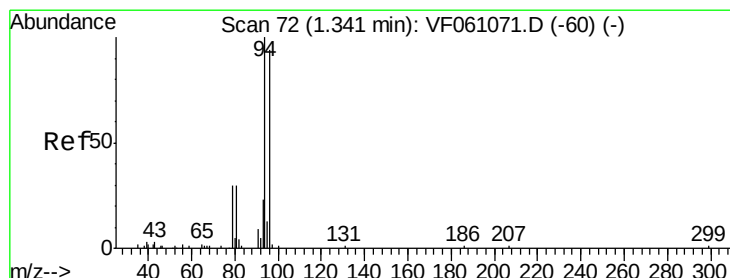
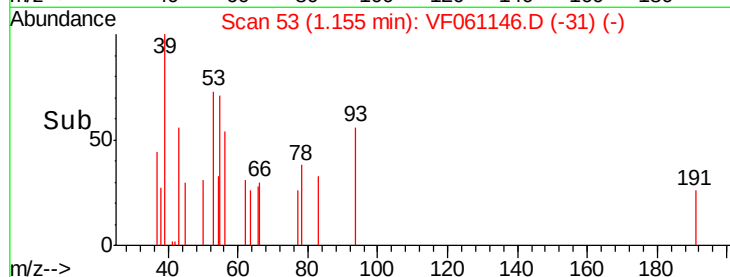
1.15

100

50

0

Time--> 1.12 1.14 1.16 1.18



#5

Bromomethane

Concen: 42.600 ug/l

RT: 1.34 min Scan# 72

Delta R.T. 0.00 min

Lab File: VF061146.D

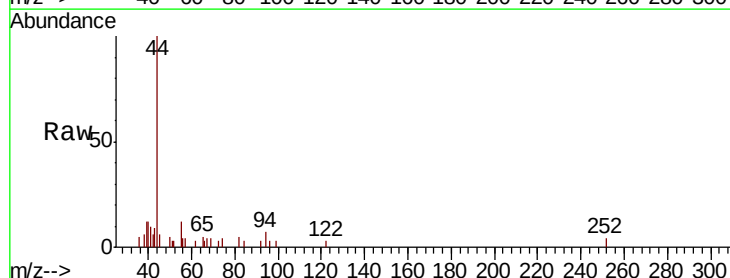
Acq: 22 Dec 2018 15:59

Tgt Ion: 94 Resp: 749

Ion Ratio Lower Upper

94 100

96 43.3 74.4 111.6#



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

400

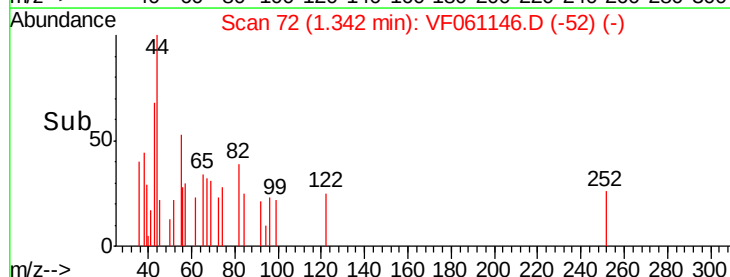
300

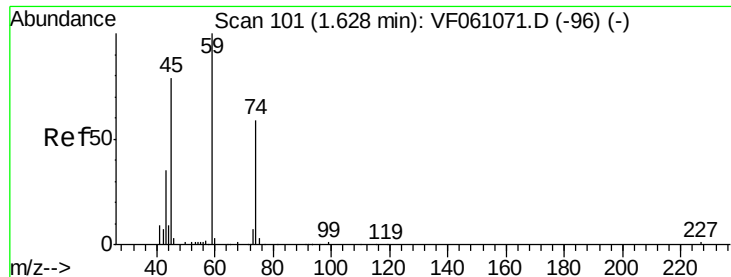
200

100

0

Time--> 1.30 1.35 1.40





#8

Diethyl Ether

Concen: 14.333 ug/l

RT: 1.76 min Scan# 114

Delta R.T. 0.13 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

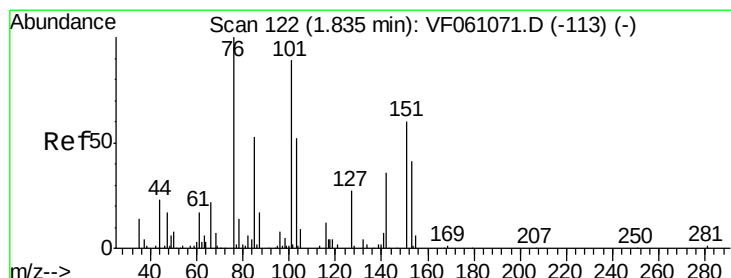
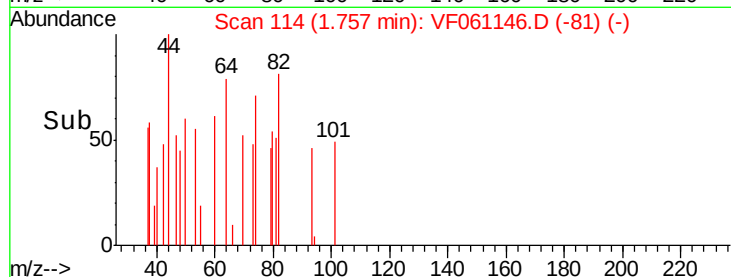
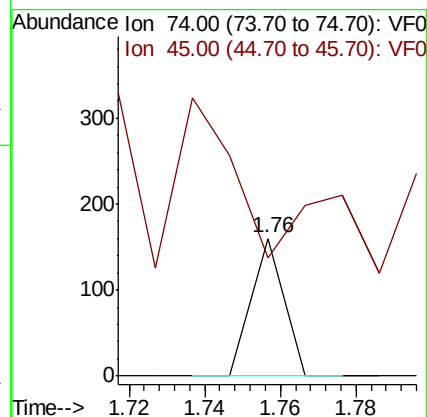
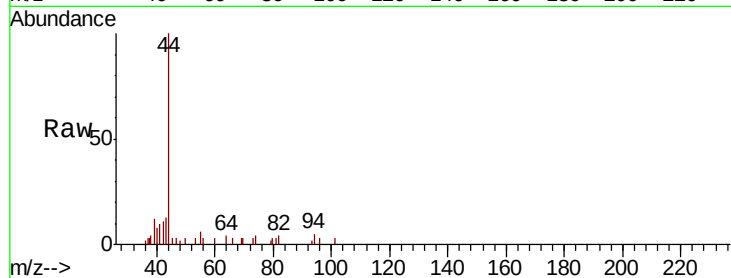
HD-01-122018RE

Tgt Ion: 74 Resp: 95

Ion Ratio Lower Upper

74 100

45 86.3 67.8 203.4



#9

1,1,2-Trichlorotrifluoroethane

Concen: 2.590 ug/l

RT: 1.76 min Scan# 114

Delta R.T. -0.08 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

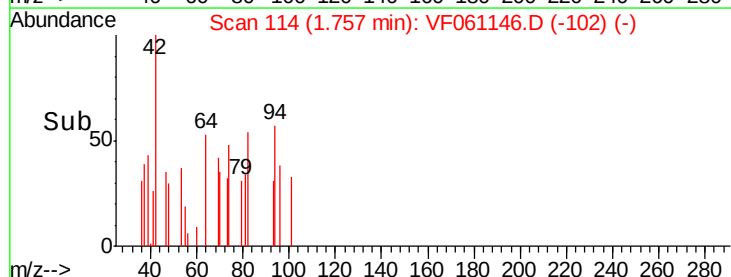
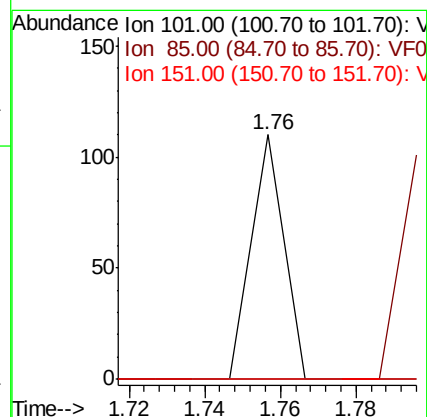
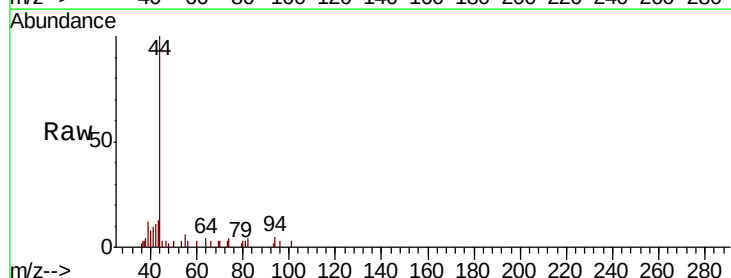
Tgt Ion: 101 Resp: 65

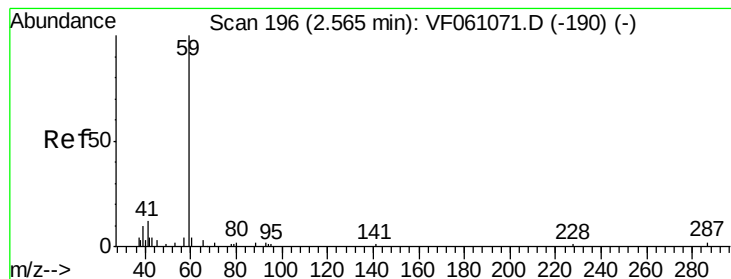
Ion Ratio Lower Upper

101 100

85 0.0 44.5 66.7#

151 0.0 49.9 74.9#





#11

Tert butyl alcohol

Concen: 55.664 ug/l

RT: 2.69 min Scan# 209

Delta R.T. 0.13 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

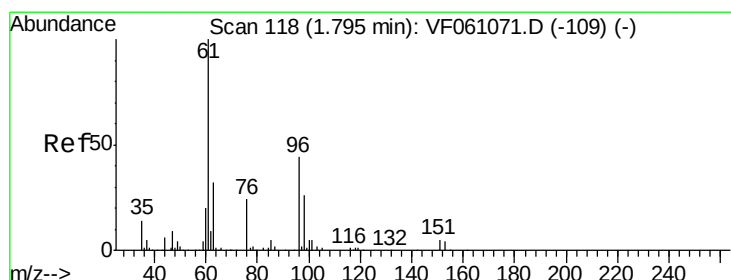
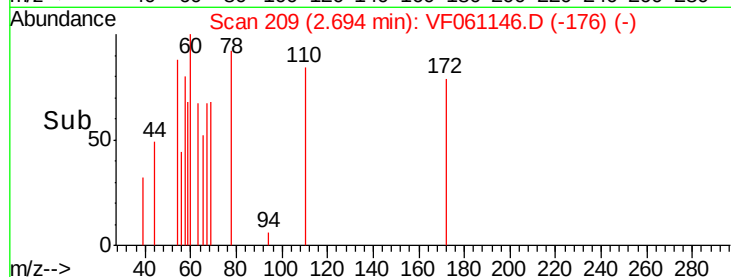
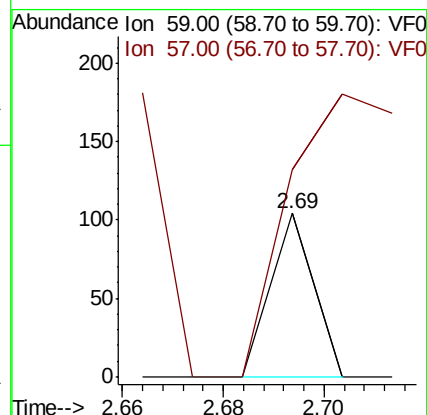
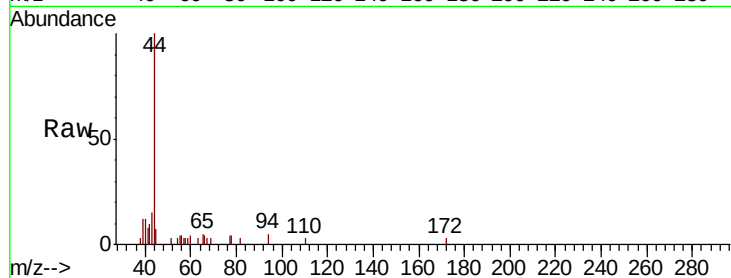
HD-01-122018RE

Tgt Ion: 59 Resp: 62

Ion Ratio Lower Upper

59 100

57 245.2 11.5 17.3#



#12

1,1-Dichloroethene

Concen: 7.031 ug/l

RT: 1.85 min Scan# 123

Delta R.T. 0.05 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

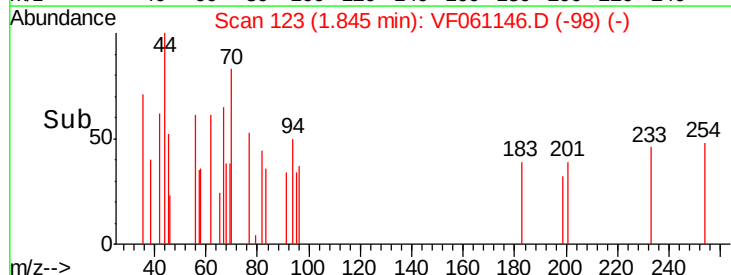
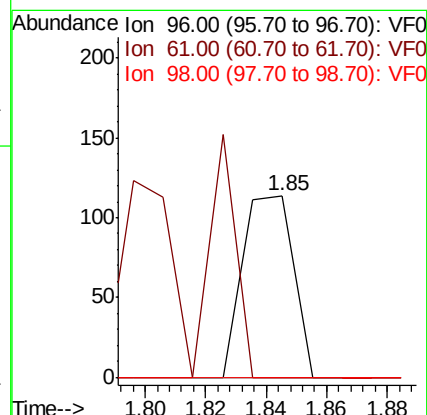
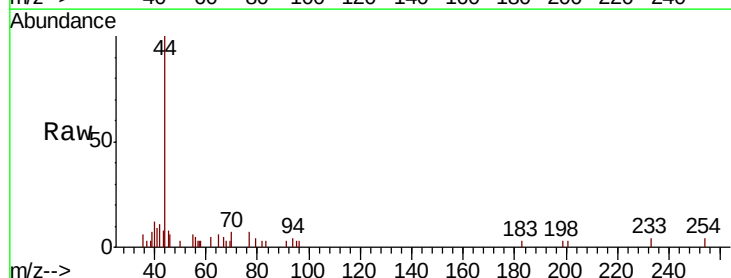
Tgt Ion: 96 Resp: 133

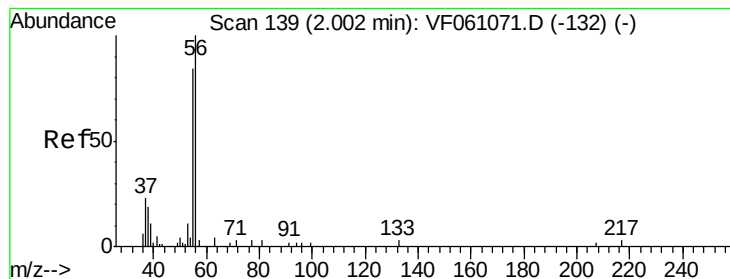
Ion Ratio Lower Upper

96 100

61 0.0 182.0 273.0#

98 0.0 46.5 69.7#





#13

Acrolein

Concen: 817.551 ug/l

RT: 2.07 min Scan# 146

Delta R.T. 0.07 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

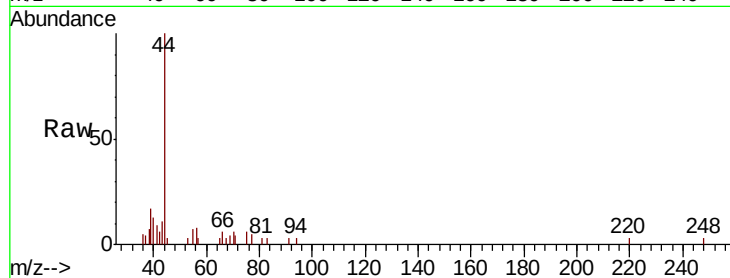
HD-01-122018RE

Tgt Ion: 56 Resp: 658

Ion Ratio Lower Upper

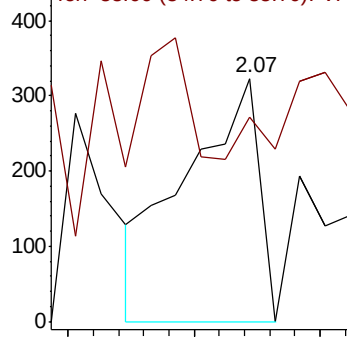
56 100

55 83.9 70.2 105.2

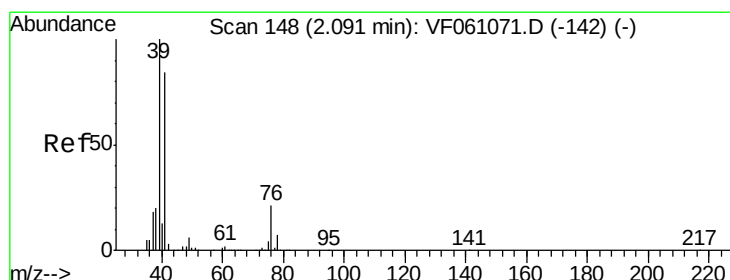
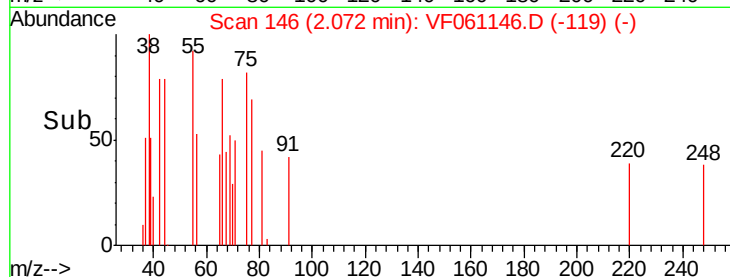


Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 55.00 (54.70 to 55.70): VF0



