

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031919\  
 Data File : VF062020.D  
 Acq On : 19 Mar 2019 16:12  
 Operator : VA/AP  
 Sample : K1697-09RE  
 Misc : 6.72g/5mL/MSVOA-F/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Mar 20 05:21:32 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F031619S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Mar 18 07:28:40 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.84  | 168  | 260947   | 50.00 | ug/l  | -0.03    |
| 34) 1,4-Difluorobenzene    | 5.57  | 114  | 402764   | 50.00 | ug/l  | -0.03    |
| 63) Chlorobenzene-d5       | 9.75  | 117  | 311506   | 50.00 | ug/l  | -0.02    |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 142080   | 50.00 | ug/l  | -0.01    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.82  | 65   | 105714   | 56.28 | ug/l    | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 112.56% |          |
| 35) Dibromofluoromethane    | 4.08  | 113  | 149542   | 55.29 | ug/l    | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 110.58% |          |
| 50) Toluene-d8              | 7.53  | 98   | 398472   | 50.40 | ug/l    | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 100.80% |          |
| 62) 4-Bromofluorobenzene    | 11.40 | 95   | 142714   | 45.44 | ug/l    | -0.01    |
| Spiked Amount               |       |      | Recovery | =     | 90.88%  |          |

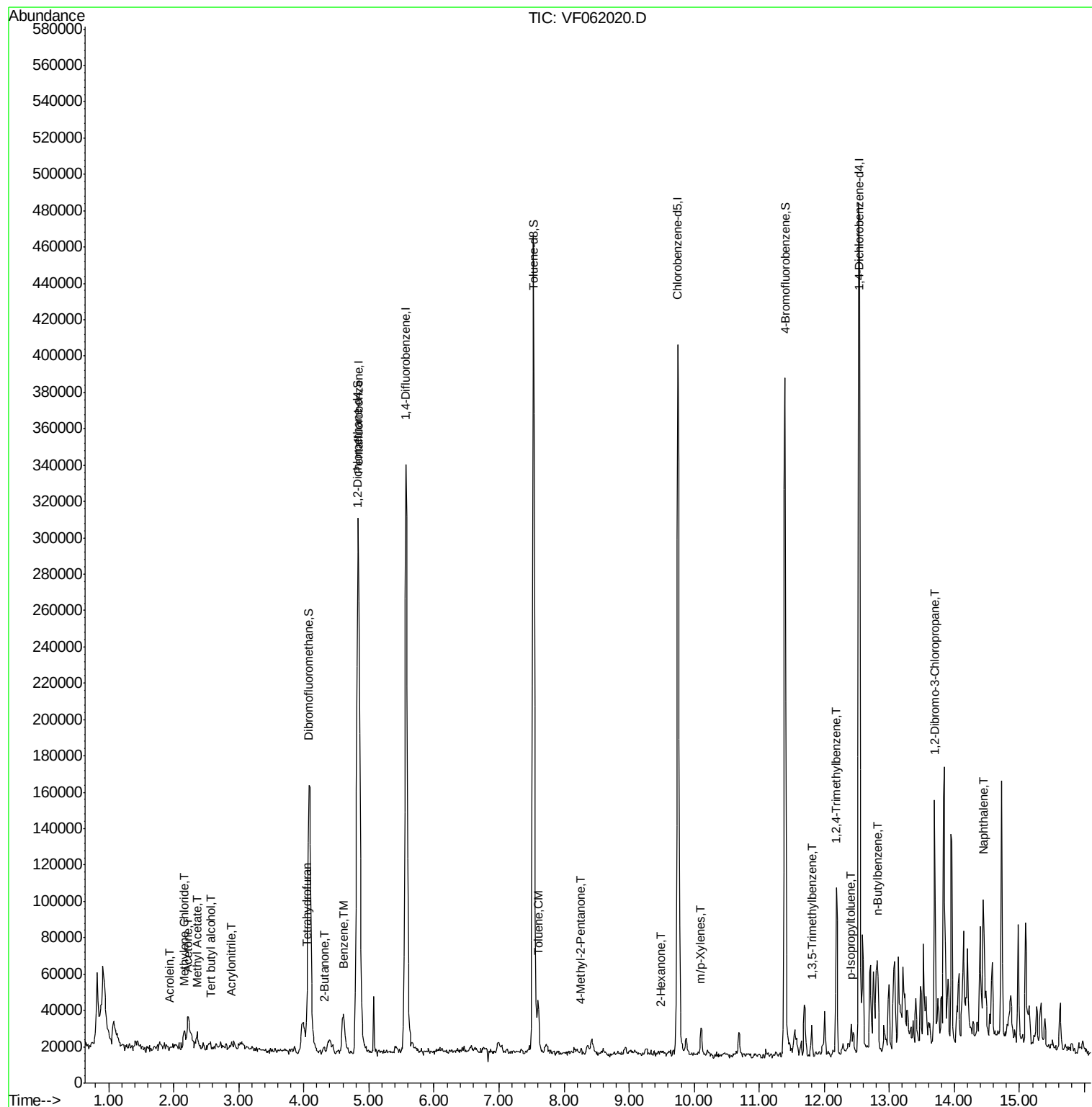
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 11) Tert butyl alcohol         | 2.57  | 59   | 541      | 4.707  | ug/l # | 1      |
| 13) Acrolein                   | 1.93  | 56   | 307      | 2.474  | ug/l   | 92     |
| 15) Acrylonitrile              | 2.90  | 53   | 397      | 1.136  | ug/l # | 24     |
| 16) Acetone                    | 2.22  | 43   | 24630    | 58.392 | ug/l   | 99     |
| 18) Methyl Acetate             | 2.36  | 43   | 6136     | 7.111  | ug/l # | 85     |
| 20) Methylene Chloride         | 2.16  | 84   | 5669     | 2.611  | ug/l # | 79     |
| 25) 2-Butanone                 | 4.32  | 43   | 4850     | 5.806  | ug/l # | 79     |
| 29) Tetrahydrofuran            | 4.04  | 42   | 1115     | 3.069  | ug/l # | 65     |
| 40) Benzene                    | 4.61  | 78   | 30003    | 3.113  | ug/l   | 99     |
| 51) 4-Methyl-2-Pentanone       | 8.26  | 43   | 1849     | 1.348  | ug/l # | 80     |
| 52) Toluene                    | 7.60  | 92   | 13276    | 2.255  | ug/l   | 97     |
| 59) 2-Hexanone                 | 9.47  | 43   | 1288     | 1.297  | ug/l   | 66     |
| 68) m/p-Xylenes                | 10.10 | 106  | 6412     | 1.717  | ug/l   | 82     |
| 80) 1,3,5-Trimethylbenzene     | 11.81 | 105  | 9347     | 1.179  | ug/l   | 98     |
| 84) 1,2,4-Trimethylbenzene     | 12.18 | 105  | 43446    | 5.470  | ug/l   | 96     |
| 86) p-Isopropyltoluene         | 12.41 | 119  | 9823     | 1.051  | ug/l   | 90     |
| 89) n-Butylbenzene             | 12.83 | 91   | 12075    | 1.375  | ug/l # | 73     |
| 92) 1,2-Dibromo-3-Chloropropan | 13.69 | 75   | 491      | 1.888  | ug/l # | 1      |
| 95) Naphthalene                | 14.44 | 128  | 18355    | 3.542  | ug/l # | 91     |

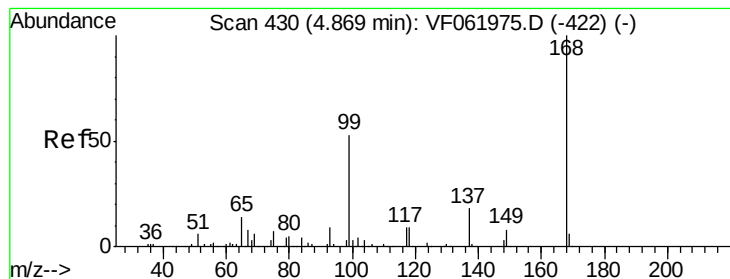
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF031919\  
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Instrument :  
MSVOA\_F  
ClientSampleId :

Quant Time: Mar 20 05:21:32 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F031619S.M  
Quant Title : SW846 8260  
QLast Update : Mon Mar 18 07:28:40 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.84 min Scan# 427

Delta R.T. -0.03 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

Instrument :

MSVOA\_F

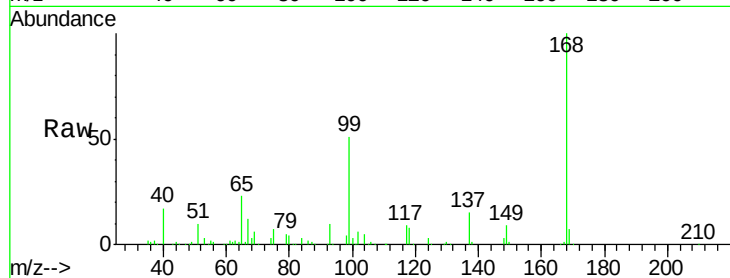
ClientSampleId :

Tot Ion:168 Resp: 260947

Ion Ratio Lower Upper

168 100

99 50.7 42.4 63.6



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.84

80000

60000

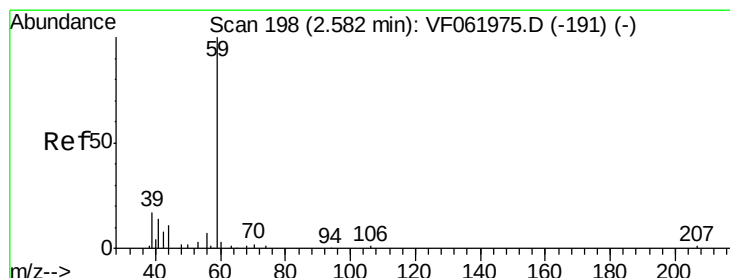
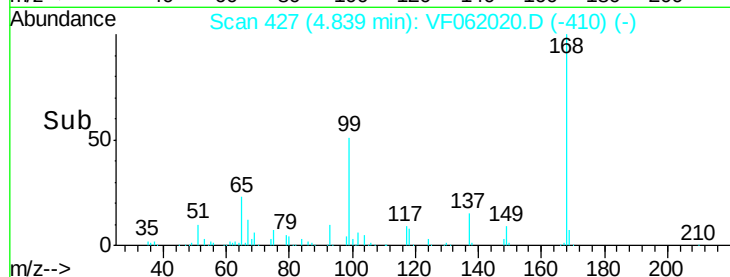
40000

