

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF122018\  
 Data File : VF061104.D  
 Acq On : 20 Dec 2018 13:21  
 Operator : VA/AP  
 Sample : J6377-02  
 Misc : 2.78g/5mL/MSVOA-F/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Dec 21 06:40:41 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      | 4.87  | 168  | 86927    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.60  | 114  | 151781   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.79  | 117  | 88516    | 50.00 | ug/l  | 0.02     |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 23319    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.85  | 65   | 53187    | 47.57 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.14% |          |
| 35) Dibromofluoromethane    | 4.12  | 113  | 57093    | 46.96 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.92% |          |
| 50) Toluene-d8              | 7.57  | 98   | 118927   | 34.52 | ug/l   | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 69.04% |          |
| 62) 4-Bromofluorobenzene    | 11.42 | 95   | 31238    | 19.67 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 39.34% |          |

| Target Compounds              | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------------|-------|------|----------|-----------|--------|--------|
| 4) Vinyl Chloride             | 1.14  | 62   | 3447     | 3.357     | ug/l # | 61     |
| 11) Tert butyl alcohol        | 2.58  | 59   | 216      | 4.788     | ug/l # | 1      |
| 13) Acrolein                  | 2.00  | 56   | 26396    | 809.659   | ug/l # | 58     |
| 14) Allyl chloride            | 2.18  | 41   | 218460   | 273.959   | ug/l # | 26     |
| 15) Acrylonitrile             | 2.94  | 53   | 76072    | 729.159   | ug/l # | 45     |
| 16) Acetone                   | 2.23  | 43   | 57810    | 258.650   | ug/l   | 100    |
| 18) Methyl Acetate            | 2.38  | 43   | 532974   | 1152.586  | ug/l # | 66     |
| 20) Methylene Chloride        | 2.25  | 84   | 2298     | Below Cal | #      | 15     |
| 23) Vinyl Acetate             | 3.17  | 43   | 1770     | 1.444     | ug/l # | 78     |
| 24) 1,1-Dichloroethane        | 2.94  | 63   | 9261     | 5.884     | ug/l # | 88     |
| 25) 2-Butanone                | 4.34  | 43   | 17740    | 48.940    | ug/l # | 79     |
| 27) cis-1,2-Dichloroethene    | 3.49  | 96   | 8051     | 6.417     | ug/l   | 92     |
| 29) Tetrahydrofuran           | 4.01  | 42   | 8387     | 56.847    | ug/l # | 1      |
| 31) Cyclohexane               | 3.69  | 56   | 217200   | 133.001   | ug/l   | 91     |
| 37) Ethyl Acetate             | 4.01  | 43   | 37010    | 52.379    | ug/l # | 12     |
| 39) Methylcyclohexane         | 5.46  | 83   | 204357   | 124.332   | ug/l   | 98     |
| 40) Benzene                   | 4.63  | 78   | 631229   | 160.212   | ug/l   | 96     |
| 41) Methacrylonitrile         | 4.68  | 41   | 53140    | 137.341   | ug/l # | 69     |
| 43) Isopropyl Acetate         | 7.03  | 43   | 3469     | 3.921     | ug/l # | 45     |
| 48) Methyl methacrylate       | 6.82  | 41   | 17306    | 28.023    | ug/l # | 47     |
| 51) 4-Methyl-2-Pentanone      | 8.28  | 43   | 19211    | 31.665    | ug/l # | 52     |
| 52) Toluene                   | 7.66  | 92   | 6901698  | 2646.316  | ug/l # | 70     |
| 56) Ethyl methacrylate        | 8.64  | 69   | 10781    | 12.743    | ug/l # | 84     |
| 59) 2-Hexanone                | 9.50  | 43   | 3548     | 8.087     | ug/l   | 82     |
| 65) Chlorobenzene             | 9.81  | 112  | 2145272  | 1173.165  | ug/l   | 95     |
| 67) Ethyl Benzene             | 9.92  | 91   | 5239428  | 1572.739  | ug/l # | 83     |
| 68) m/p-Xylenes               | 10.23 | 106  | 12783046 | 10903.333 | ug/l # | 47     |
| 69) o-Xylene                  | 10.75 | 106  | 3233910  | 2487.099  | ug/l   | 66     |
| 70) Styrene                   | 10.75 | 104  | 170424   | 113.792   | ug/l # | 1      |
| 73) Isopropylbenzene          | 11.13 | 105  | 239547   | 119.206   | ug/l   | 95     |
| 74) N-amyl acetate            | 11.38 | 43   | 3956     | 8.867     | ug/l # | 64     |
| 75) 1,1,2,2-Tetrachloroethane | 11.68 | 83   | 2599     | 7.793     | ug/l # | 60     |
| 76) 1,2,3-Trichloropropane    | 11.82 | 75   | 5669     | 22.840    | ug/l # | 1      |
| 78) n-propylbenzene           | 11.60 | 91   | 320005   | Below Cal |        | 99     |

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 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

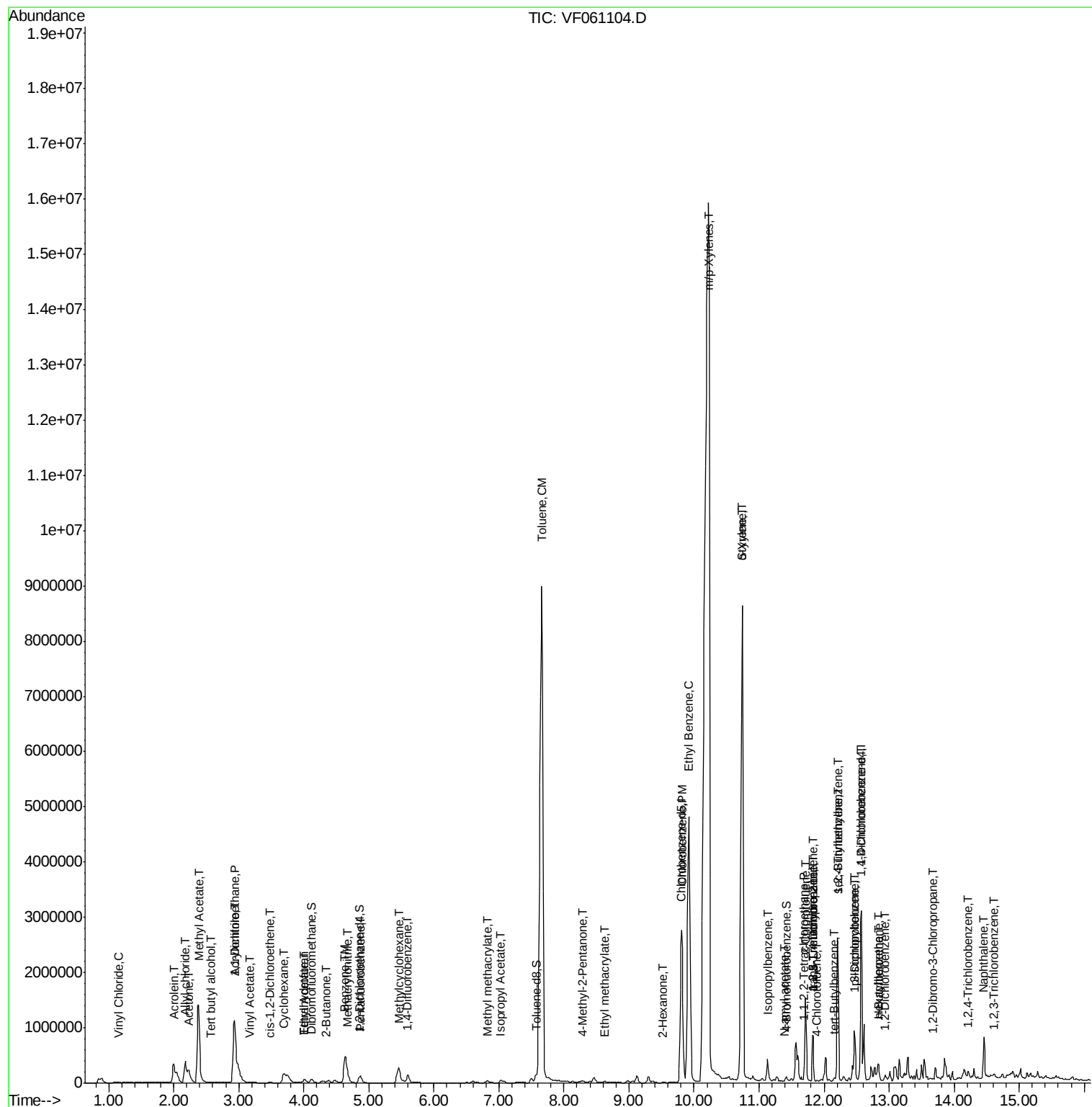
| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| -----                          |       |      |          |          |        |          |
| 79) 2-Chlorotoluene            | 11.71 | 91   | 130648   | 94.773   | ug/l # | 42       |
| 80) 1,3,5-Trimethylbenzene     | 11.83 | 105  | 463569   | 280.155  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.82 | 75   | 5669     | 53.153   | ug/l # | 1        |
| 82) 4-Chlorotoluene            | 11.90 | 91   | 6690     | 4.691    | ug/l   | 73       |
| 83) tert-Butylbenzene          | 12.14 | 119  | 5484     | 3.221    | ug/l # | 1        |
| 84) 1,2,4-Trimethylbenzene     | 12.21 | 105  | 1287708  | 780.392  | ug/l   | 95       |
| 85) sec-Butylbenzene           | 12.21 | 105  | 1287708  | 579.512  | ug/l # | 58       |
| 86) p-Isopropyltoluene         | 12.46 | 119  | 470459   | 255.072  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.48 | 146  | 157473   | 243.926  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 12.57 | 146  | 1170970  | 1474.167 | ug/l   | 90       |
| 89) n-Butylbenzene             | 12.85 | 91   | 60072    | 29.454   | ug/l # | 78       |
| 90) Hexachloroethane           | 12.83 | 117  | 11904    | 26.123   | ug/l # | 27       |
| 91) 1,2-Dichlorobenzene        | 12.95 | 146  | 21536    | 27.848   | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.67 | 75   | 1323     | 21.617   | ug/l # | 2        |
| 93) 1,2,4-Trichlorobenzene     | 14.20 | 180  | 1996     | 3.639    | ug/l # | 69       |
| 95) Naphthalene                | 14.46 | 128  | 405433   | 404.830  | ug/l   | 98       |
| 96) 1,2,3-Trichlorobenzene     | 14.61 | 180  | 2475     | 4.881    | ug/l # | 64       |
| -----                          |       |      |          |          |        |          |

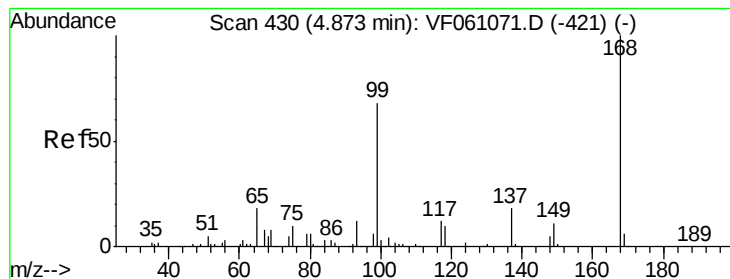
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Thu Dec 20 00:56:59 2018  
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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.87 min Scan# 430

Delta R.T. -0.00 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

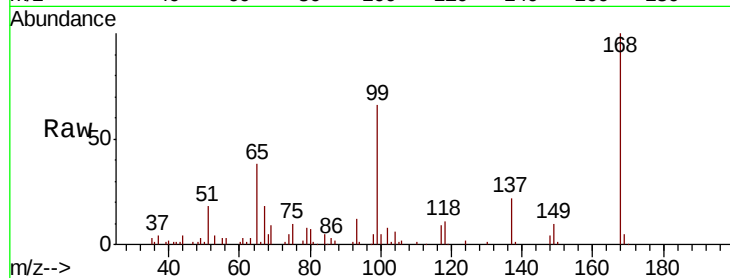
ClientSampleId :

Tot Ion:168 Resp: 86927

Ion Ratio Lower Upper

168 100

99 66.3 54.4 81.6



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.87

30000

25000

20000

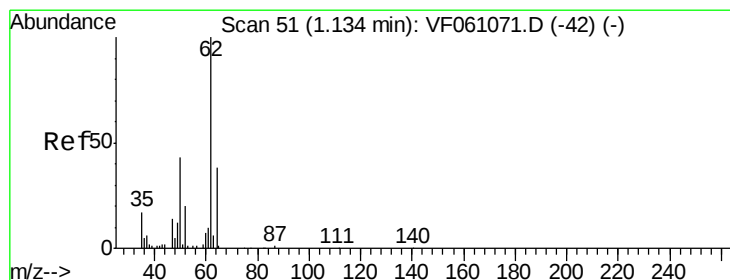
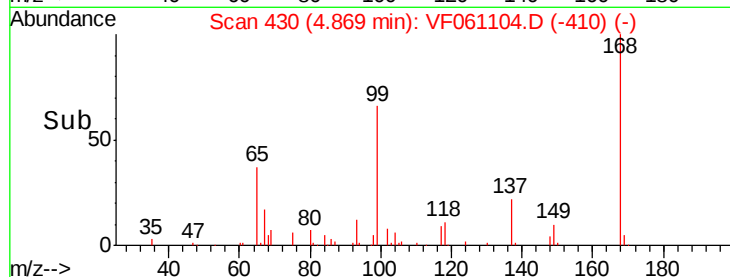
15000

10000

5000

0

Time--> 4.70 4.80 4.90 5.00



#4

Vinyl Chloride

Concen: 3.357 ug/l

RT: 1.14 min Scan# 52

Delta R.T. 0.01 min

Lab File: VF061104.D

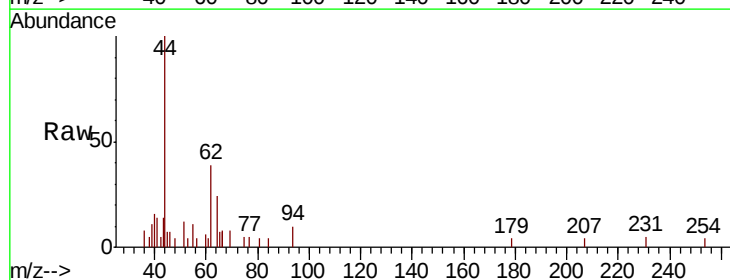
Acq: 20 Dec 2018 13:21

Tgt Ion: 62 Resp: 3447

Ion Ratio Lower Upper

62 100

64 61.6 30.4 45.6#



Abundance Ion 62.00 (61.70 to 62.70): VF0

Ion 64.00 (63.70 to 64.70): VF0

1.14

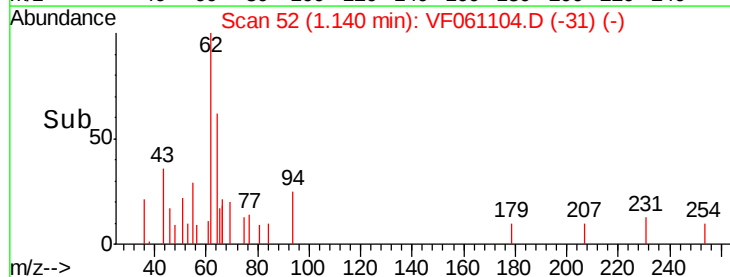
1500

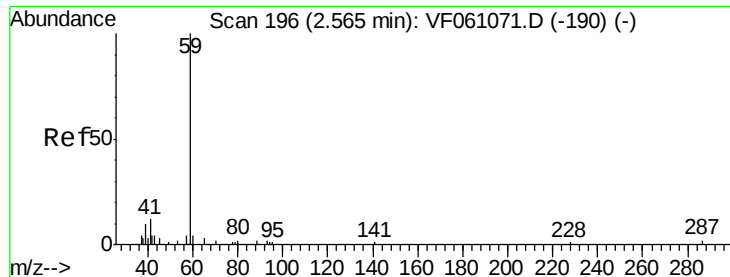
1000

500

0

Time--> 1.05 1.10 1.15 1.20 1.25

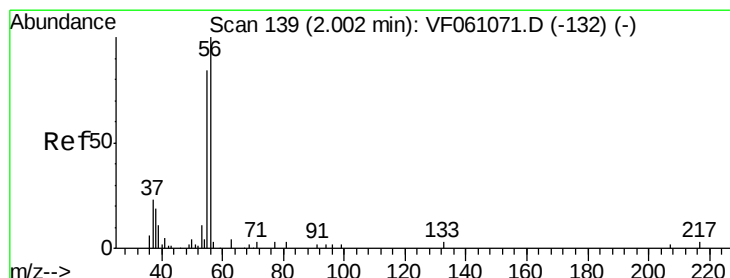
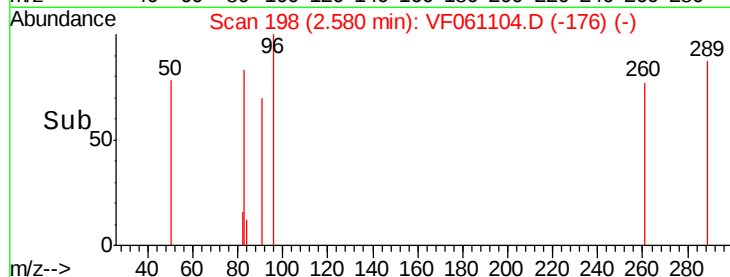
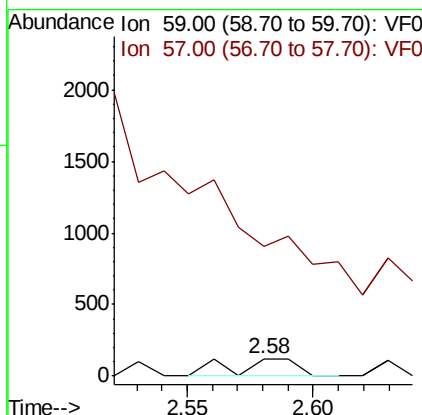
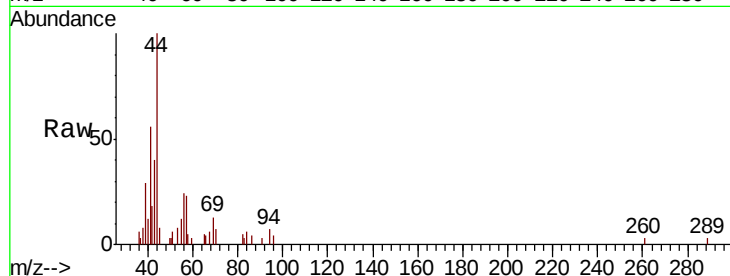




#11  
Tert butyl alcohol  
Concen: 4.788 ug/l  
RT: 2.58 min Scan# 198  
Delta R.T. 0.02 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

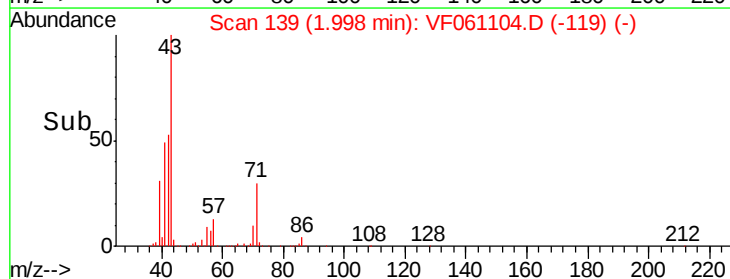
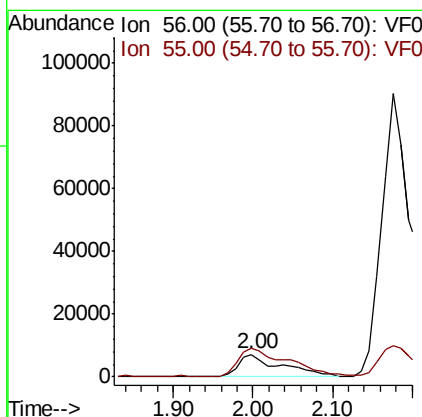
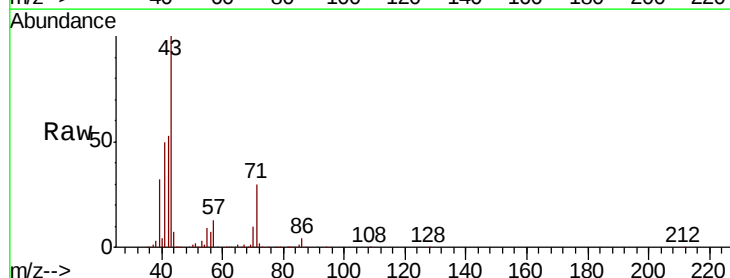
Instrument :  
MSVOA\_F  
ClientSampled :

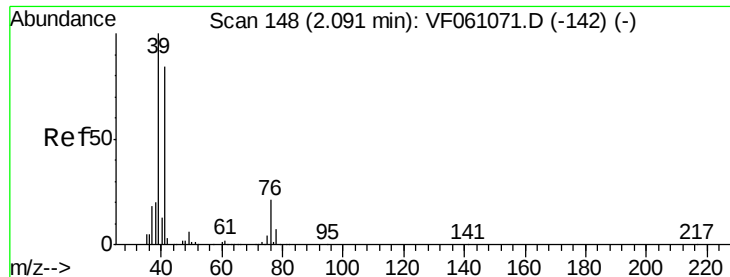
Tot Ion: 59 Resp: 216  
Ion Ratio Lower Upper  
59 100  
57 731.5 11.5 17.3#



#13  
Acrolein  
Concen: 809.659 ug/l  
RT: 2.00 min Scan# 139  
Delta R.T. -0.00 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 56 Resp: 26396  
Ion Ratio Lower Upper  
56 100  
55 127.0 70.2 105.2#