Time-->



#14

Allyl chloride

Concen: 37.641 ug/l

RT: 2.05 min Scan# 144

Delta R.T. -0.04 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

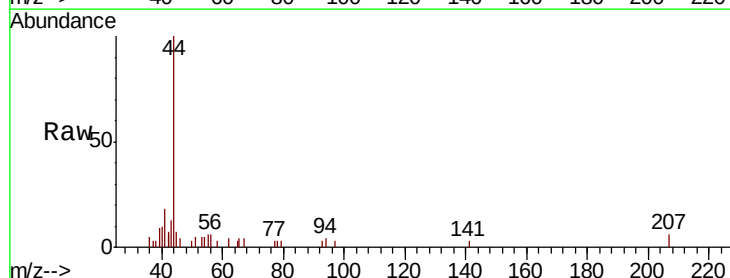
Tgt Ion: 41 Resp: 741

Ion Ratio Lower Upper

41 100

39 53.5 96.4 144.6#

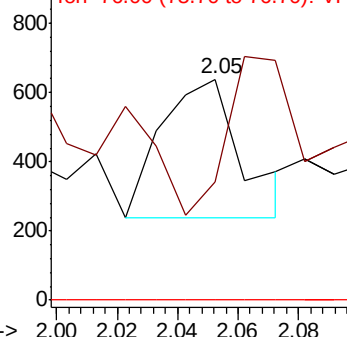
76 0.0 25.4 38.0#



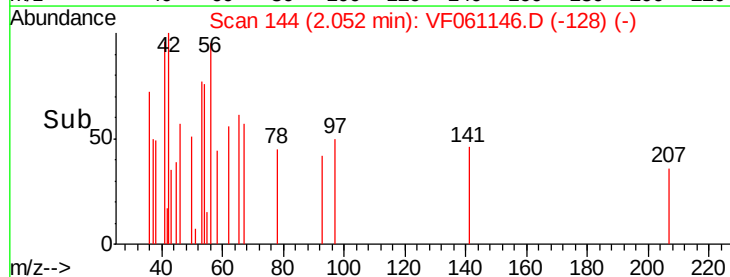
Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

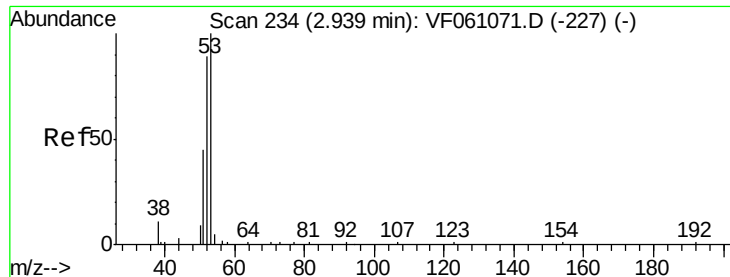
Ion 76.00 (75.70 to 76.70): VF0



Time-->







#15

Acrylonitrile

Concen: 350.599 ug/l

RT: 2.92 min Scan# 232

Delta R.T. -0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

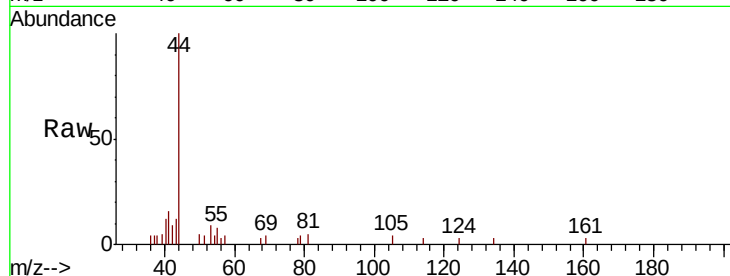
Tgt Ion: 53 Resp: 903

Ion Ratio Lower Upper

53 100

52 0.0 71.3 106.9#

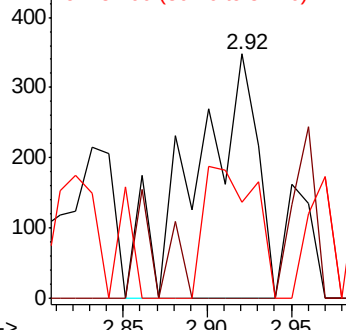
51 39.4 36.8 55.2



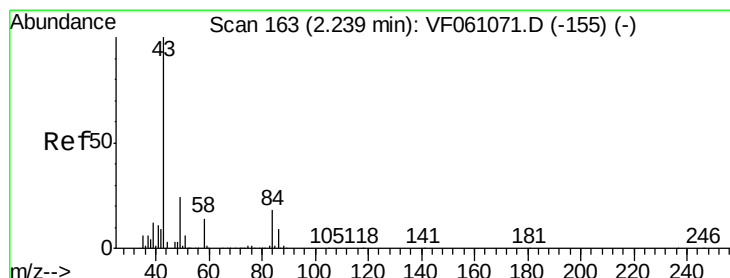
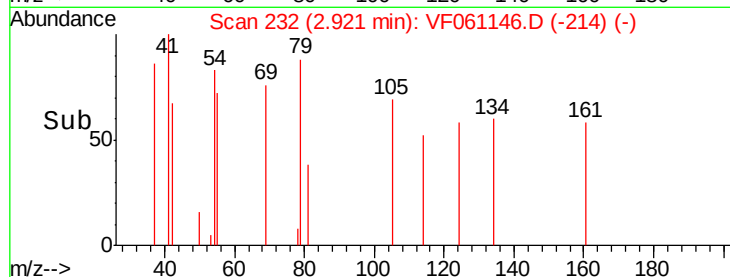
Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0



Time-->



#16

Acetone

Concen: 367.901 ug/l

RT: 2.18 min Scan# 157

Delta R.T. -0.06 min

Lab File: VF061146.D

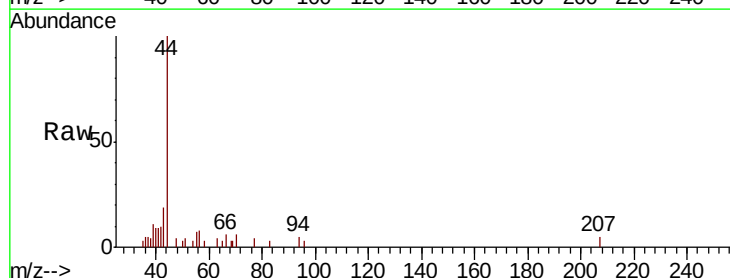
Acq: 22 Dec 2018 15:59

Tgt Ion: 43 Resp: 2030

Ion Ratio Lower Upper

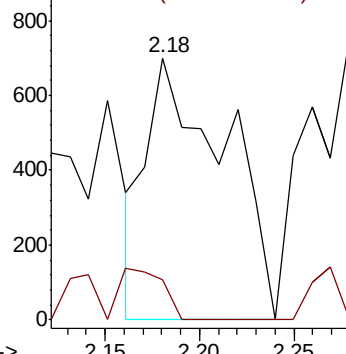
43 100

58 15.1 11.1 16.7

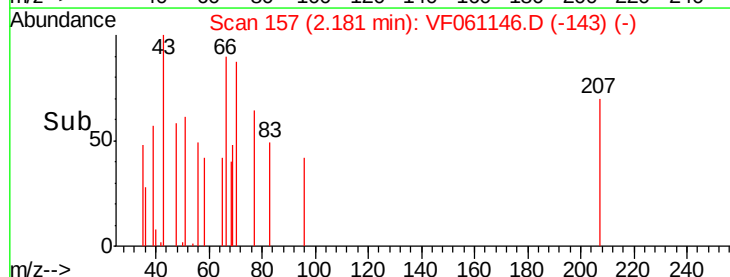


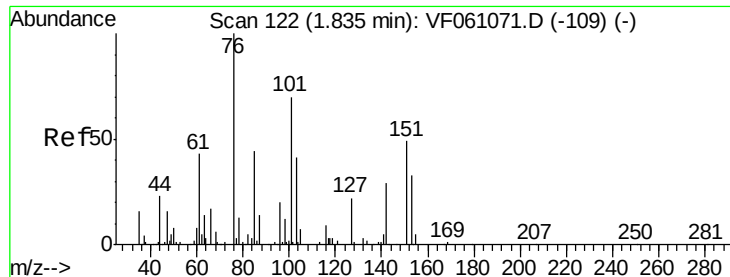
Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



Time-->





#17

Carbon Disulfide

Concen: 1.784 ug/l

RT: 1.97 min Scan# 136

Delta R.T. 0.14 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

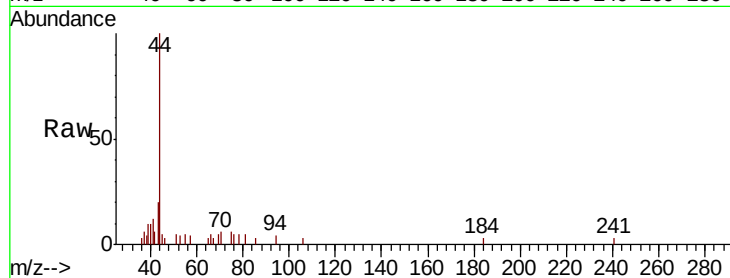
HD-01-122018RE

Tgt Ion: 76 Resp: 102

Ion Ratio Lower Upper

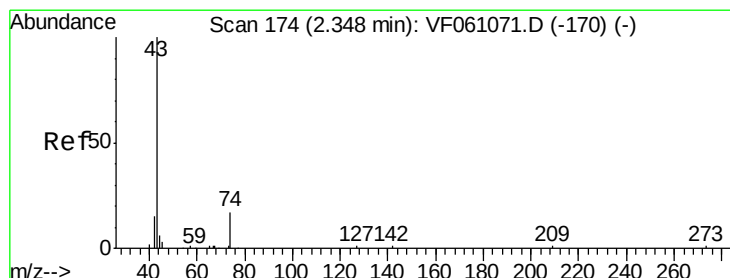
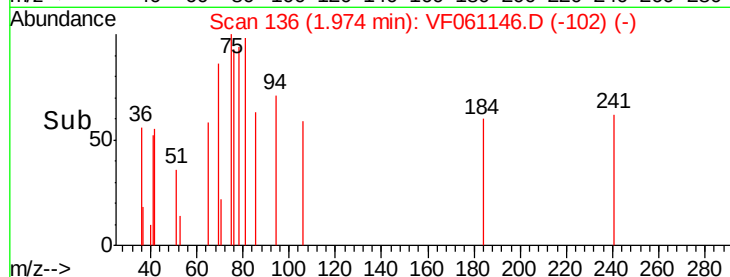
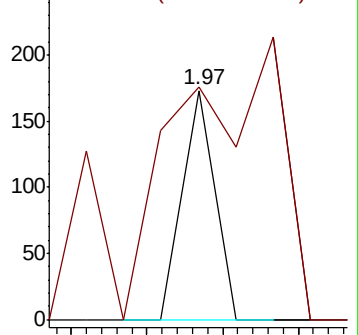
76 100

78 101.7 10.2 15.4#



Abundance Ion 76.00 (75.70 to 76.70): VF0

Ion 78.00 (77.70 to 78.70): VF0



#18

Methyl Acetate

Concen: 101.701 ug/l

RT: 2.38 min Scan# 177

Delta R.T. 0.03 min

Lab File: VF061146.D

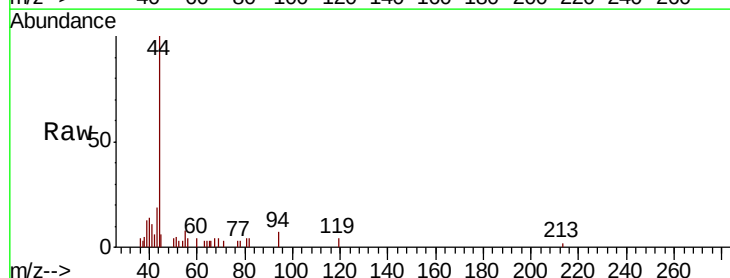
Acq: 22 Dec 2018 15:59

Tgt Ion: 43 Resp: 1161

Ion Ratio Lower Upper

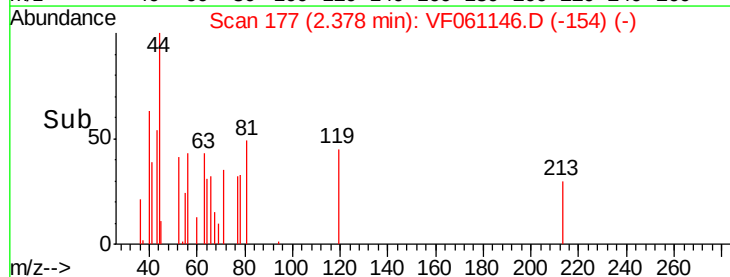
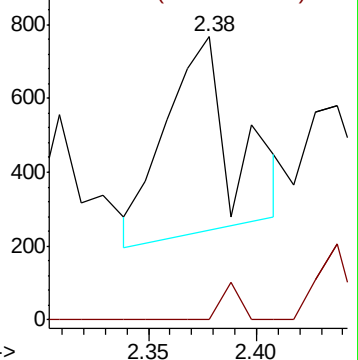
43 100

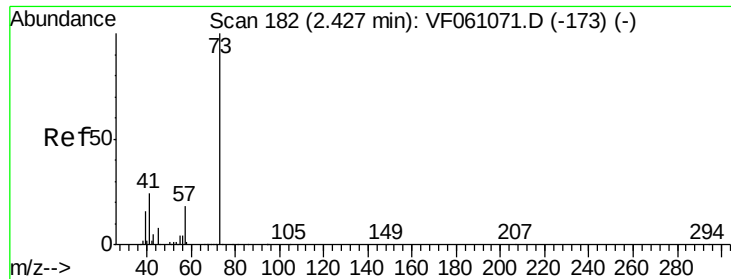
74 0.0 11.0 16.6#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0





#19

Methyl tert-butyl Ether

Concen: 8.312 ug/l

RT: 2.53 min Scan# 192

Delta R.T. 0.10 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

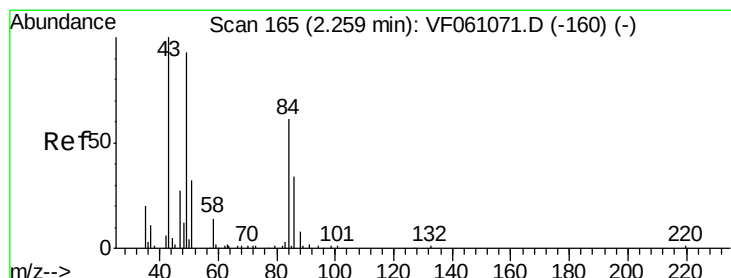
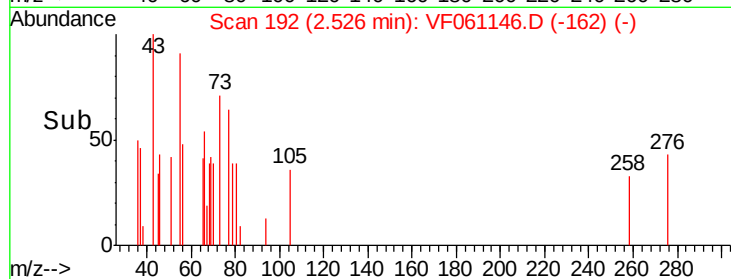
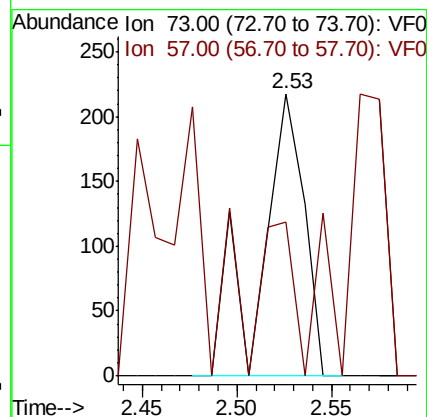
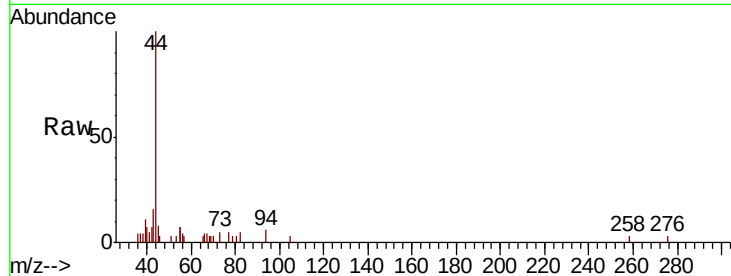
HD-01-122018RE

Tgt Ion: 73 Resp: 349

Ion Ratio Lower Upper

73 100

57 54.6 14.5 21.7#



#20

Methylene Chloride

Concen: 6.655 ug/l

RT: 2.21 min Scan# 160

Delta R.T. -0.05 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Tgt Ion: 84 Resp: 186

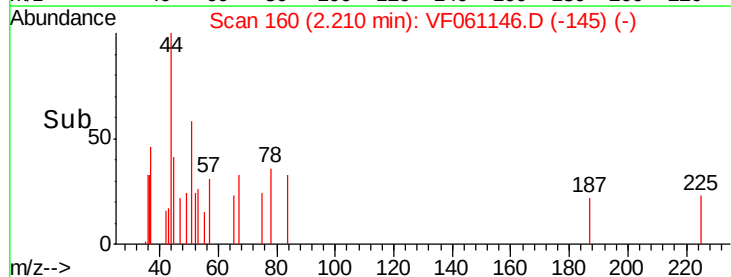
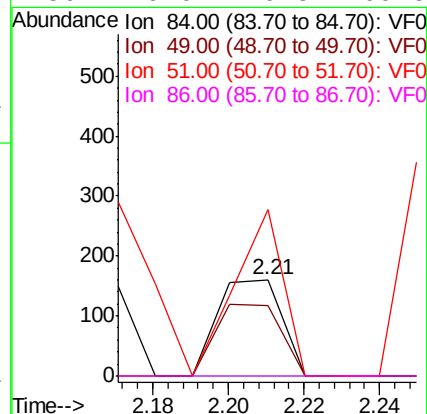
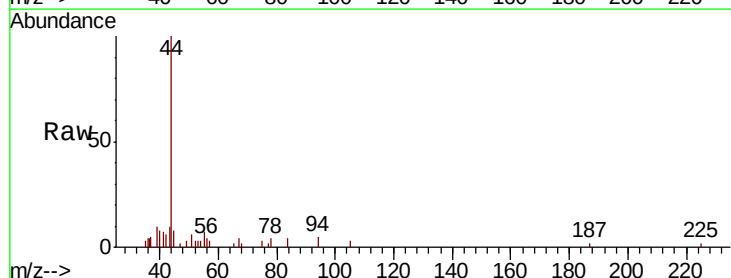
Ion Ratio Lower Upper