20000

0

4.70 4.80 4.90 5.00

Time-->



#11

Tert butyl alcohol

Concen: 4.707 ug/l

RT: 2.57 min Scan# 197

Delta R.T. -0.01 min

Lab File: VF062020.D

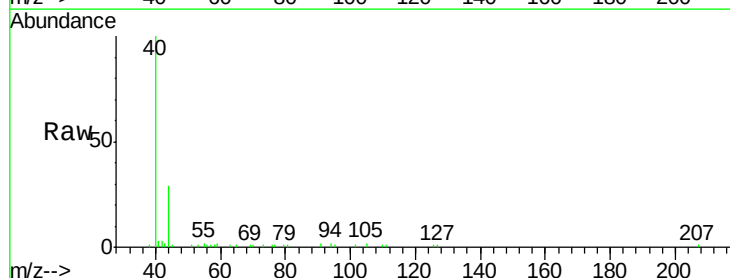
Acq: 19 Mar 2019 16:12

Tgt Ion: 59 Resp: 541

Ion Ratio Lower Upper

59 100

57 72.7 8.7 13.1#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

250

200

150

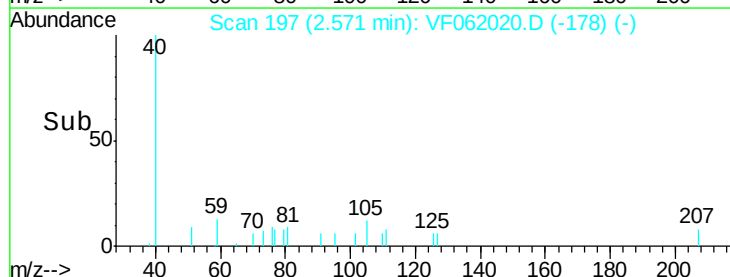
100

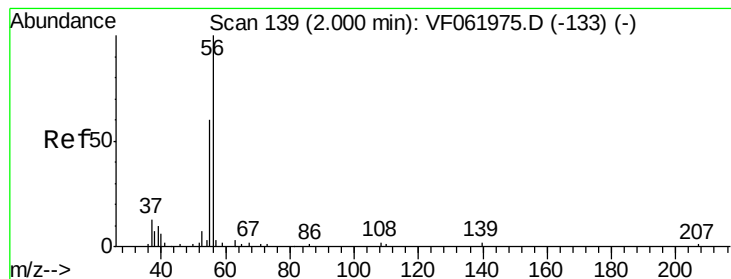
50

0

2.50 2.55 2.60

Time-->





#13

Acrolein

Concen: 2.474 ug/l

RT: 1.93 min Scan# 132

Delta R.T. -0.07 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

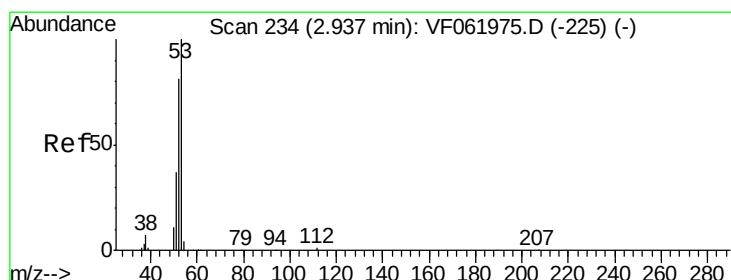
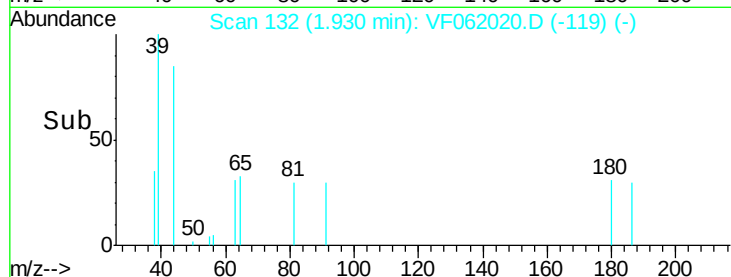
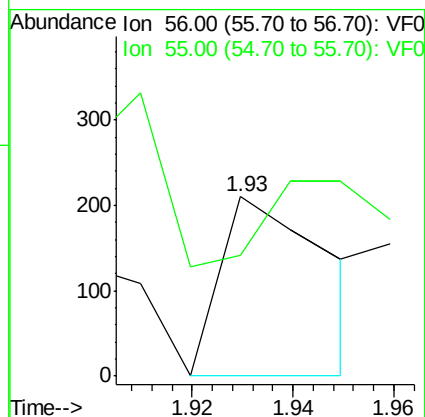
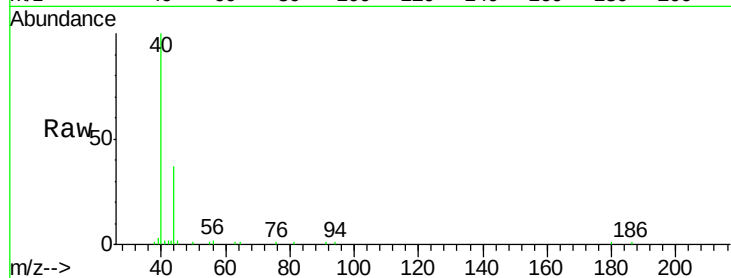
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 56 Resp: 307

Ion Ratio Lower Upper

56 100

55 67.1 49.1 73.7



#15

Acrylonitrile

Concen: 1.136 ug/l

RT: 2.90 min Scan# 230

Delta R.T. -0.04 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

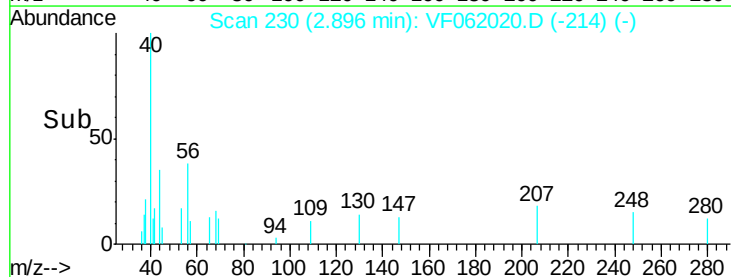
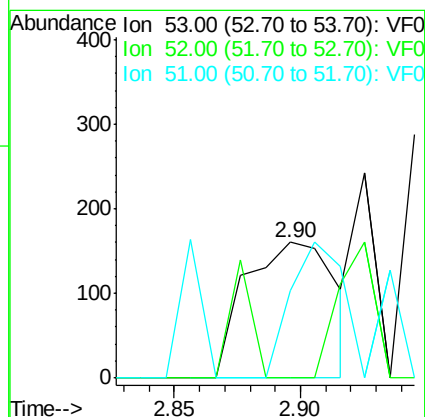
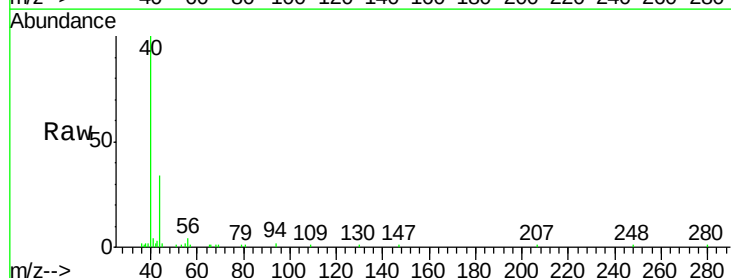
Tgt Ion: 53 Resp: 397

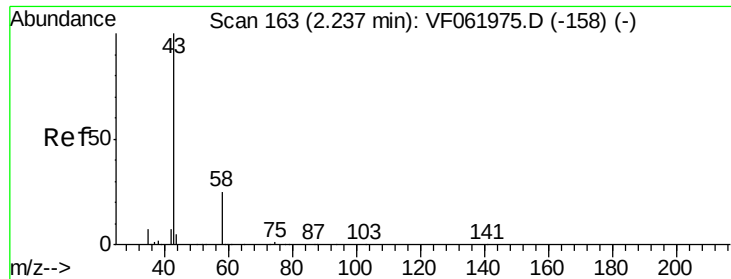
Ion Ratio Lower Upper

53 100

52 0.0 64.4 96.6#

51 64.4 30.3 45.5#

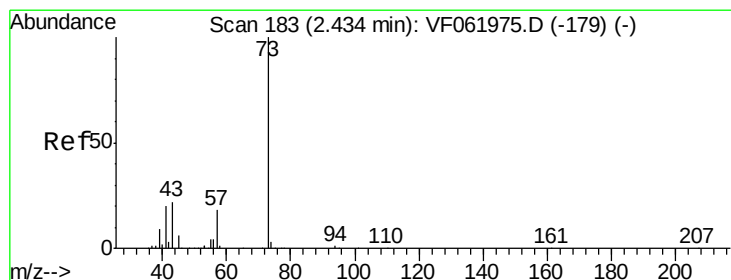
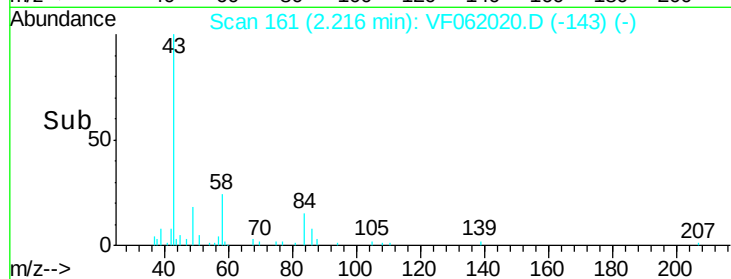
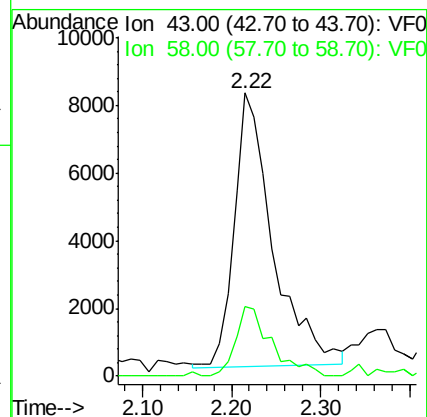
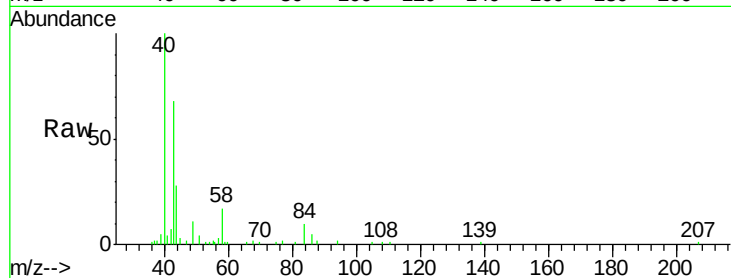