#14

Allvl chloride

Concen: 273.959 ug/l

RT: 2.18 min Scan# 157

Delta R.T. 0.08 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

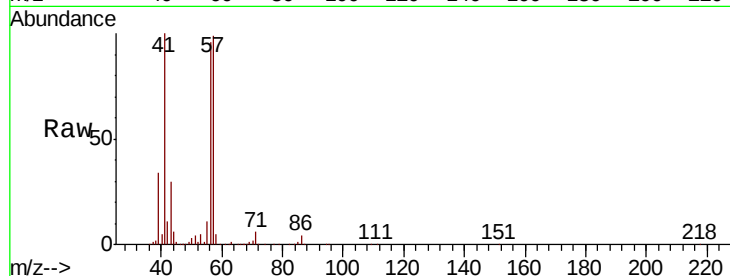
Tot Ion: 41 Resp: 218460

Ion Ratio Lower Upper

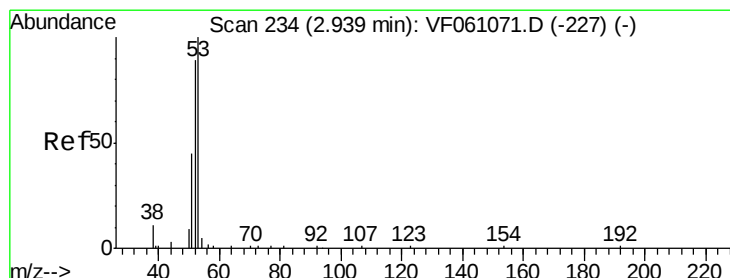
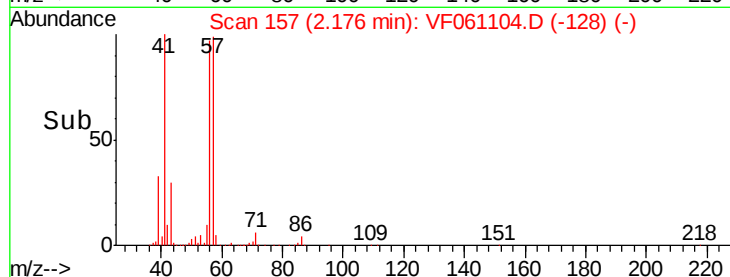
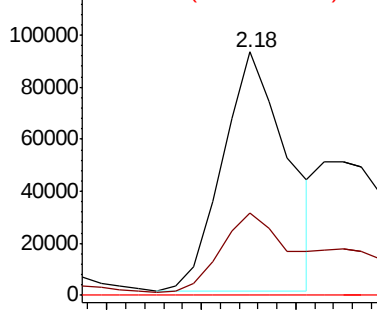
41 100

39 33.7 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



#15

Acrylonitrile

Concen: 729.159 ug/l

RT: 2.94 min Scan# 234

Delta R.T. -0.00 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

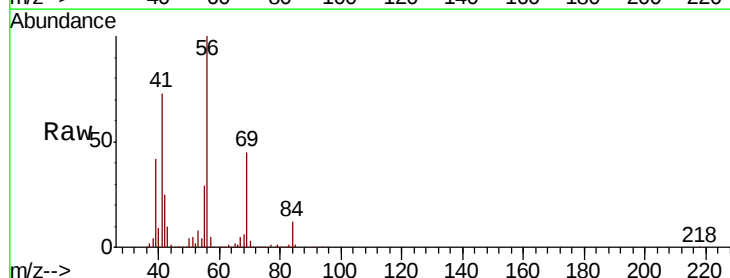
Tgt Ion: 53 Resp: 76072

Ion Ratio Lower Upper

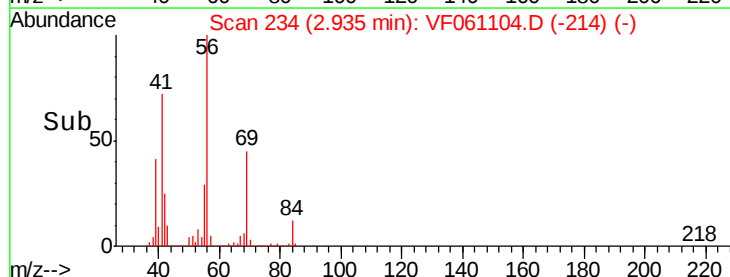
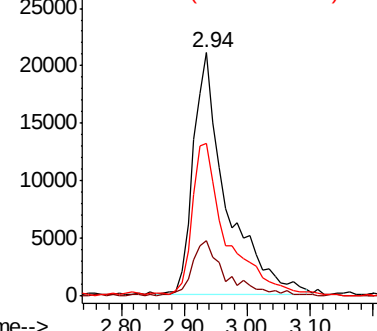
53 100

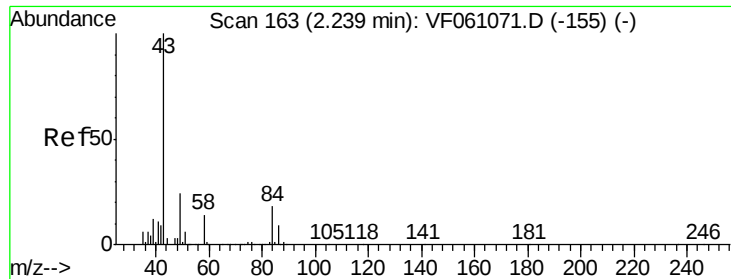
52 22.8 71.3 106.9#

51 62.6 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

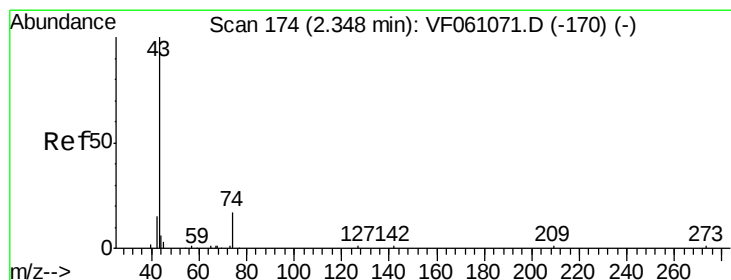
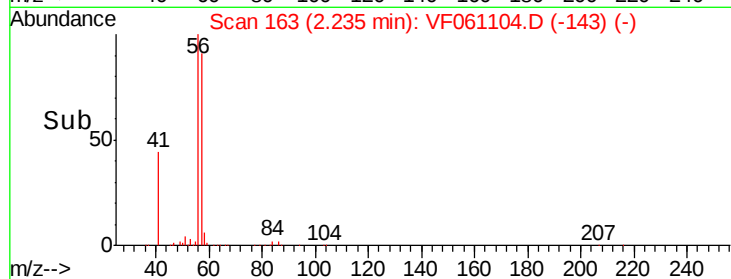
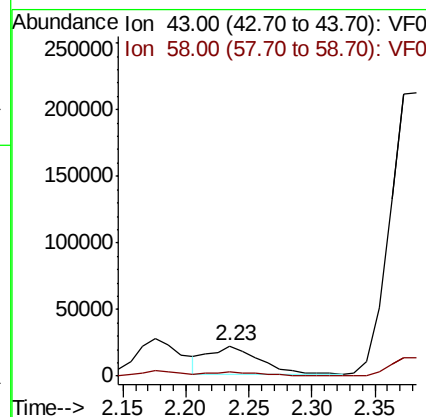
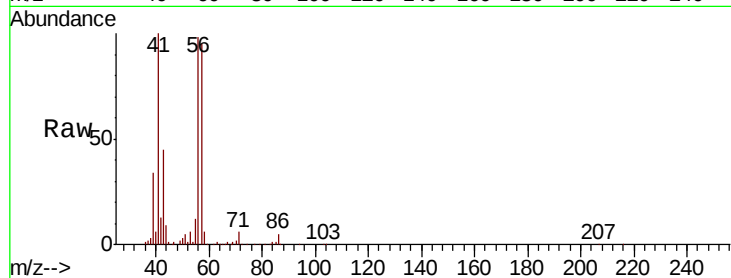




#16  
Acetone  
Concen: 258.650 ug/l  
RT: 2.23 min Scan# 163  
Delta R.T. -0.00 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

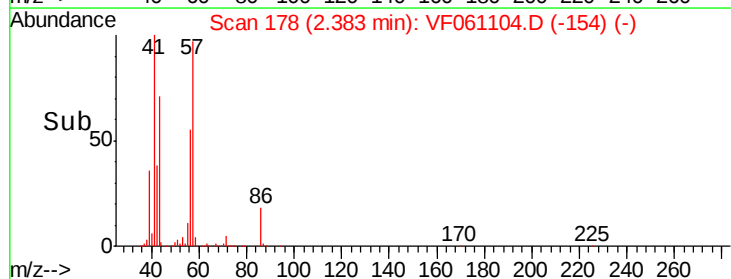
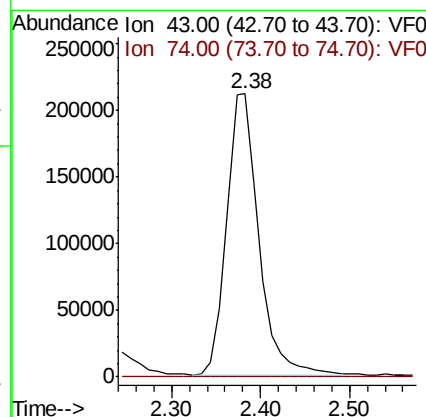
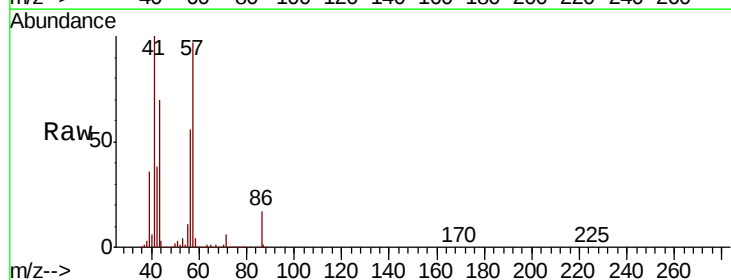
Instrument :  
MSVOA\_F  
ClientSampleId :

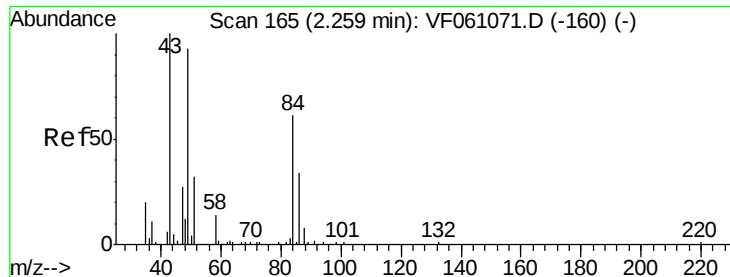
Tot Ion: 43 Resp: 57810  
Ion Ratio Lower Upper  
43 100  
58 13.9 11.1 16.7



#18  
Methyl Acetate  
Concen: 1152.586 ug/l  
RT: 2.38 min Scan# 178  
Delta R.T. 0.04 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 43 Resp: 532974  
Ion Ratio Lower Upper  
43 100  
74 0.1 11.0 16.6#

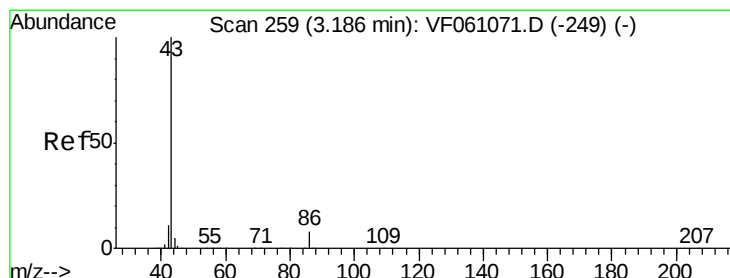
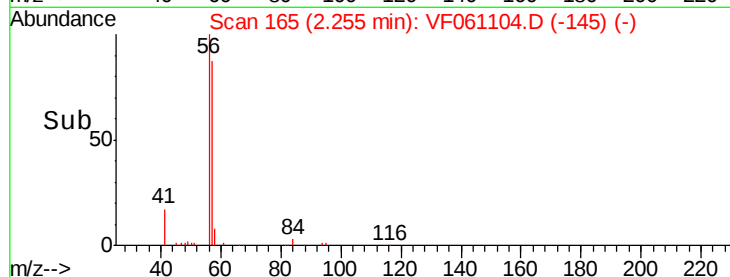
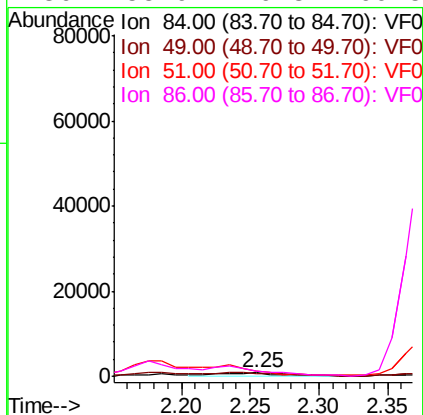
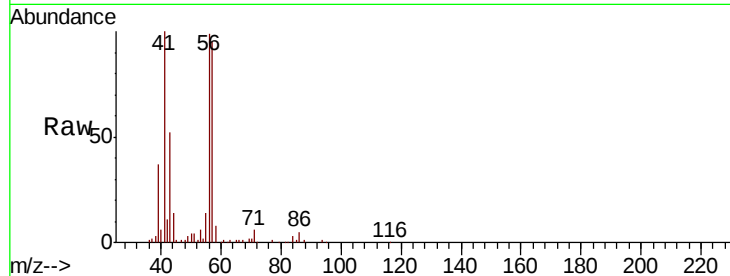




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 2.25 min Scan# 165  
Delta R.T. -0.00 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

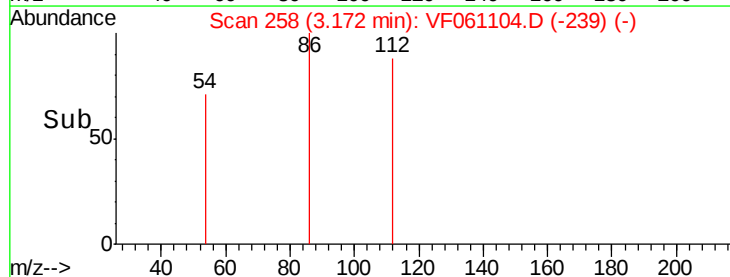
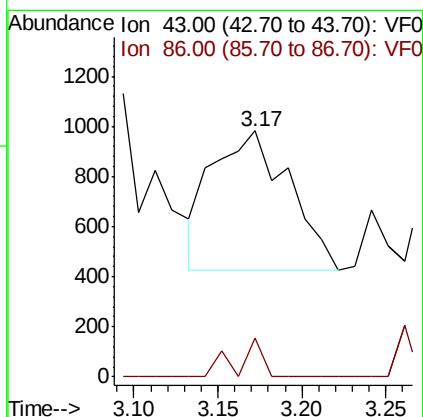
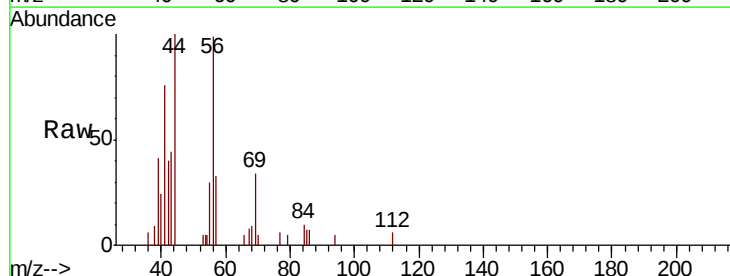
Instrument :  
MSVOA\_F  
ClientSampleId :

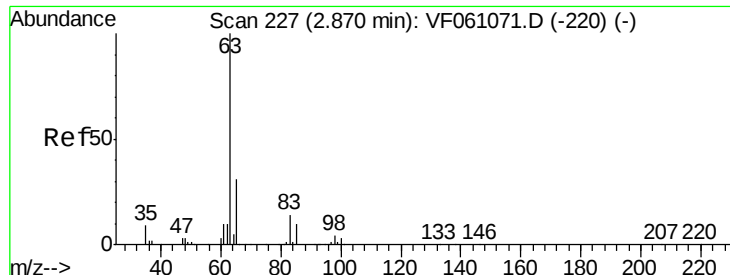
Tot Ion: 84 Resp: 2298  
Ion Ratio Lower Upper  
84 100  
49 82.3 129.4 194.2#  
51 135.3 44.0 66.0#  
86 155.9 46.3 69.5#



#23  
Vinyl Acetate  
Concen: 1.444 ug/l  
RT: 3.17 min Scan# 258  
Delta R.T. -0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 43 Resp: 1770  
Ion Ratio Lower Upper  
43 100  
86 15.6 6.3 9.5#





#24

1,1-Dichloroethane

Concen: 5.884 ug/l

RT: 2.94 min Scan# 234

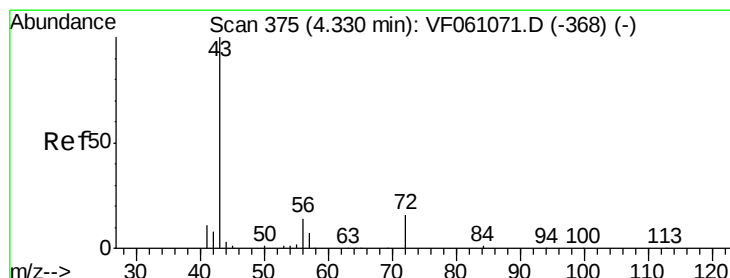
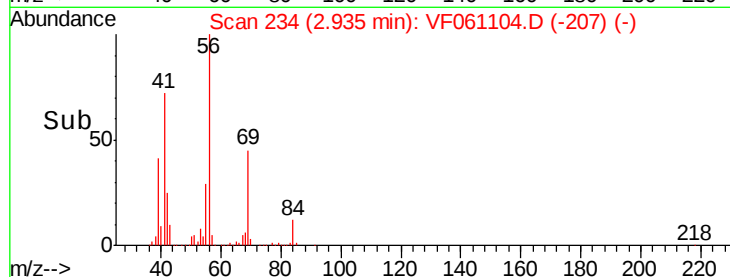
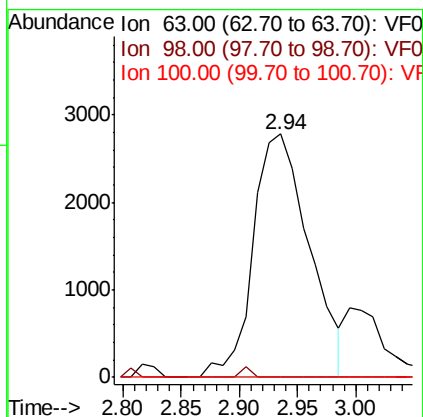
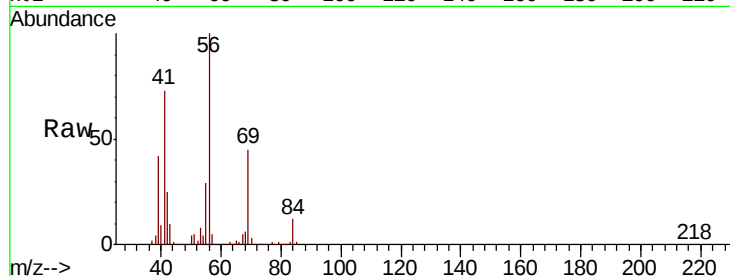
Delta R.T. 0.06 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 9261  |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 98       | 0.0   | 2.1   | 6.5#  |
| 100      | 0.0   | 1.7   | 5.1#  |



#25

2-Butanone

Concen: 48.940 ug/l

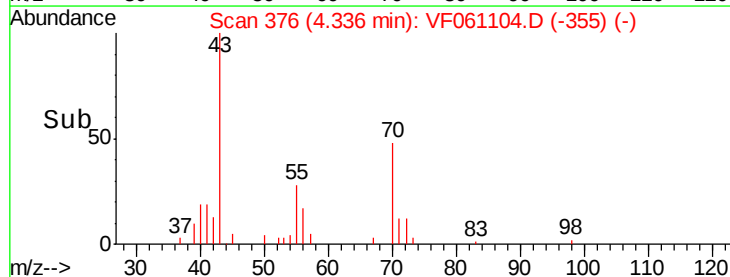
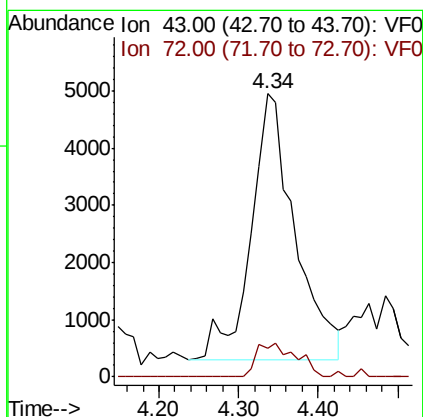
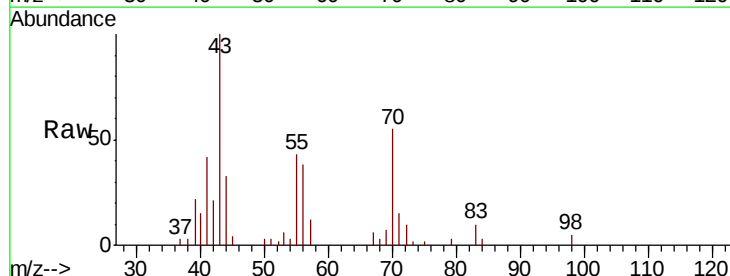
RT: 4.34 min Scan# 376