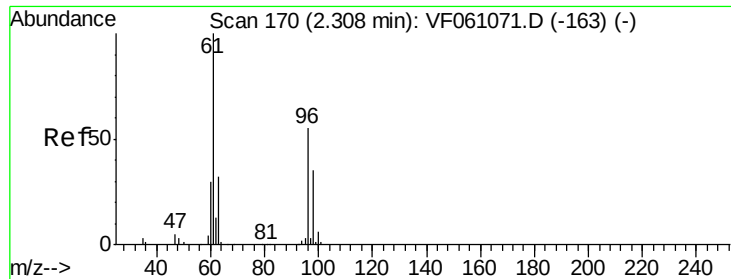
84 100

49 73.1 129.4 194.2#

51 173.1 44.0 66.0#

86 0.0 46.3 69.5#





#21

trans-1,2-Dichloroethene

Concen: 19.029 ug/l

RT: 2.32 min Scan# 171

Delta R.T. 0.01 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

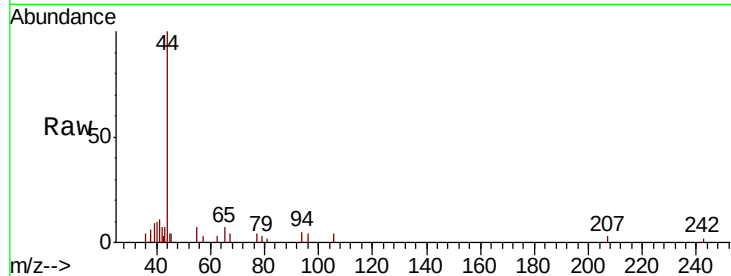
Tgt Ion: 96 Resp: 385

Ion Ratio Lower Upper

96 100

61 0.0 146.0 219.0#

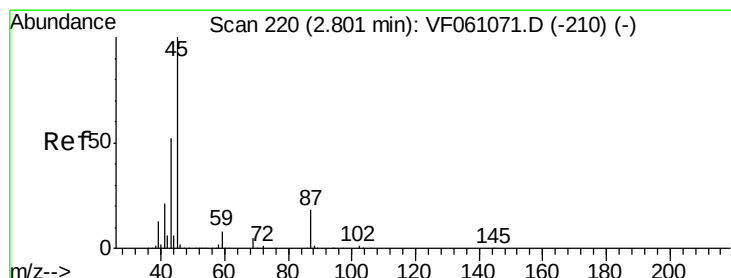
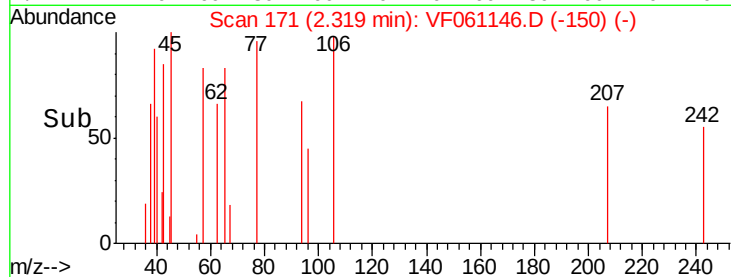
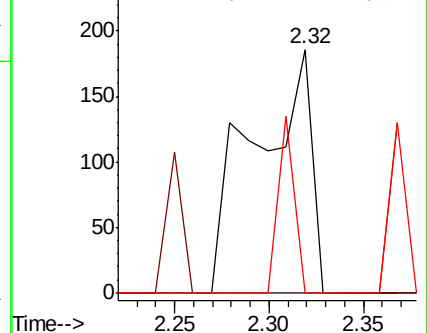
98 0.0 51.6 77.4#



Abundance Ion 96.00 (95.70 to 96.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 98.00 (97.70 to 98.70): VF0



#22

Diisopropyl ether

Concen: 13.832 ug/l

RT: 2.79 min Scan# 219

Delta R.T. -0.01 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Tgt Ion: 45 Resp: 907

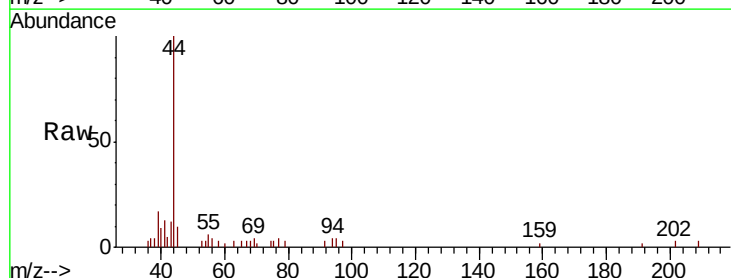
Ion Ratio Lower Upper

45 100

43 114.8 42.2 63.2#

87 0.0 14.6 22.0#

59 0.0 7.0 10.4#

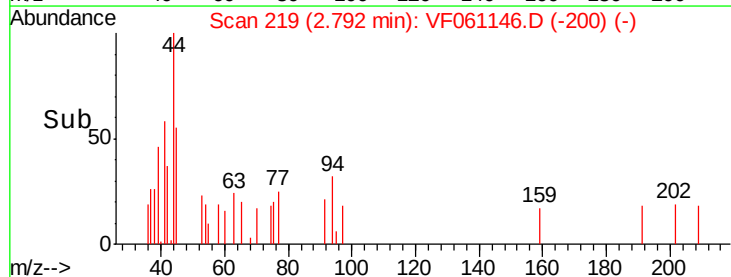
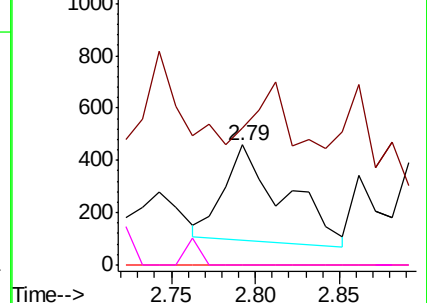


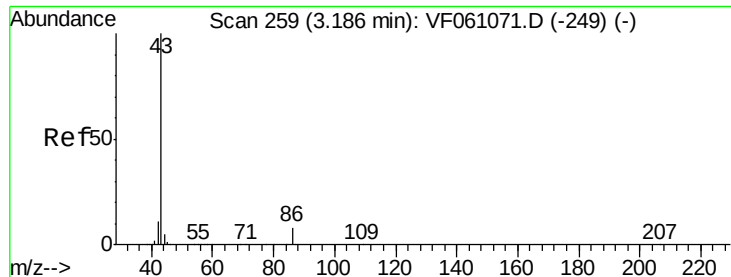
Abundance Ion 45.00 (44.70 to 45.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 87.00 (86.70 to 87.70): VF0

Ion 59.00 (58.70 to 59.70): VF0





#23

Vinyl Acetate

Concen: 15.801 ug/l

RT: 3.21 min Scan# 261

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

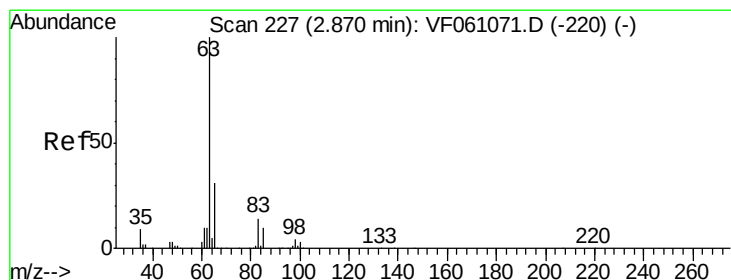
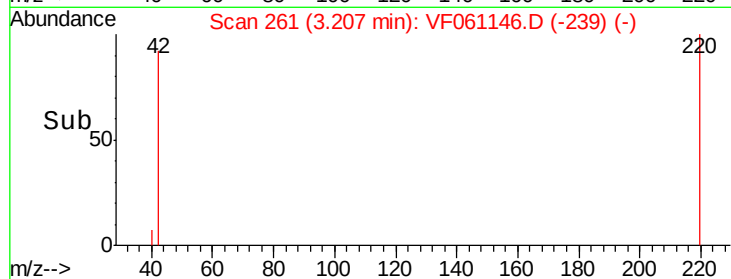
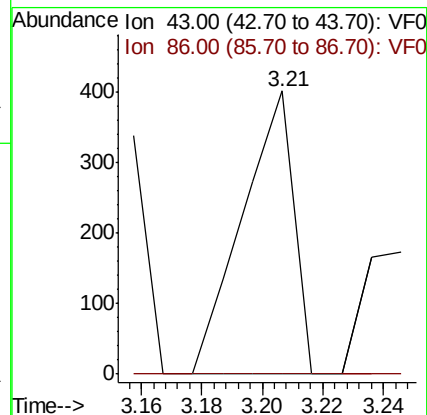
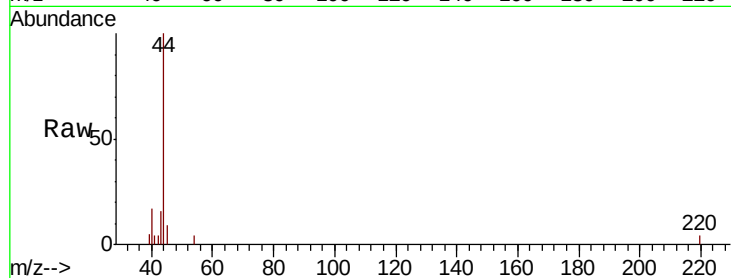
HD-01-122018RE

Tgt Ion: 43 Resp: 478

Ion Ratio Lower Upper

43 100

86 0.0 6.3 9.5#



#24

1,1-Dichloroethane

Concen: 7.824 ug/l

RT: 2.85 min Scan# 225

Delta R.T. -0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

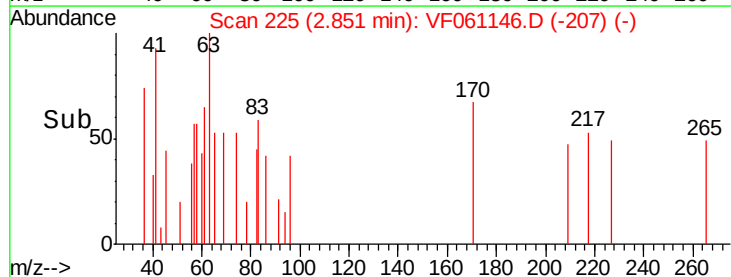
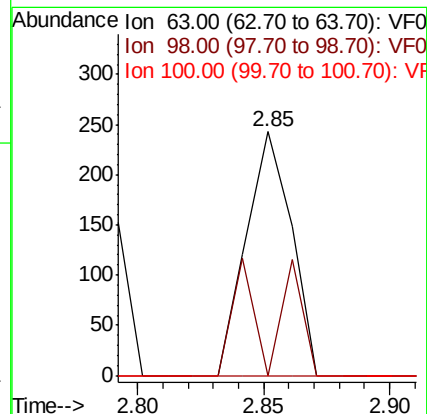
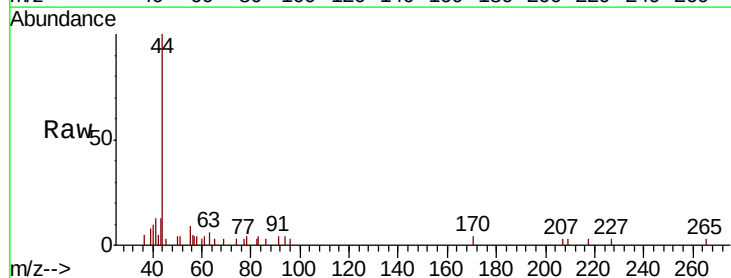
Tgt Ion: 63 Resp: 304

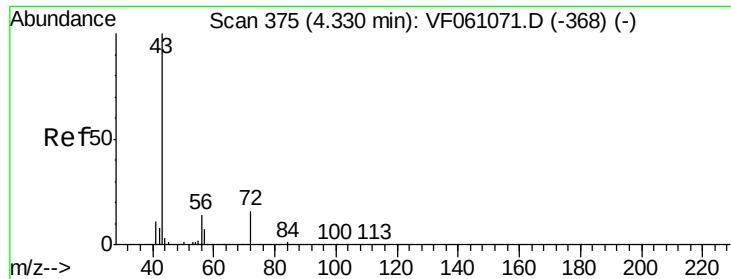
Ion Ratio Lower Upper

63 100

98 0.0 2.1 6.5#

100 0.0 1.7 5.1#





#25

2-Butanone

Concen: 31.624 ug/l

RT: 4.37 min Scan# 379

Delta R.T. 0.04 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

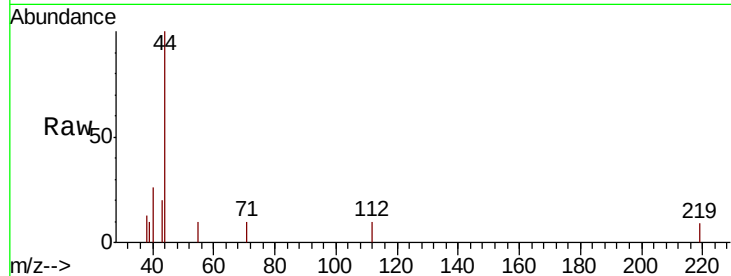
HD-01-122018RE

Tgt Ion: 43 Resp: 283

Ion Ratio Lower Upper

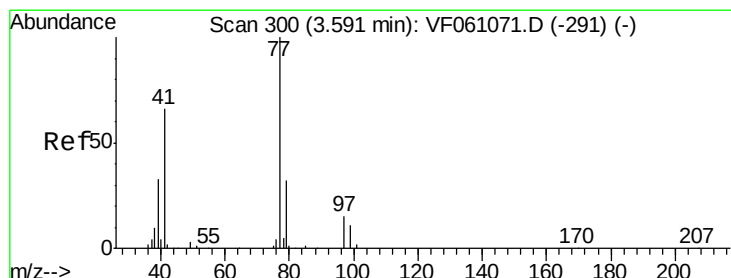
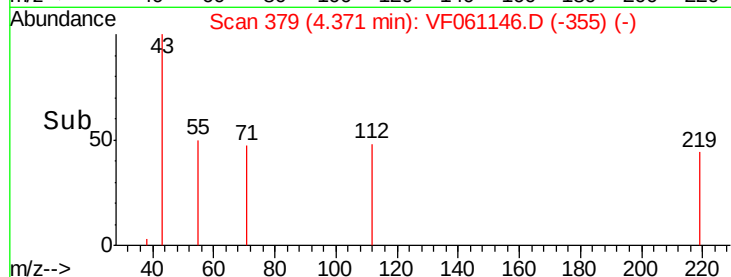
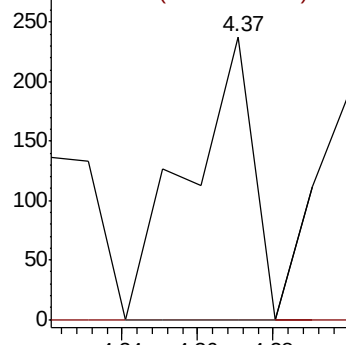
43 100

72 0.0 15.6 23.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0



#26

2,2-Dichloropropane

Concen: 3.633 ug/l

RT: 3.68 min Scan# 309

Delta R.T. 0.09 min

Lab File: VF061146.D

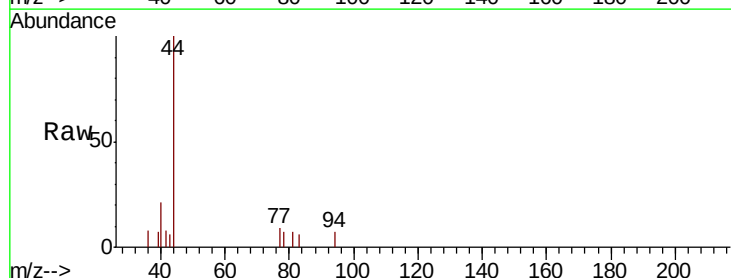
Acq: 22 Dec 2018 15:59

Tgt Ion: 77 Resp: 81

Ion Ratio Lower Upper

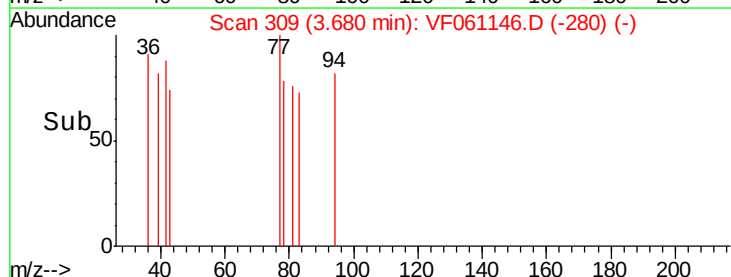
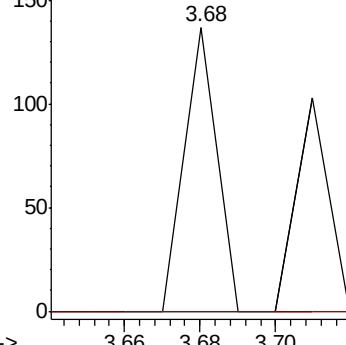
77 100

