

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031919\  
 Data File : VF062023.D  
 Acq On : 19 Mar 2019 17:47  
 Operator : VA/AP  
 Sample : K1958-01  
 Misc : 7.27g/5mL/MSVOA-F/SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 TP-1

Quant Time: Mar 20 05:22:09 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      | 4.85  | 168  | 24815    | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 5.59  | 114  | 28412    | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.76  | 117  | 18061    | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 6925     | 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   | 3531     | 19.77  | ug/l   | -0.02    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 39.54% |          |
| 35) Dibromofluoromethane    | 4.10  | 113  | 6878     | 36.05  | ug/l   | -0.01    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 72.10% |          |
| 50) Toluene-d8              | 7.54  | 98   | 24578    | 44.07  | ug/l   | -0.01    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 88.14% |          |
| 62) 4-Bromofluorobenzene    | 11.41 | 95   | 6725     | 30.35  | ug/l   | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 60.70% |          |

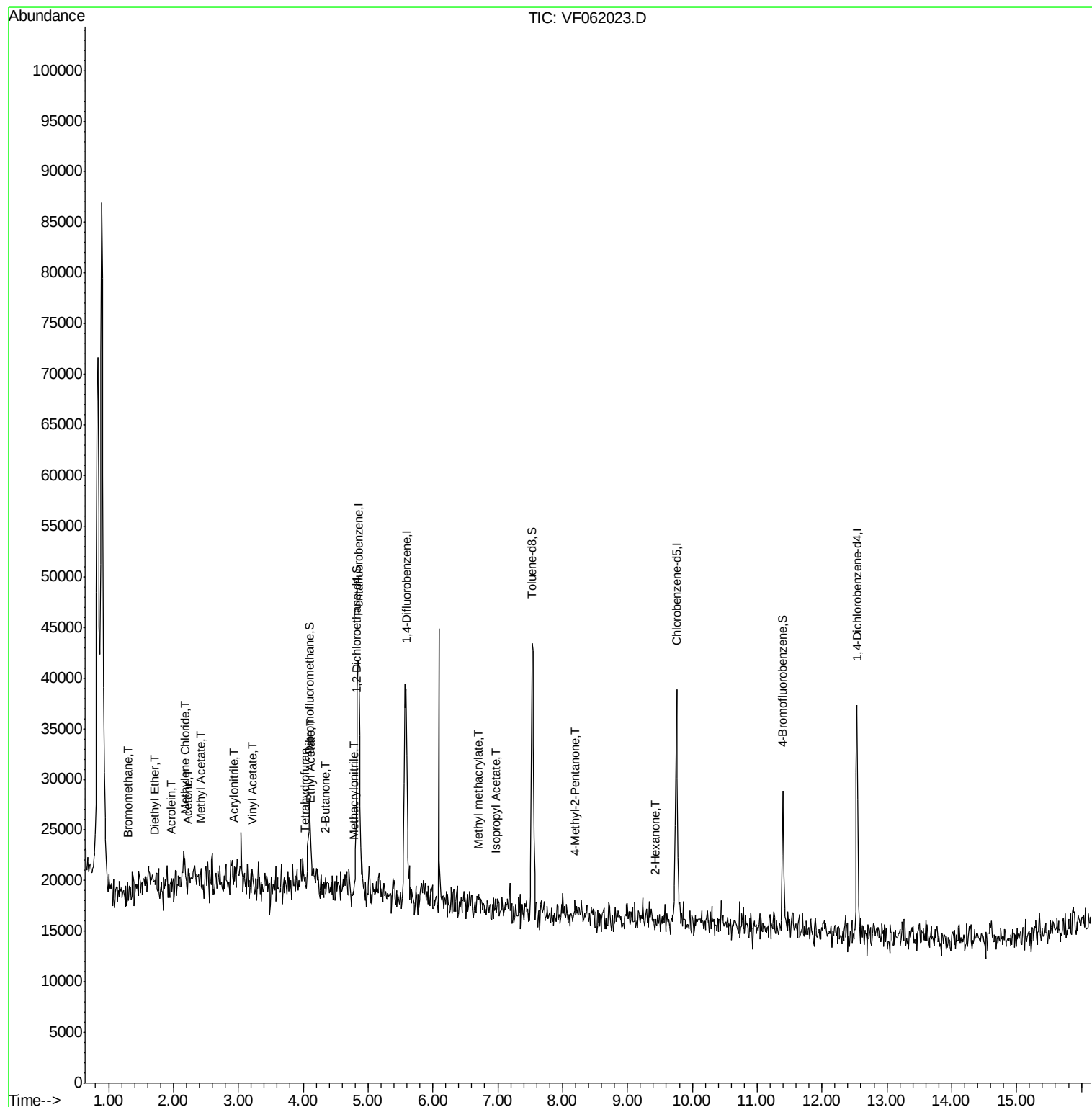
| Target Compounds         | R.T. | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------|------|------|----------|--------|--------|--------|
| 5) Bromomethane          | 1.31 | 94   | 511      | 2.798  | ug/l # | 3      |
| 8) Diethyl Ether         | 1.70 | 74   | 80       | 1.045  | ug/l   | 81     |
| 13) Acrolein             | 1.98 | 56   | 325      | 27.543 | ug/l # | 54     |
| 15) Acrylonitrile        | 2.92 | 53   | 92       | 2.768  | ug/l # | 18     |
| 16) Acetone              | 2.21 | 43   | 1543     | 38.468 | ug/l # | 50     |
| 18) Methyl Acetate       | 2.41 | 43   | 1532     | 18.669 | ug/l # | 63     |
| 20) Methylene Chloride   | 2.18 | 84   | 956      | 4.629  | ug/l # | 68     |
| 23) Vinyl Acetate        | 3.21 | 43   | 466      | 1.838  | ug/l # | 77     |
| 25) 2-Butanone           | 4.34 | 43   | 130      | 1.636  | ug/l # | 51     |
| 29) Tetrahydrofuran      | 4.04 | 42   | 151      | 4.371  | ug/l # | 65     |
| 37) Ethyl Acetate        | 4.13 | 43   | 474      | 4.114  | ug/l # | 19     |
| 41) Methacrylonitrile    | 4.78 | 41   | 70       | 1.137  | ug/l # | 22     |
| 43) Isopropyl Acetate    | 6.98 | 43   | 196      | 1.438  | ug/l # | 38     |
| 48) Methyl methacrylate  | 6.69 | 41   | 282      | 3.201  | ug/l # | 20     |
| 51) 4-Methyl-2-Pentanone | 8.20 | 43   | 385      | 3.978  | ug/l # | 36     |
| 59) 2-Hexanone           | 9.44 | 43   | 111      | 1.585  | ug/l # | 23     |