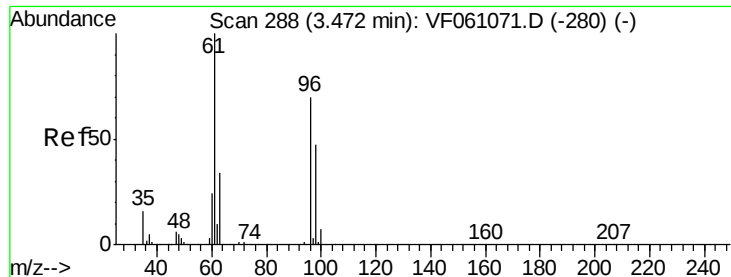
Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 17740 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 10.0  | 15.6  | 23.4# |



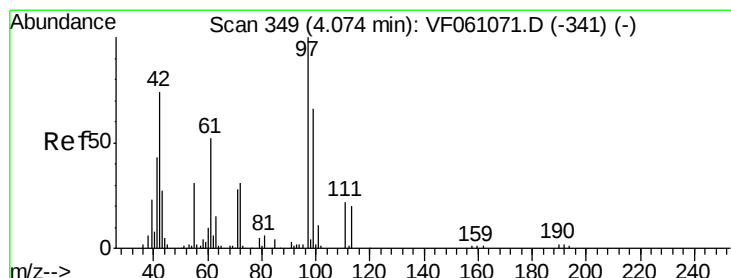
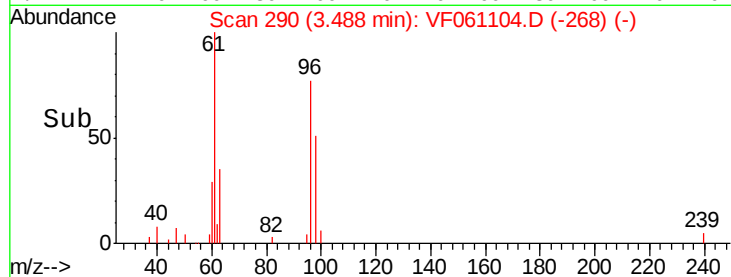
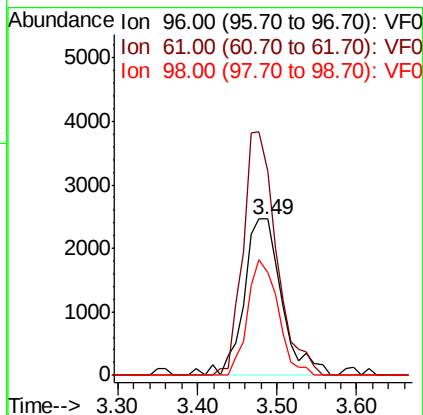
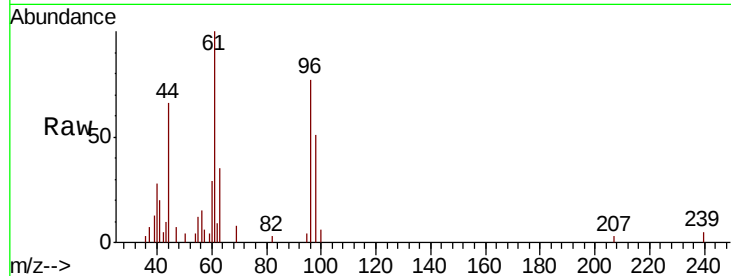


#27

cis-1,2-Dichloroethene  
 Concen: 6.417 ug/l  
 RT: 3.49 min Scan# 290  
 Delta R.T. 0.02 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

Instrument :  
 MSVOA\_F  
 ClientSampleId :

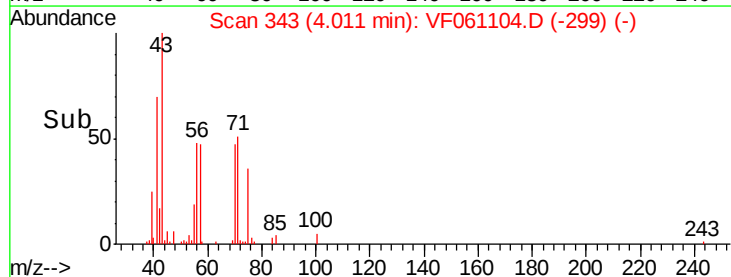
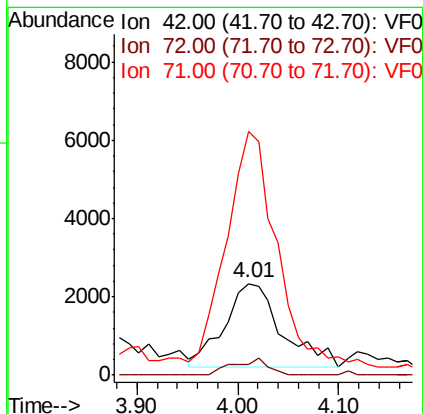
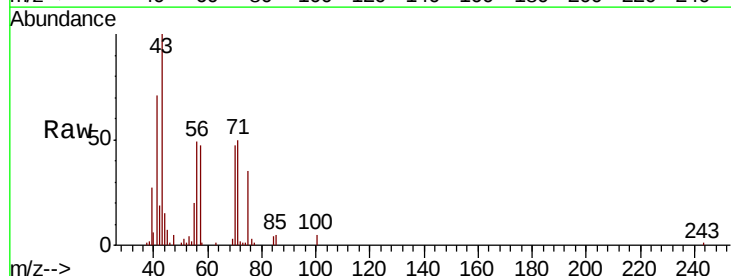
Tot Ion: 96 Resp: 8051  
 Ion Ratio Lower Upper  
 96 100  
 61 130.6 0.0 287.8  
 98 66.2 0.0 134.2

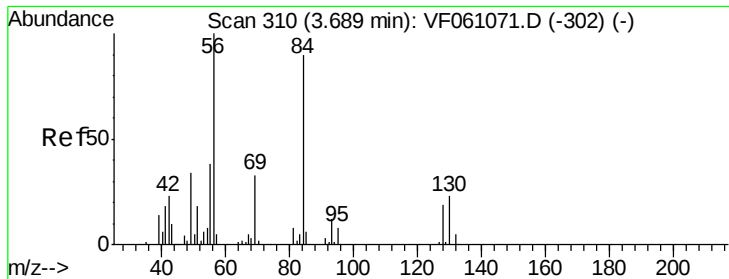


#29

Tetrahydrofuran  
 Concen: 56.847 ug/l  
 RT: 4.01 min Scan# 343  
 Delta R.T. -0.06 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

Tgt Ion: 42 Resp: 8387  
 Ion Ratio Lower Upper  
 42 100  
 72 12.1 31.8 47.8#  
 71 252.5 29.7 44.5#





#31

Cyclohexane

Concen: 133.001 ug/l

RT: 3.69 min Scan# 311

Delta R.T. 0.01 min

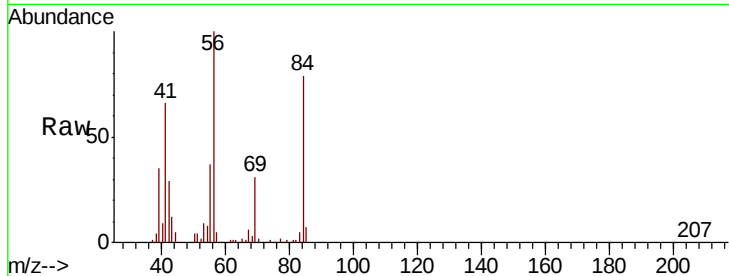
Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 56 Resp: 217200

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 56  | 100   |       |       |
| 69  | 30.8  | 26.0  | 39.0  |
| 84  | 79.2  | 71.4  | 107.2 |

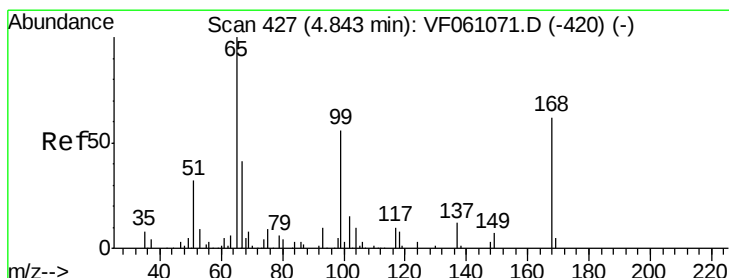
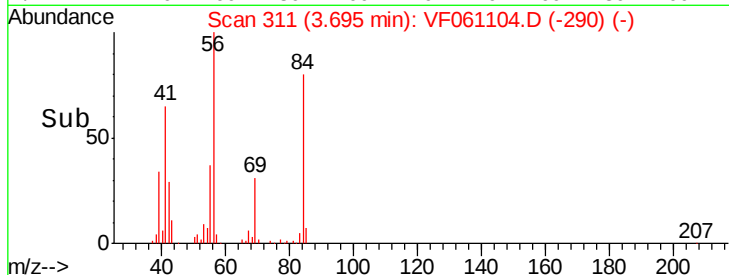
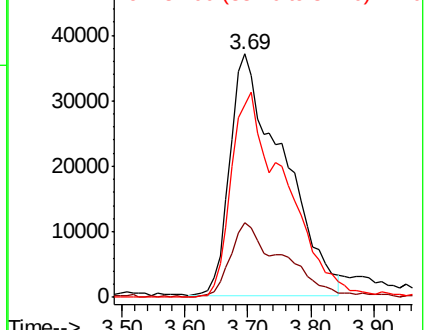


Abundance

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



#33

1,2-Dichloroethane-d4

Concen: 47.572 ug/l

RT: 4.85 min Scan# 428

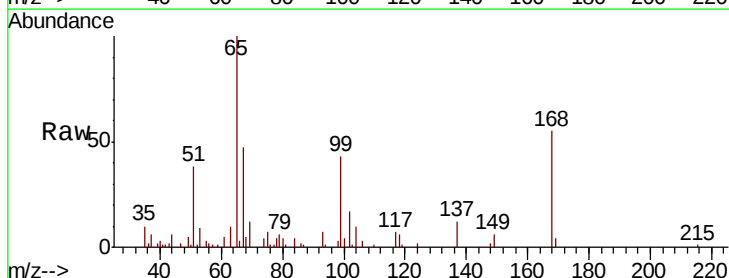
Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Tgt Ion: 65 Resp: 53187

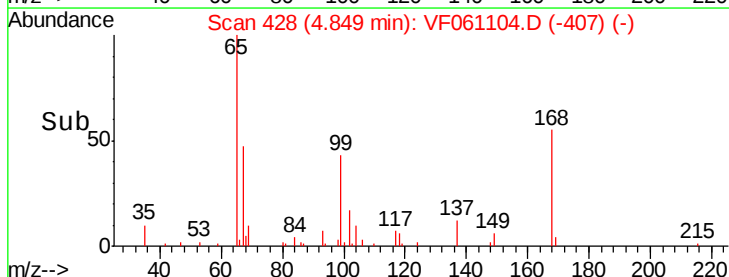
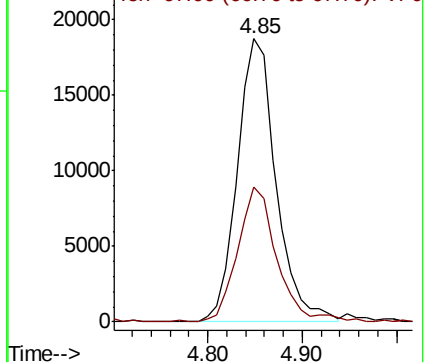
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 65  | 100   |       |       |
| 67  | 47.5  | 0.0   | 94.6  |

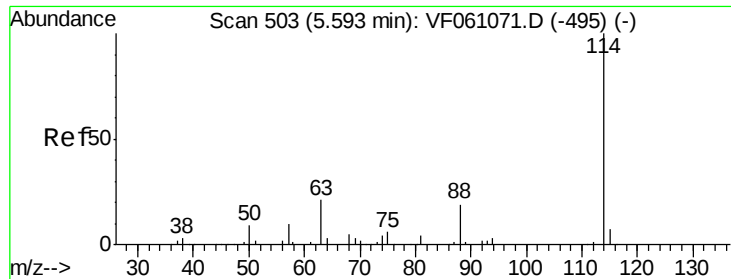


Abundance

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: 5.60 min Scan# 504

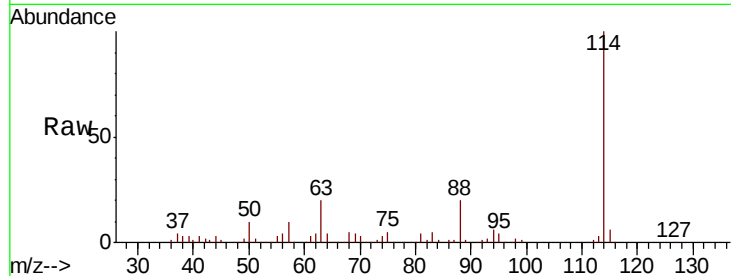
Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

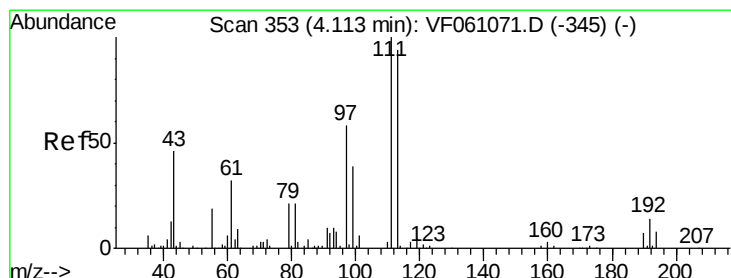
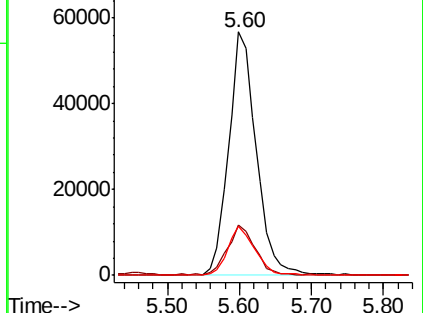
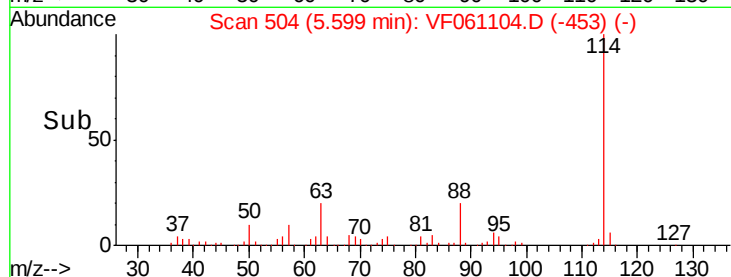
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 114   | Resp: | 151781 |
| Ion      | Ratio | Lower | Upper  |
| 114      | 100   |       |        |
| 63       | 20.5  | 0.0   | 41.6   |
| 88       | 20.1  | 0.0   | 38.0   |



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: 46.957 ug/l

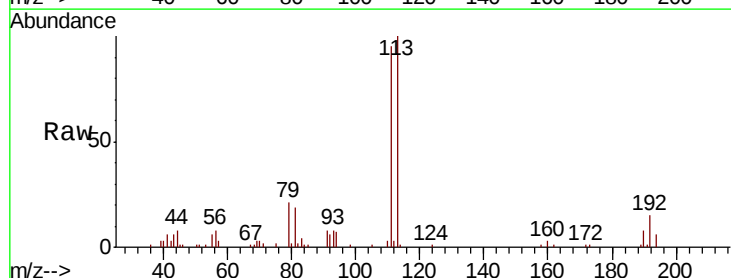
RT: 4.12 min Scan# 354

Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

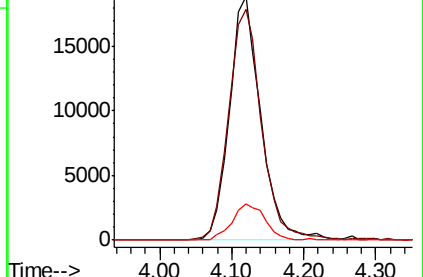
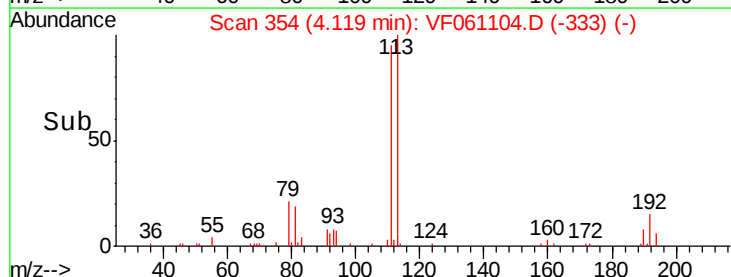
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 57093 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 94.9  | 85.2  | 127.8 |
| 192      | 14.9  | 12.8  | 19.2  |

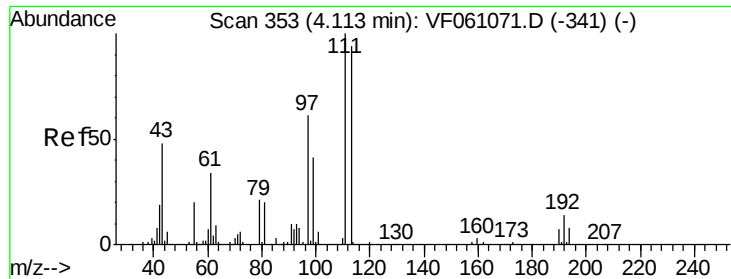


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V

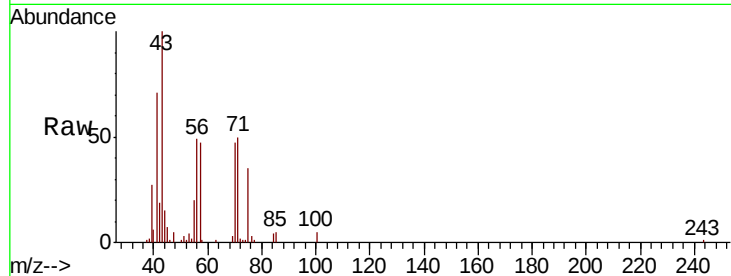




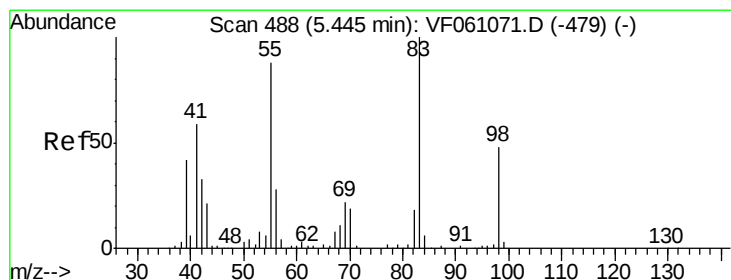
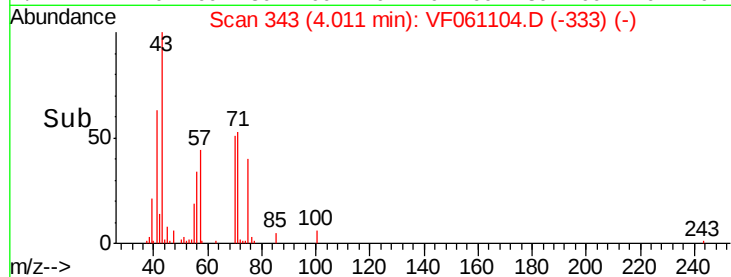
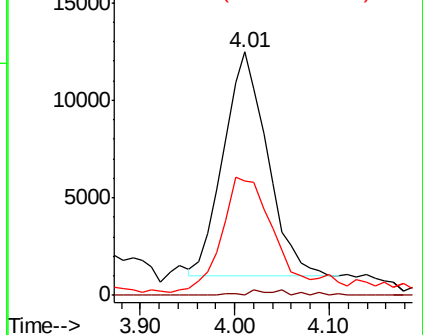
#37  
Ethyl Acetate  
Concen: 52.379 ug/l  
RT: 4.01 min Scan# 343  
Delta R.T. -0.10 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 43 Resp: 37010  
Ion Ratio Lower Upper  
43 100  
61 0.0 56.6 84.8#  
70 46.7 6.3 9.5#

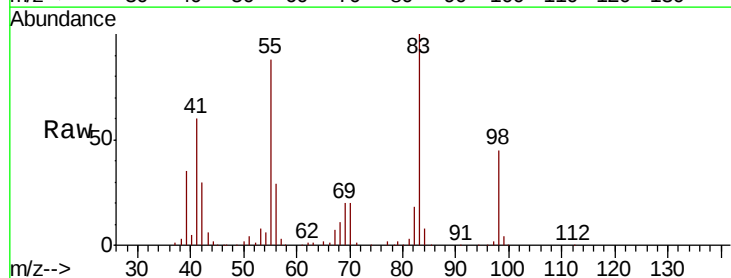


Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 70.00 (69.70 to 70.70): VF0

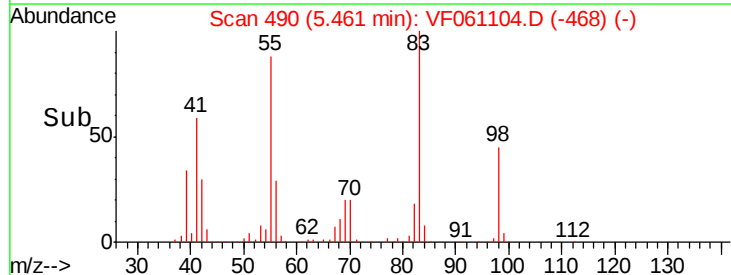
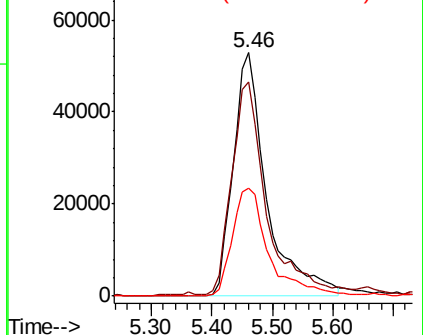