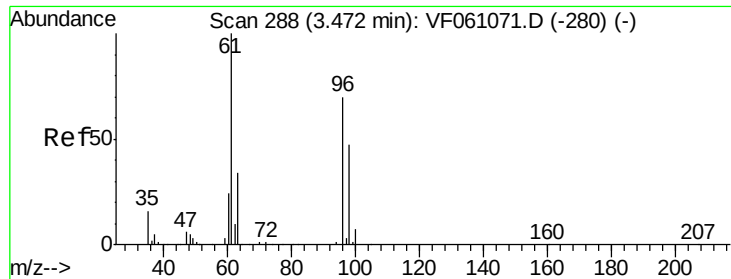
97 0.0 8.2 24.4#



Abundance Ion 77.00 (76.70 to 77.70): VF0

Ion 97.00 (96.70 to 97.70): VF0



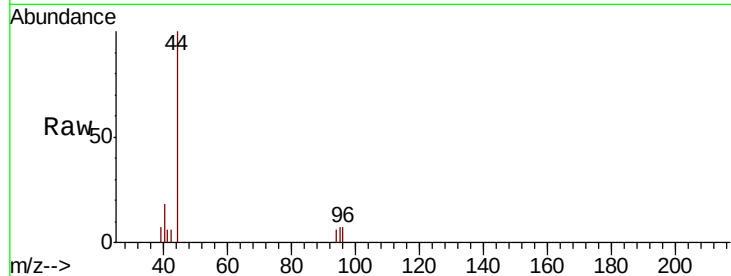


#27

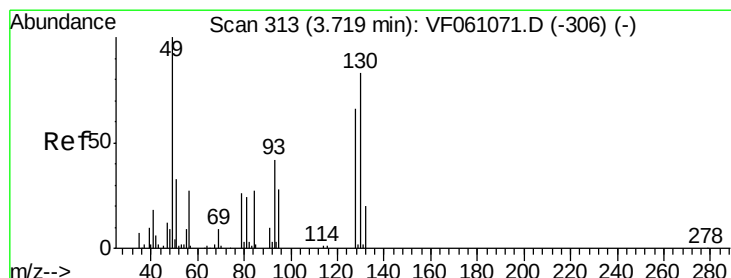
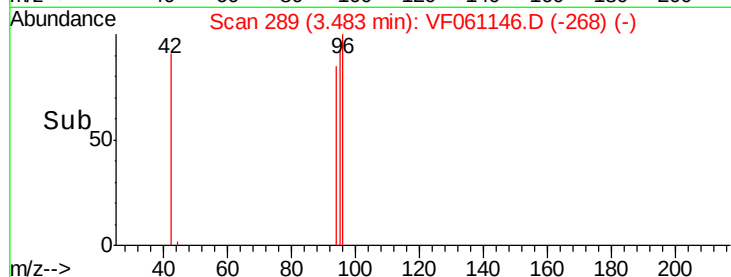
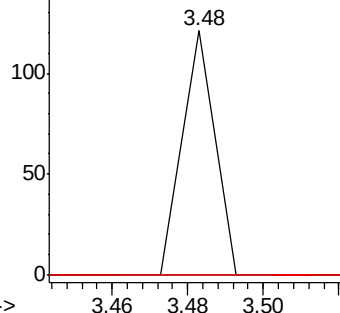
cis-1,2-Dichloroethene  
 Concen: 2.324 ug/l  
 RT: 3.48 min Scan# 289  
 Delta R.T. 0.01 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 0.0   | 0.0   | 287.8 |
| 98      | 0.0   | 0.0   | 134.2 |



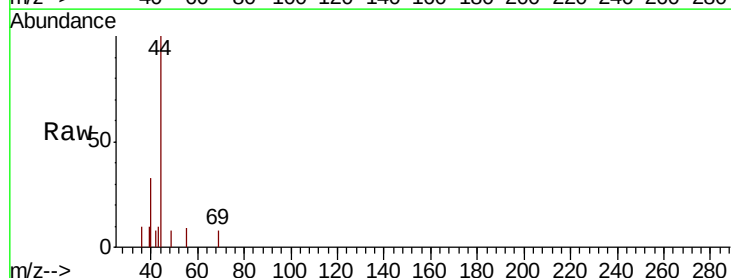
Abundance Ion 96.00 (95.70 to 96.70): VF0  
 Ion 61.00 (60.70 to 61.70): VF0  
 Ion 98.00 (97.70 to 98.70): VF0



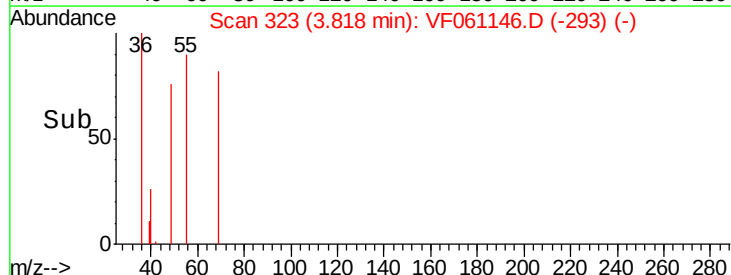
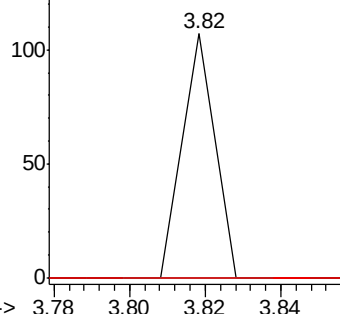
#28

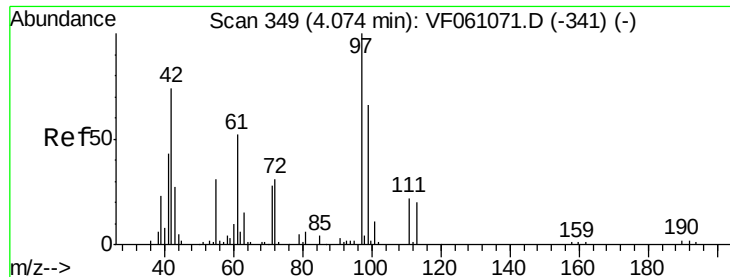
Bromochloromethane  
 Concen: 3.196 ug/l  
 RT: 3.82 min Scan# 323  
 Delta R.T. 0.10 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 129     | 0.0   | 0.0   | 3.6   |
| 130     | 0.0   | 65.8  | 98.6# |



Abundance Ion 49.00 (48.70 to 49.70): VF0  
 Ion 129.00 (128.70 to 129.70): V  
 Ion 130.00 (129.70 to 130.70): V





#29

Tetrahydrofuran

Concen: 57.107 ug/l

RT: 4.06 min Scan# 348

Delta R.T. -0.01 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

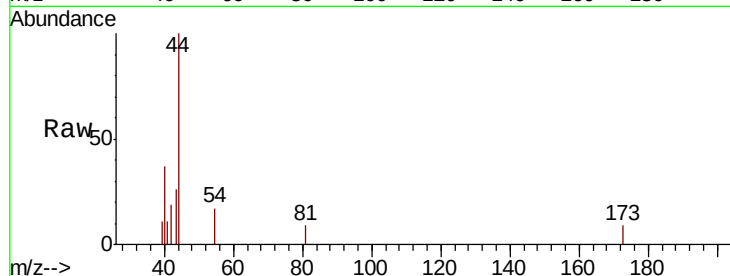
Tgt Ion: 42 Resp: 208

Ion Ratio Lower Upper

42 100

72 0.0 31.8 47.8#

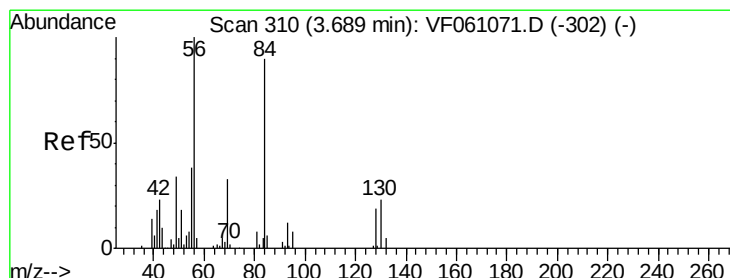
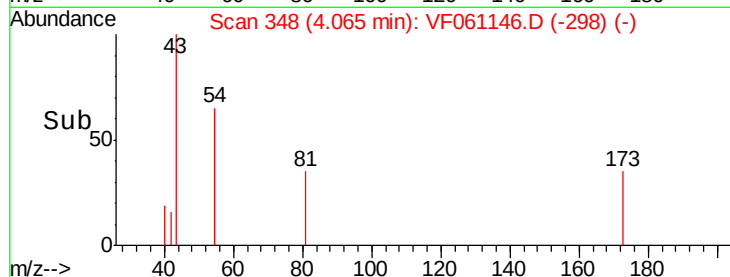
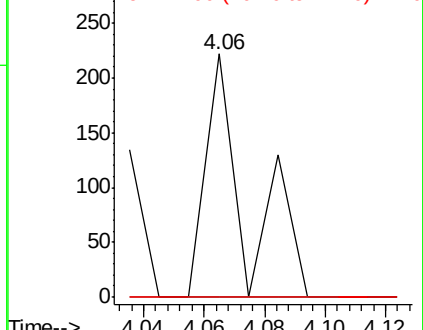
71 0.0 29.7 44.5#



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



#31

Cyclohexane

Concen: 1.538 ug/l

RT: 3.73 min Scan# 314

Delta R.T. 0.04 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

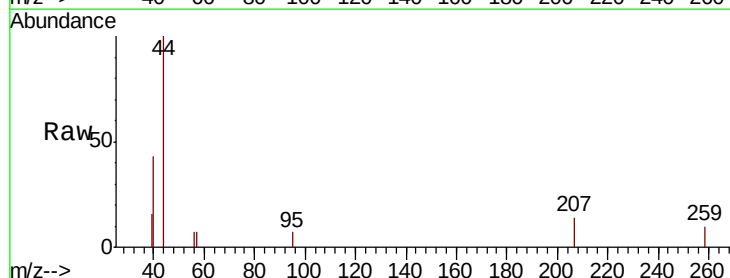
Tgt Ion: 56 Resp: 62

Ion Ratio Lower Upper

56 100

69 0.0 26.0 39.0#

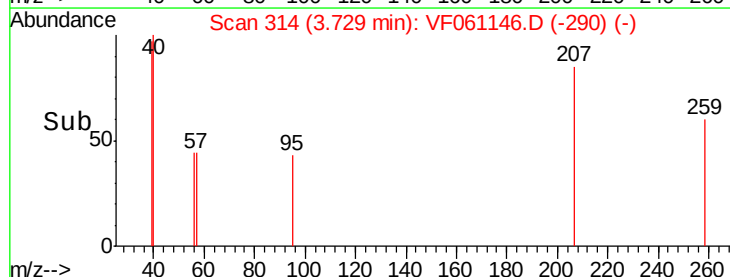
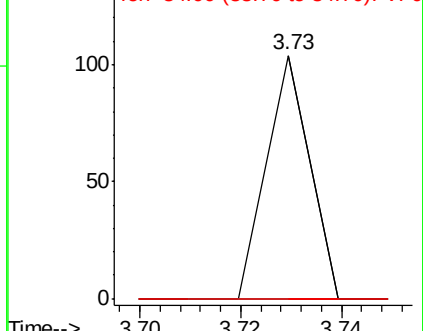
84 0.0 71.4 107.2#



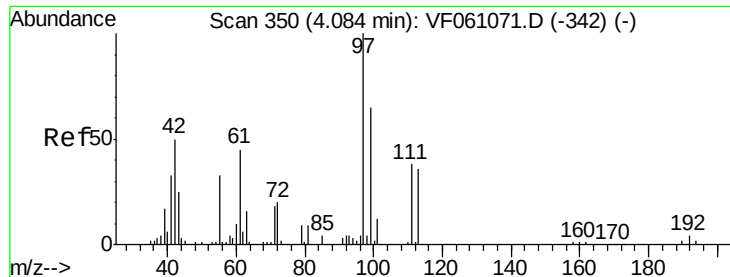
Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 84.00 (83.70 to 84.70): VF0







#32

1,1,1-Trichloroethane

Concen: 2.119 ug/l

RT: 4.22 min Scan# 364

Delta R.T. 0.14 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

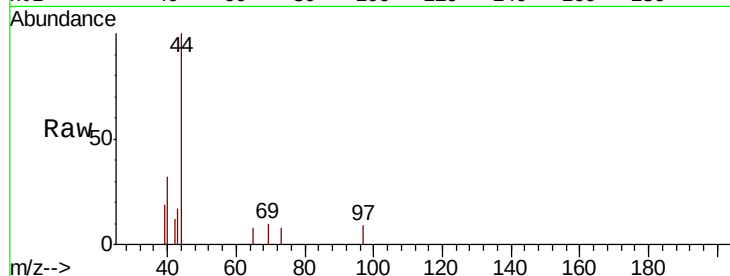
Tgt Ion: 97 Resp: 74

Ion Ratio Lower Upper

97 100

99 0.0 51.6 77.4#

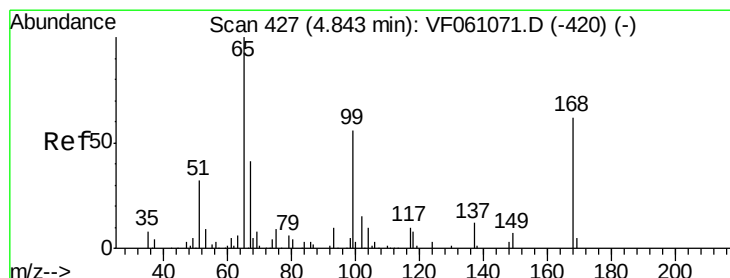
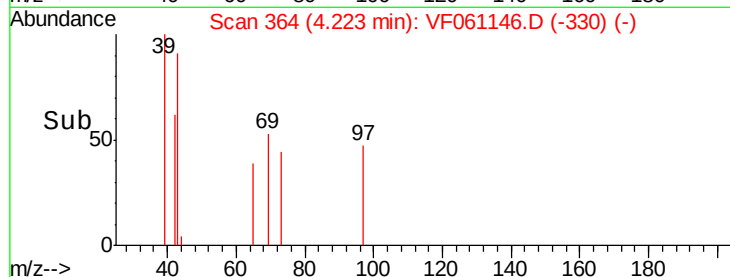
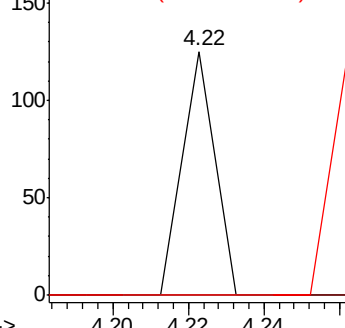
61 0.0 36.2 54.2#



Abundance Ion 97.00 (96.70 to 97.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

Ion 61.00 (60.70 to 61.70): VF0



#33

1,2-Dichloroethane-d4

Concen: 23.658 ug/l

RT: 4.88 min Scan# 431

Delta R.T. 0.04 min

Lab File: VF061146.D

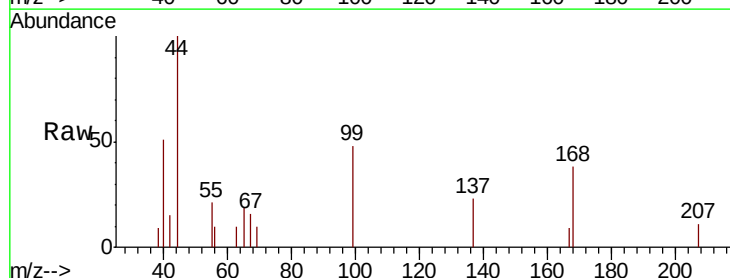
Acq: 22 Dec 2018 15:59

Tgt Ion: 65 Resp: 653

Ion Ratio Lower Upper

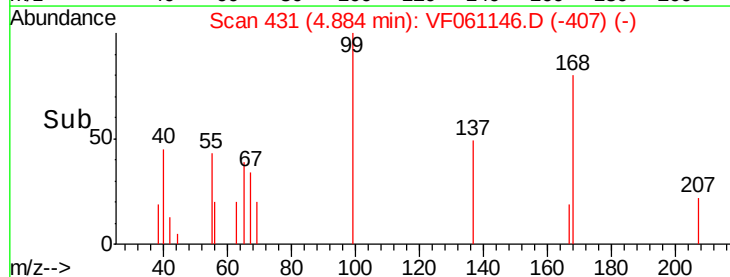
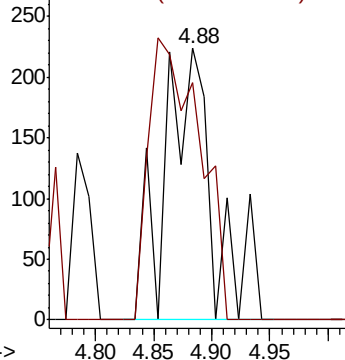
65 100

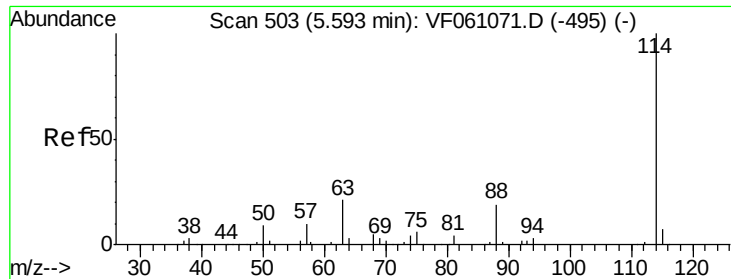
67 87.5 0.0 94.6



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. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

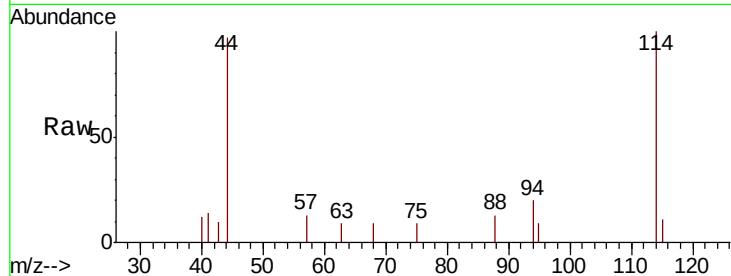
Tgt Ion:114 Resp: 3193

Ion Ratio Lower Upper

114 100

63 9.3 0.0 41.6

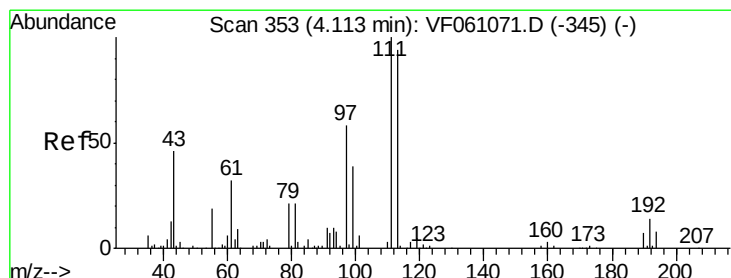
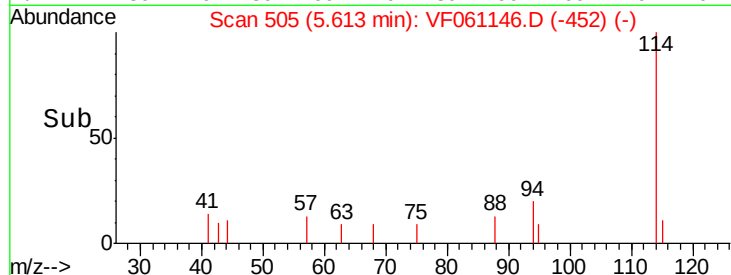
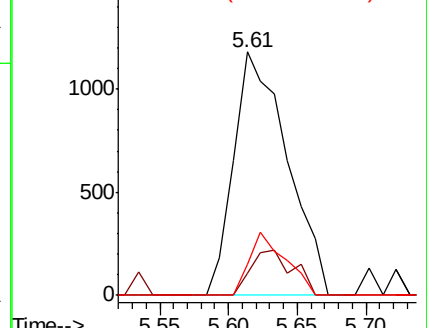
88 12.9 0.0 38.0