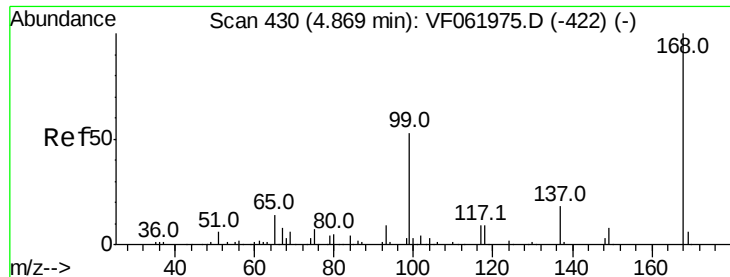
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF031919\  
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Sample : K1958-01  
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ALS Vial : 15 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
TP-1

Quant Time: Mar 20 05:22:09 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: 4.85 min Scan# 428

Delta R.T. -0.02 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

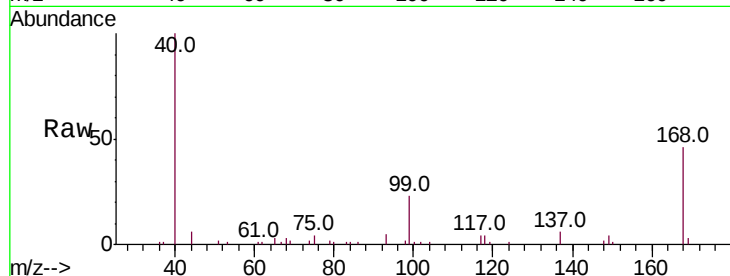
Instrument :  
MSVOA\_F  
ClientSampled :  
TP-1