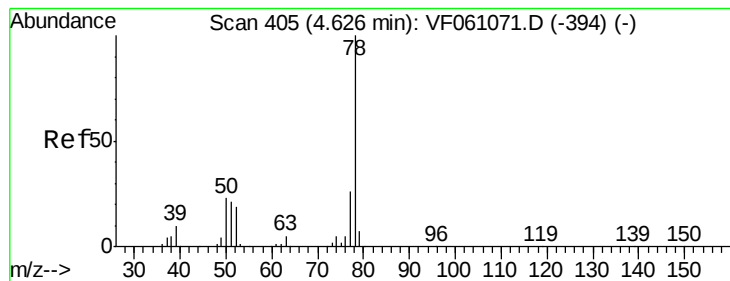
#39  
Methylcyclohexane  
Concen: 124.332 ug/l  
RT: 5.46 min Scan# 490  
Delta R.T. 0.02 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 83 Resp: 204357  
Ion Ratio Lower Upper  
83 100  
55 88.1 70.6 105.8  
98 44.6 38.5 57.7



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: 160.212 ug/l

RT: 4.63 min Scan# 406

Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

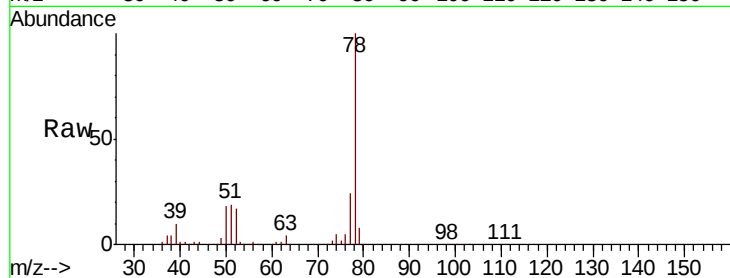
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 78 Resp: 631229

Ion Ratio Lower Upper

78 100

77 24.0 20.7 31.1



Abundance Ion 78.10 (77.80 to 78.80): VF0

Ion 77.00 (76.70 to 77.70): VF0

4.63

200000

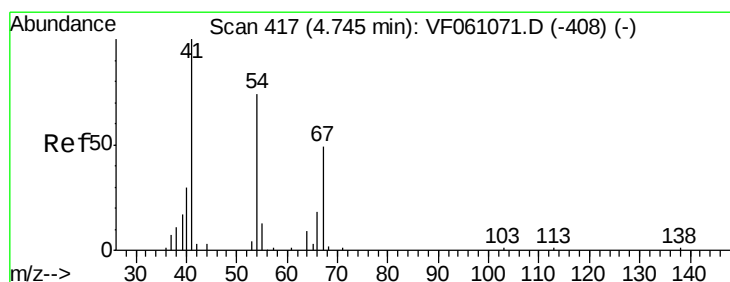
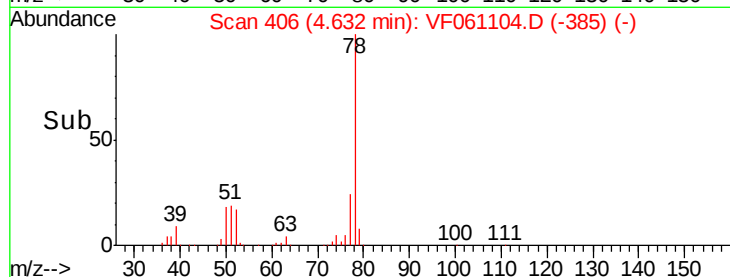
150000

100000

50000

0

Time-->



#41

Methacrylonitrile

Concen: 137.341 ug/l

RT: 4.68 min Scan# 411

Delta R.T. -0.06 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Tgt Ion: 41 Resp: 53140

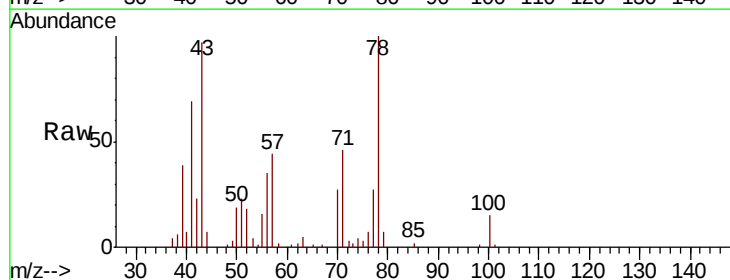
Ion Ratio Lower Upper

41 100

39 57.3 45.7 68.5

67 0.9 38.9 58.3#

52 26.4 35.2 52.8#



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

50000

40000

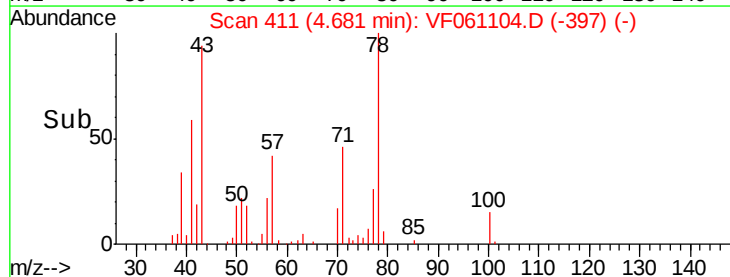
30000

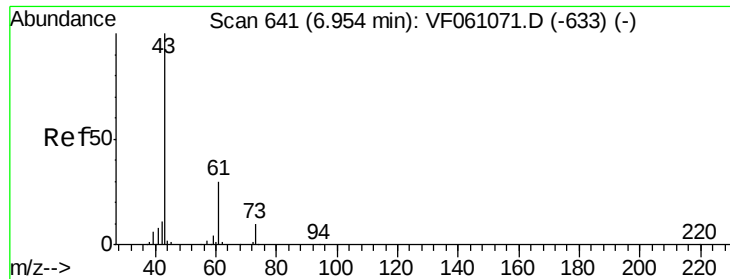
20000

10000

0

Time-->





#43

Isopropyl Acetate

Concen: 3.921 ug/l

RT: 7.03 min Scan# 649

Delta R.T. 0.07 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

ClientSampled :

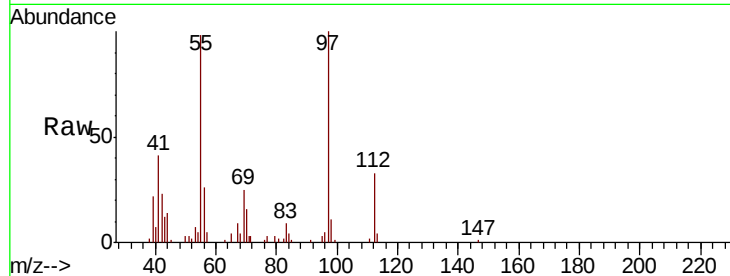
Tot Ion: 43 Resp: 3469

Ion Ratio Lower Upper

43 100

61 0.0 23.8 35.8#

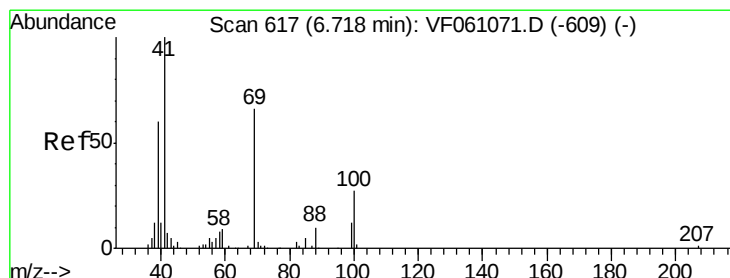
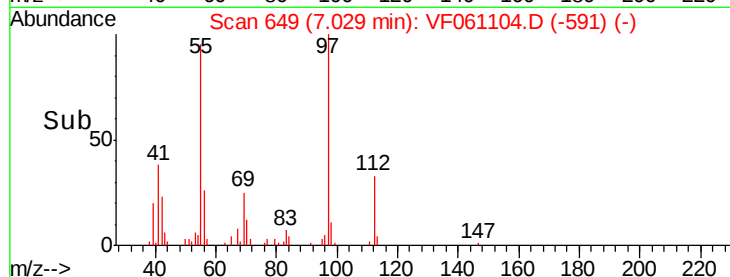
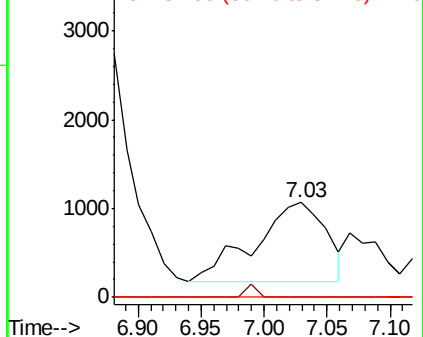
87 0.0 0.0 0.0



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: 28.023 ug/l

RT: 6.82 min Scan# 628

Delta R.T. 0.10 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

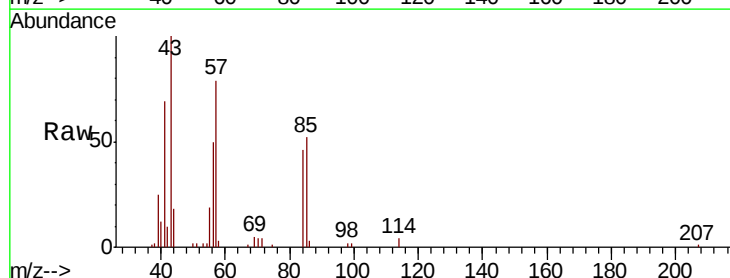
Tgt Ion: 41 Resp: 17306

Ion Ratio Lower Upper

41 100

69 7.7 52.7 79.1#

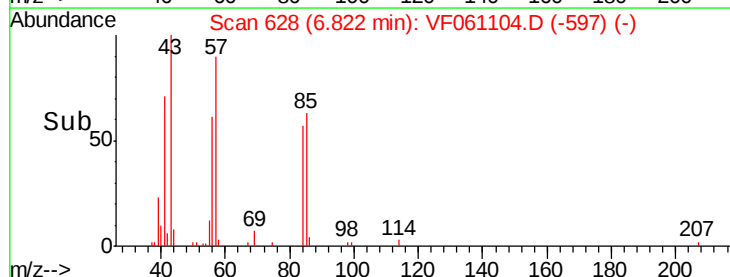
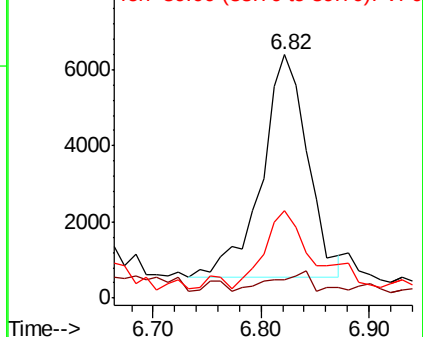
39 36.2 47.8 71.6#

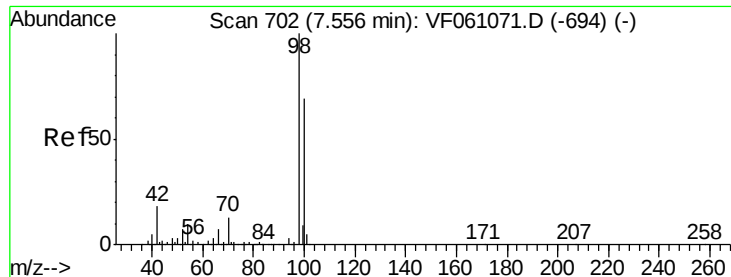


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0





#50

Toluene-d8

Concen: 34.516 ug/l

RT: 7.57 min Scan# 704

Delta R.T. 0.02 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

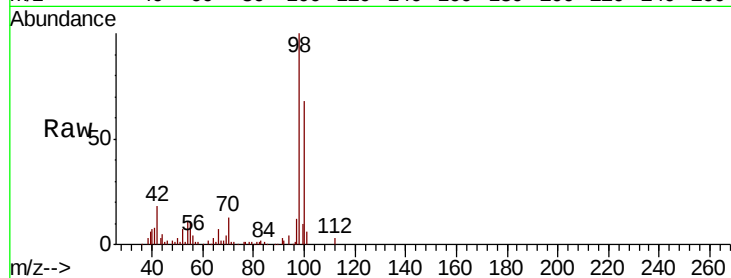
ClientSampleId :

Tot Ion: 98 Resp: 118927

Ion Ratio Lower Upper

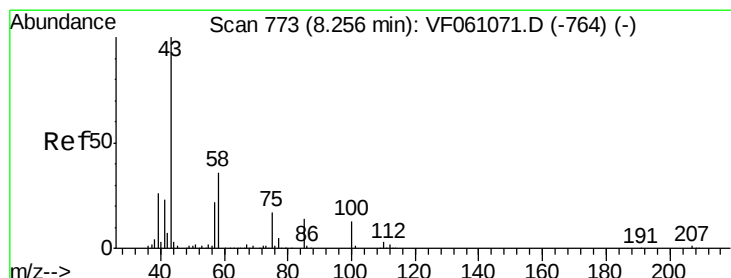
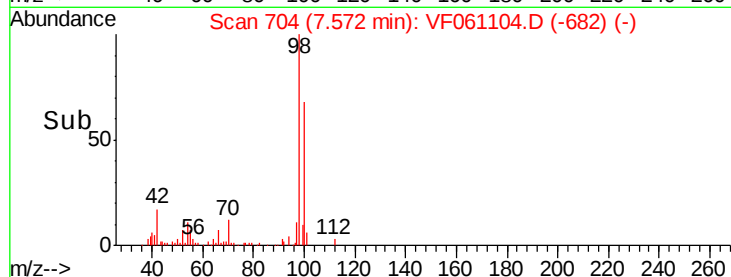
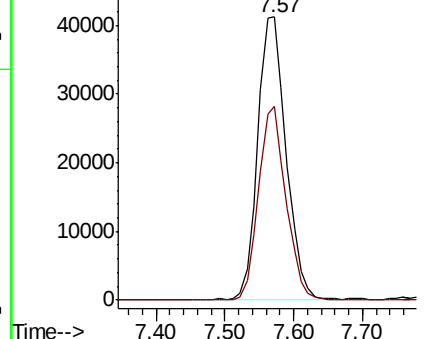
98 100

100 68.4 55.3 82.9



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0



#51

4-Methyl-2-Pentanone

Concen: 31.665 ug/l

RT: 8.28 min Scan# 776

Delta R.T. 0.03 min

Lab File: VF061104.D

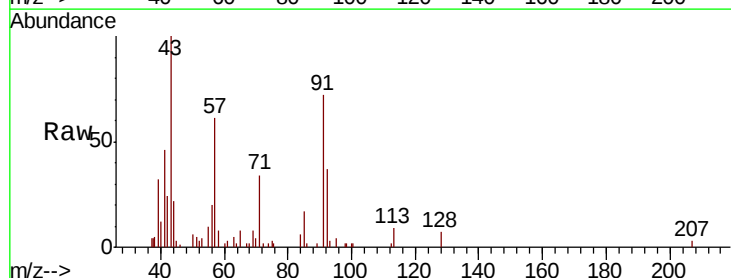
Acq: 20 Dec 2018 13:21

Tgt Ion: 43 Resp: 19211

Ion Ratio Lower Upper

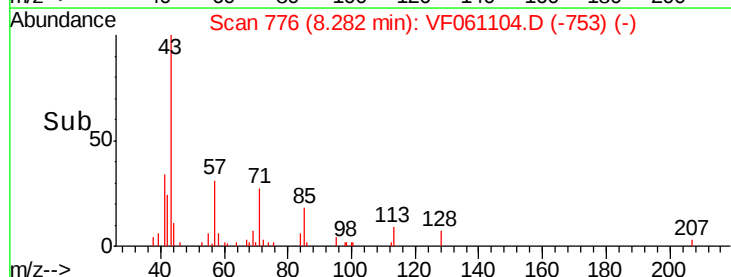
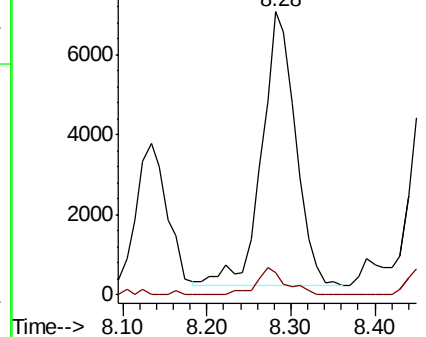
43 100

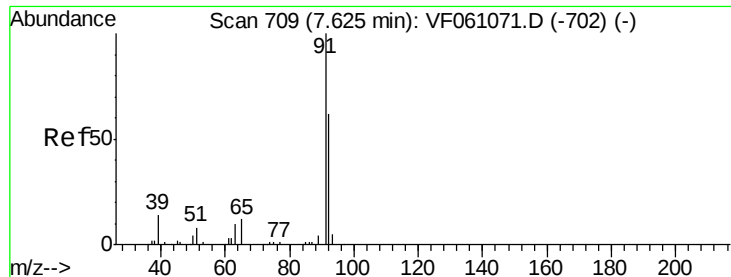
58 7.9 29.1 43.7#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#52

Toluene

Concen: 2646.316 ug/l

RT: 7.66 min Scan# 713

Delta R.T. 0.04 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

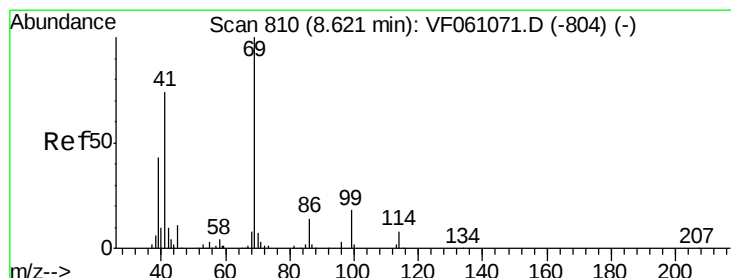
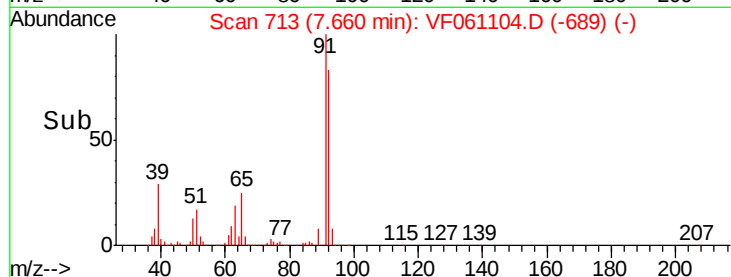
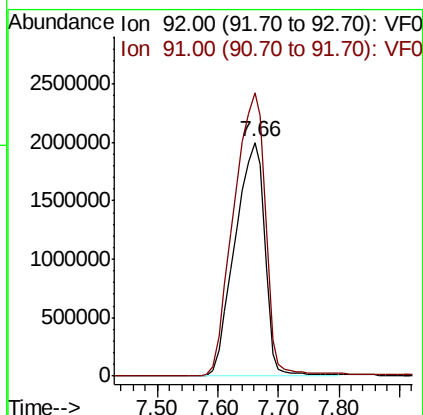
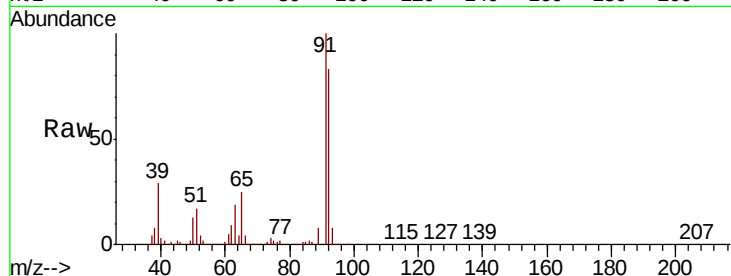
ClientSampleId :

Tot Ion: 92 Resp: 6901698

Ion Ratio Lower Upper

92 100

91 120.9 128.8 193.2#



#56

Ethyl methacrylate

Concen: 12.743 ug/l

RT: 8.64 min Scan# 812

Delta R.T. 0.02 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

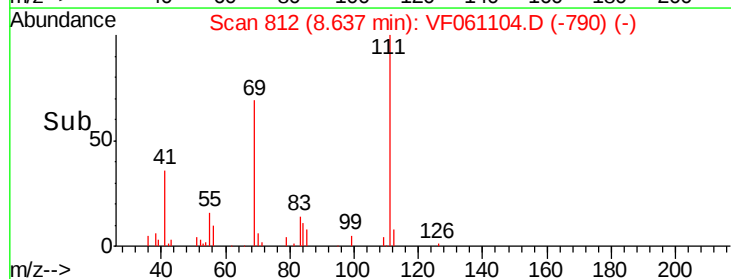
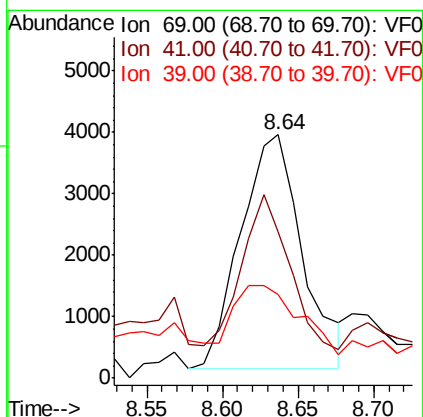
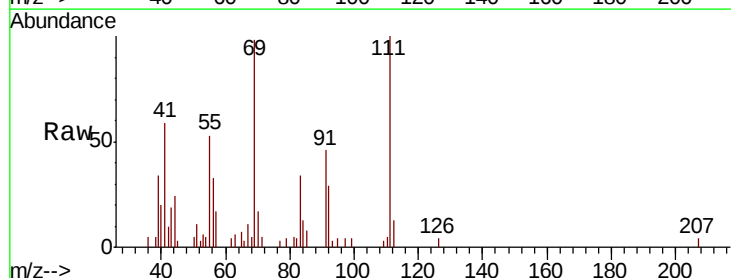
Tgt Ion: 69 Resp: 10781