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: 47.815 ug/l

RT: 4.14 min Scan# 356

Delta R.T. 0.03 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

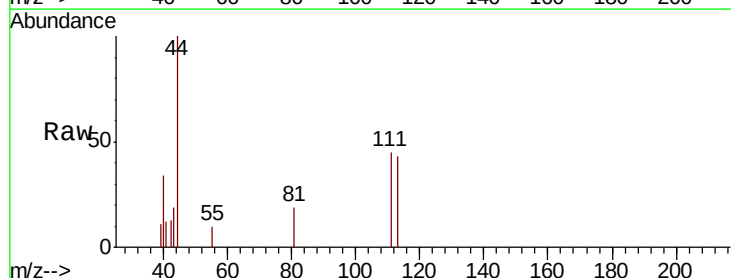
Tgt Ion:113 Resp: 1223

Ion Ratio Lower Upper

113 100

111 105.0 85.2 127.8

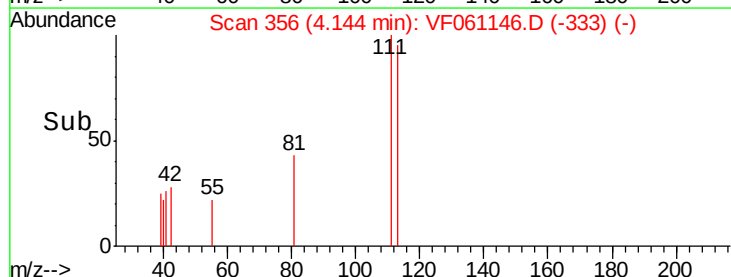
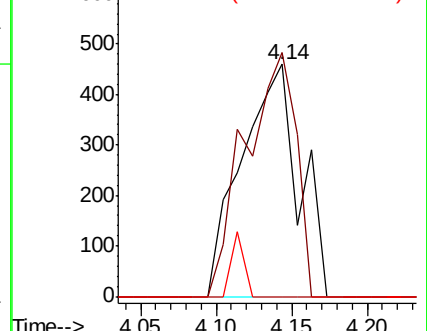
192 0.0 12.8 19.2#

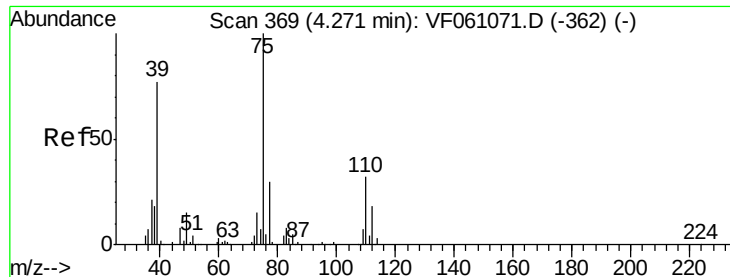


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V





#36

1,1-Dichloropropene

Concen: 2.491 ug/l

RT: 4.28 min Scan# 370

Delta R.T. 0.01 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

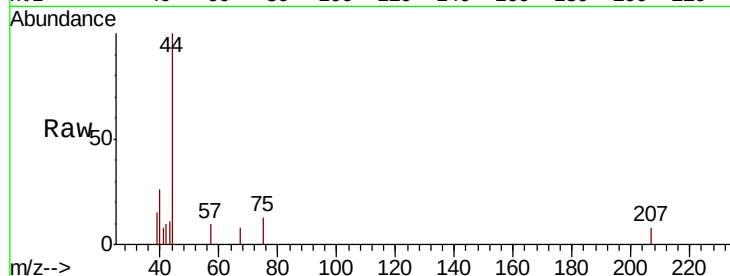
Tgt Ion: 75 Resp: 96

Ion Ratio Lower Upper

75 100

110 0.0 16.1 48.2#

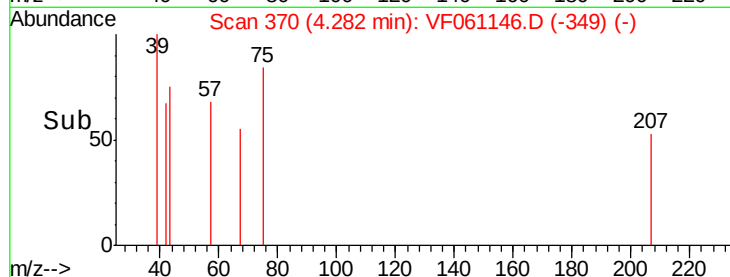
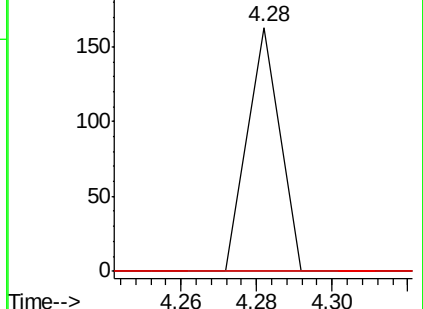
77 0.0 24.5 36.7#



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: 6.833 ug/l

RT: 4.12 min Scan# 354

Delta R.T. 0.01 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

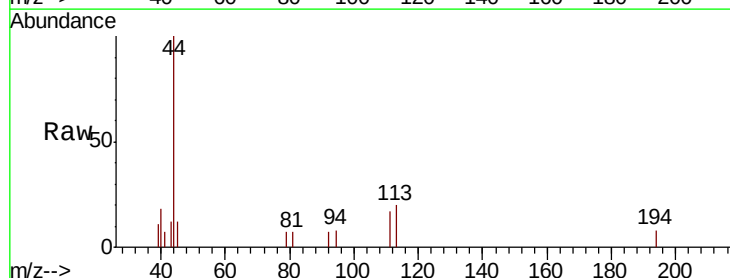
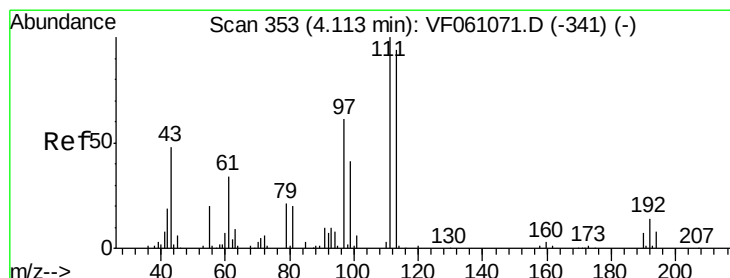
Tgt Ion: 43 Resp: 120

Ion Ratio Lower Upper

43 100

61 0.0 56.6 84.8#

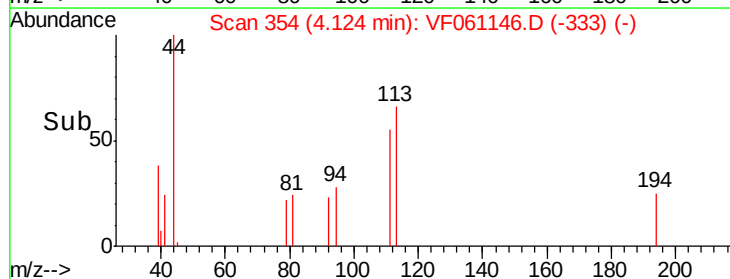
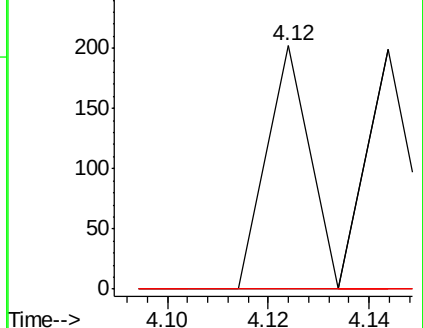
70 0.0 6.3 9.5#

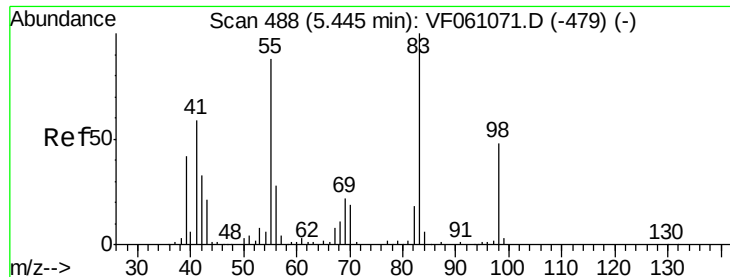


Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 70.00 (69.70 to 70.70): VF0

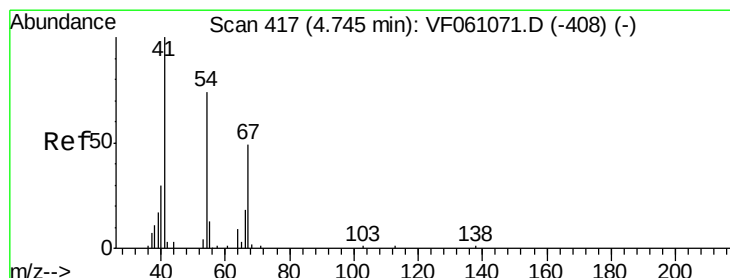
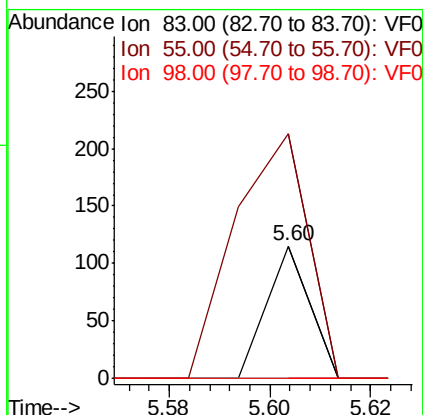
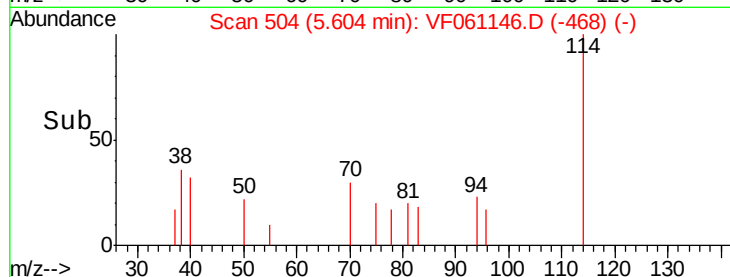
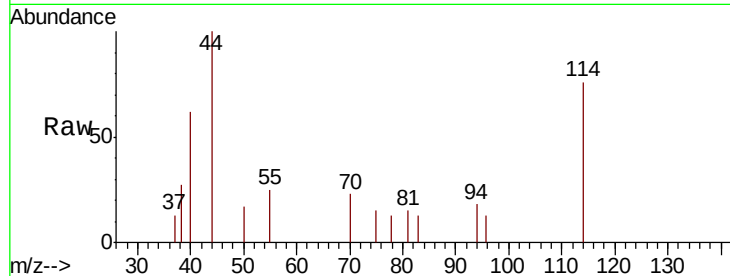




#39  
Methylcyclohexane  
Concen: 1.967 ug/l  
RT: 5.60 min Scan# 504  
Delta R.T. 0.16 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

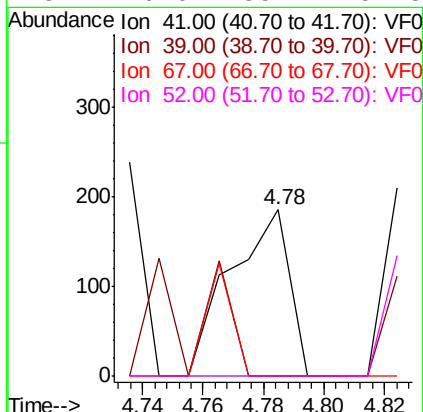
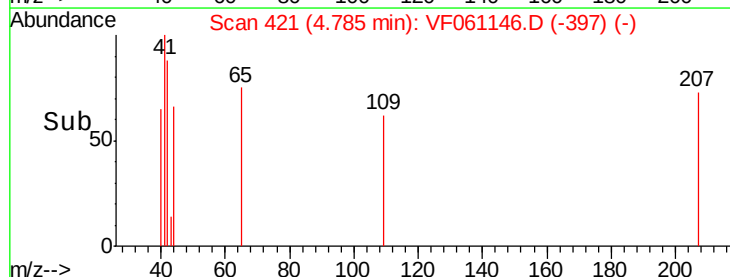
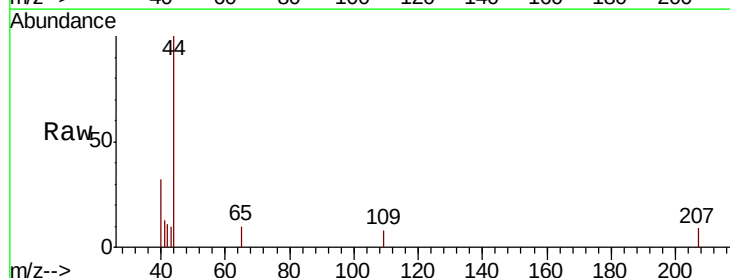
Instrument :  
MSVOA\_F  
ClientSampleId :  
HD-01-122018RE

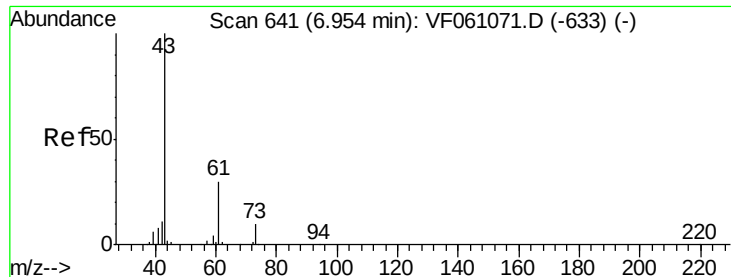
Tgt Ion: 83 Resp: 68  
Ion Ratio Lower Upper  
83 100  
55 185.2 70.6 105.8#  
98 0.0 38.5 57.7#



#41  
Methacrylonitrile  
Concen: 31.083 ug/l  
RT: 4.78 min Scan# 421  
Delta R.T. 0.04 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

Tgt Ion: 41 Resp: 253  
Ion Ratio Lower Upper  
41 100  
39 0.0 45.7 68.5#  
67 0.0 38.9 58.3#  
52 0.0 35.2 52.8#

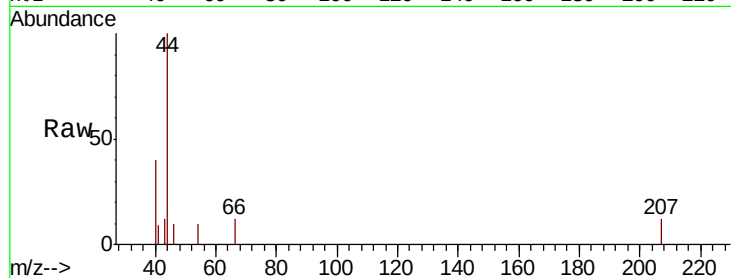




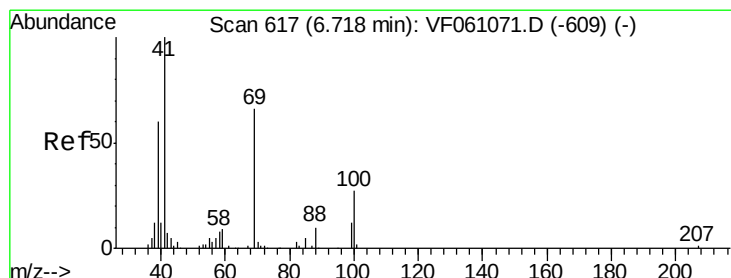
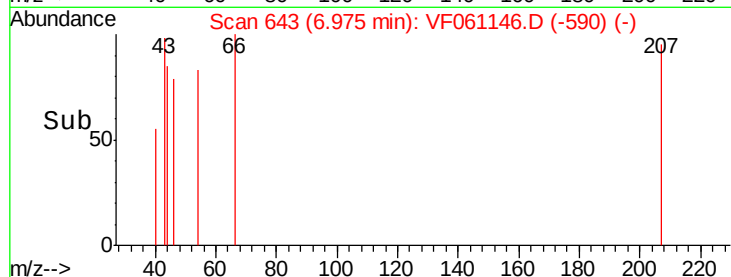
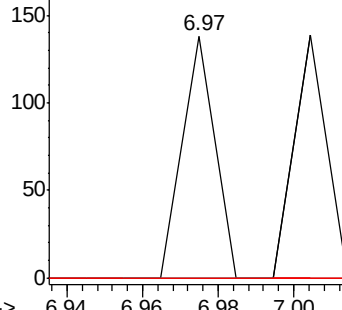
#43  
Isopropyl Acetate  
Concen: 4.406 ug/l  
RT: 6.97 min Scan# 643  
Delta R.T. 0.02 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

Instrument :  
MSVOA\_F  
ClientSampleId :  
HD-01-122018RE

Tgt Ion: 43 Resp: 82  
Ion Ratio Lower Upper  
43 100  
61 0.0 23.8 35.8#  
87 0.0 0.0 0.0

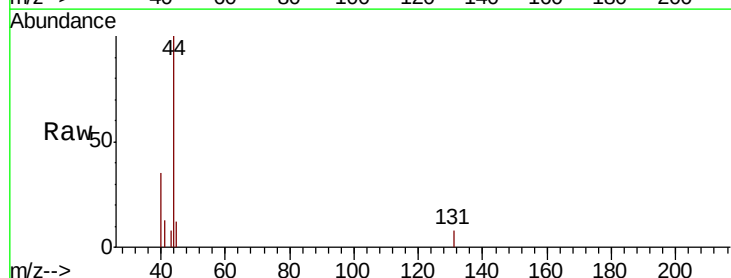


Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 87.00 (86.70 to 87.70): VF0