Tot Ion:168 Resp: 24815

Ion Ratio Lower Upper

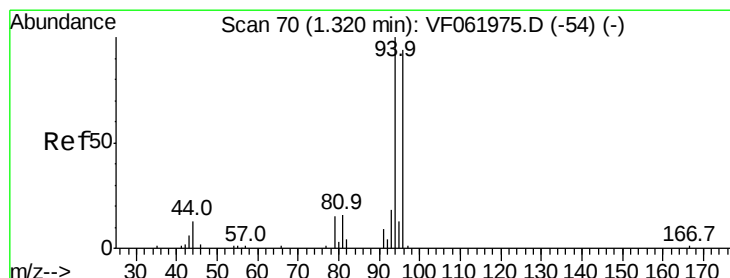
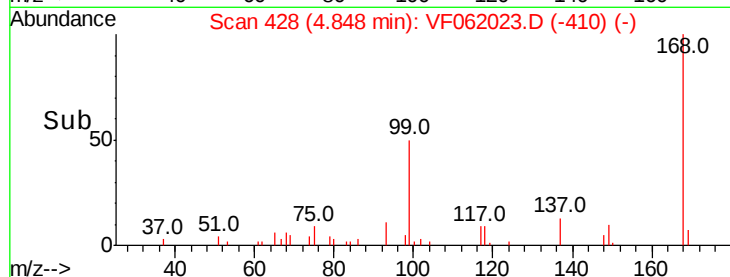
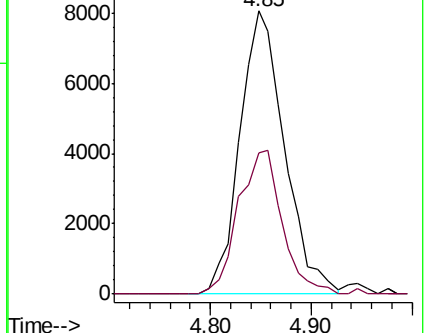
168 100

99 49.8 42.4 63.6



Abundance Ion 168.00 (167.70 to 168.70): VF061975.D (-422) (-)

Ion 99.00 (98.70 to 99.70): VF061975.D (-422) (-)



#5

Bromomethane

Concen: 2.798 ug/l

RT: 1.31 min Scan# 69

Delta R.T. -0.01 min

Lab File: VF062023.D

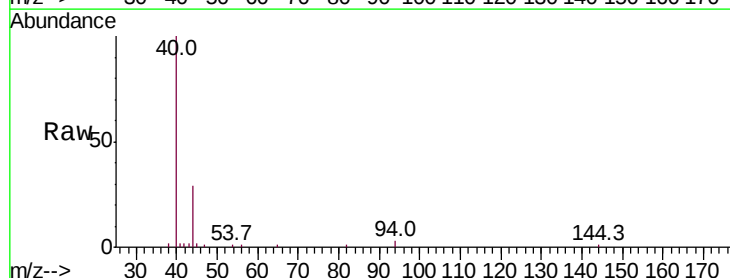
Acq: 19 Mar 2019 17:47

Tgt Ion: 94 Resp: 511

Ion Ratio Lower Upper

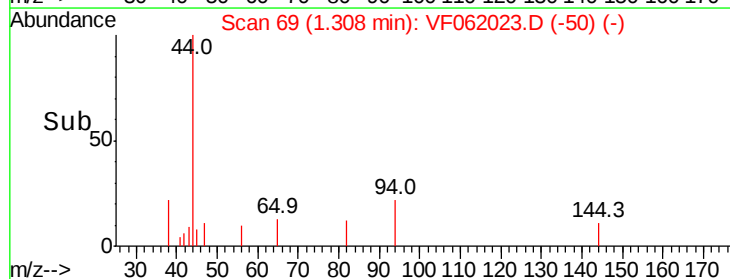
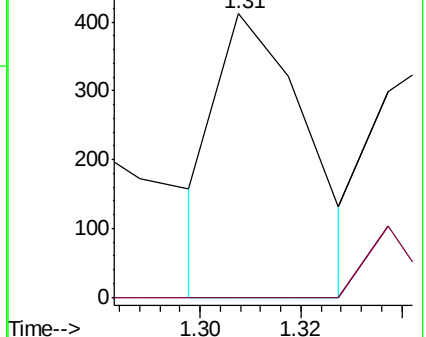
94 100

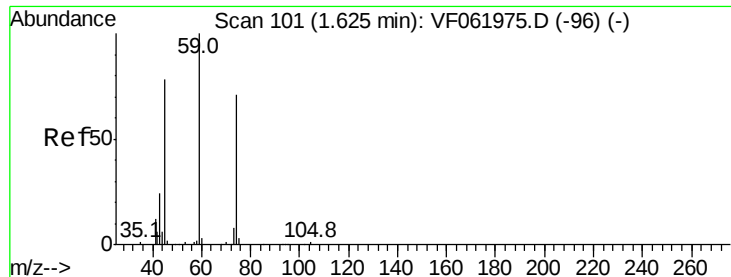
96 0.0 75.0 112.6#



Abundance Ion 94.00 (93.70 to 94.70): VF061975.D (-54) (-)