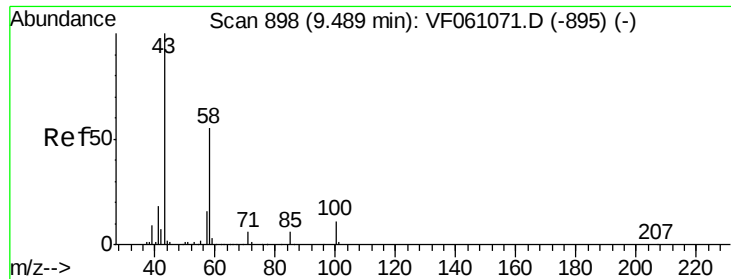
Ion Ratio Lower Upper

69 100

41 60.1 59.7 89.5

39 34.4 35.0 52.6#

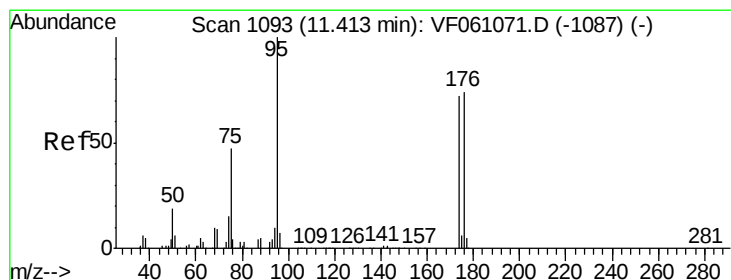
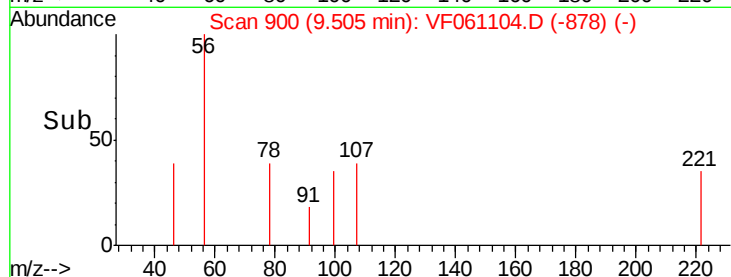
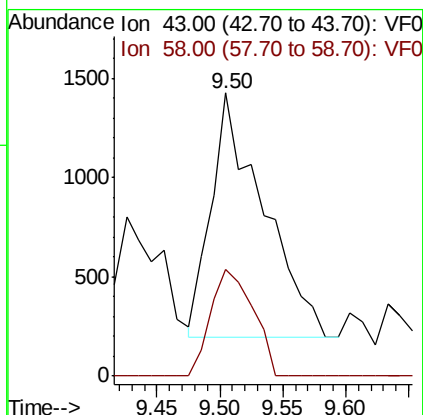
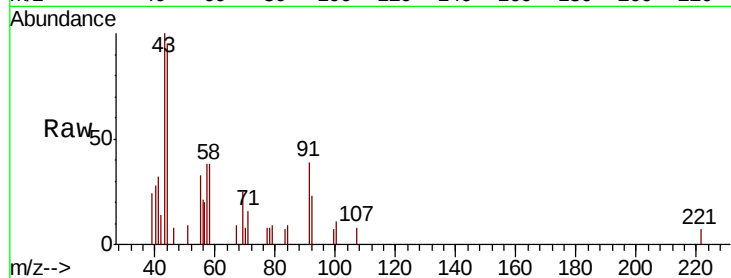




#59  
2-Hexanone  
Concen: 8.087 ug/l  
RT: 9.50 min Scan# 900  
Delta R.T. 0.02 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

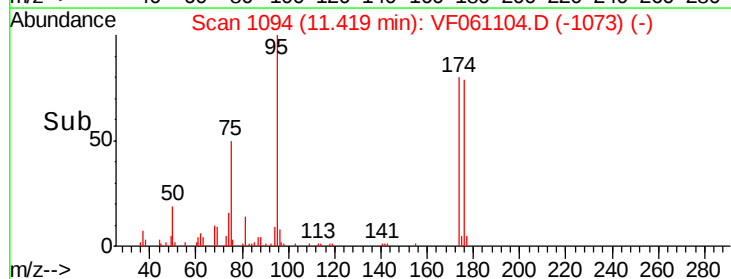
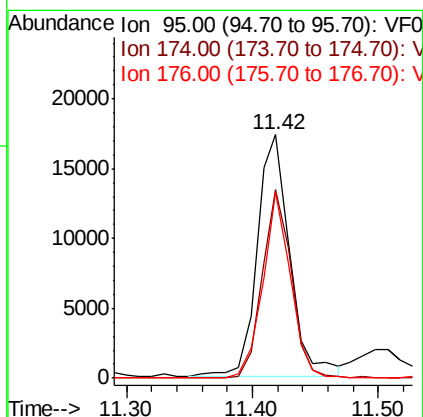
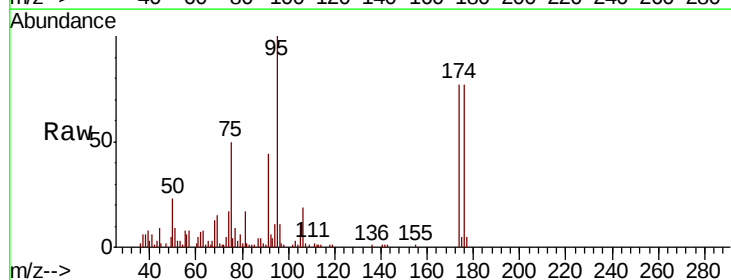
Instrument :  
MSVOA\_F  
ClientSampleId :

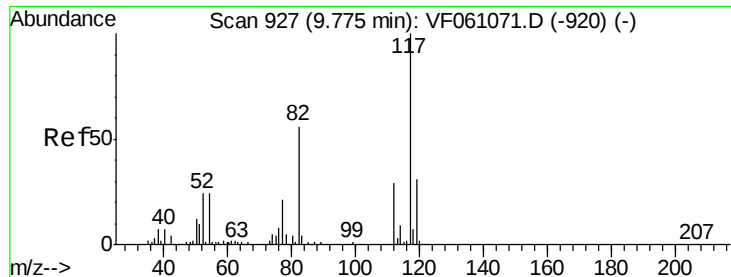
Tot Ion: 43 Resp: 3548  
Ion Ratio Lower Upper  
43 100  
58 37.9 25.1 75.2



#62  
4-Bromofluorobenzene  
Concen: 19.666 ug/l  
RT: 11.42 min Scan# 1094  
Delta R.T. 0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 95 Resp: 31238  
Ion Ratio Lower Upper  
95 100  
174 77.3 0.0 143.8  
176 76.5 0.0 147.6

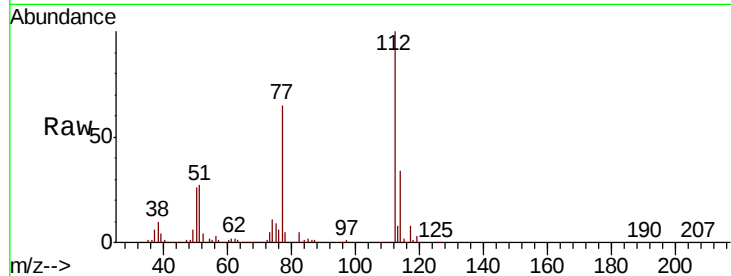




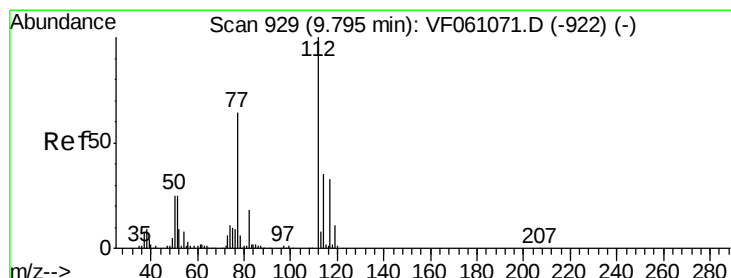
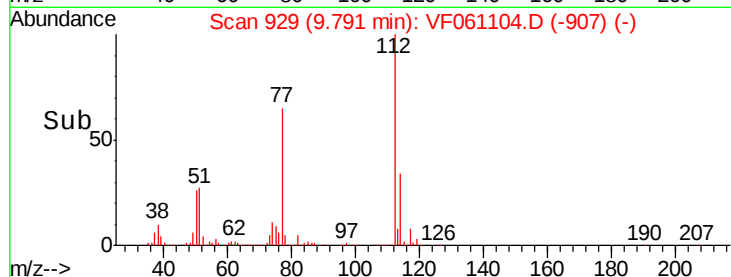
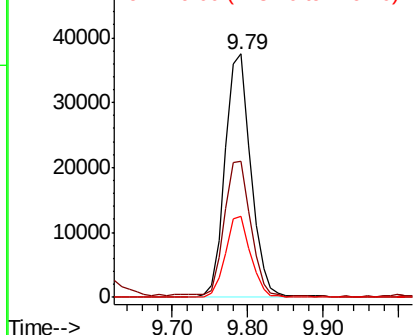
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.79 min Scan# 929  
Delta R.T. 0.02 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:117 Resp: 88516  
Ion Ratio Lower Upper  
117 100  
82 55.7 45.0 67.4  
119 33.1 24.8 37.2

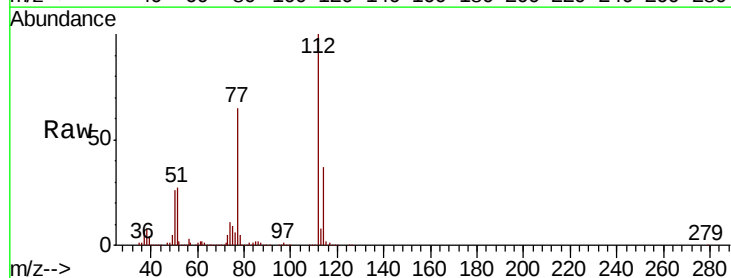


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): VF0  
Ion 119.00 (118.70 to 119.70): V

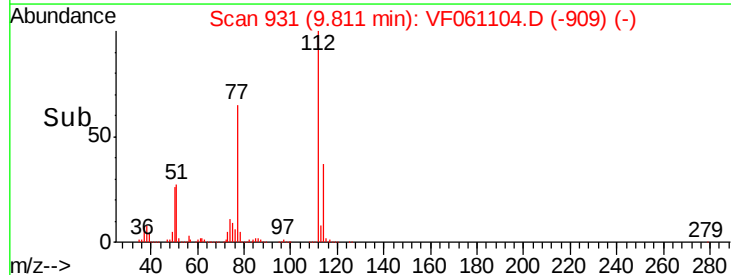
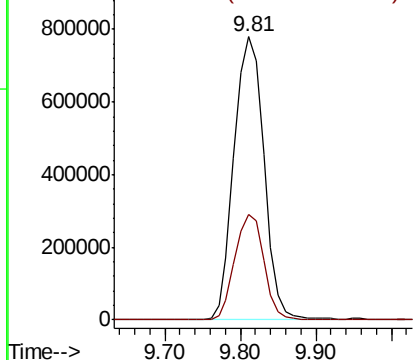


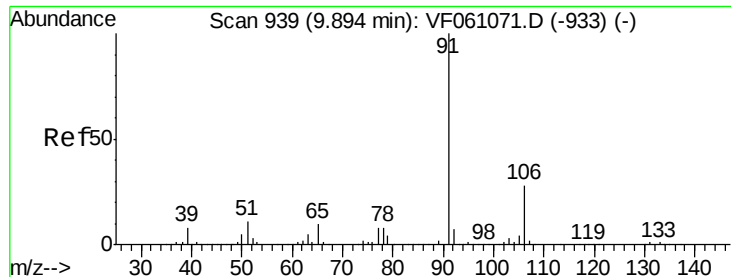
#65  
Chlorobenzene  
Concen: 1173.165 ug/l  
RT: 9.81 min Scan# 931  
Delta R.T. 0.02 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion:112 Resp: 2145272  
Ion Ratio Lower Upper  
112 100  
114 37.4 27.8 41.6



Abundance Ion 112.00 (111.70 to 112.70): V  
Ion 114.00 (113.70 to 114.70): V

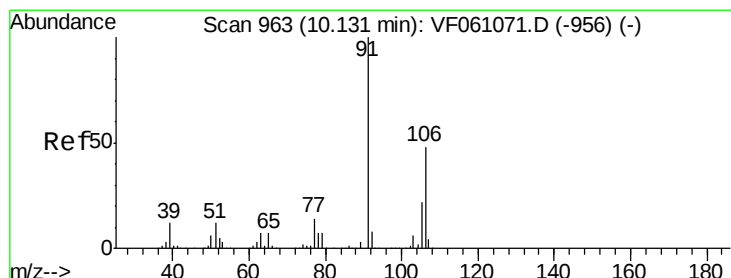
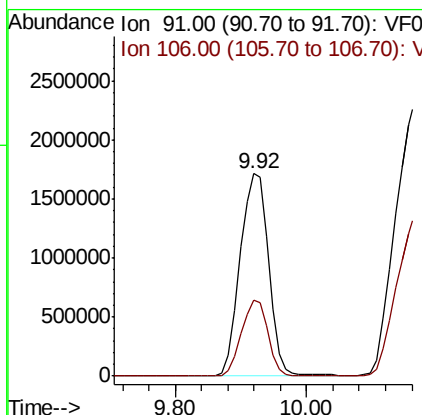
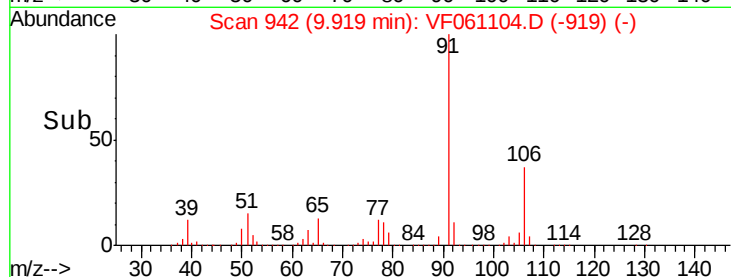
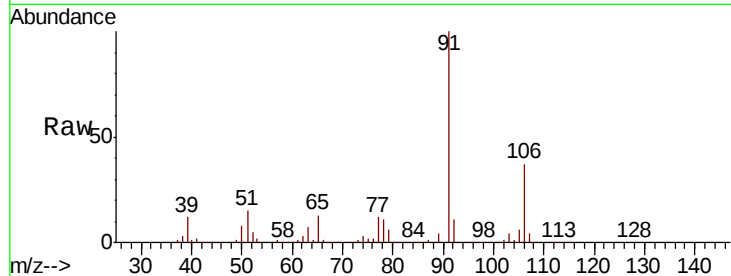




#67  
Ethyl Benzene  
Concen: 1572.739 ug/l  
RT: 9.92 min Scan# 942  
Delta R.T. 0.03 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

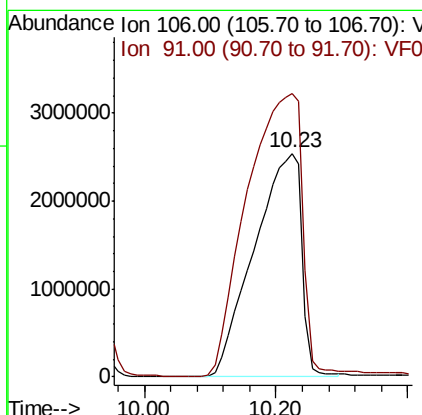
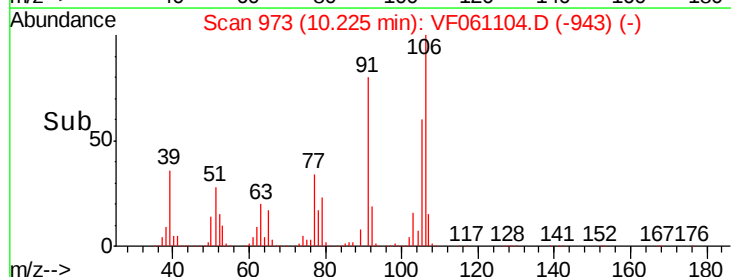
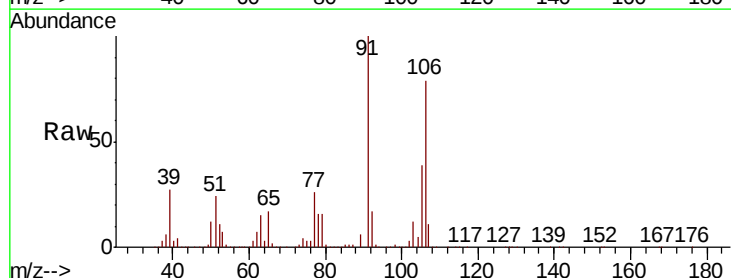
Instrument :  
MSVOA\_F  
ClientSampleId :

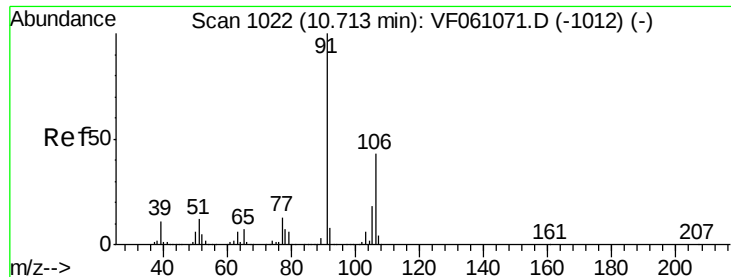
Tot Ion: 91 Resp: 5239428  
Ion Ratio Lower Upper  
91 100  
106 37.3 22.5 33.7#



#68  
m/p-Xylenes  
Concen: 10903.333 ug/l  
RT: 10.23 min Scan# 973  
Delta R.T. 0.09 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 106 Resp: 12783046  
Ion Ratio Lower Upper  
106 100  
91 126.7 168.2 252.2#

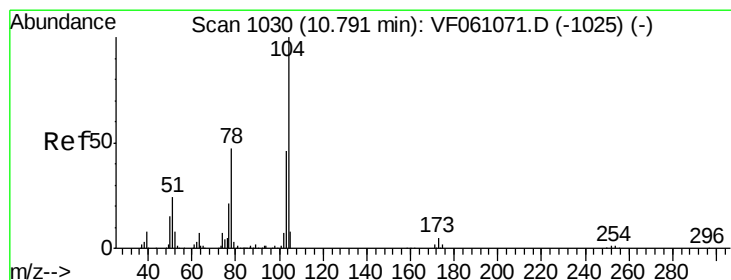
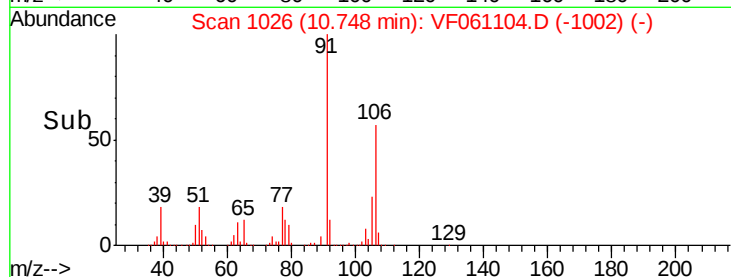
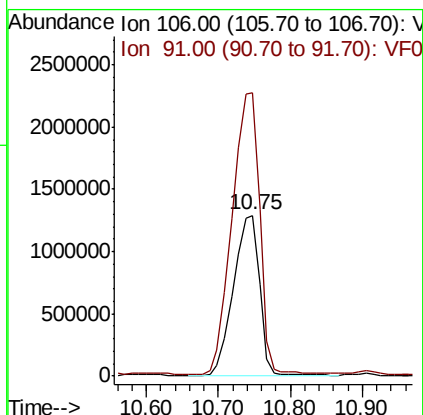
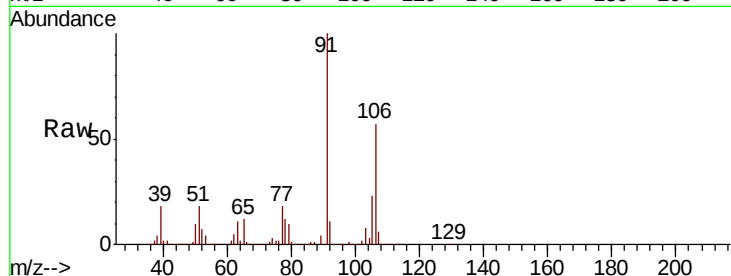




#69  
o-Xylene  
Concen: 2487.099 ug/l  
RT: 10.75 min Scan# 1026  
Delta R.T. 0.04 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