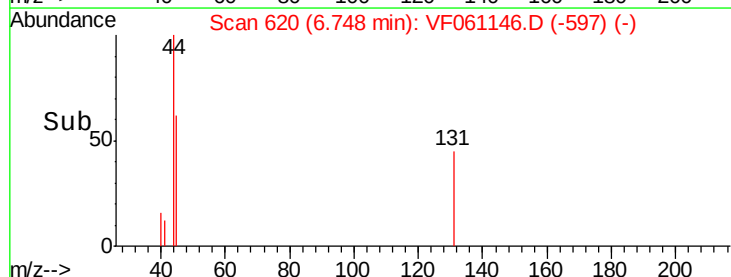
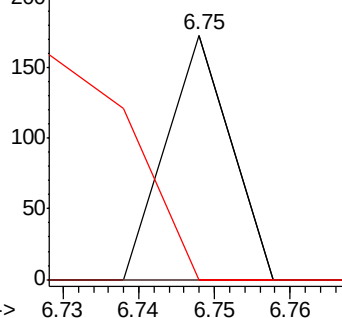


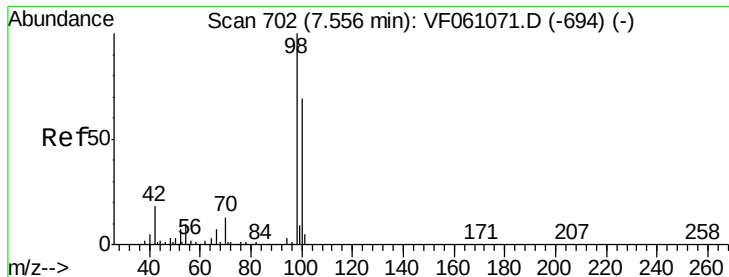
#48  
Methyl methacrylate  
Concen: 7.851 ug/l  
RT: 6.75 min Scan# 620  
Delta R.T. 0.03 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

Tgt Ion: 41 Resp: 102  
Ion Ratio Lower Upper  
41 100  
69 0.0 52.7 79.1#  
39 0.0 47.8 71.6#



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

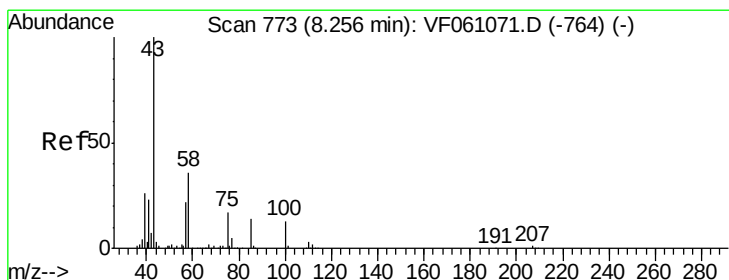
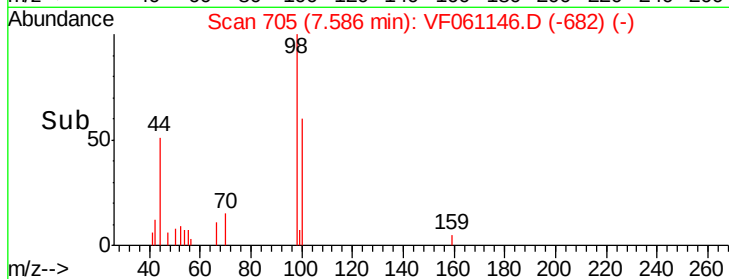
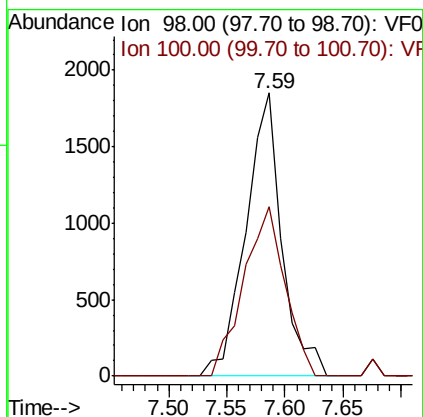
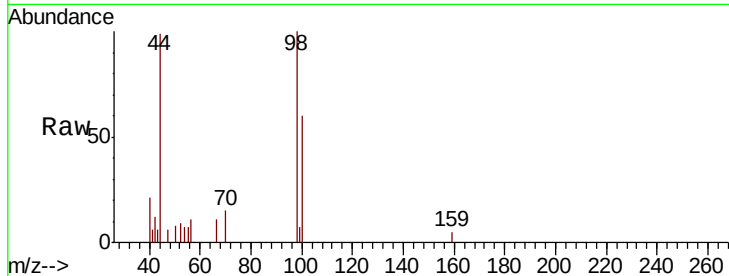




#50  
Toluene-d8  
Concen: 54.908 ug/l  
RT: 7.59 min Scan# 705  
Delta R.T. 0.03 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

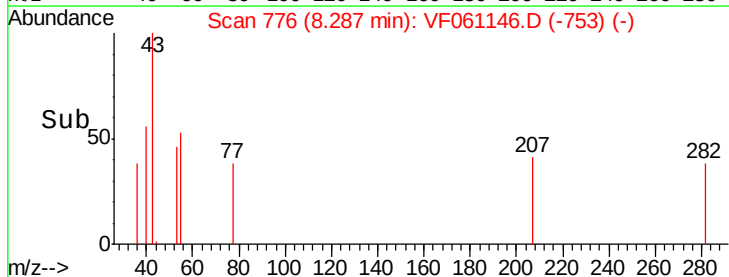
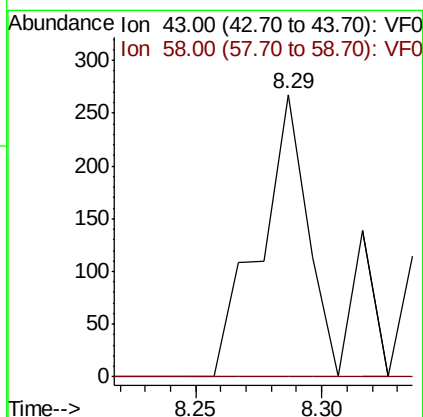
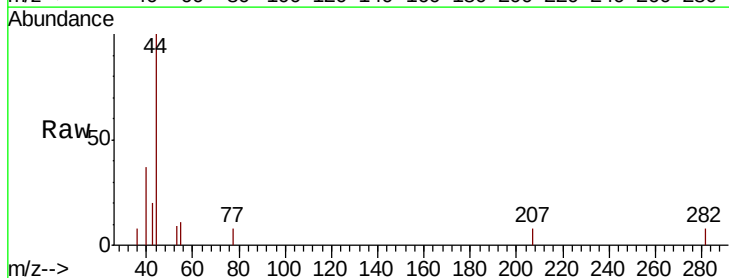
Instrument :  
MSVOA\_F  
ClientSampleId :  
HD-01-122018RE

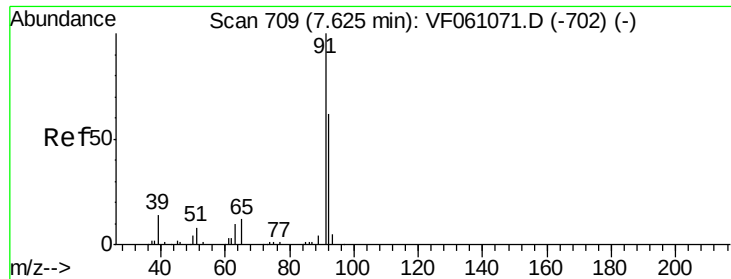
Tgt Ion: 98 Resp: 3980  
Ion Ratio Lower Upper  
98 100  
100 59.9 55.3 82.9



#51  
4-Methyl-2-Pentanone  
Concen: 27.815 ug/l  
RT: 8.29 min Scan# 776  
Delta R.T. 0.03 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

Tgt Ion: 43 Resp: 355  
Ion Ratio Lower Upper  
43 100  
58 0.0 29.1 43.7#





#52

Toluene

Concen: 2.843 ug/l

RT: 7.67 min Scan# 713

Delta R.T. 0.04 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

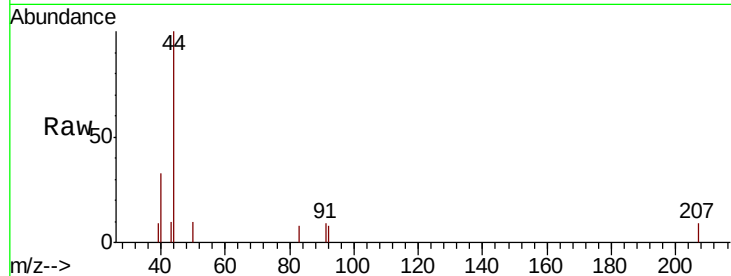
HD-01-122018RE

Tgt Ion: 92 Resp: 156

Ion Ratio Lower Upper

92 100

91 104.5 128.8 193.2#



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

7.67

150

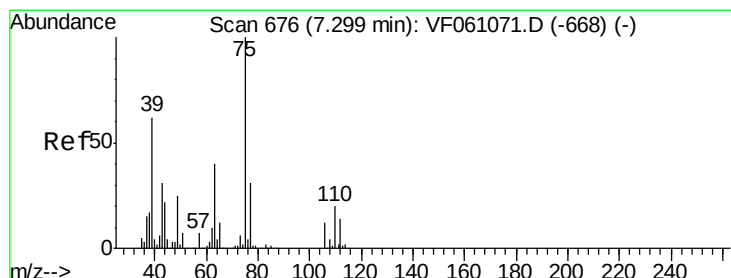
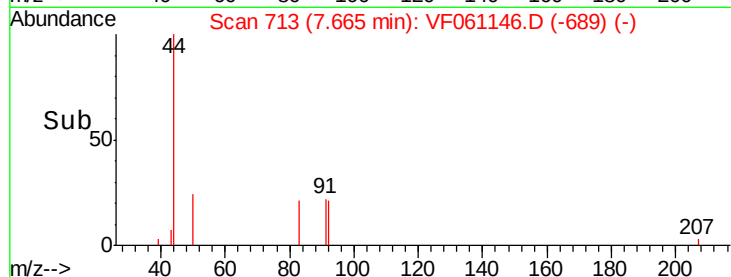
100

50

0

7.60 7.65 7.70

Time-->



#54

cis-1,3-Dichloropropene

Concen: 1.975 ug/l

RT: 7.40 min Scan# 686

Delta R.T. 0.10 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

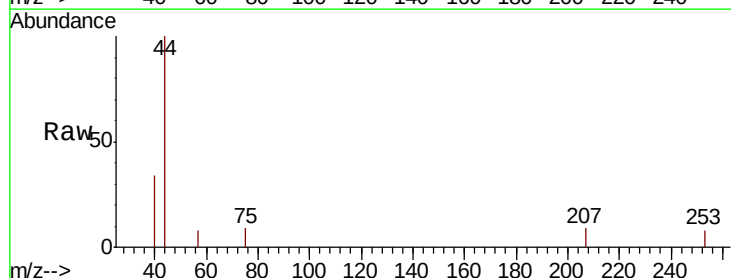
Tgt Ion: 75 Resp: 76

Ion Ratio Lower Upper

75 100

77 0.0 25.0 37.4#

39 0.0 50.1 75.1#



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

200

150

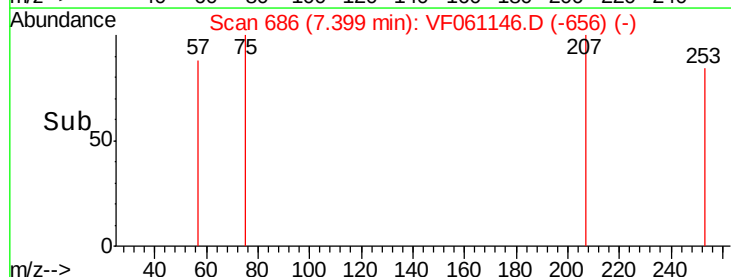
100

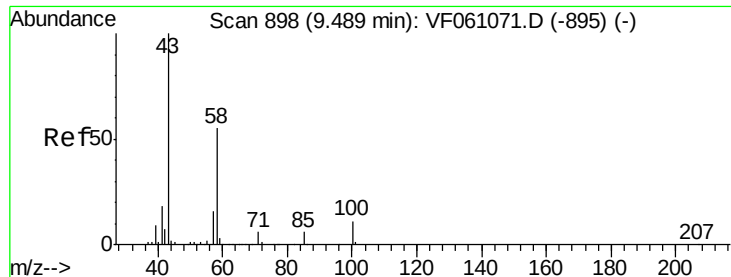
50

0

7.36 7.38 7.40 7.42

Time-->

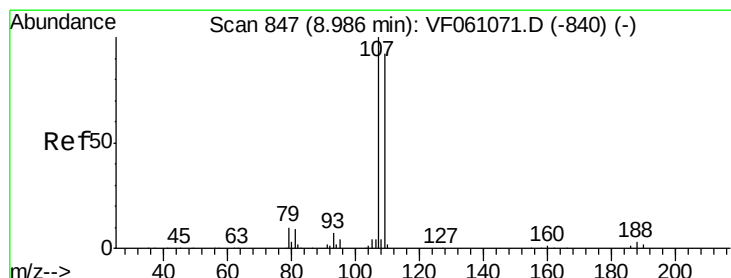
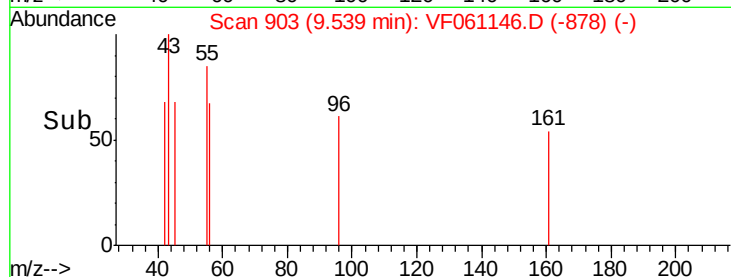
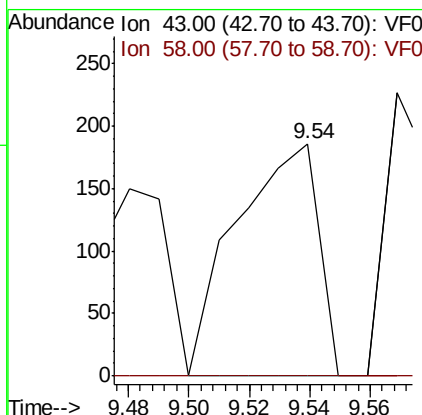
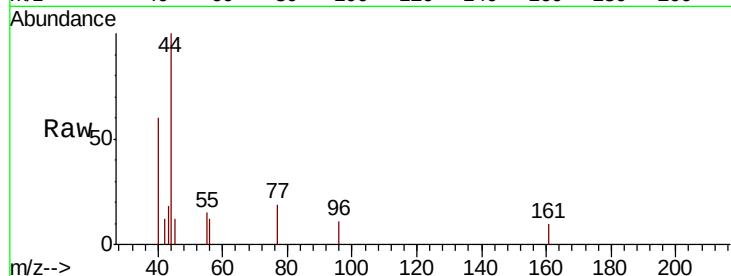




#59  
2-Hexanone  
Concen: 38.245 ug/l  
RT: 9.54 min Scan# 903  
Delta R.T. 0.05 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

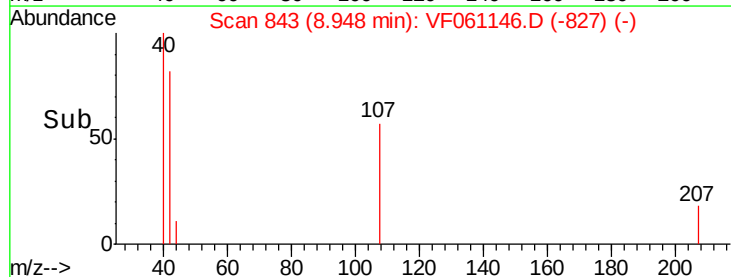
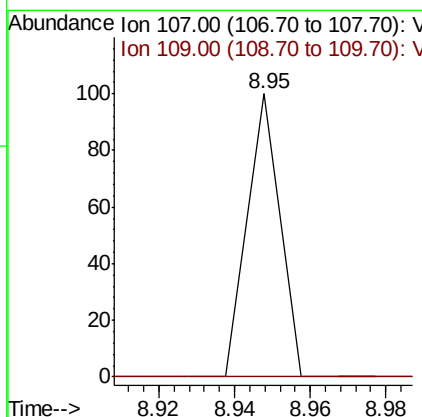
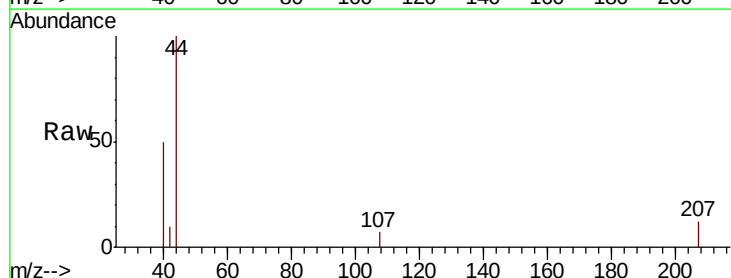
Instrument :  
MSVOA\_F  
ClientSampleId :  
HD-01-122018RE

Tgt Ion: 43 Resp: 353  
Ion Ratio Lower Upper  
43 100  
58 0.0 25.1 75.2#

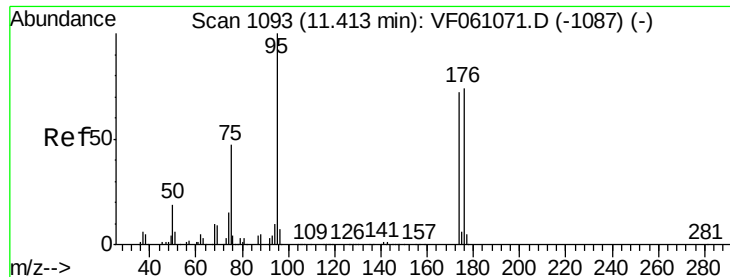


#61  
1,2-Dibromoethane  
Concen: 3.359 ug/l  
RT: 8.95 min Scan# 843  
Delta R.T. -0.04 min  
Lab File: VF061146.D  
Acq: 22 Dec 2018 15:59