Ion 96.00 (95.70 to 96.70): VF061975.D (-54) (-)





#8

Diethyl Ether

Concen: 1.045 ug/l

RT: 1.70 min Scan# 109

Delta R.T. 0.08 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

Instrument :

MSVOA\_F

ClientSampleId :

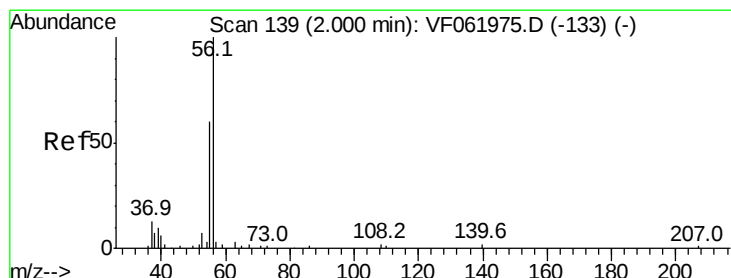
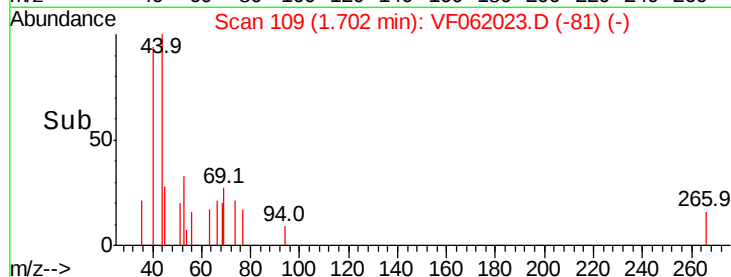
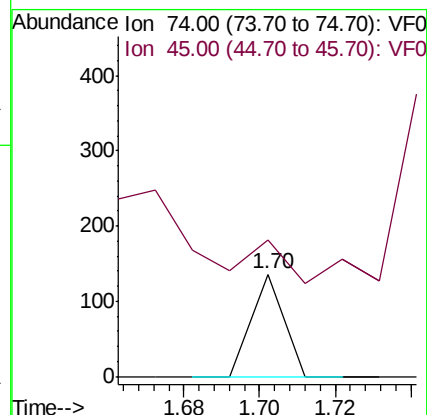
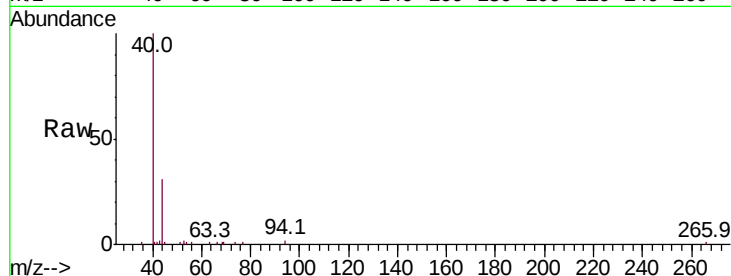
TP-1

Tot Ion: 74 Resp: 80

Ion Ratio Lower Upper

74 100

45 133.1 56.3 168.8



#13

Acrolein

Concen: 27.543 ug/l

RT: 1.98 min Scan# 137

Delta R.T. -0.02 min

Lab File: VF062023.D

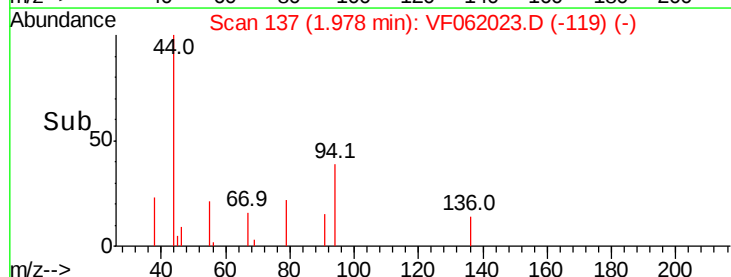
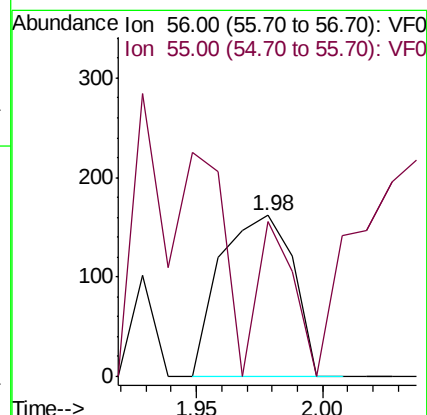
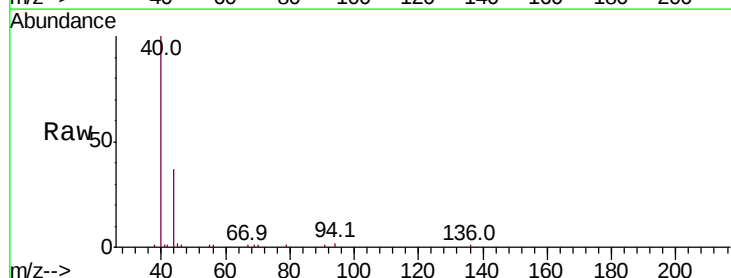
Acq: 19 Mar 2019 17:47