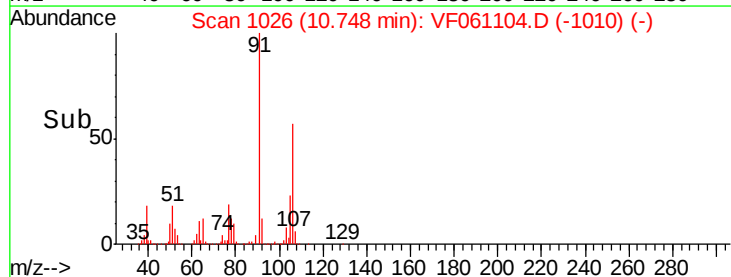
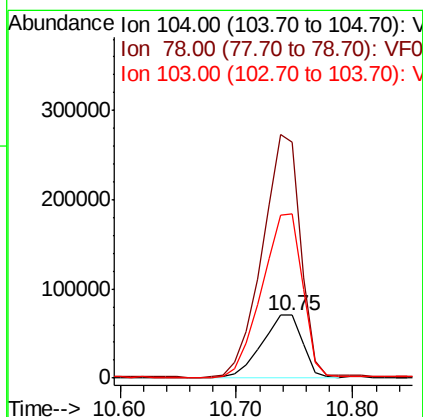
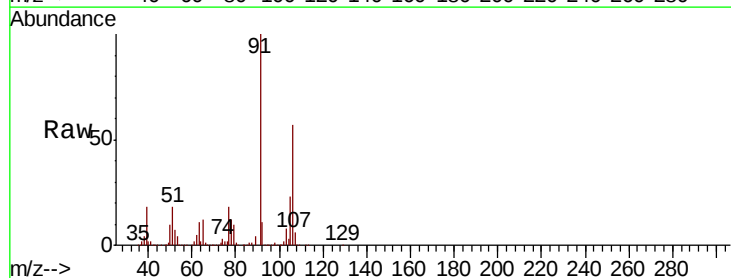
Instrument :  
MSVOA\_F  
ClientSampled :

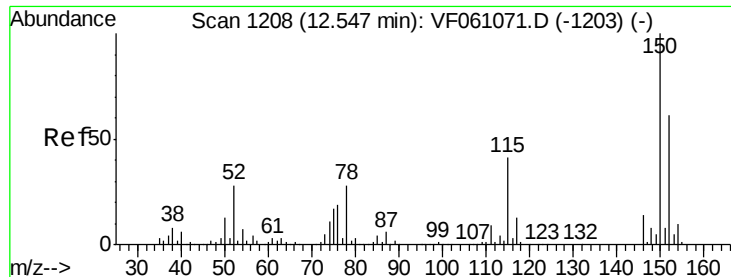
Tot Ion:106 Resp: 3233910  
Ion Ratio Lower Upper  
106 100  
91 176.0 115.9 347.7



#70  
Styrene  
Concen: 113.792 ug/l  
RT: 10.75 min Scan# 1026  
Delta R.T. -0.04 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion:104 Resp: 170424  
Ion Ratio Lower Upper  
104 100  
78 374.8 38.4 57.6#  
103 261.0 37.0 55.6#



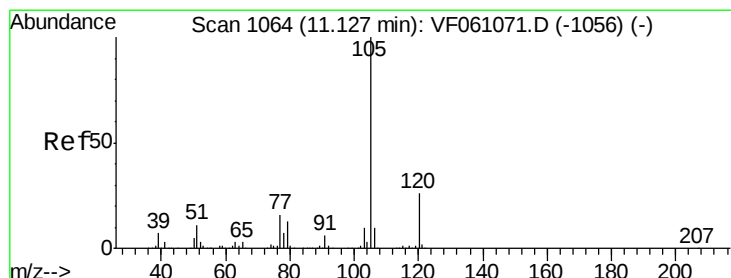
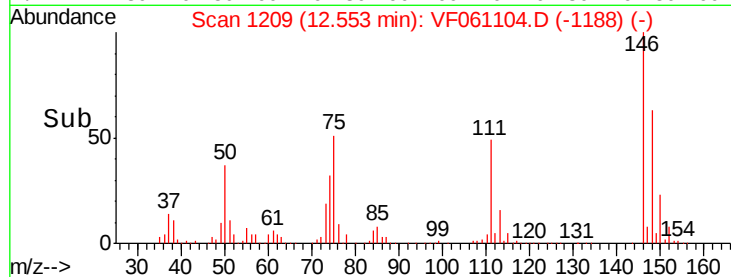
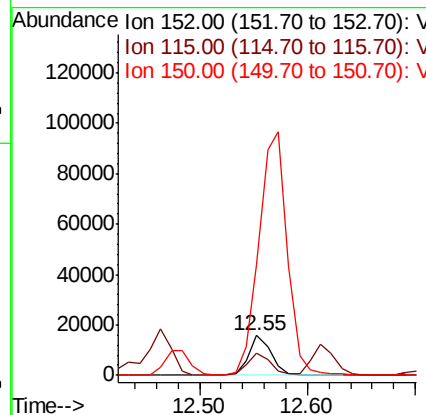
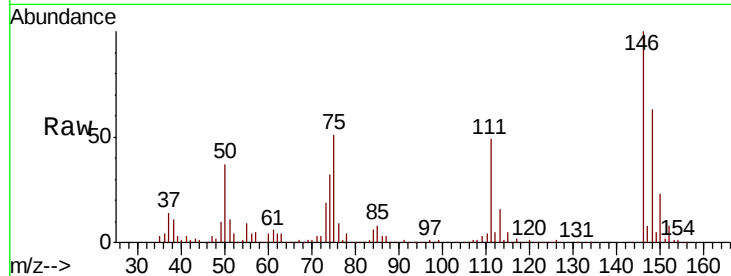


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.55 min Scan# 1209  
Delta R.T. 0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Instrument :  
MSVOA\_F  
ClientSampleId :

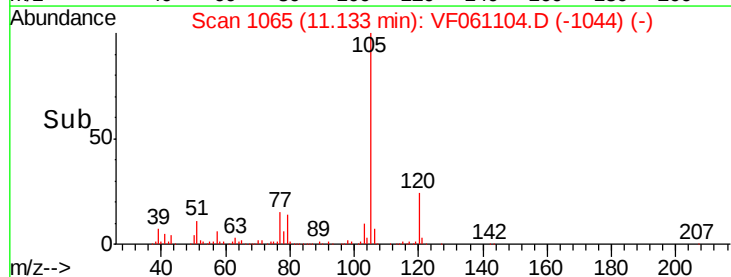
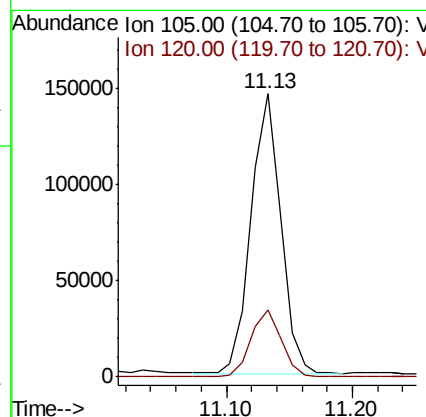
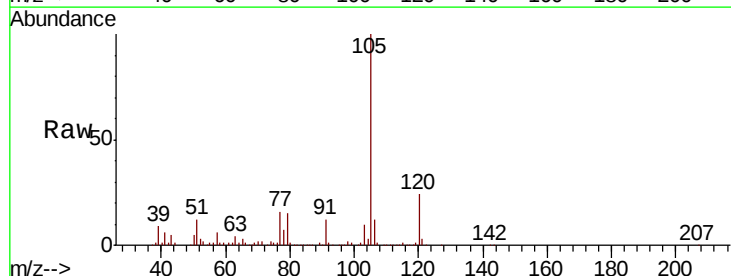
Tot Ion:152 Resp: 23319  
Ion Ratio Lower Upper  
152 100  
115 57.7 33.3 99.9  
150 280.4 0.0 328.2

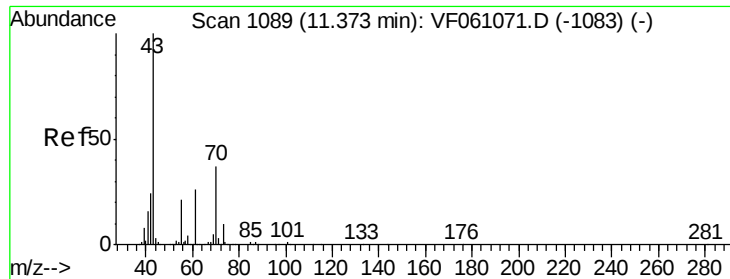


#73

Isopropylbenzene  
Concen: 119.206 ug/l  
RT: 11.13 min Scan# 1065  
Delta R.T. 0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion:105 Resp: 239547  
Ion Ratio Lower Upper  
105 100  
120 23.6 13.0 39.0

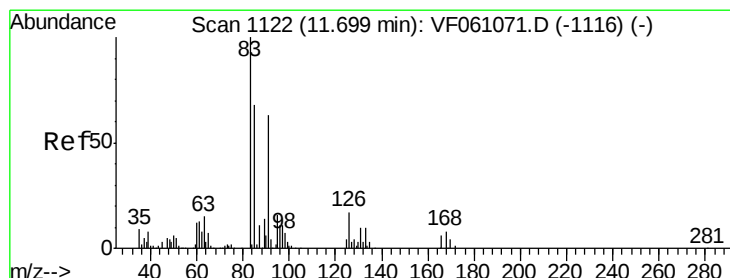
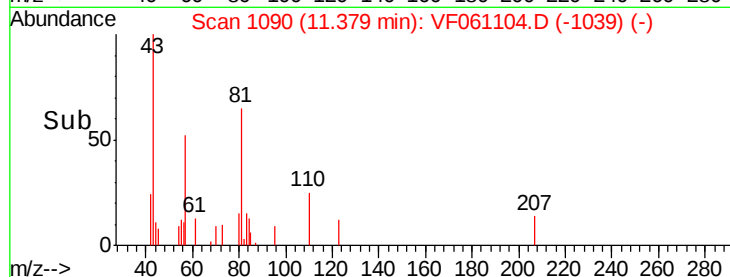
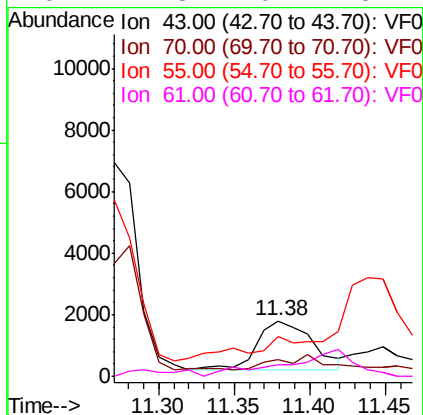
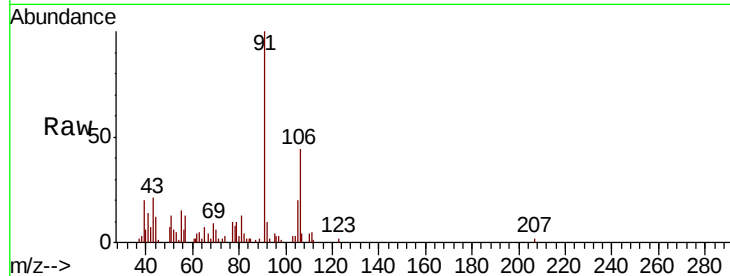




#74  
N-amvl acetate  
Concen: 8.867 ug/l  
RT: 11.38 min Scan# 1090  
Delta R.T. 0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

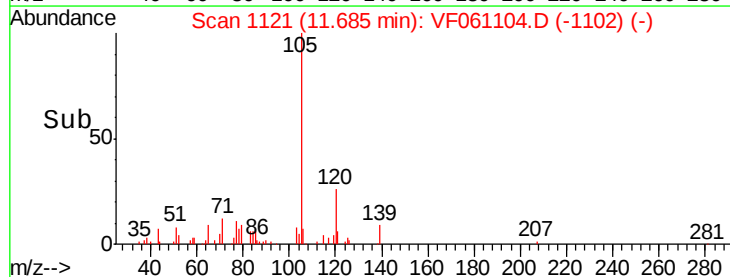
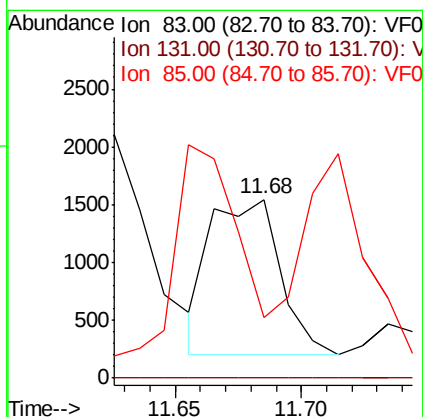
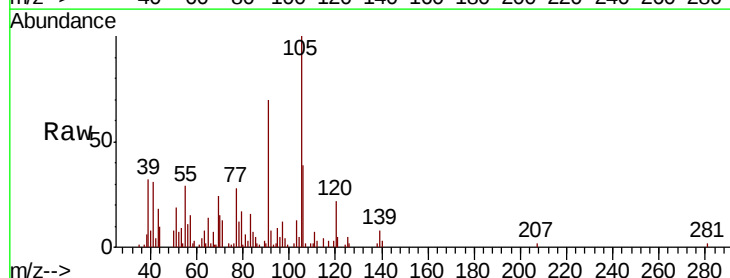
Instrument :  
MSVOA\_F  
ClientSampleId :

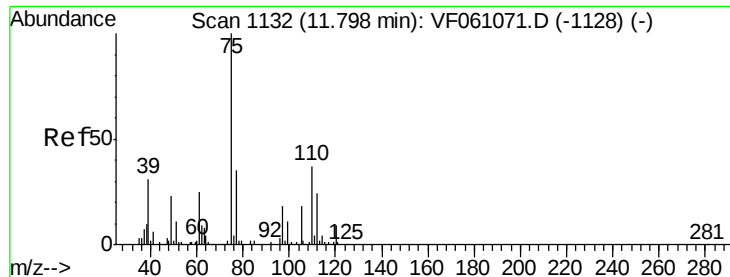
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 3956  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 70       | 29.2  | 29.2  | 43.8# |
| 55       | 72.7  | 16.5  | 24.7# |
| 61       | 21.3  | 20.7  | 31.1  |



#75  
1,1,2,2-Tetrachloroethane  
Concen: 7.793 ug/l  
RT: 11.68 min Scan# 1121  
Delta R.T. -0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 2599   |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 0.0   | 4.8   | 14.3#  |
| 85       | 33.6  | 33.9  | 101.6# |





#76

1,2,3-Trichloropropane

Concen: 22.840 ug/l

RT: 11.82 min Scan# 1135

Delta R.T. 0.03 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

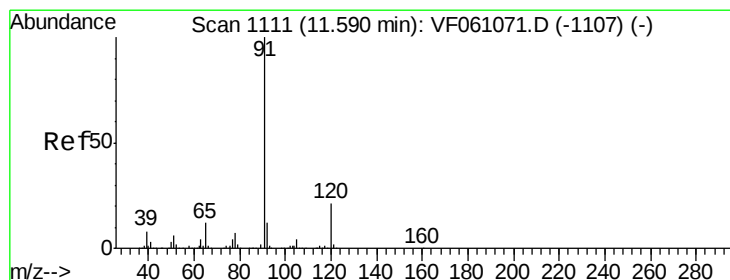
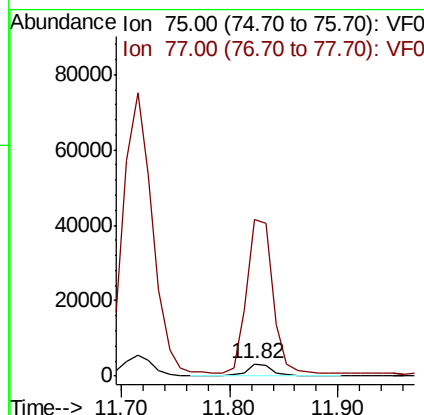
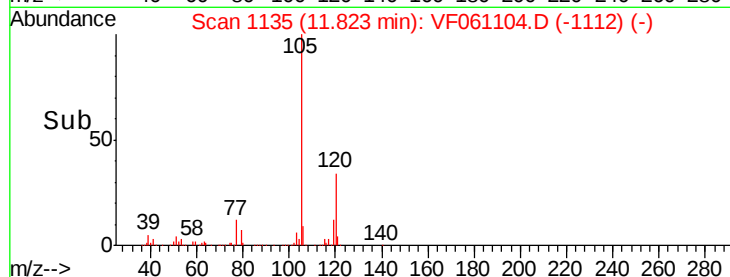
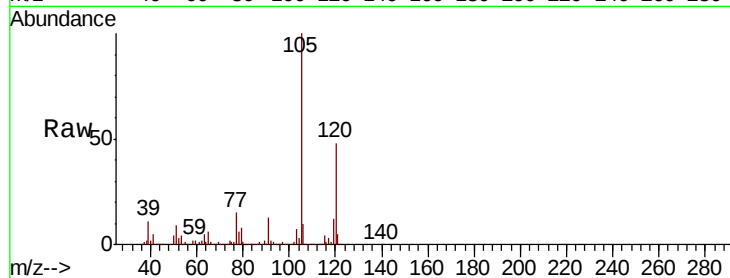
ClientSampleId :

Tot Ion: 75 Resp: 5669

Ion Ratio Lower Upper

75 100

77 1246.9 17.6 52.9#



#78

n-propylbenzene

Concen: Below Cal

RT: 11.60 min Scan# 1112

Delta R.T. 0.01 min

Lab File: VF061104.D

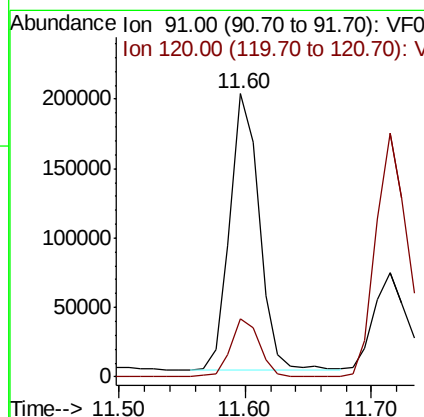
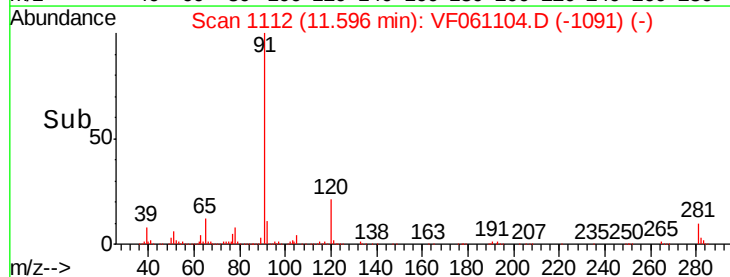
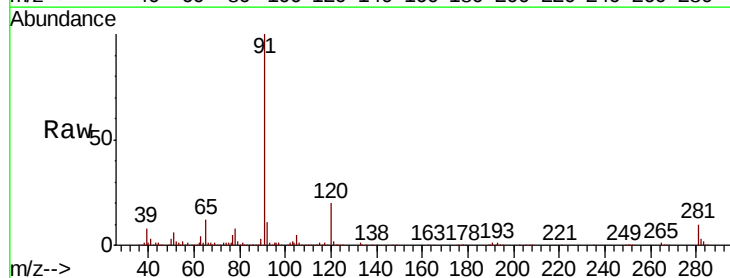
Acq: 20 Dec 2018 13:21

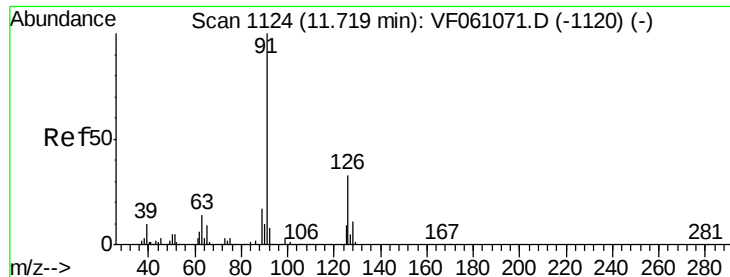
Tgt Ion: 91 Resp: 320005

Ion Ratio Lower Upper

91 100

120 20.3 10.4 31.2

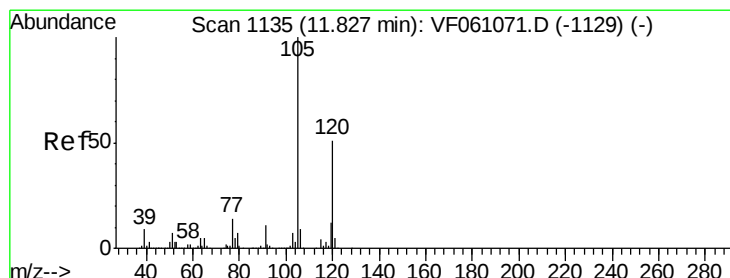
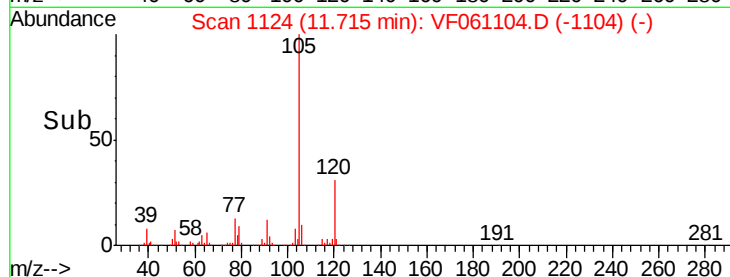
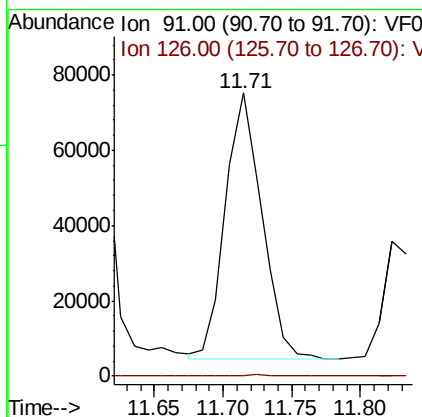
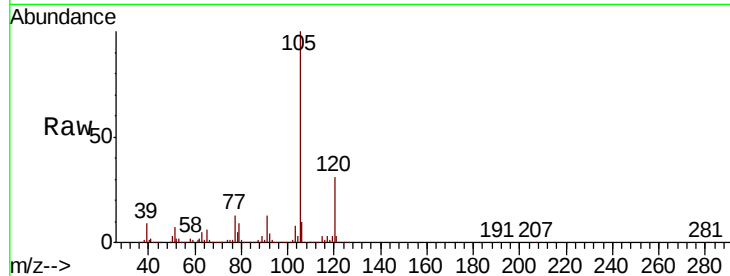