#16  
Acetone  
Concen: 58.392 ug/l  
RT: 2.22 min Scan# 161  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

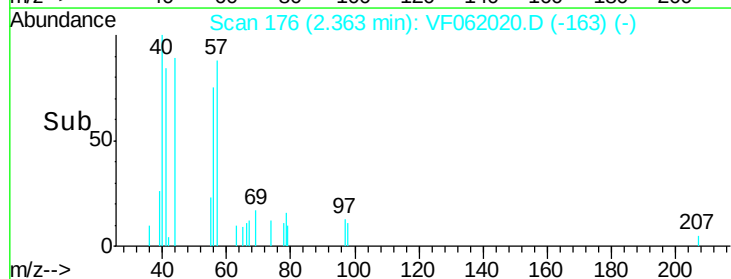
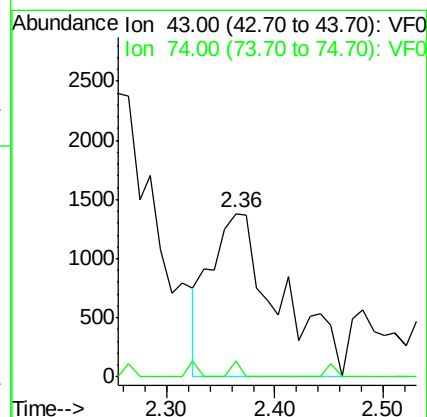
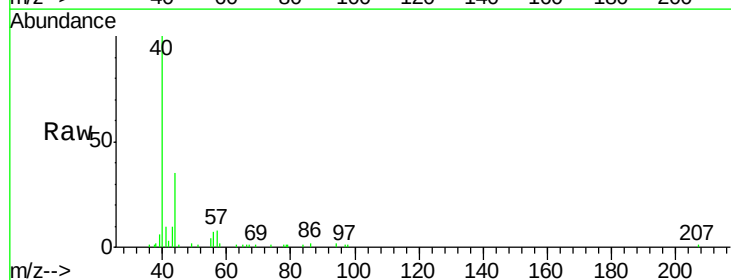
Instrument :  
MSVOA\_F  
ClientSampleId :

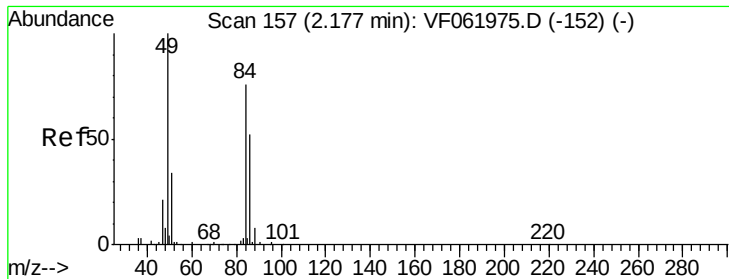
Tot Ion: 43 Resp: 24630  
Ion Ratio Lower Upper  
43 100  
58 24.6 19.9 29.9



#18  
Methyl Acetate  
Concen: 7.111 ug/l  
RT: 2.36 min Scan# 176  
Delta R.T. -0.07 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion: 43 Resp: 6136  
Ion Ratio Lower Upper  
43 100  
74 9.4 12.6 18.8#

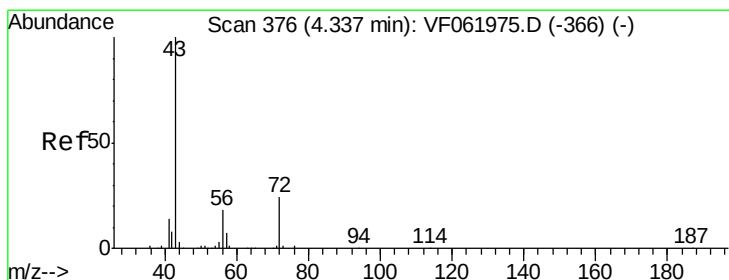
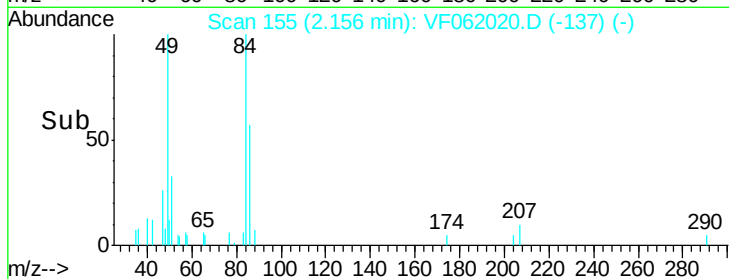
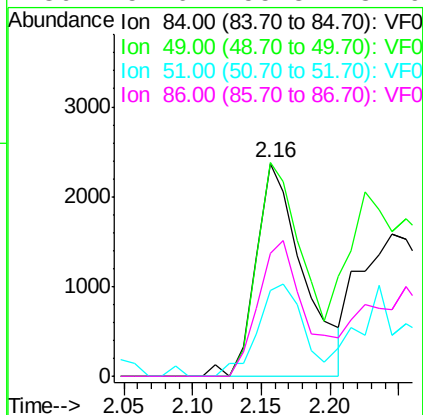
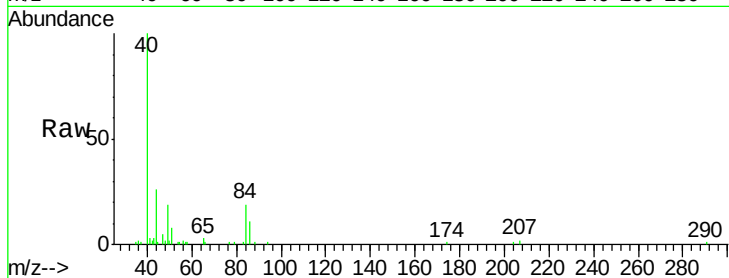




#20  
Methvlene Chloride  
Concen: 2.611 ug/l  
RT: 2.16 min Scan# 155  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

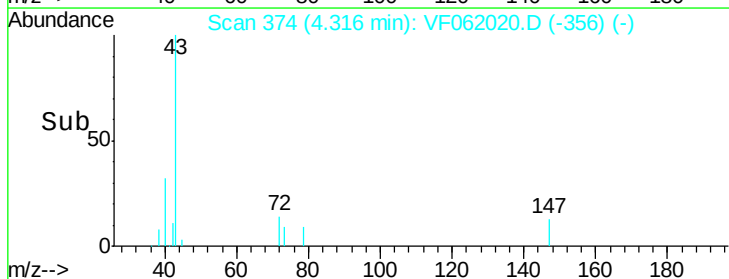
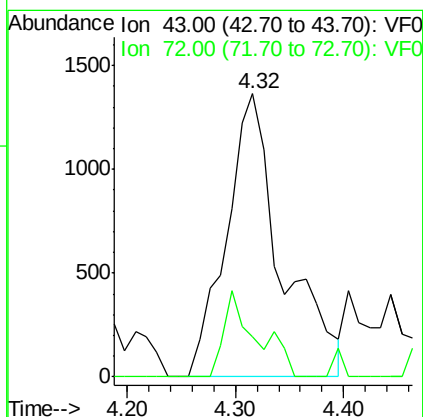
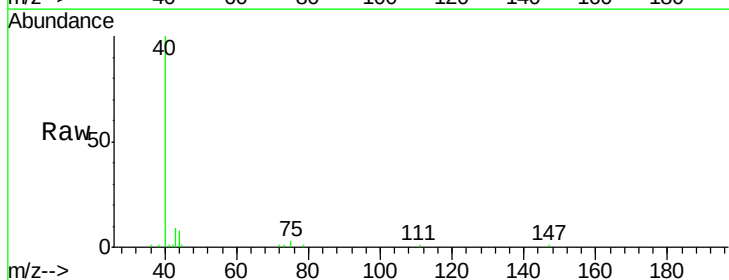
Instrument :  
MSVOA\_F  
ClientSampleId :

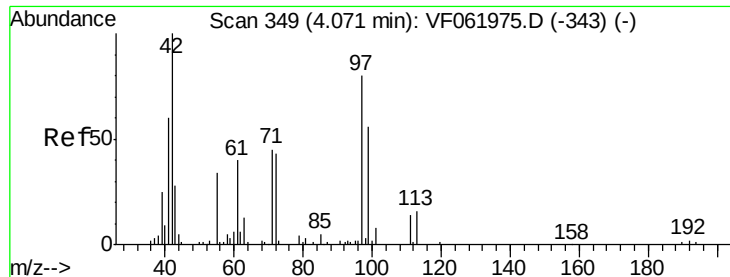
Tot Ion: 84 Resp: 5669  
Ion Ratio Lower Upper  
84 100  
49 100.2 107.0 160.6#  
51 40.4 37.2 55.8  
86 57.6 55.3 82.9



#25  
2-Butanone  
Concen: 5.806 ug/l  
RT: 4.32 min Scan# 374  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion: 43 Resp: 4850  
Ion Ratio Lower Upper  
43 100  
72 14.2 19.8 29.6#