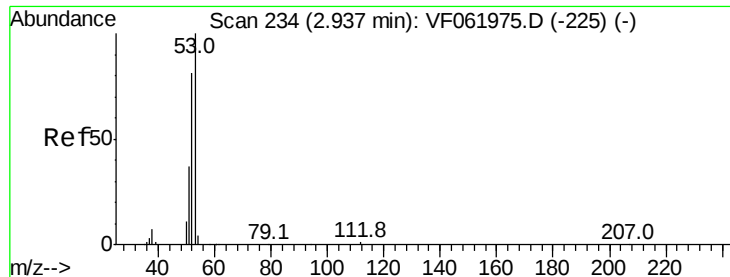
Tgt Ion: 56 Resp: 325

Ion Ratio Lower Upper

56 100

55 96.3 49.1 73.7#





#15

Acrylonitrile

Concen: 2.768 ug/l

RT: 2.92 min Scan# 233

Delta R.T. -0.01 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

Instrument :

MSVOA\_F

ClientSampled :

TP-1

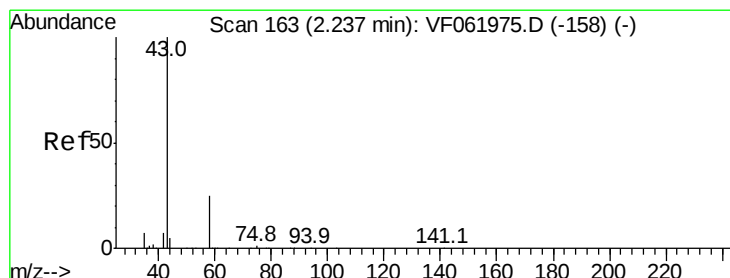
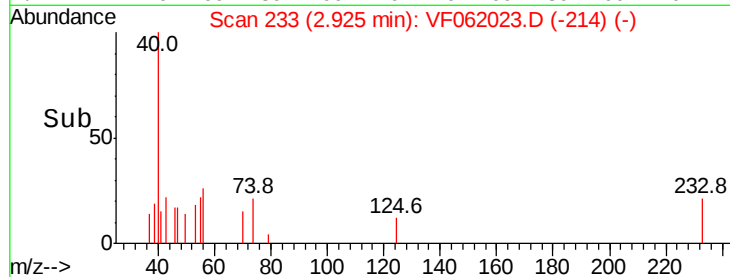
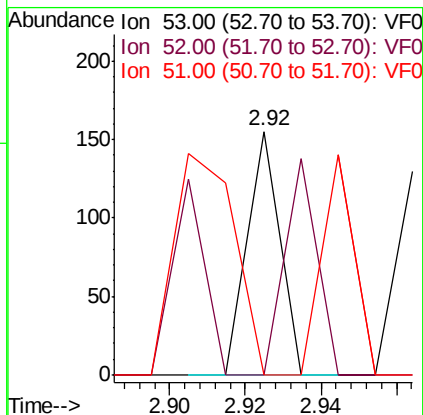
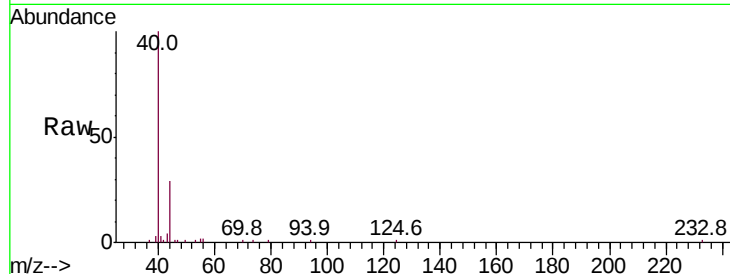
Tot Ion: 53 Resp: 92