#79  
 2-Chlorotoluene  
 Concen: 94.773 ug/l  
 RT: 11.71 min Scan# 1124  
 Delta R.T. -0.00 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

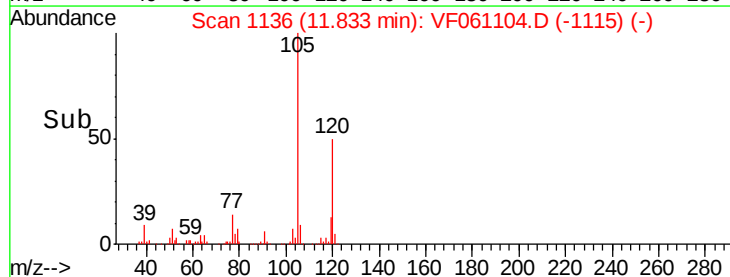
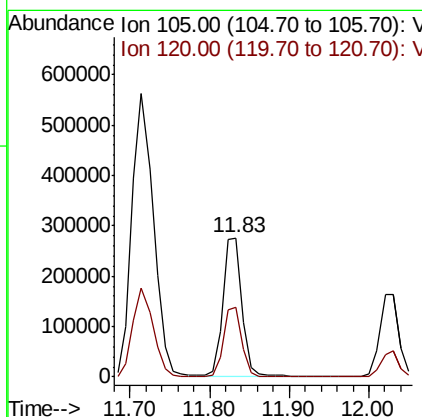
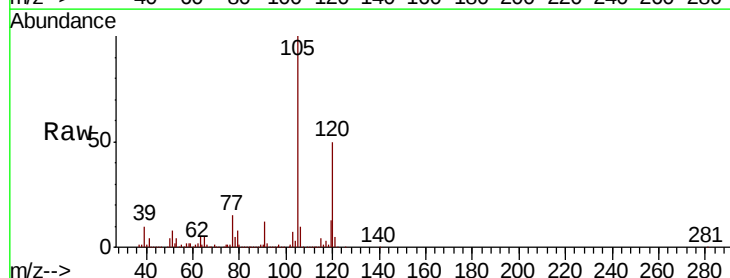
Instrument :  
 MSVOA\_F  
 ClientSampleId :

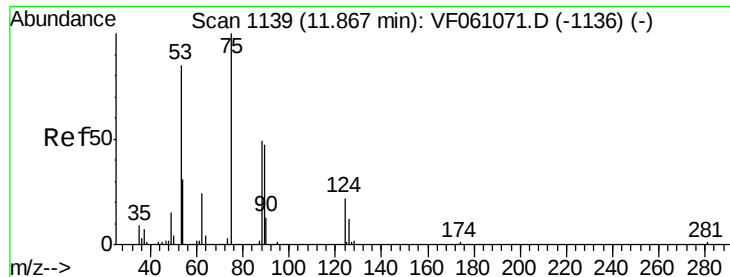
Tot Ion: 91 Resp: 130648  
 Ion Ratio Lower Upper  
 91 100  
 126 0.3 16.4 49.1#



#80  
 1,3,5-Trimethylbenzene  
 Concen: 280.155 ug/l  
 RT: 11.83 min Scan# 1136  
 Delta R.T. 0.01 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

Tgt Ion:105 Resp: 463569  
 Ion Ratio Lower Upper  
 105 100  
 120 50.4 25.4 76.4





#81

trans-1,4-Dichloro-2-butene

Concen: 53.153 ug/l

RT: 11.82 min Scan# 1135

Delta R.T. -0.04 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

ClientSampleId :

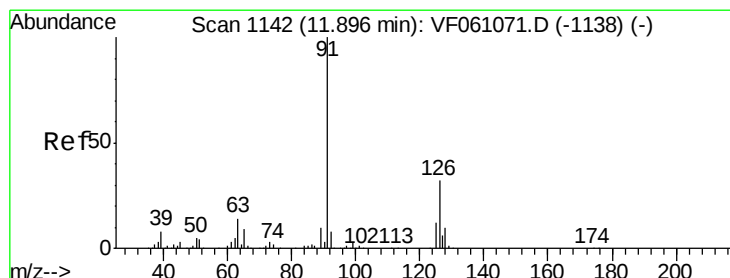
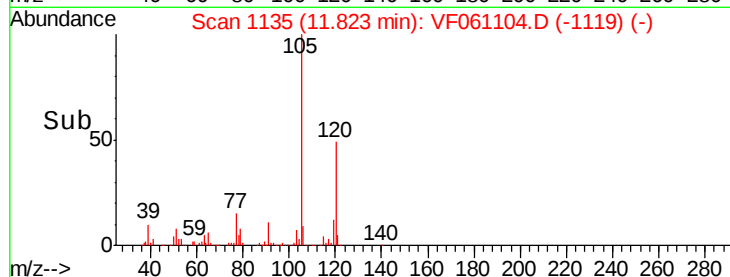
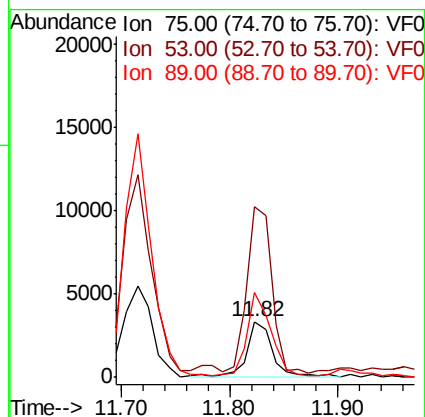
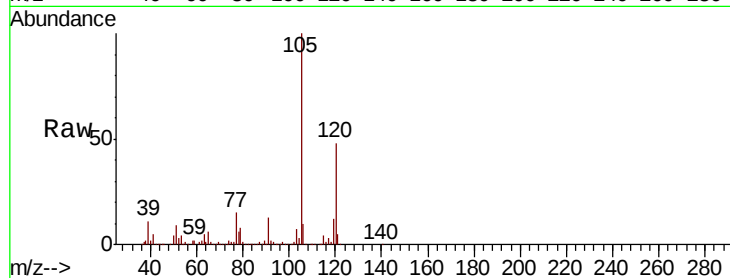
Tot Ion: 75 Resp: 5669

Ion Ratio Lower Upper

75 100

53 308.2 74.1 111.1#

89 152.9 42.6 64.0#



#82

4-Chlorotoluene

Concen: 4.691 ug/l

RT: 11.90 min Scan# 1143

Delta R.T. 0.01 min

Lab File: VF061104.D

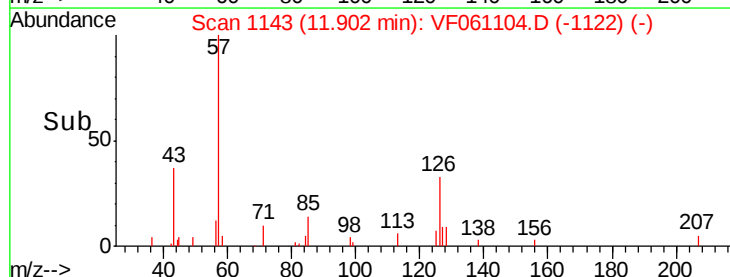
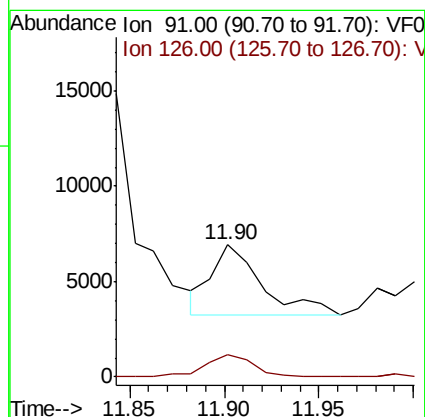
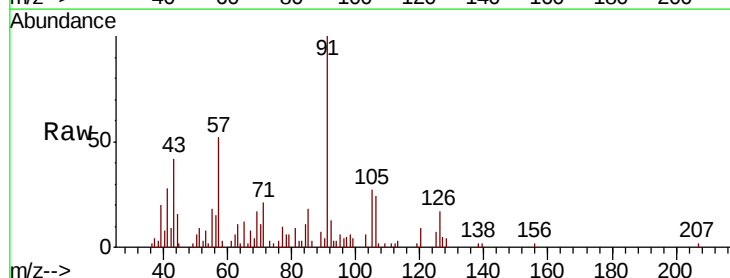
Acq: 20 Dec 2018 13:21

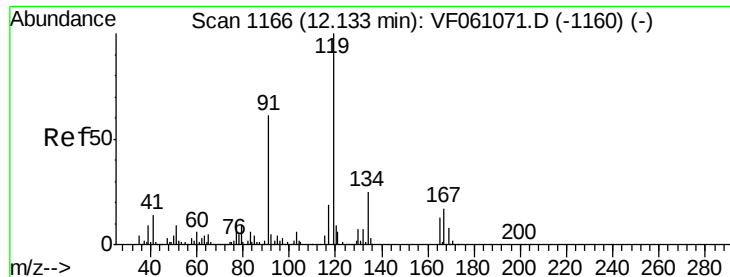
Tgt Ion: 91 Resp: 6690

Ion Ratio Lower Upper

91 100

126 17.1 16.0 47.9





#83

tert-Butylbenzene

Concen: 3.221 ug/l

RT: 12.14 min Scan# 1167

Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

ClientSampleId :

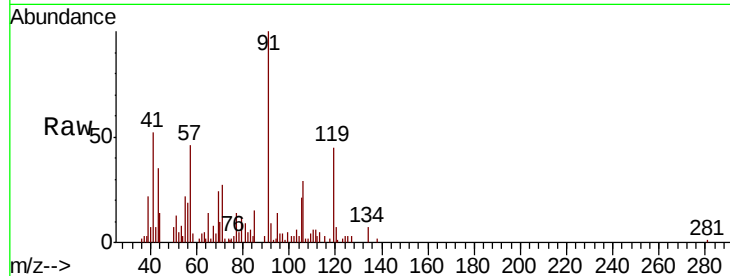
Tot Ion:119 Resp: 5484

Ion Ratio Lower Upper

119 100

91 224.3 30.5 91.5#

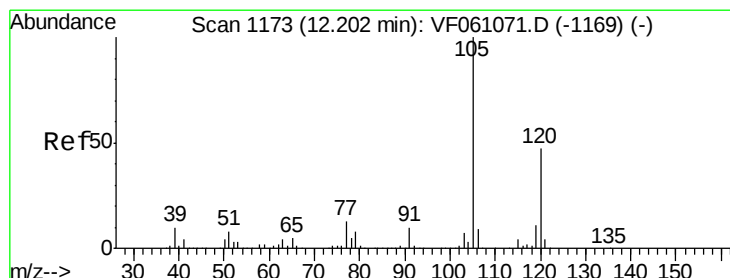
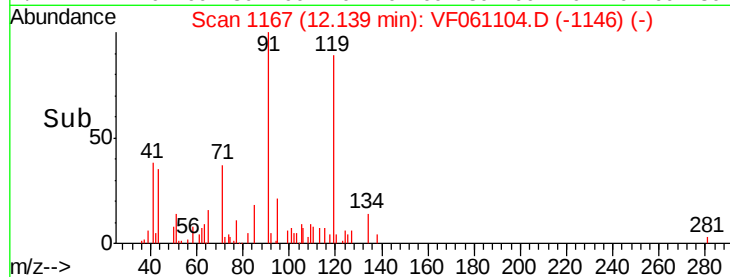
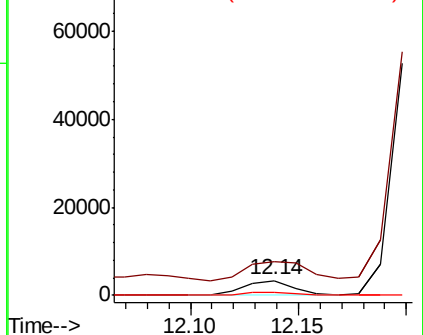
134 16.0 12.4 37.4



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: 780.392 ug/l

RT: 12.21 min Scan# 1174

Delta R.T. 0.01 min

Lab File: VF061104.D

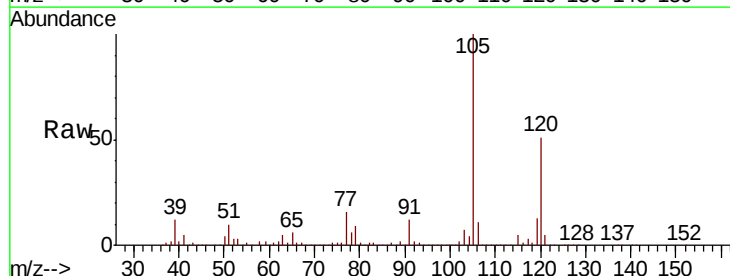
Acq: 20 Dec 2018 13:21

Tgt Ion:105 Resp: 1287708

Ion Ratio Lower Upper

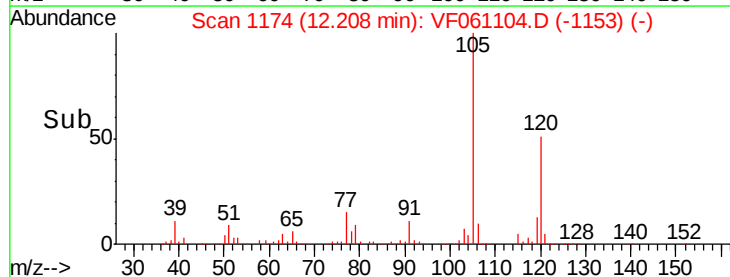
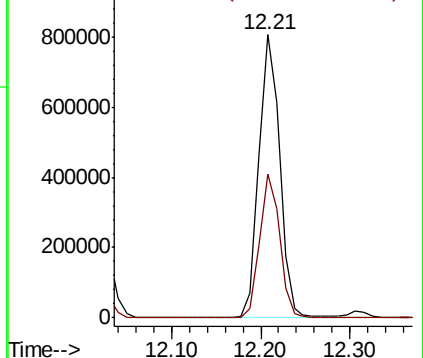
105 100

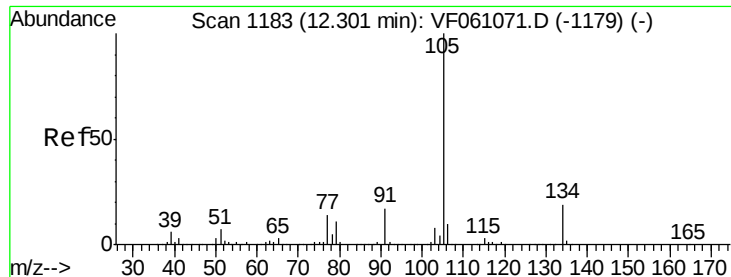
120 50.8 23.6 71.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#85

sec-Butylbenzene

Concen: 579.512 ug/l

RT: 12.21 min Scan# 1174

Delta R.T. -0.09 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

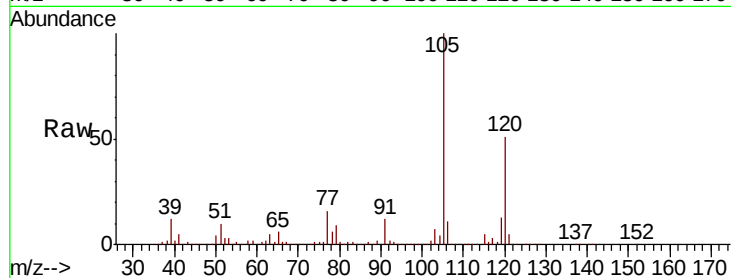
ClientSampled :

Tot Ion:105 Resp: 1287708

Ion Ratio Lower Upper

105 100

134 0.0 9.4 28.2#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V

800000

600000

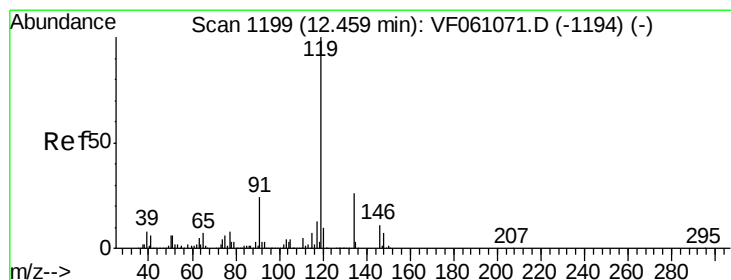
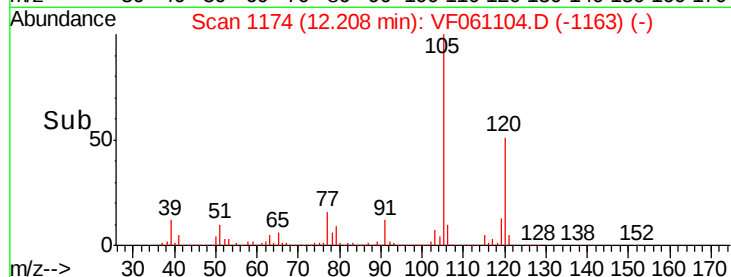
400000

200000

0

12.10 12.20 12.30

Time-->



#86

p-Isopropyltoluene

Concen: 255.072 ug/l

RT: 12.46 min Scan# 1200

Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

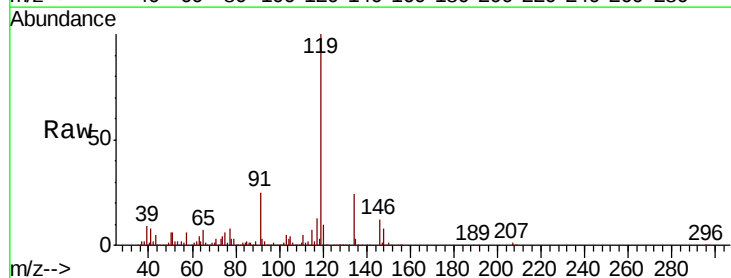
Tgt Ion:119 Resp: 470459

Ion Ratio Lower Upper

119 100

134 24.2 12.8 38.4

91 24.6 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

300000

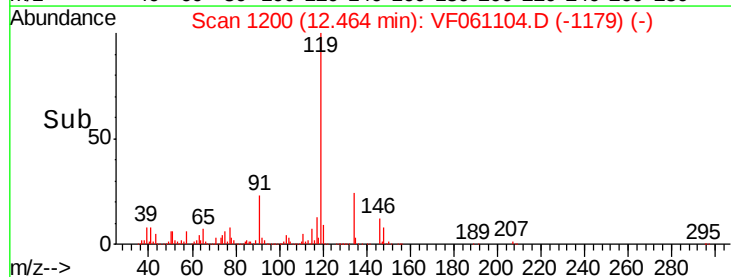
200000

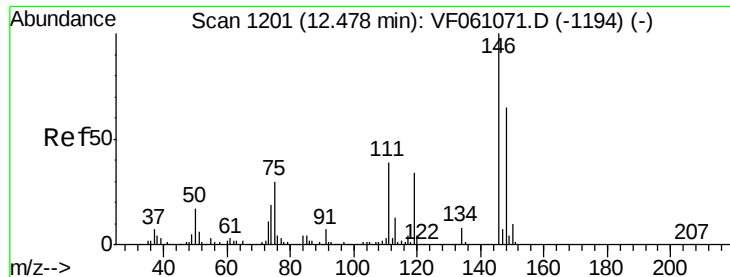
100000

0

12.30 12.40 12.50

Time-->

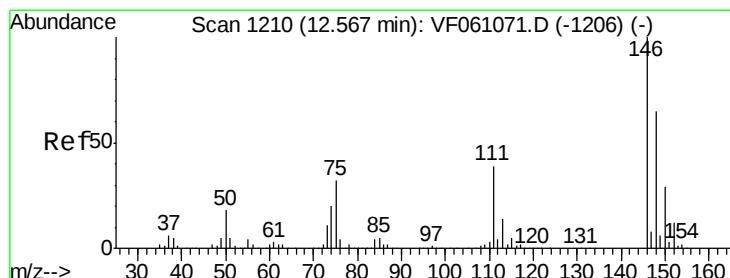
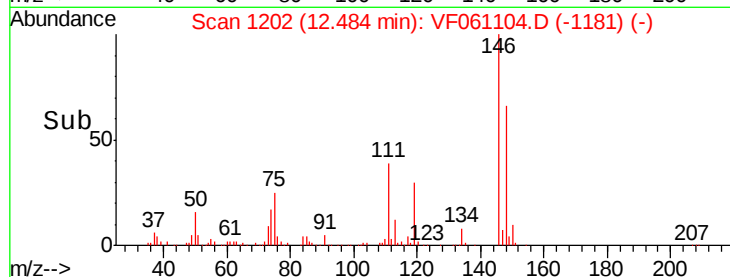
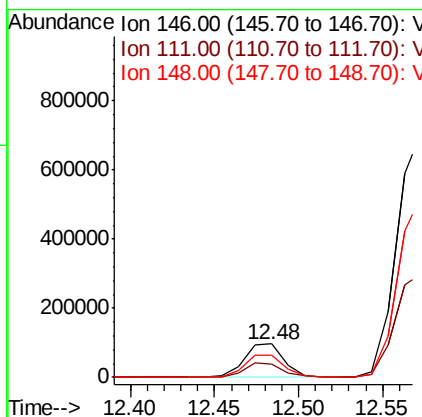
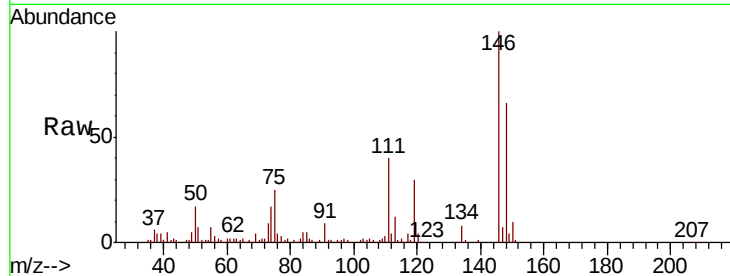