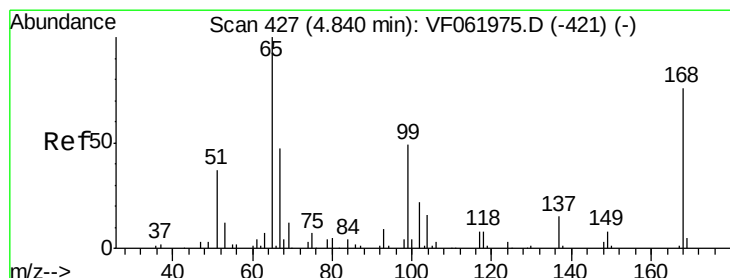
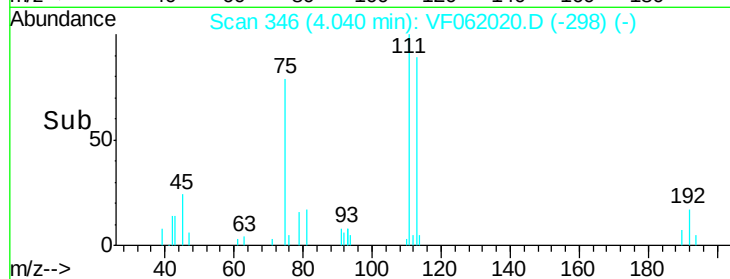
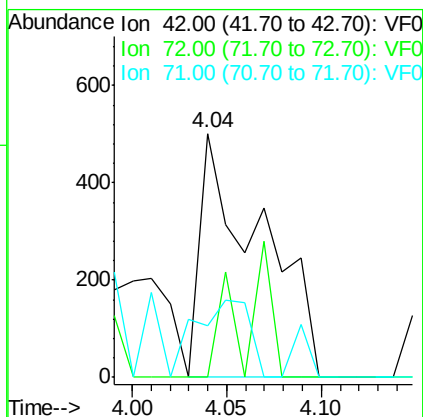
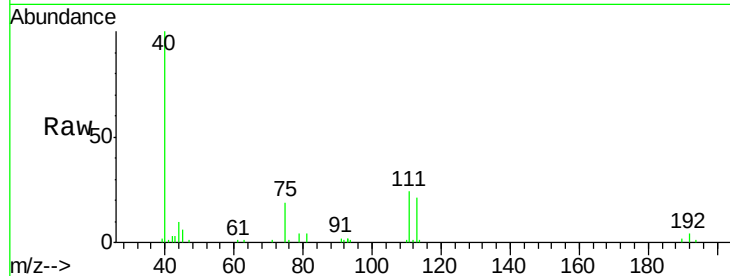




#29  
Tetrahydrofuran  
Concen: 3.069 ug/l  
RT: 4.04 min Scan# 346  
Delta R.T. -0.03 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

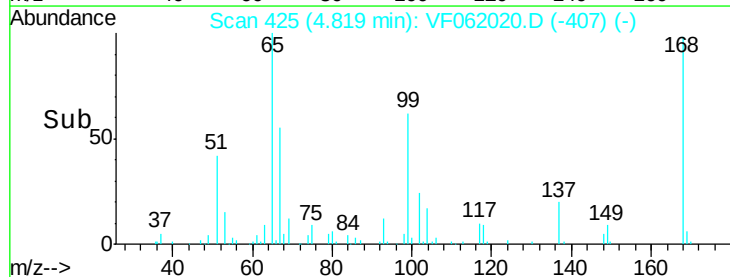
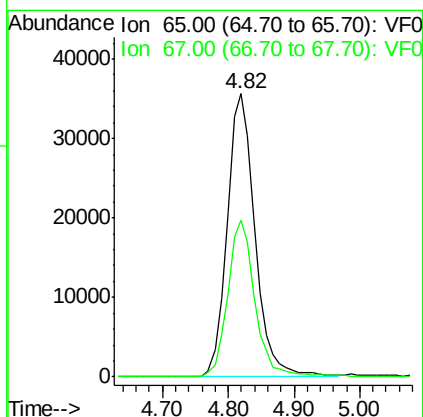
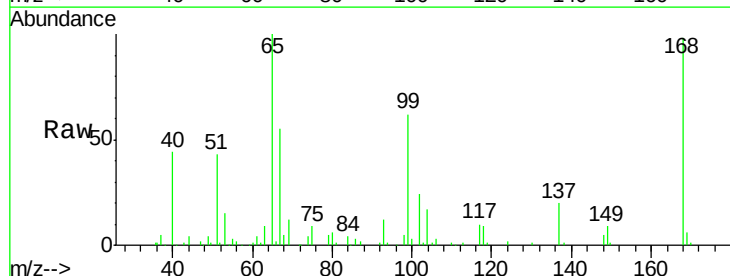
Instrument :  
MSVOA\_F  
ClientSampleId :

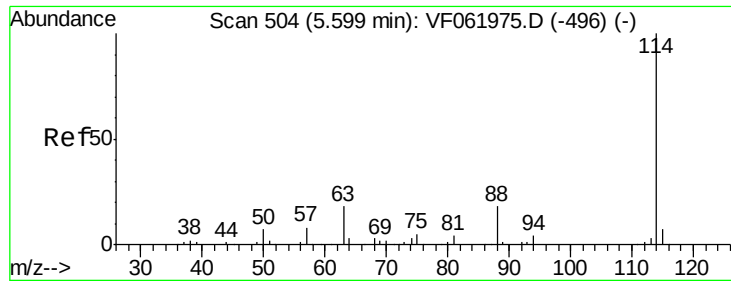
Tot Ion: 42 Resp: 1115  
Ion Ratio Lower Upper  
42 100  
72 11.6 34.0 51.0#  
71 28.5 34.2 51.4#



#33  
1,2-Dichloroethane-d4  
Concen: 56.279 ug/l  
RT: 4.82 min Scan# 425  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion: 65 Resp: 105714  
Ion Ratio Lower Upper  
65 100  
67 55.3 0.0 109.4

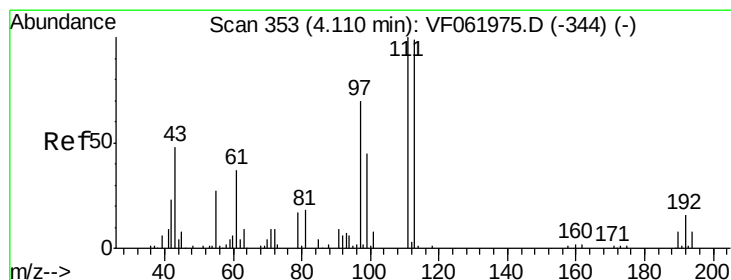
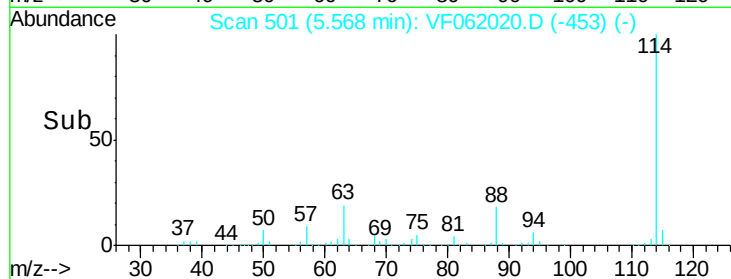
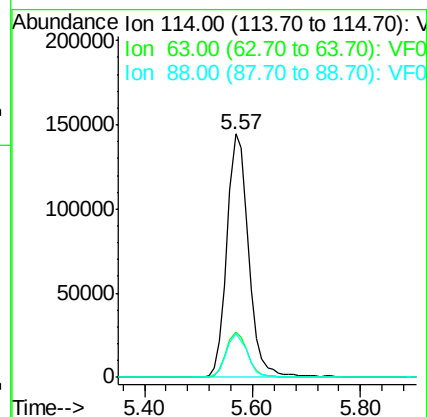
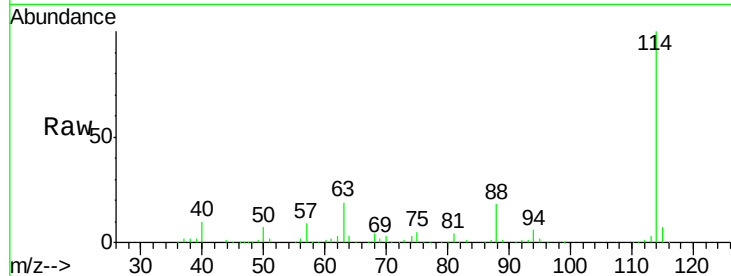




#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.57 min Scan# 501  
 Delta R.T. -0.03 min  
 Lab File: VF062020.D  
 Acq: 19 Mar 2019 16:12

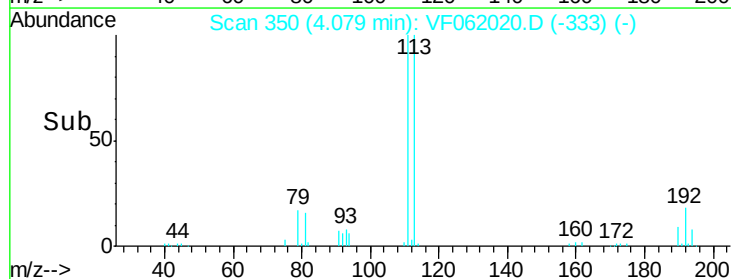
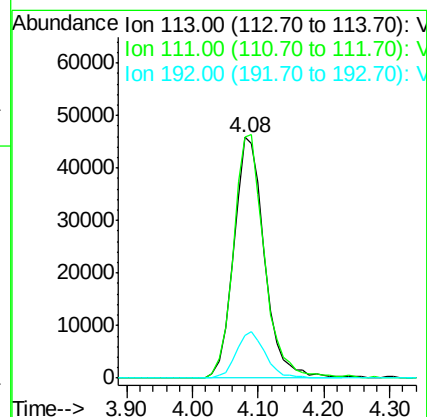
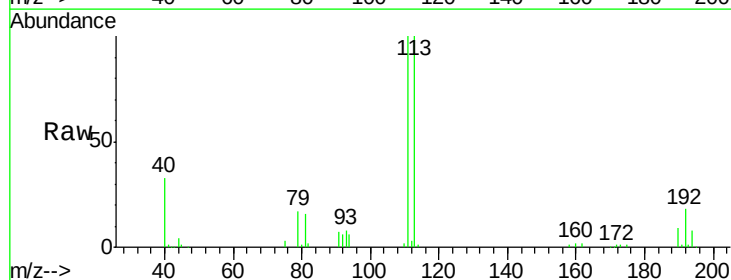
Instrument :  
 MSVOA\_F  
 ClientSampleId :

Tot Ion:114 Resp: 402764  
 Ion Ratio Lower Upper  
 114 100  
 63 18.5 0.0 36.4  
 88 17.8 0.0 36.4

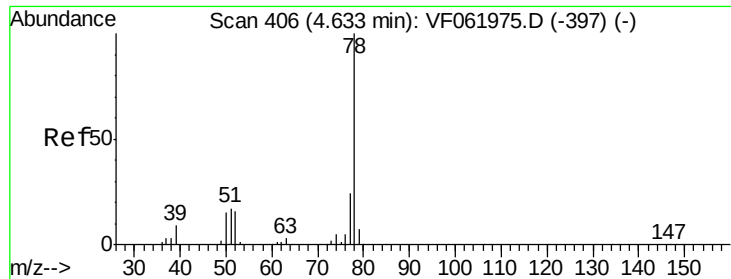


#35  
 Dibromofluoromethane  
 Concen: 55.291 ug/l  
 RT: 4.08 min Scan# 350  
 Delta R.T. -0.03 min  
 Lab File: VF062020.D  
 Acq: 19 Mar 2019 16:12