Ion Ratio Lower Upper

53 100

52 0.0 64.4 96.6#

51 0.0 30.3 45.5#



#16

Acetone

Concen: 38.468 ug/l

RT: 2.21 min Scan# 161

Delta R.T. -0.02 min

Lab File: VF062023.D

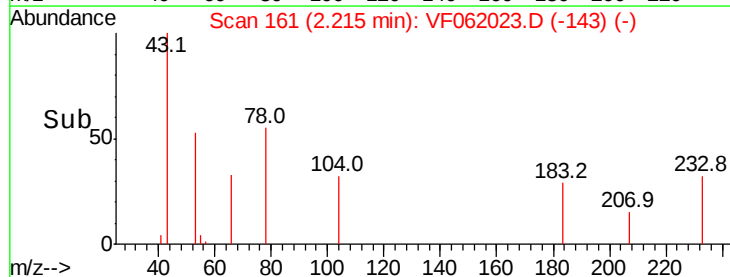
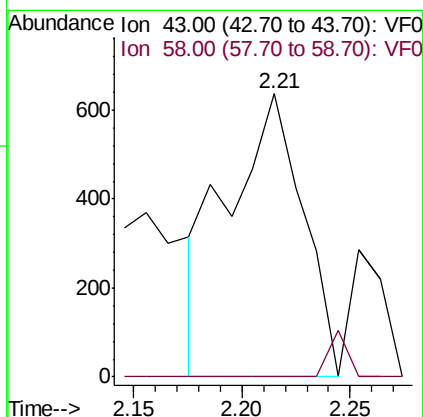
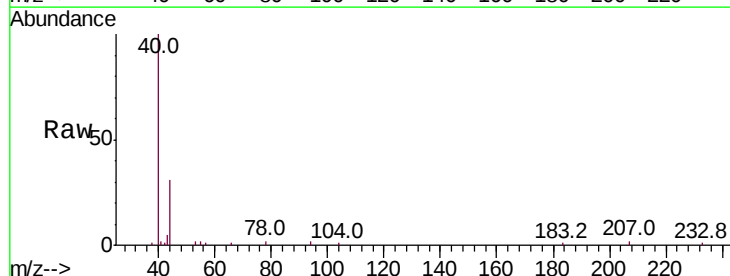
Acq: 19 Mar 2019 17:47

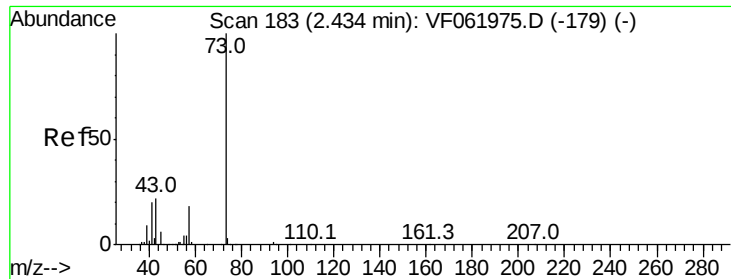
Tgt Ion: 43 Resp: 1543

Ion Ratio Lower Upper

43 100

58 0.0 19.9 29.9#

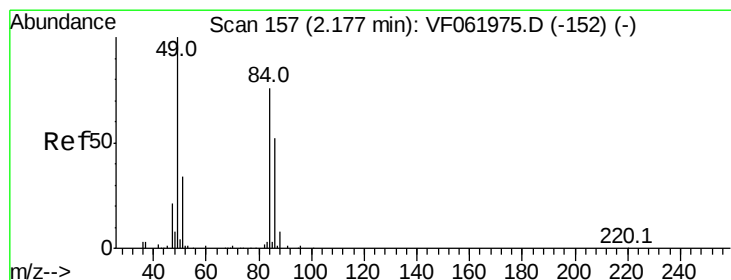
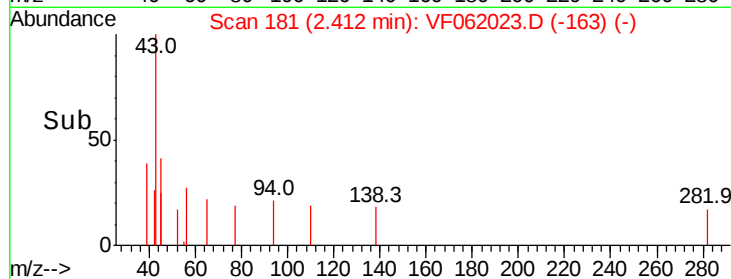
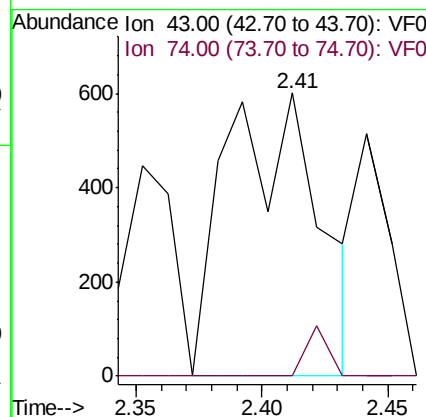
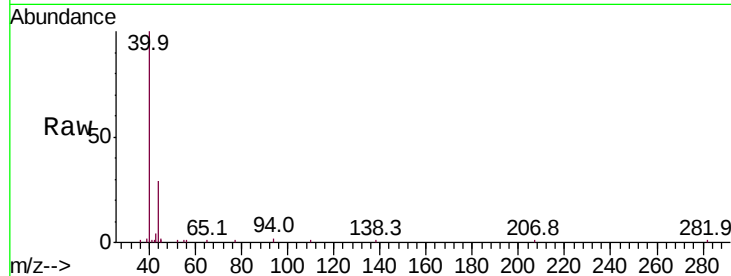