Tgt Ion: 107 Resp: 59  
Ion Ratio Lower Upper  
107 100  
109 0.0 73.7 110.5#







#62

4-Bromofluorobenzene

Concen: 18.554 ug/l

RT: 11.43 min Scan# 1095

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

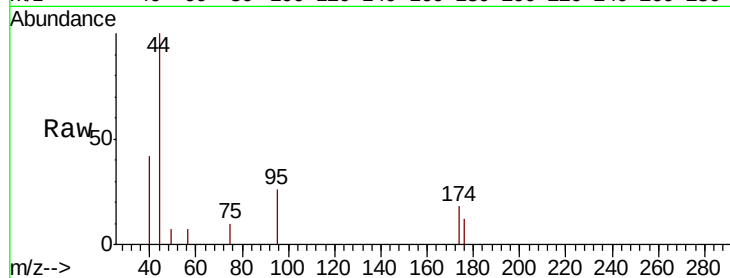
Tgt Ion: 95 Resp: 620

Ion Ratio Lower Upper

95 100

174 68.4 0.0 143.8

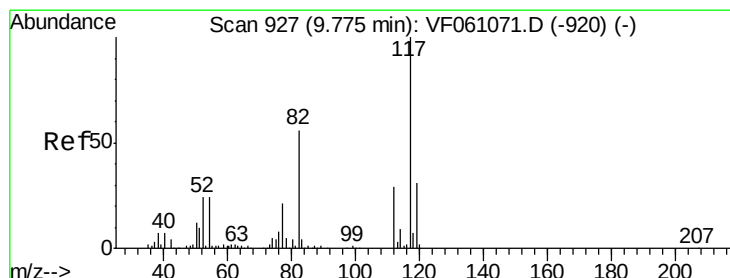
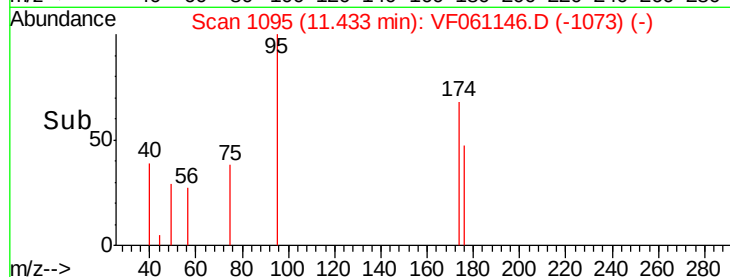
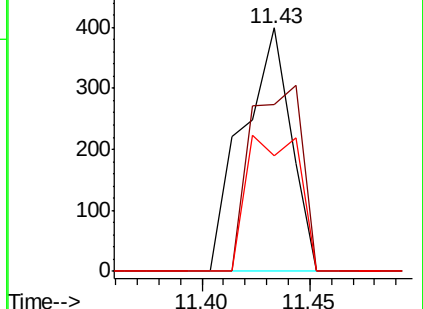
176 47.4 0.0 147.6



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): VF0

Ion 176.00 (175.70 to 176.70): VF0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.80 min Scan# 929

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

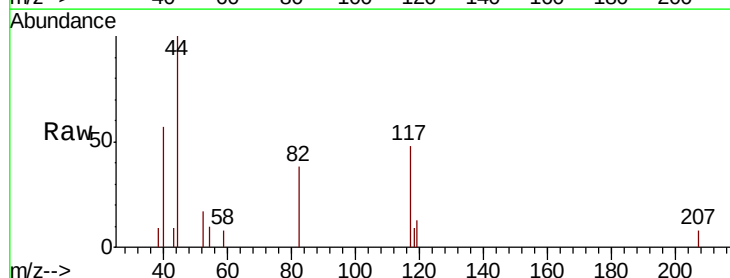
Tgt Ion: 117 Resp: 1350

Ion Ratio Lower Upper

117 100

82 78.5 45.0 67.4#

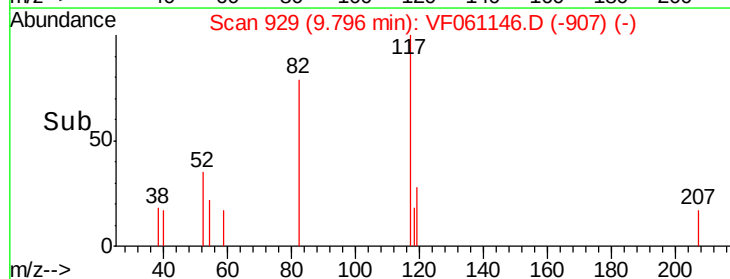
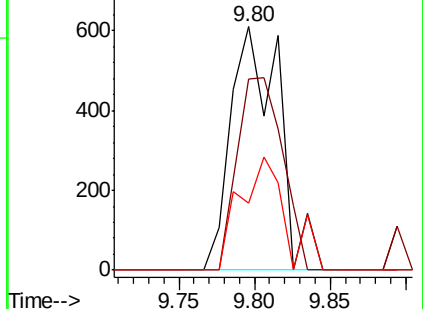
119 27.7 24.8 37.2

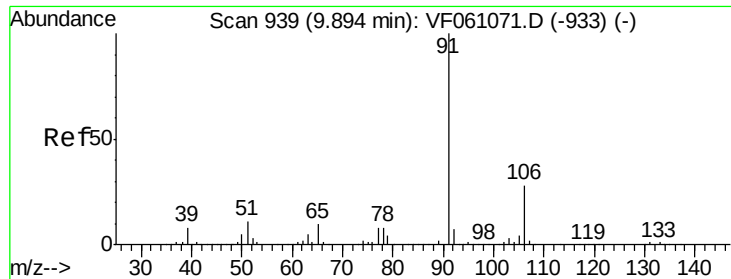


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0





#67

Ethyl Benzene

Concen: 1.555 ug/l

RT: 10.02 min Scan# 952

Delta R.T. 0.13 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

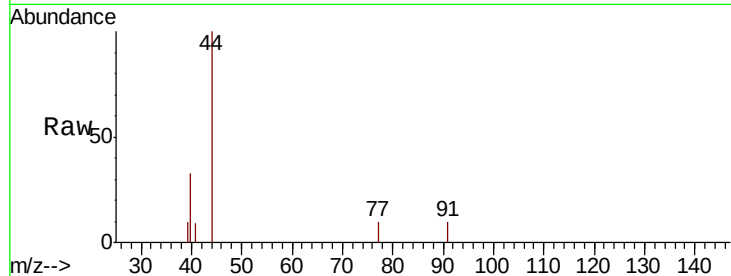
HD-01-122018RE

Tgt Ion: 91 Resp: 79

Ion Ratio Lower Upper

91 100

106 0.0 22.5 33.7#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 106.00 (105.70 to 106.70): V

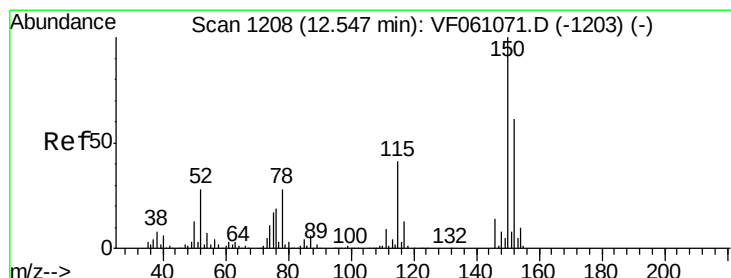
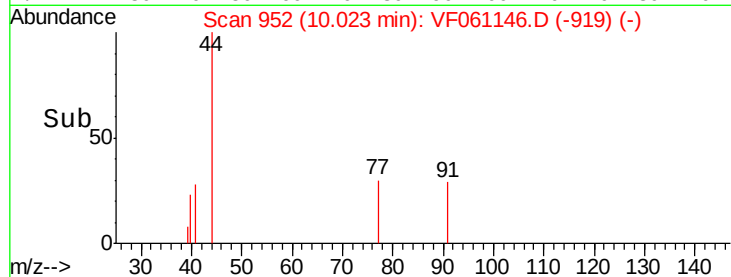
10.02

100

50

0

Time-->



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.57 min Scan# 1210

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

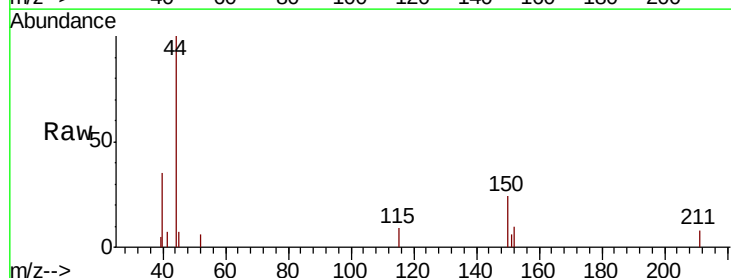
Tgt Ion: 152 Resp: 276

Ion Ratio Lower Upper

152 100

115 84.1 33.3 99.9

150 226.9 0.0 328.2



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

600

500

400

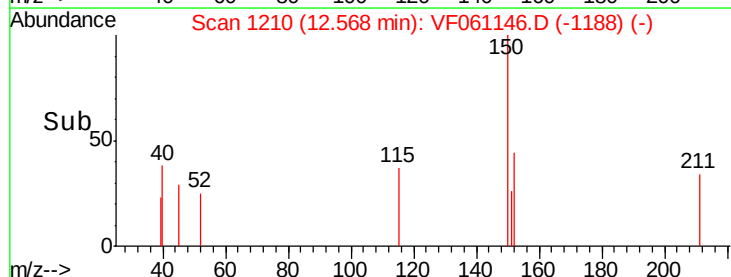
300

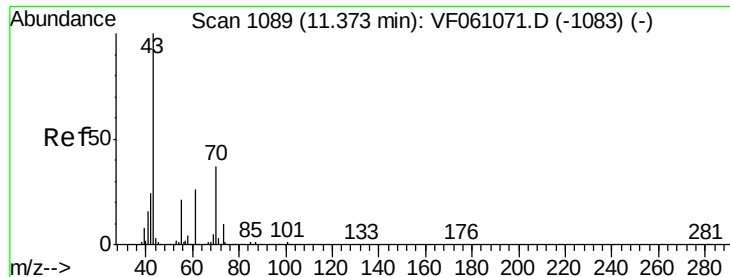
200

100

0

Time-->





#74

N-ethyl acetate

Concen: 26.323 ug/l

RT: 11.35 min Scan# 1087

Delta R.T. -0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

Instrument :

MSVOA\_F

ClientSampleId :

HD-01-122018RE

Tgt Ion: 43 Resp: 139

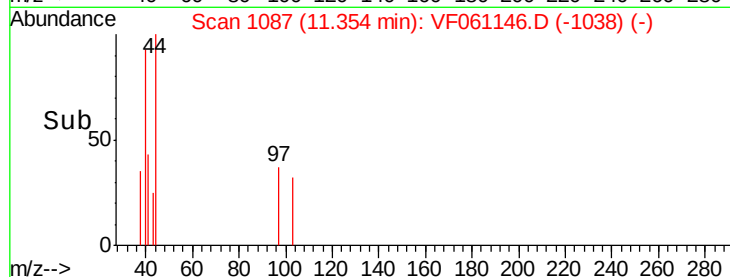
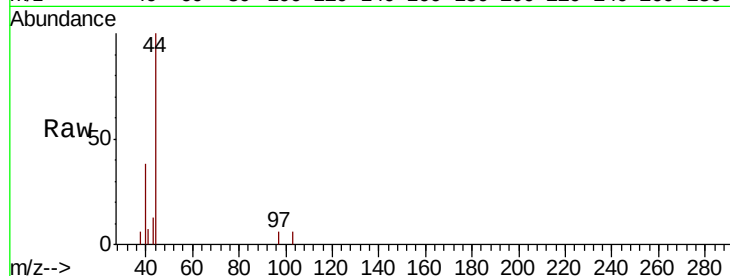
Ion Ratio Lower Upper

43 100

70 0.0 29.2 43.8#

55 0.0 16.5 24.7#

61 0.0 20.7 31.1#

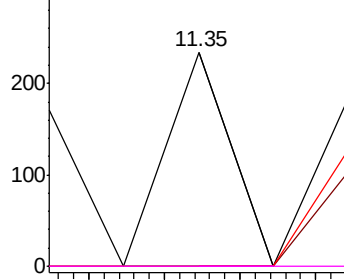


Abundance Ion 43.00 (42.70 to 43.70): VF0

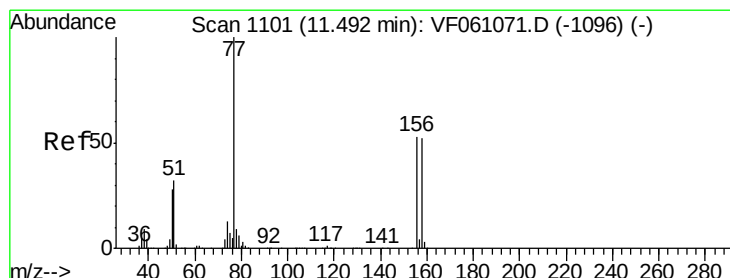
Ion 70.00 (69.70 to 70.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 61.00 (60.70 to 61.70): VF0



Time-->



#77

Bromobenzene

Concen: 12.695 ug/l

RT: 11.51 min Scan# 1103

Delta R.T. 0.02 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

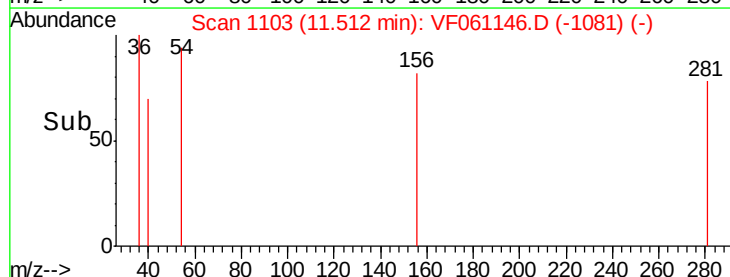
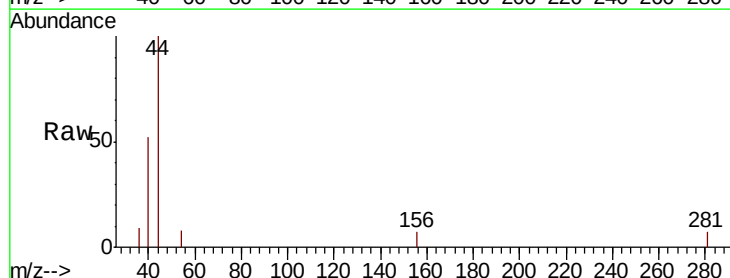
Tgt Ion: 156 Resp: 65

Ion Ratio Lower Upper

156 100

77 0.0 93.8 281.4#

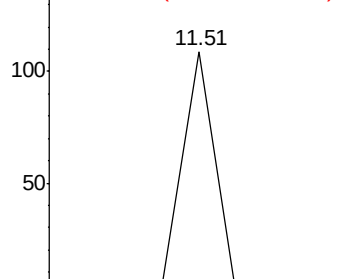
158 0.0 48.9 146.8#



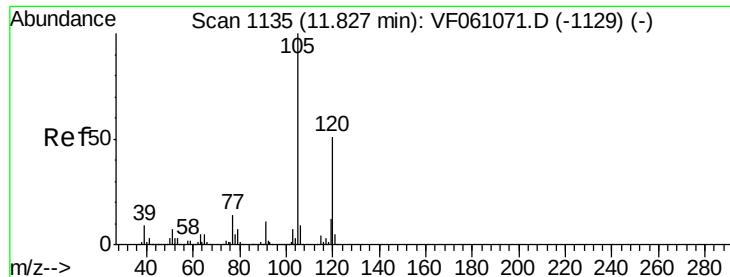
Abundance Ion 156.00 (155.70 to 156.70): V

Ion 77.00 (76.70 to 77.70): VF0

Ion 158.00 (157.70 to 158.70): V



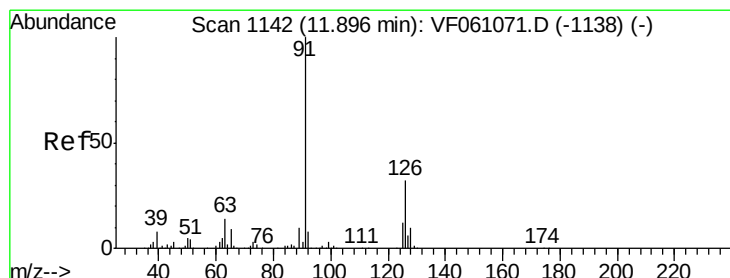
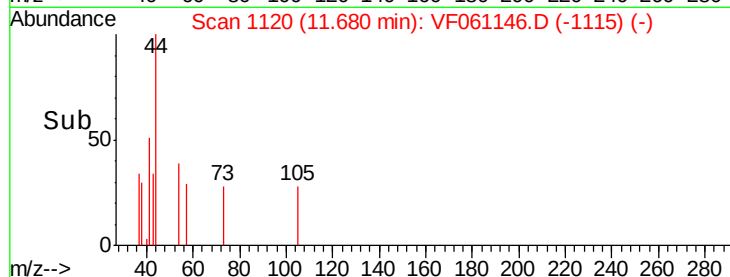
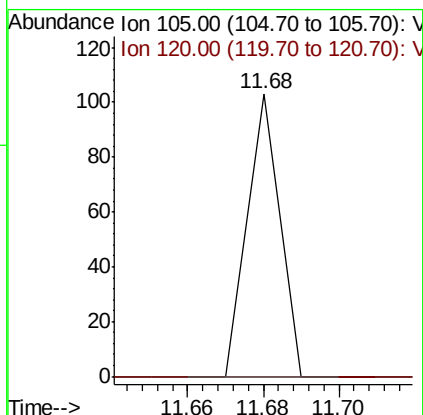
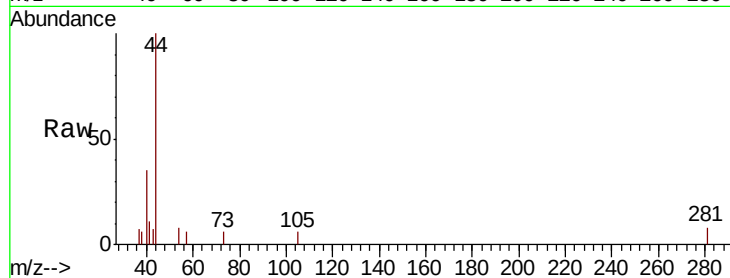
Time-->