Tgt Ion:113 Resp: 149542  
 Ion Ratio Lower Upper  
 113 100  
 111 100.1 80.8 121.2  
 192 18.5 13.0 19.6







#40

Benzene

Concen: 3.113 ug/l

RT: 4.61 min Scan# 404

Delta R.T. -0.02 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

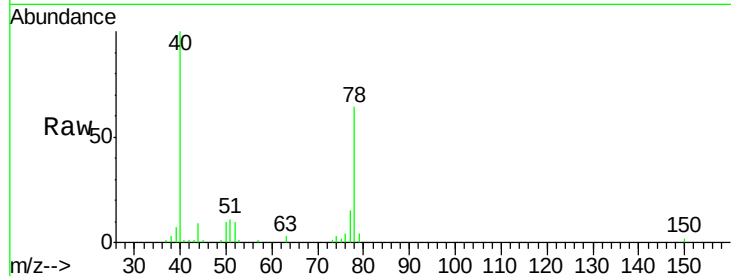
Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 78 Resp: 30003

Ion Ratio Lower Upper

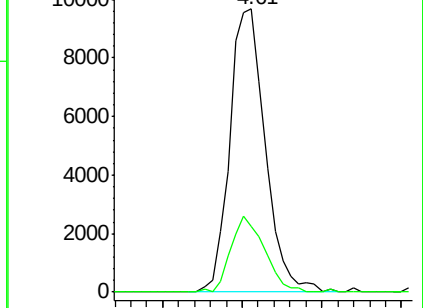
78 100

77 23.1 19.0 28.4

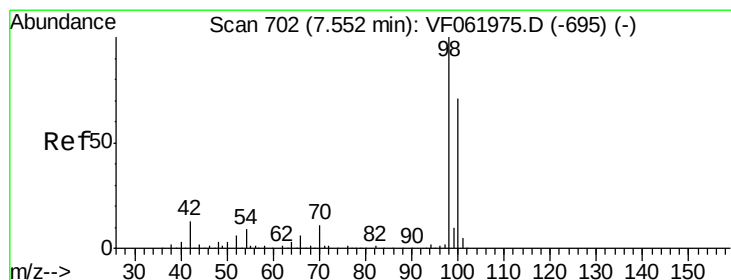
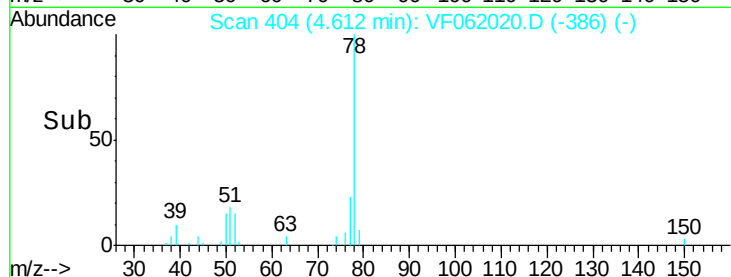


Abundance Ion 78.10 (77.80 to 78.80): VF0

Ion 77.00 (76.70 to 77.70): VF0



Time-->



#50

Toluene-d8

Concen: 50.398 ug/l

RT: 7.53 min Scan# 700

Delta R.T. -0.02 min

Lab File: VF062020.D

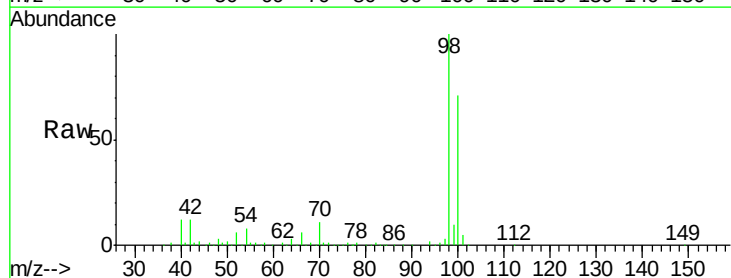
Acq: 19 Mar 2019 16:12

Tgt Ion: 98 Resp: 398472

Ion Ratio Lower Upper

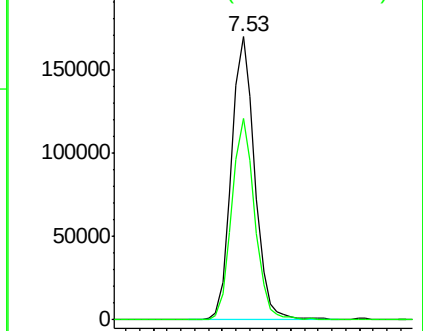
98 100

100 71.1 56.8 85.2

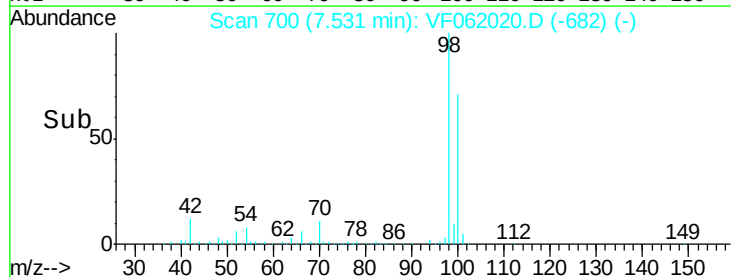


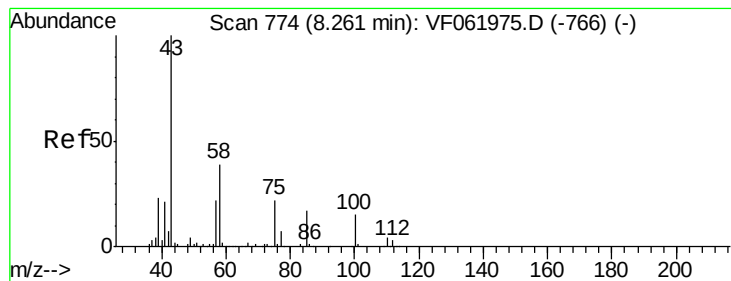
Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0



Time-->





#51

4-Methyl-2-Pentanone

Concen: 1.348 ug/l

RT: 8.26 min Scan# 774

Delta R.T. -0.00 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

Instrument :

MSVOA\_F

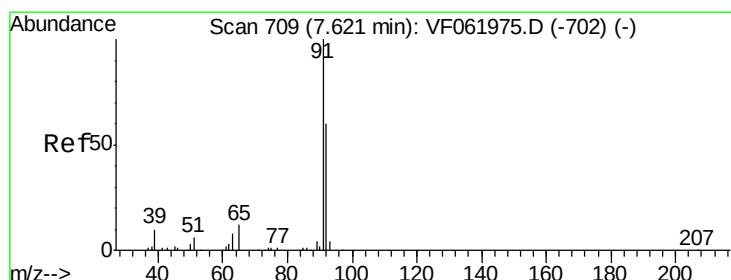
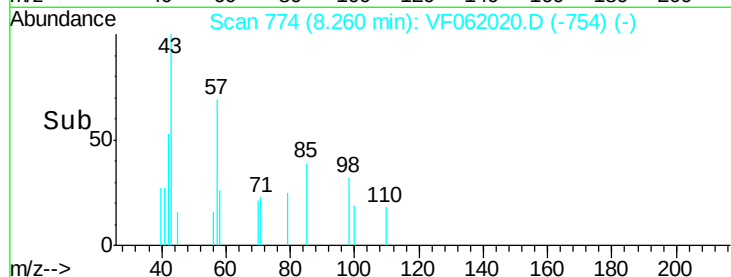
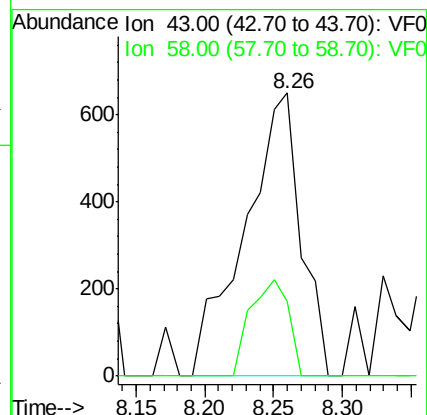
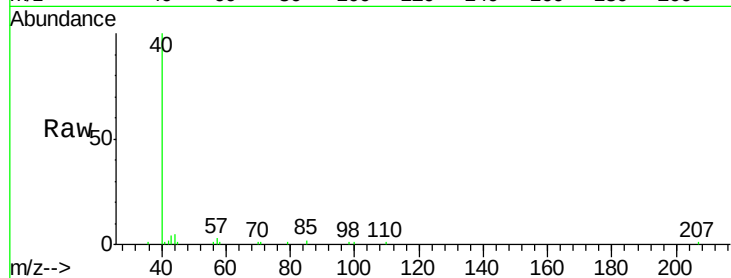
ClientSampleId :

Tot Ion: 43 Resp: 1849

Ion Ratio Lower Upper

43 100

58 26.5 31.1 46.7#



#52

Toluene

Concen: 2.255 ug/l

RT: 7.60 min Scan# 707

Delta R.T. -0.02 min

Lab File: VF062020.D

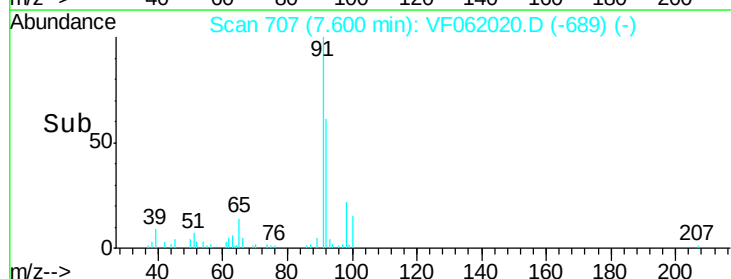
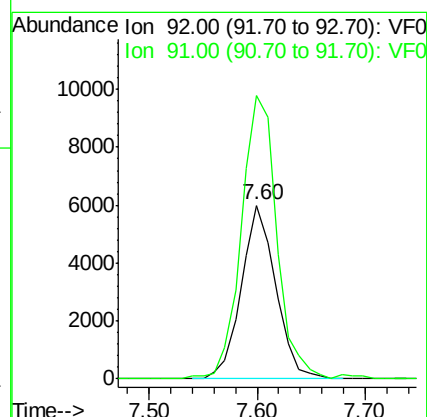
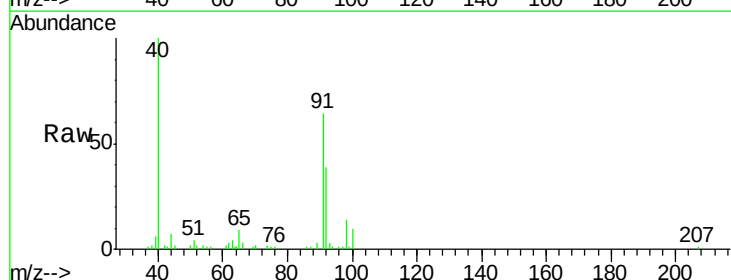
Acq: 19 Mar 2019 16:12