#18  
Methyl Acetate  
Concen: 18.669 ug/l  
RT: 2.41 min Scan# 181  
Delta R.T. -0.02 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

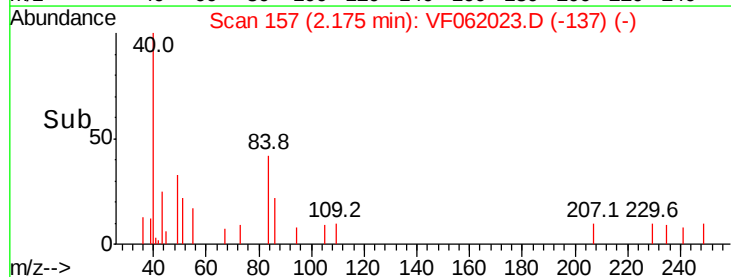
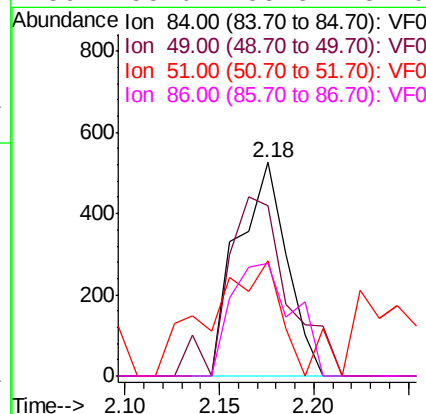
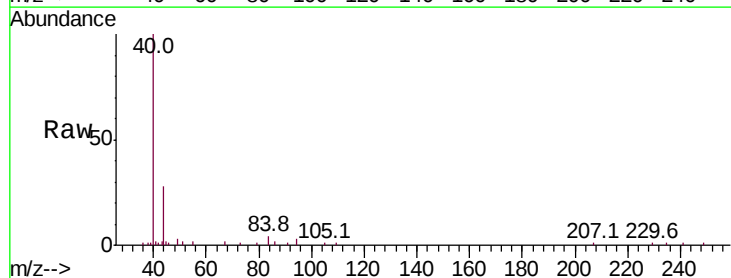
Instrument :  
MSVOA\_F  
ClientSampleId :  
TP-1

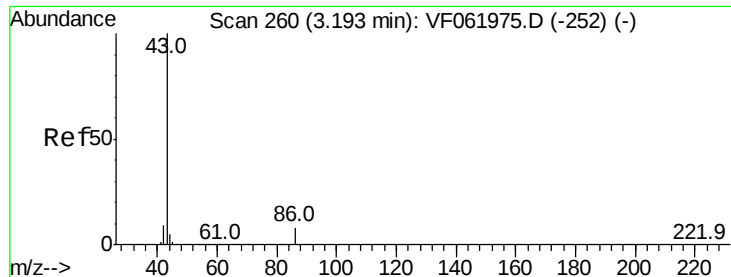
Tot Ion: 43 Resp: 1532  
Ion Ratio Lower Upper  
43 100  
74 0.0 12.6 18.8#



#20  
Methylene Chloride  
Concen: 4.629 ug/l  
RT: 2.18 min Scan# 157  
Delta R.T. -0.00 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Tgt Ion: 84 Resp: 956  
Ion Ratio Lower Upper  
84 100  
49 79.7 107.0 160.6#  
51 53.8 37.2 55.8  
86 53.0 55.3 82.9#