#80  
 1,3,5-Trimethylbenzene  
 Concen: 3.115 ug/l  
 RT: 11.68 min Scan# 1120  
 Delta R.T. -0.15 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

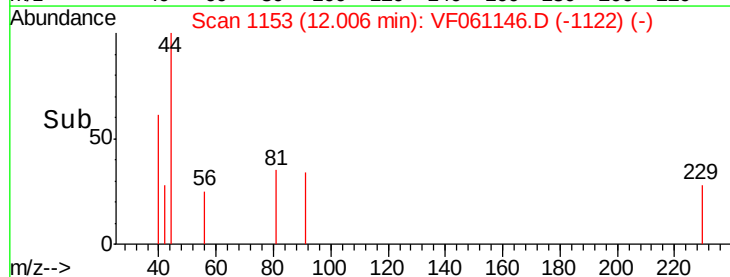
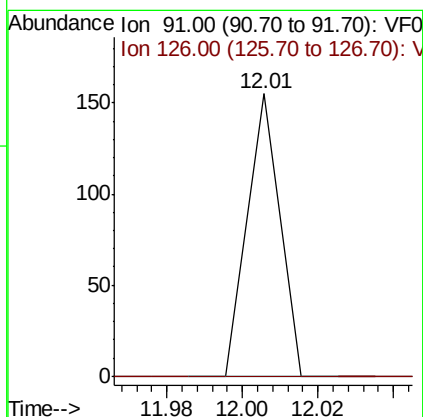
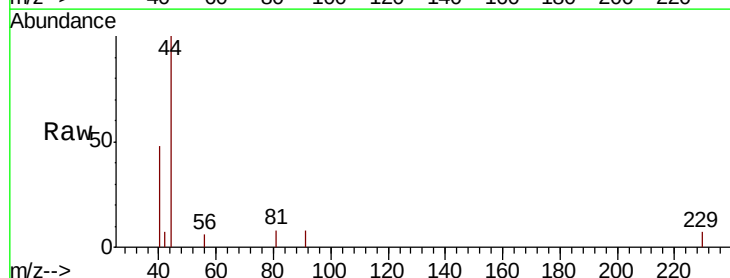
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

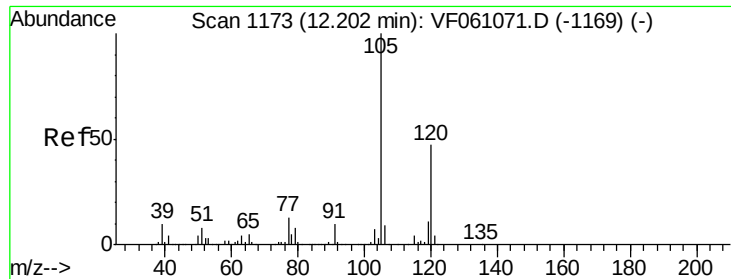
Tgt Ion: 105 Resp: 61  
 Ion Ratio Lower Upper  
 105 100  
 120 0.0 25.4 76.4#



#82  
 4-Chlorotoluene  
 Concen: 5.451 ug/l  
 RT: 12.01 min Scan# 1153  
 Delta R.T. 0.11 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

Tgt Ion: 91 Resp: 92  
 Ion Ratio Lower Upper  
 91 100  
 126 0.0 16.0 47.9#

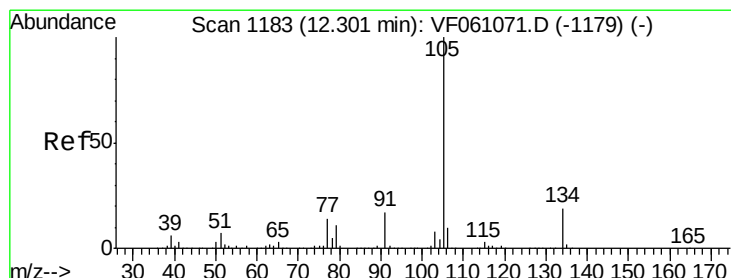
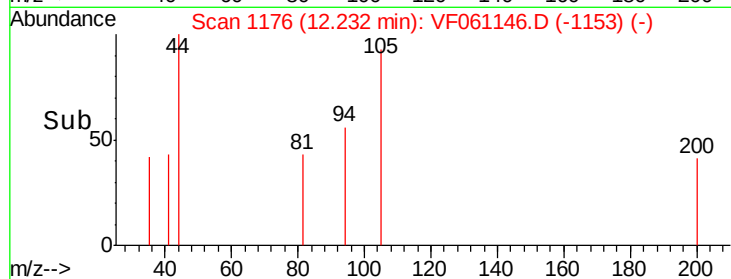
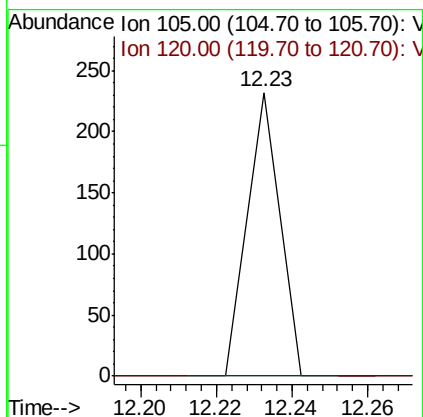
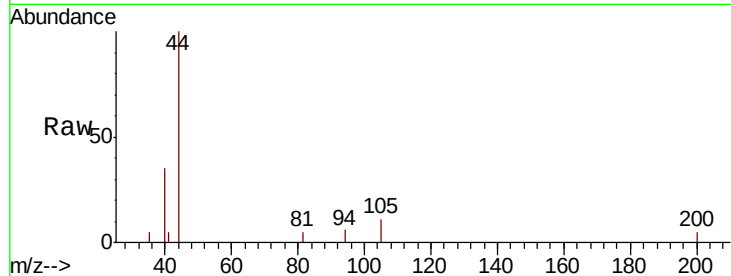




#84  
 1,2,4-Trimethylbenzene  
 Concen: 7.015 ug/l  
 RT: 12.23 min Scan# 1176  
 Delta R.T. 0.03 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

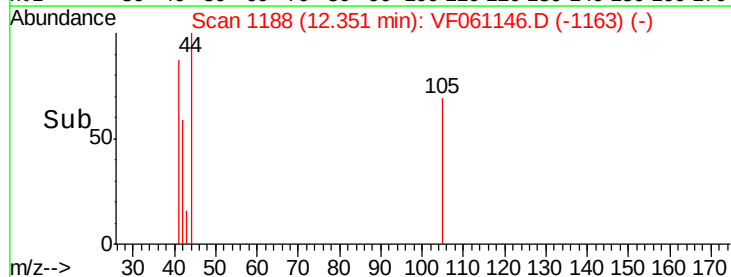
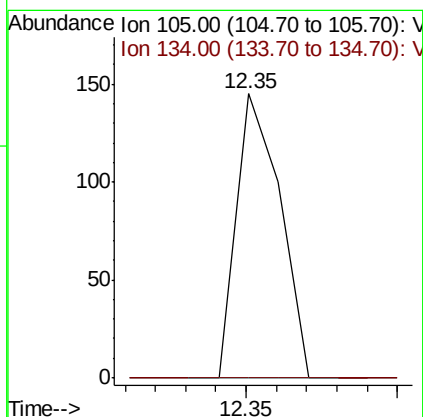
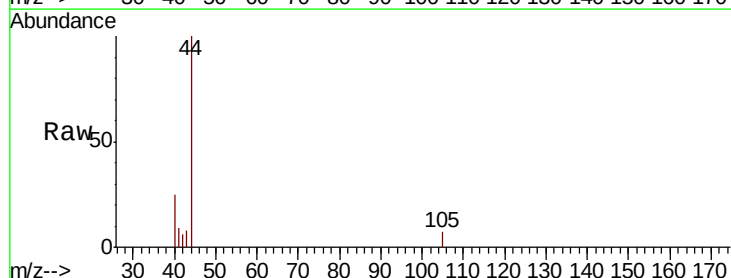
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

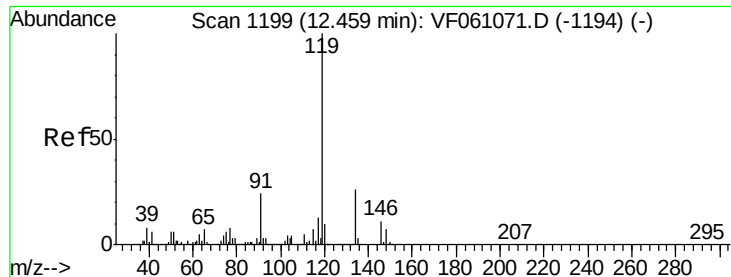
Tgt Ion:105 Resp: 137  
 Ion Ratio Lower Upper  
 105 100  
 120 0.0 23.6 71.0#



#85  
 sec-Butylbenzene  
 Concen: 5.513 ug/l  
 RT: 12.35 min Scan# 1188  
 Delta R.T. 0.05 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

Tgt Ion:105 Resp: 145  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 9.4 28.2#





#86

p-Isopropyltoluene

Concen: 3.344 ug/l

RT: 12.46 min Scan# 1199

Delta R.T. 0.00 min

Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

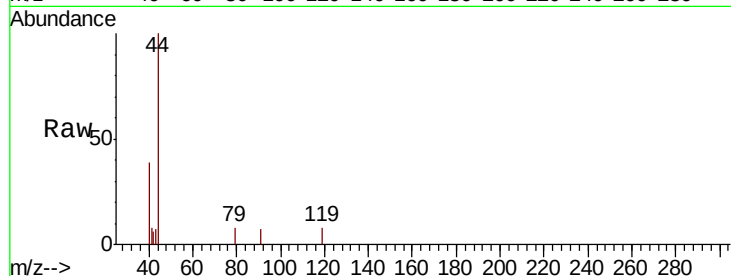
Instrument :

MSVOA\_F

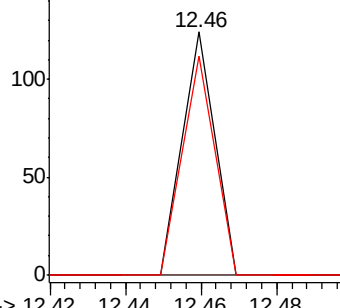
ClientSampleId :

HD-01-122018RE

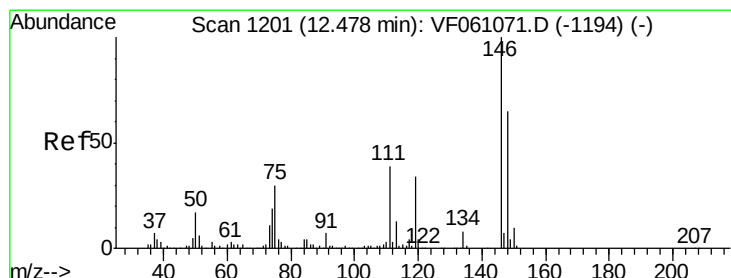
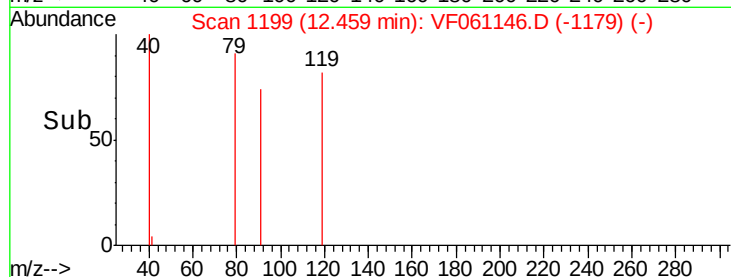
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 119   | Resp: | 73    |
| Ion      | Ratio | Lower | Upper |
| 119      | 100   |       |       |
| 134      | 0.0   | 12.8  | 38.4# |
| 91       | 90.3  | 12.2  | 36.6# |



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): V



Time--> 12.42 12.44 12.46 12.48



#87

1,3-Dichlorobenzene

Concen: 6.042 ug/l

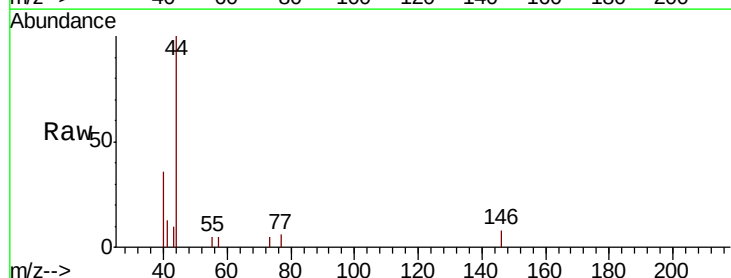
RT: 12.50 min Scan# 1203

Delta R.T. 0.02 min

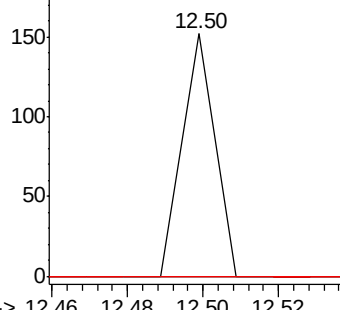
Lab File: VF061146.D

Acq: 22 Dec 2018 15:59

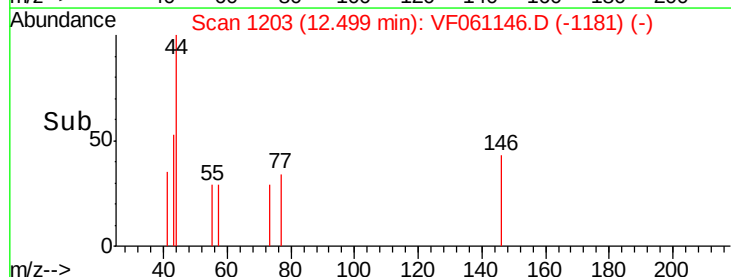
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 90    |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 0.0   | 19.3  | 57.9# |
| 148      | 0.0   | 32.4  | 97.2# |

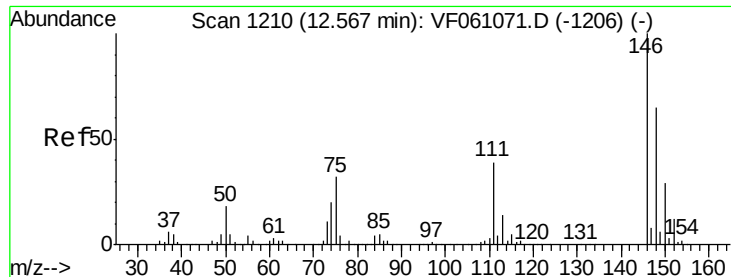


Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.00 (110.70 to 111.70): V  
Ion 148.00 (147.70 to 148.70): V



Time--> 12.46 12.48 12.50 12.52

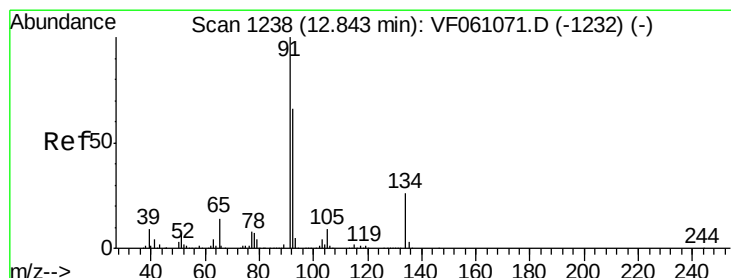
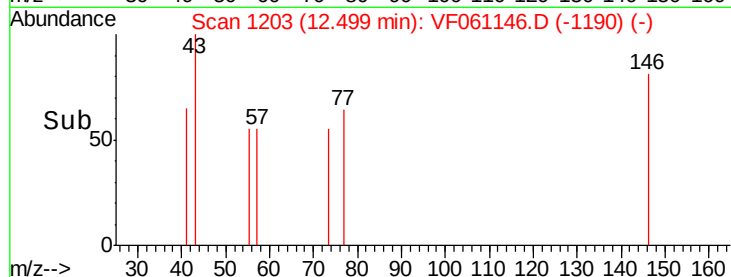
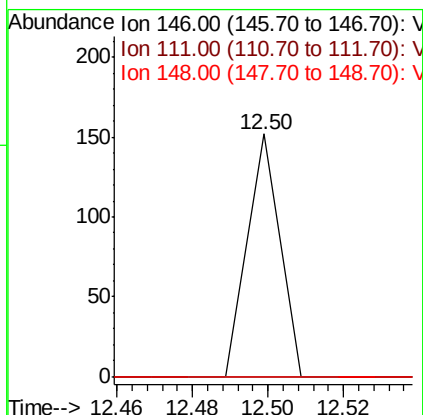
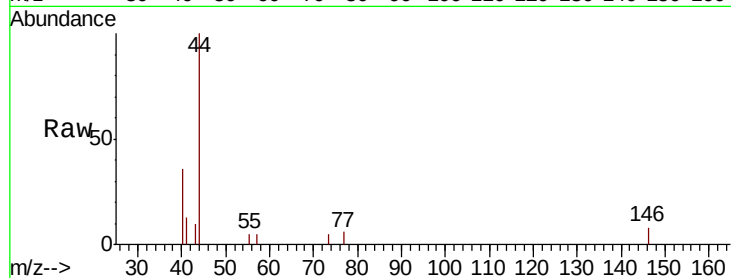




#88  
 1,4-Dichlorobenzene  
 Concen: 9.573 ug/l  
 RT: 12.50 min Scan# 1203  
 Delta R.T. -0.07 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 HD-01-122018RE

Tgt Ion: 146 Resp: 90  
 Ion Ratio Lower Upper  
 146 100  
 111 0.0 19.4 58.4#  
 148 0.0 32.4 97.0#



#89  
 n-Butylbenzene  
 Concen: 3.474 ug/l  
 RT: 12.87 min Scan# 1241  
 Delta R.T. 0.03 min  
 Lab File: VF061146.D  
 Acq: 22 Dec 2018 15:59

Tgt Ion: 91 Resp: 86  
 Ion Ratio Lower Upper  
 91 100  
 92 0.0 32.8 98.4#  
 134 0.0 13.2 39.5#