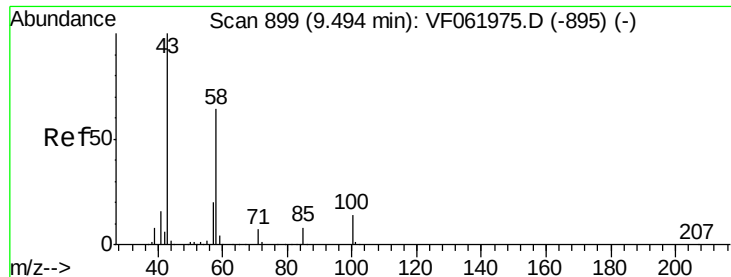
Tgt Ion: 92 Resp: 13276

Ion Ratio Lower Upper

92 100

91 163.3 134.0 201.0

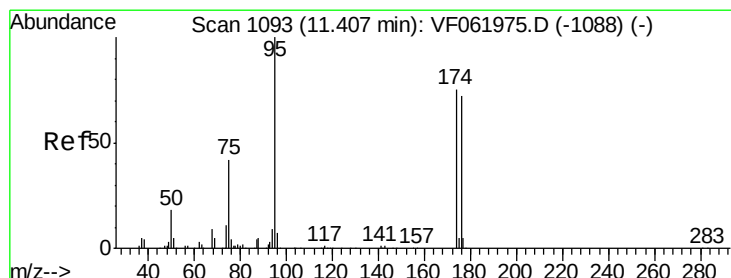
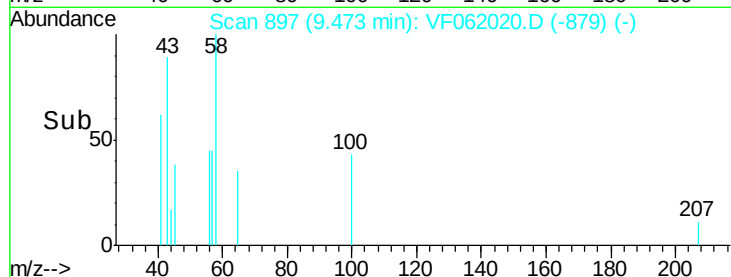
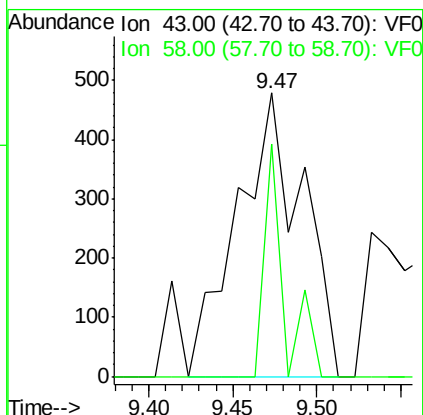
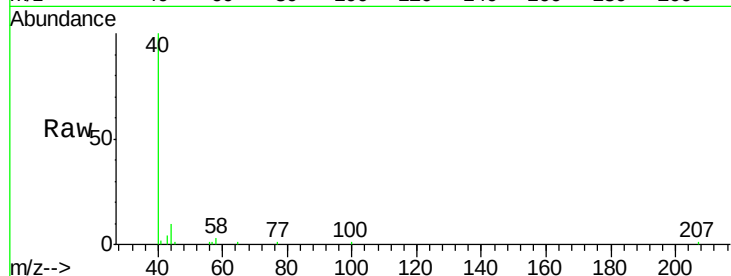




#59  
2-Hexanone  
Concen: 1.297 ug/l  
RT: 9.47 min Scan# 897  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

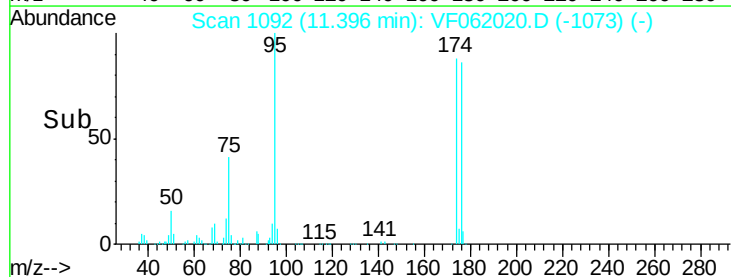
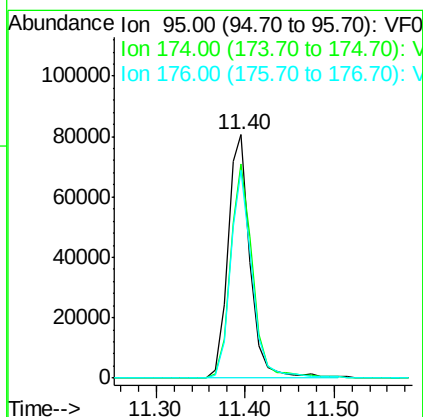
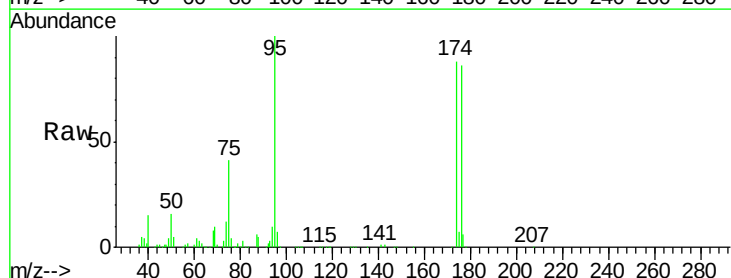
Instrument :  
MSVOA\_F  
ClientSampled :

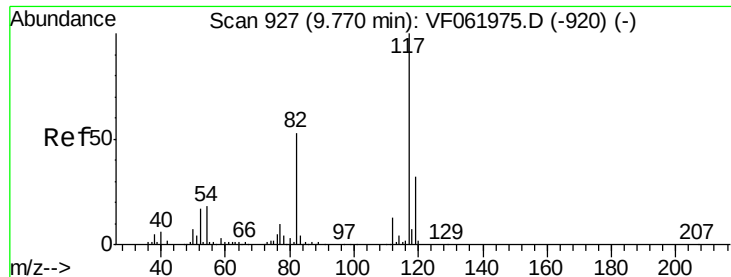
Tot Ion: 43 Resp: 1288  
Ion Ratio Lower Upper  
43 100  
58 82.0 28.4 85.2



#62  
4-Bromofluorobenzene  
Concen: 45.437 ug/l  
RT: 11.40 min Scan# 1092  
Delta R.T. -0.01 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion: 95 Resp: 142714  
Ion Ratio Lower Upper  
95 100  
174 88.1 0.0 149.4  
176 85.6 0.0 143.4

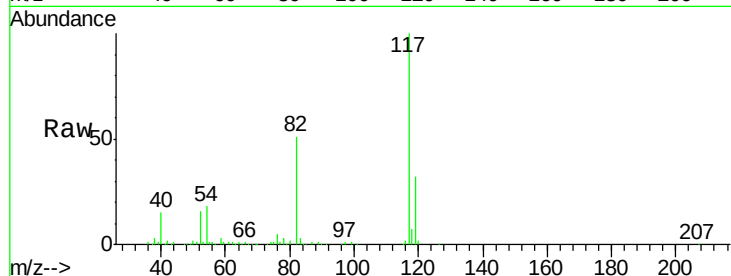




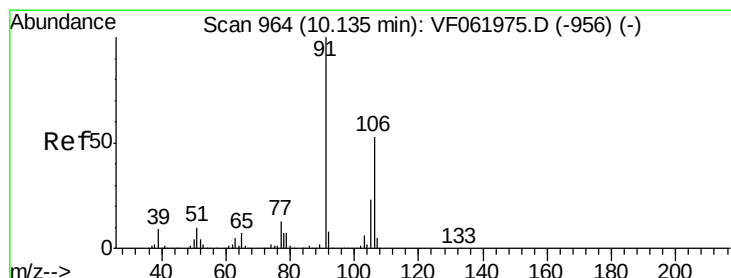
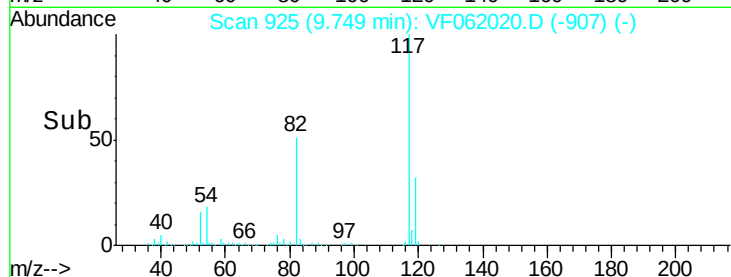
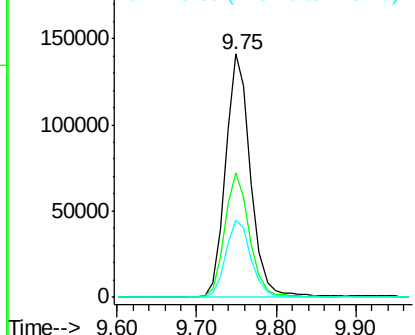
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.75 min Scan# 925  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:117 Resp: 311506  
Ion Ratio Lower Upper  
117 100  
82 51.4 42.5 63.7  
119 31.6 25.4 38.0