#87  
 1,3-Dichlorobenzene  
 Concen: 243.926 ug/l  
 RT: 12.48 min Scan# 1202  
 Delta R.T. 0.01 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

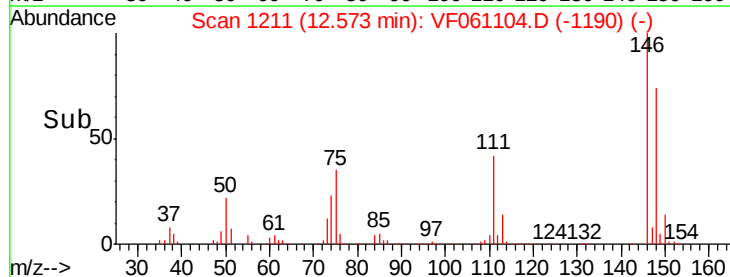
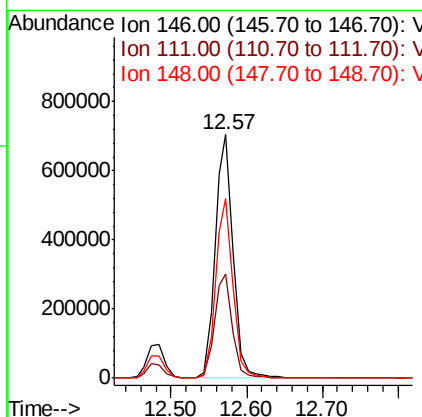
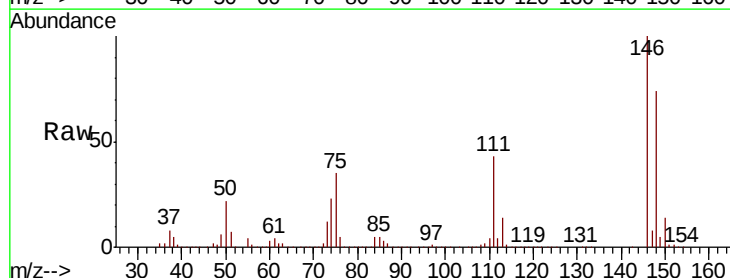
Instrument :  
 MSVOA\_F  
 ClientSampled :

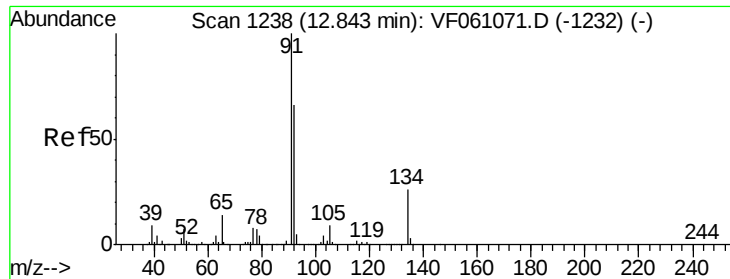
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 39.7  | 19.3  | 57.9  |
| 148     | 66.0  | 32.4  | 97.2  |



#88  
 1,4-Dichlorobenzene  
 Concen: 1474.167 ug/l  
 RT: 12.57 min Scan# 1211  
 Delta R.T. 0.01 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 42.5  | 19.4  | 58.4  |
| 148     | 73.9  | 32.4  | 97.0  |

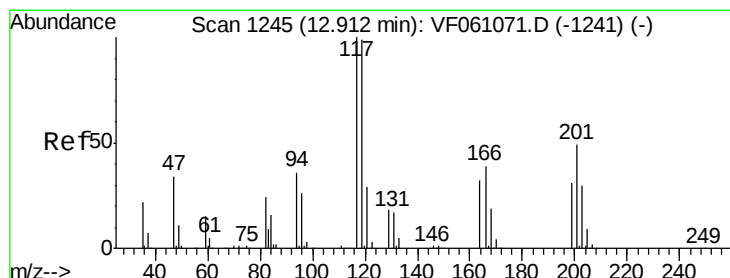
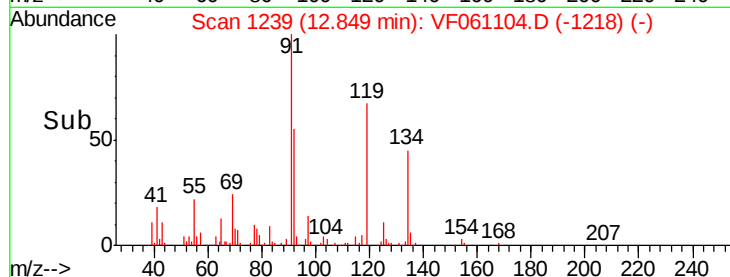
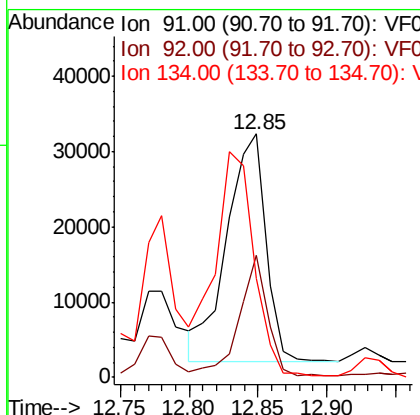
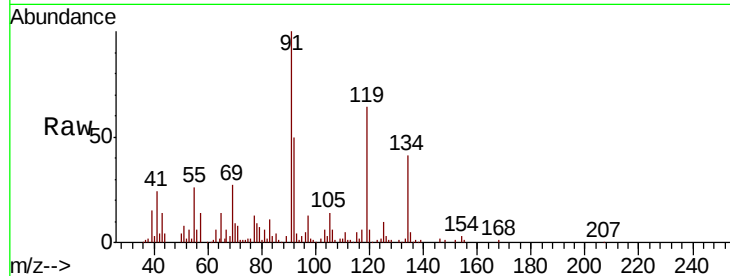




#89  
n-Butylbenzene  
Concen: 29.454 ug/l  
RT: 12.85 min Scan# 1239  
Delta R.T. 0.01 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

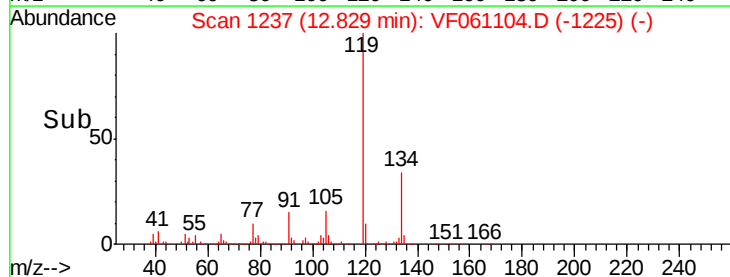
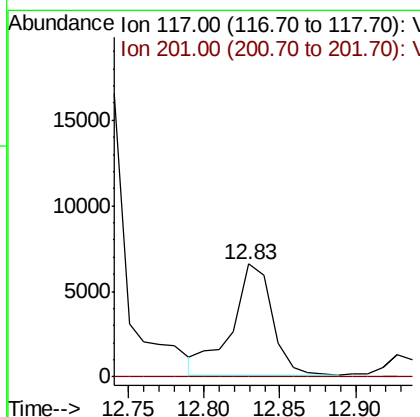
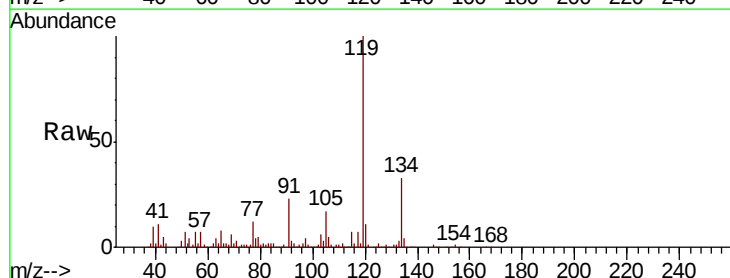
Instrument :  
MSVOA\_F  
ClientSampled :

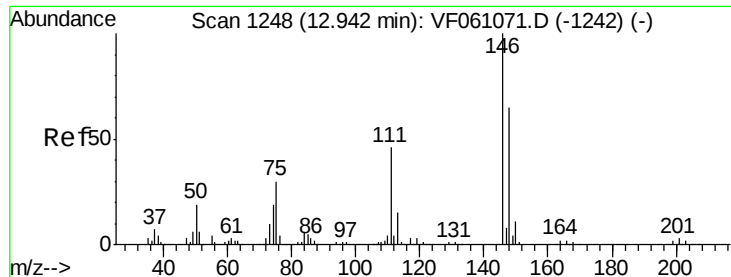
Tot Ion: 91 Resp: 60072  
Ion Ratio Lower Upper  
91 100  
92 50.2 32.8 98.4  
134 40.6 13.2 39.5#



#90  
Hexachloroethane  
Concen: 26.123 ug/l  
RT: 12.83 min Scan# 1237  
Delta R.T. -0.08 min  
Lab File: VF061104.D  
Acq: 20 Dec 2018 13:21

Tgt Ion: 117 Resp: 11904  
Ion Ratio Lower Upper  
117 100  
201 0.0 24.9 74.8#





#91

1,2-Dichlorobenzene

Concen: 27.848 ug/l

RT: 12.95 min Scan# 1249

Delta R.T. 0.01 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

Instrument :

MSVOA\_F

ClientSampled :

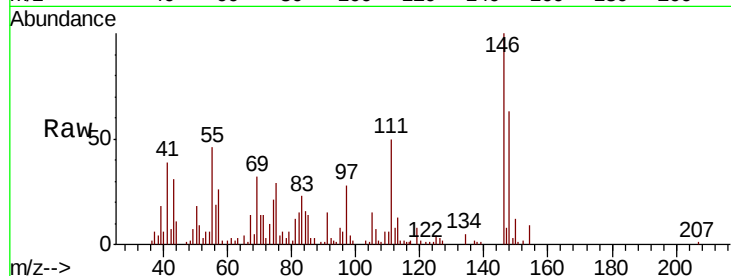
Tot Ion:146 Resp: 21536

Ion Ratio Lower Upper

146 100

111 50.1 23.2 69.5

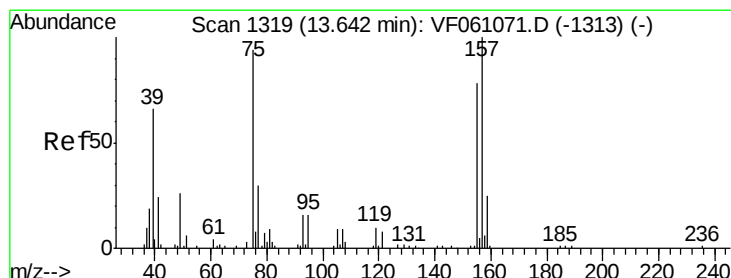
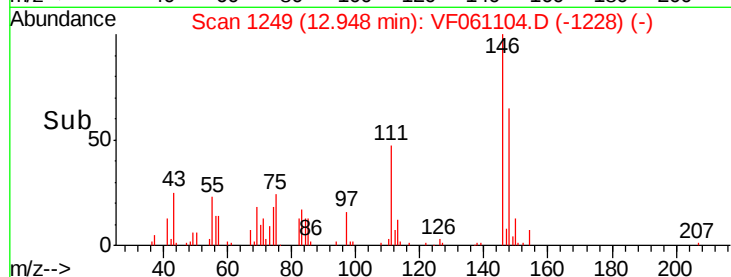
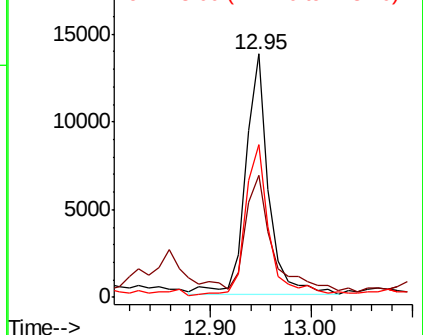
148 62.6 32.4 97.0



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



#92

1,2-Dibromo-3-Chloropropane

Concen: 21.617 ug/l

RT: 13.67 min Scan# 1322

Delta R.T. 0.03 min

Lab File: VF061104.D

Acq: 20 Dec 2018 13:21

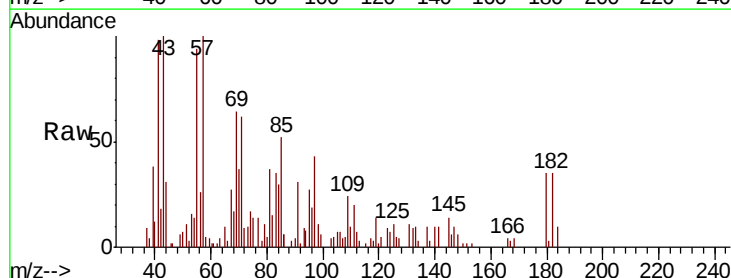
Tgt Ion: 75 Resp: 1323

Ion Ratio Lower Upper

75 100

155 0.0 41.5 124.5#

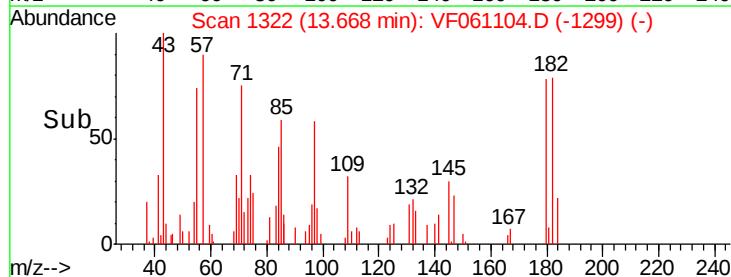
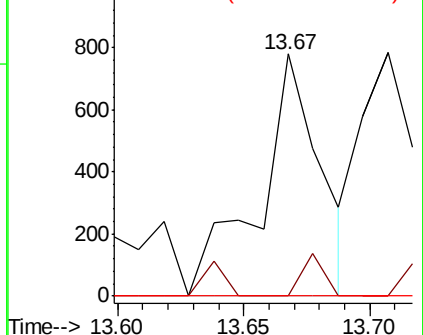
157 0.0 53.2 159.6#

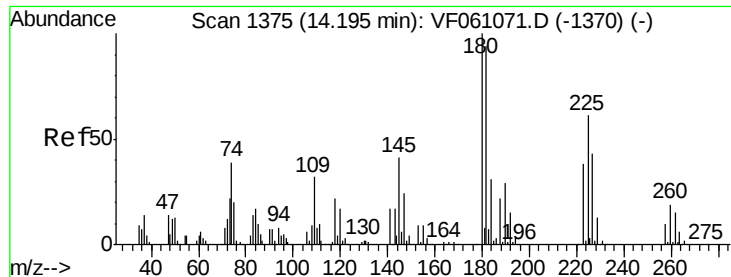


Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

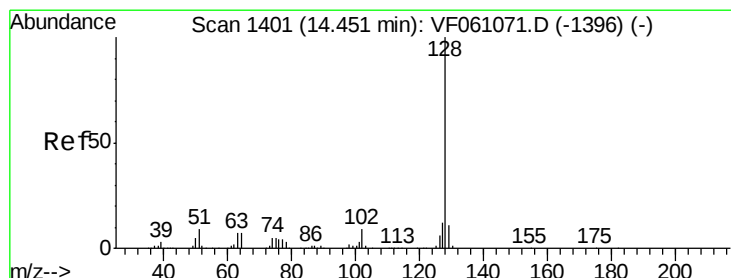
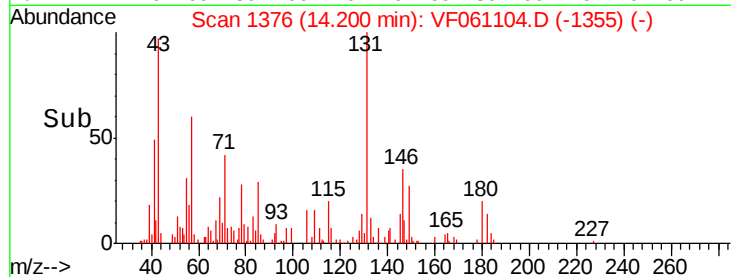
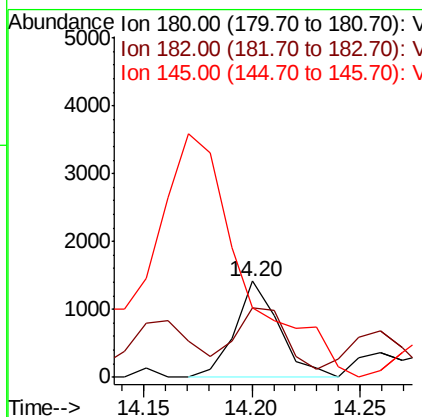
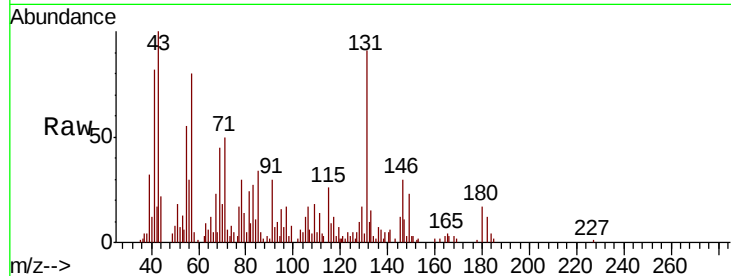




#93  
 1,2,4-Trichlorobenzene  
 Concen: 3.639 ug/l  
 RT: 14.20 min Scan# 1376  
 Delta R.T. 0.01 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

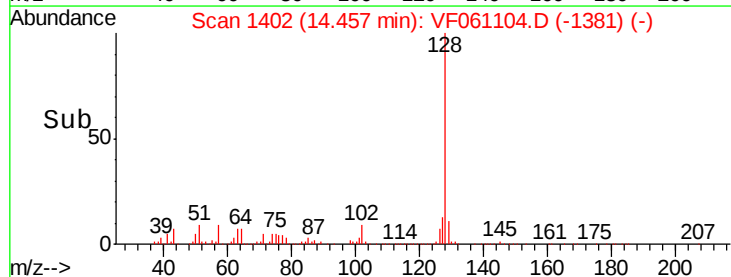
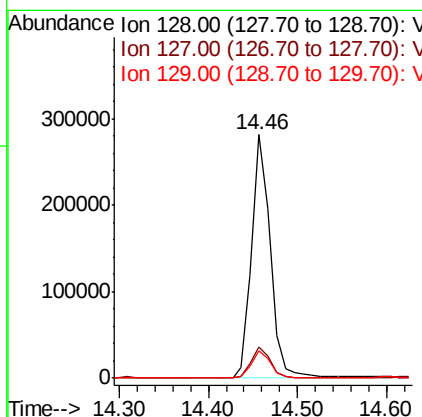
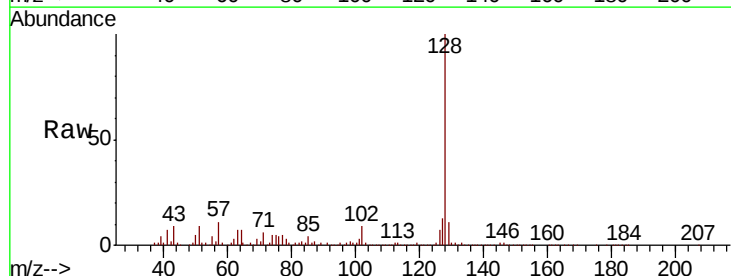
Instrument :  
 MSVOA\_F  
 ClientSampleId :

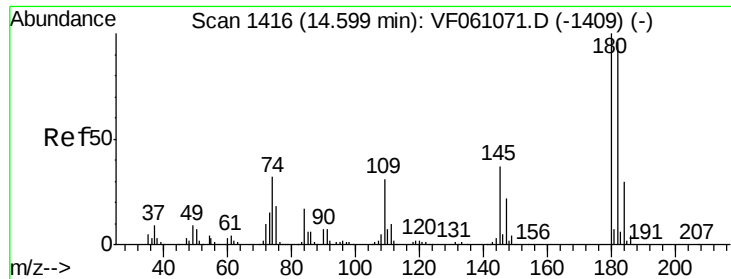
Tot Ion:180 Resp: 1996  
 Ion Ratio Lower Upper  
 180 100  
 182 71.9 46.9 140.6  
 145 72.1 20.5 61.6#



#95  
 Naphthalene  
 Concen: 404.830 ug/l  
 RT: 14.46 min Scan# 1402  
 Delta R.T. 0.01 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

Tgt Ion:128 Resp: 405433  
 Ion Ratio Lower Upper  
 128 100  
 127 12.7 9.4 14.2  
 129 11.3 8.8 13.2





#96  
 1,2,3-Trichlorobenzene  
 Concen: 4.881 ug/l  
 RT: 14.61 min Scan# 1418  
 Delta R.T. 0.02 min  
 Lab File: VF061104.D  
 Acq: 20 Dec 2018 13:21

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Tot Ion:180 Resp: 2475  
 Ion Ratio Lower Upper  
 180 100  
 182 67.9 47.9 143.8  
 145 70.8 18.6 55.8#