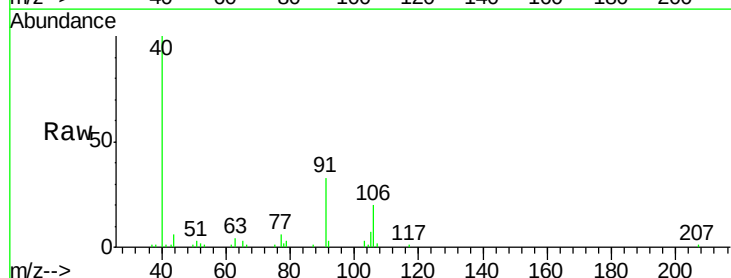


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): VF0  
Ion 119.00 (118.70 to 119.70): V

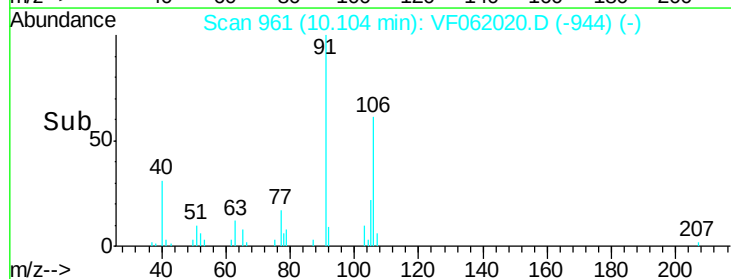
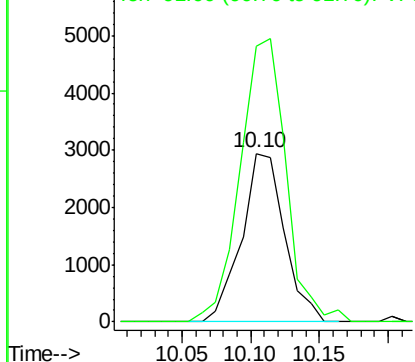


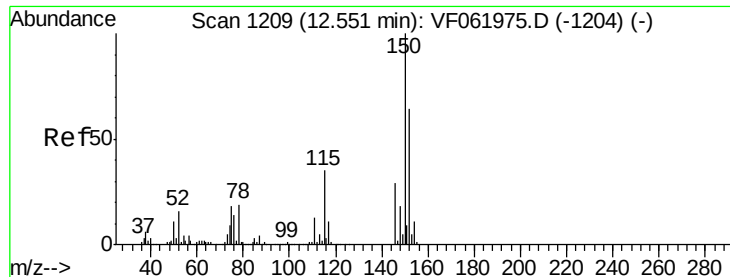
#68  
m/p-Xylenes  
Concen: 1.717 ug/l  
RT: 10.10 min Scan# 961  
Delta R.T. -0.03 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion:106 Resp: 6412  
Ion Ratio Lower Upper  
106 100  
91 163.6 151.9 227.9



Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VF0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.54 min Scan# 1208

Delta R.T. -0.01 min

Lab File: VF062020.D

Acq: 19 Mar 2019 16:12

Instrument :

MSVOA\_F

ClientSampleId :

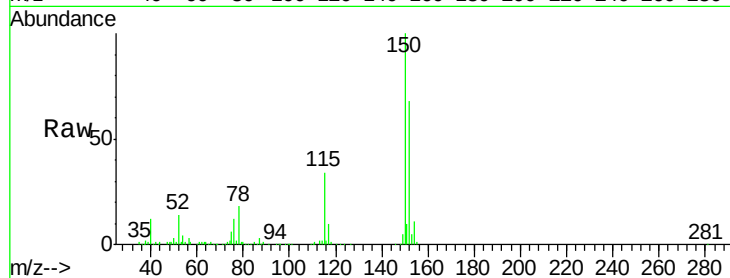
Tot Ion:152 Resp: 142080

Ion Ratio Lower Upper

152 100

115 49.7 27.3 81.9

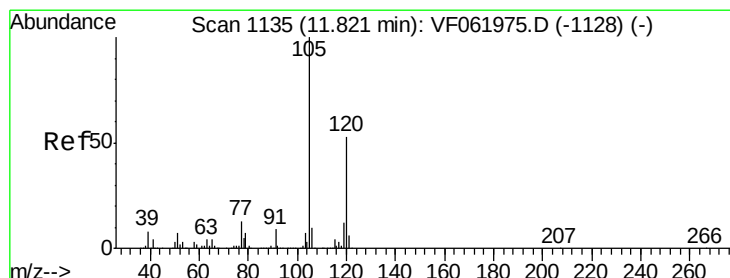
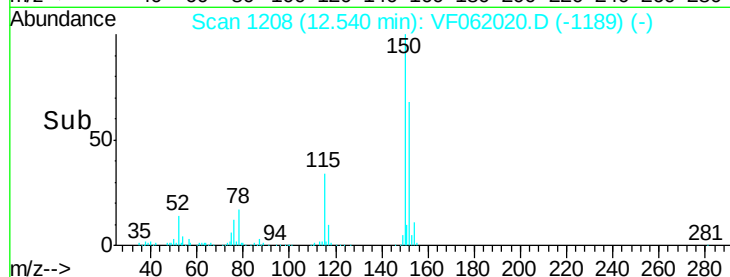
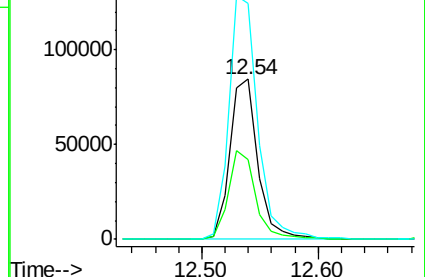
150 147.6 0.0 316.2



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



#80

1,3,5-Trimethylbenzene

Concen: 1.179 ug/l

RT: 11.81 min Scan# 1134

Delta R.T. -0.01 min

Lab File: VF062020.D

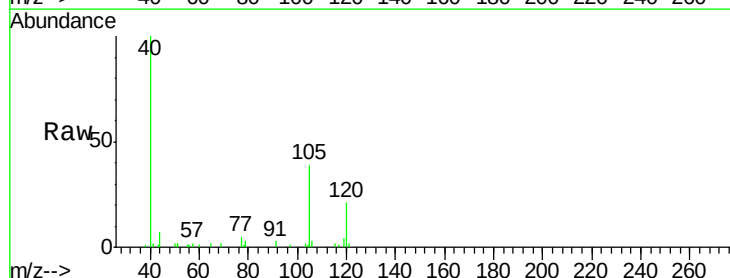
Acq: 19 Mar 2019 16:12

Tgt Ion:105 Resp: 9347

Ion Ratio Lower Upper

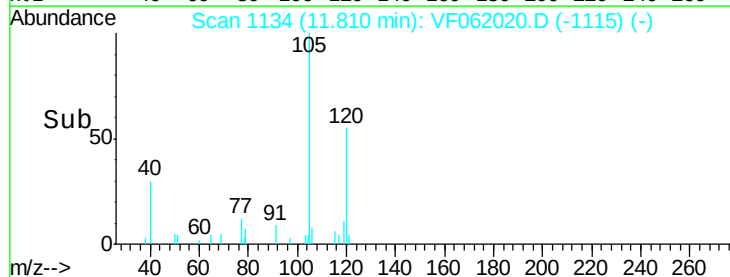
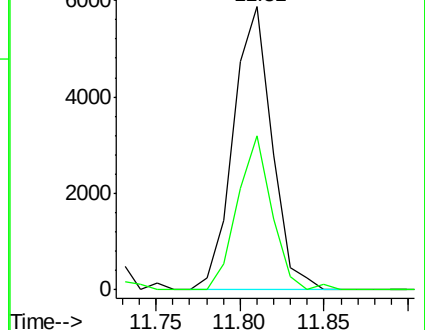
105 100

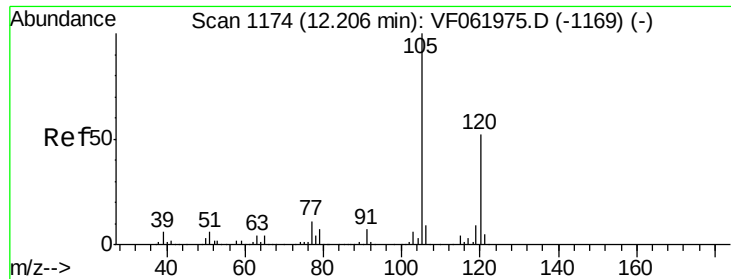
120 54.6 26.6 79.7



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

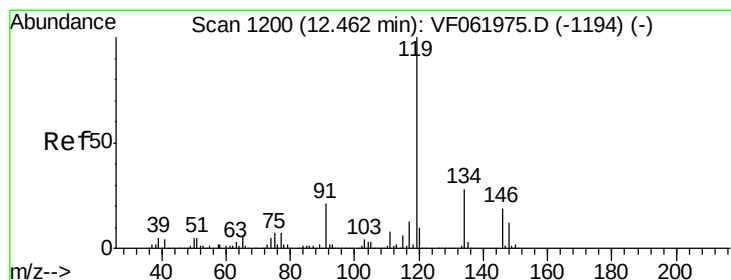
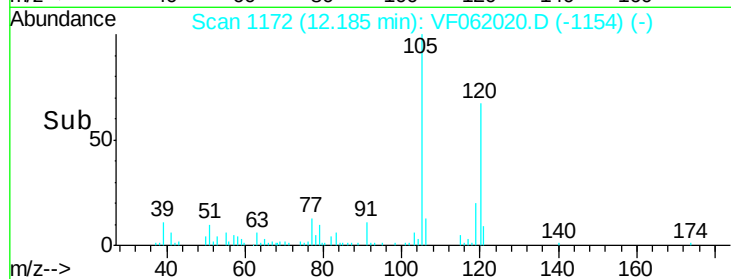
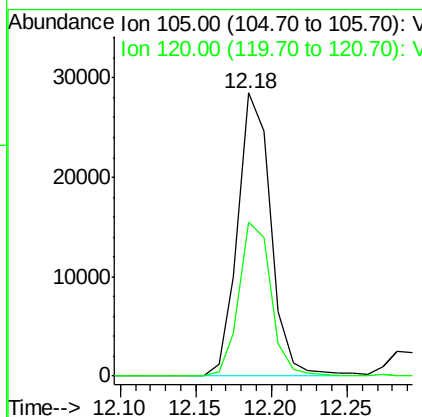
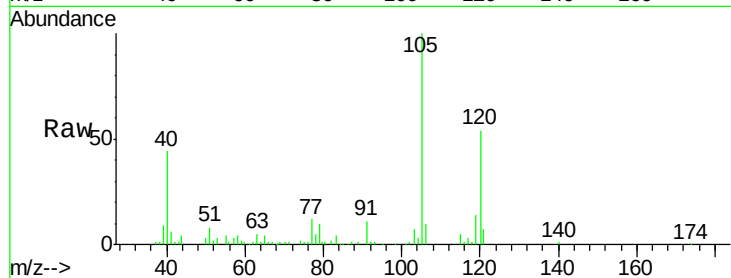




#84  
 1,2,4-Trimethylbenzene  
 Concen: 5.470 ug/l  
 RT: 12.18 min Scan# 1172  
 Delta R.T. -0.02 min  
 Lab File: VF062020.D  
 Acq: 19 Mar 2019 16:12

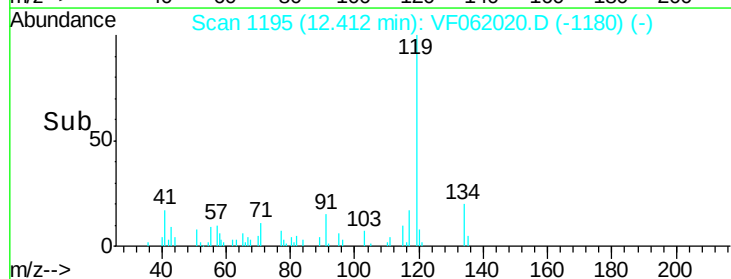
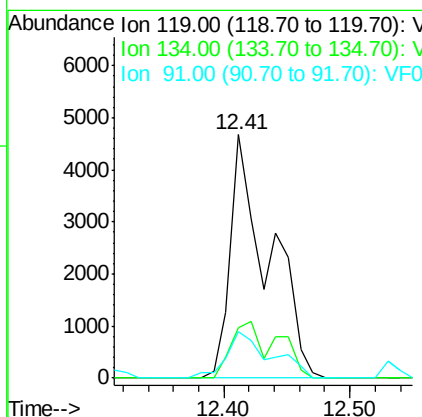
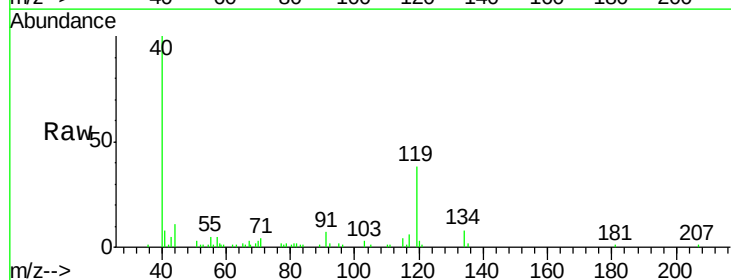
Instrument :  
 MSVOA\_F  
 ClientSampleId :

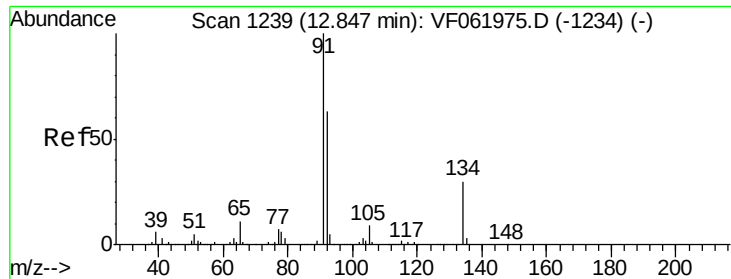
Tot Ion:105 Resp: 43446  
 Ion Ratio Lower Upper  
 105 100  
 120 54.4 25.9 77.8



#86  
 p-Isopropyltoluene  
 Concen: 1.051 ug/l  
 RT: 12.41 min Scan# 1195  
 Delta R.T. -0.05 min  
 Lab File: VF062020.D  
 Acq: 19 Mar 2019 16:12

Tgt Ion:119 Resp: 9823  
 Ion Ratio Lower Upper  
 119 100  
 134 20.5 13.9 41.7  
 91 19.0 10.4 31.1

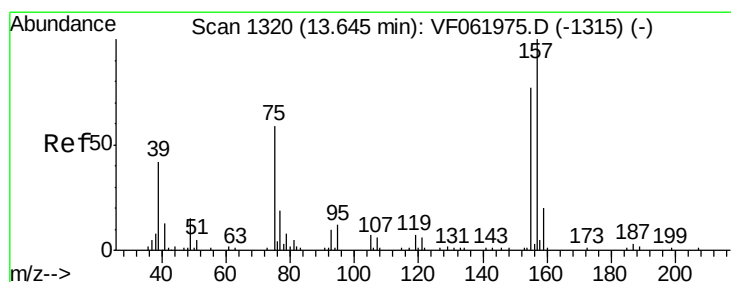
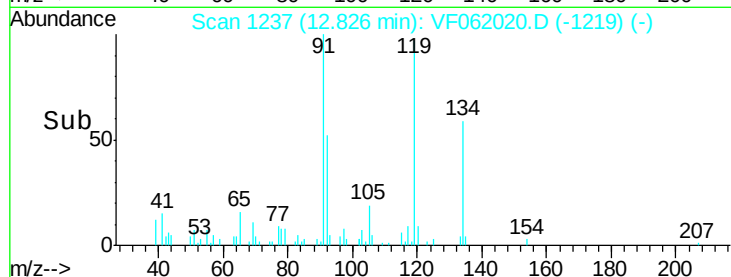
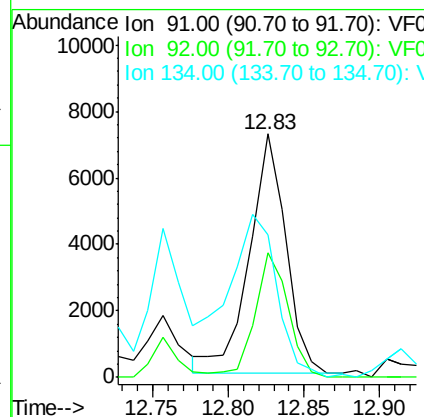
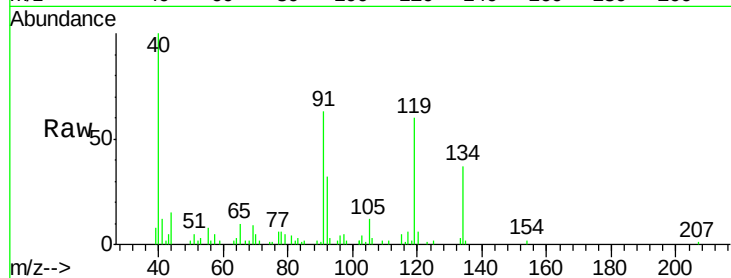




#89  
n-Butylbenzene  
Concen: 1.375 ug/l  
RT: 12.83 min Scan# 1237  
Delta R.T. -0.02 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

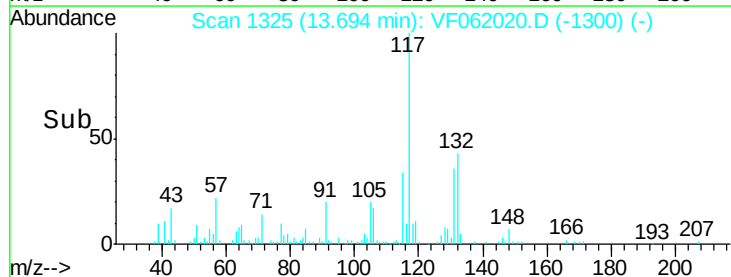
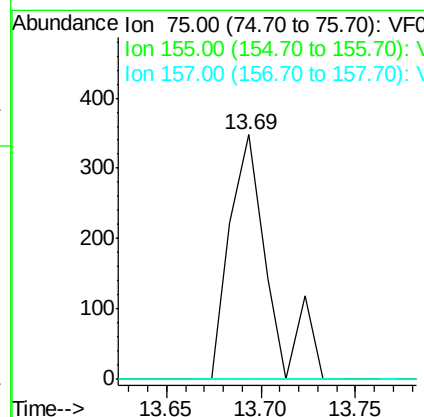
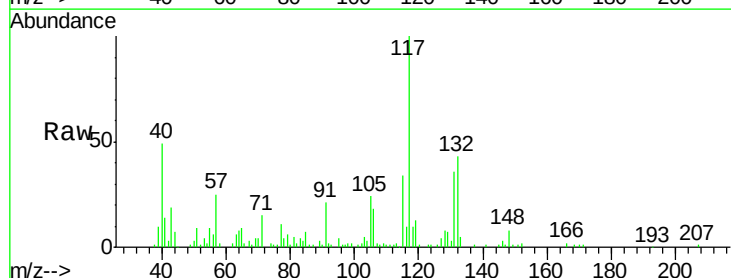
Instrument :  
MSVOA\_F  
ClientSampleId :

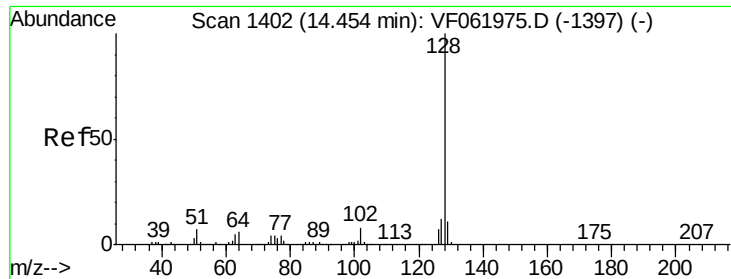
Tot Ion: 91 Resp: 12075  
Ion Ratio Lower Upper  
91 100  
92 51.1 31.7 95.1  
134 58.3 15.1 45.3#



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 1.888 ug/l  
RT: 13.69 min Scan# 1325  
Delta R.T. 0.05 min  
Lab File: VF062020.D  
Acq: 19 Mar 2019 16:12

Tgt Ion: 75 Resp: 491  
Ion Ratio Lower Upper  
75 100  
155 0.0 65.0 195.1#  
157 0.0 84.7 254.0#





#95  
 Naphthalene  
 Concen: 3.542 ug/l  
 RT: 14.44 min Scan# 1401  
 Delta R.T. -0.01 min  
 Lab File: VF062020.D  
 Acq: 19 Mar 2019 16:12

Instrument :  
 MSVOA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.3  | 9.3   | 13.9  |
| 129     | 17.7  | 9.1   | 13.7  |