#23

Vinyl Acetate

Concen: 1.838 ug/l

RT: 3.21 min Scan# 262

Delta R.T. 0.02 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

Instrument :

MSVOA\_F

ClientSampled :

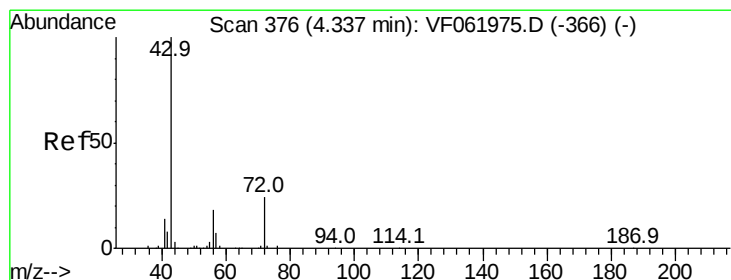
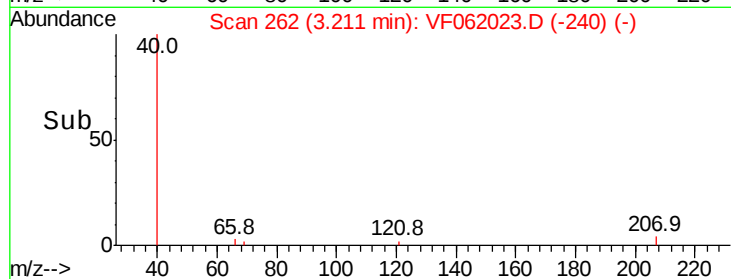
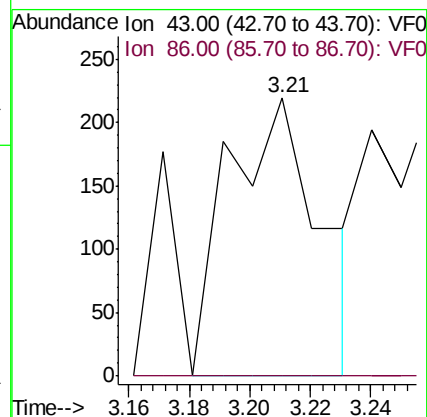
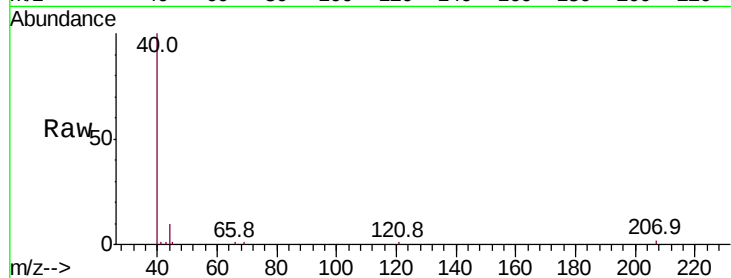
TP-1

Tot Ion: 43 Resp: 466

Ion Ratio Lower Upper

43 100

86 0.0 6.5 9.7#



#25

2-Butanone

Concen: 1.636 ug/l

RT: 4.34 min Scan# 377

Delta R.T. 0.01 min

Lab File: VF062023.D

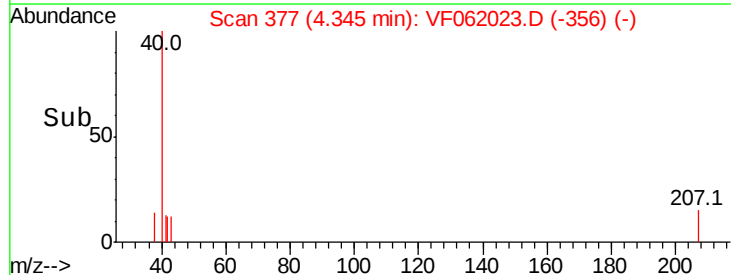
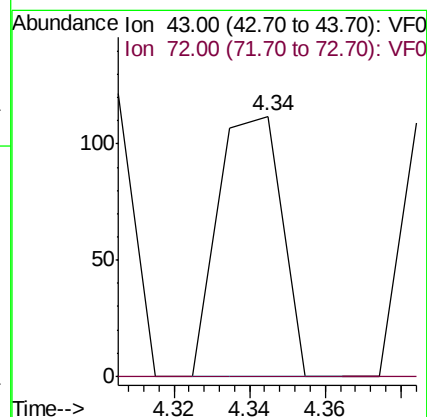
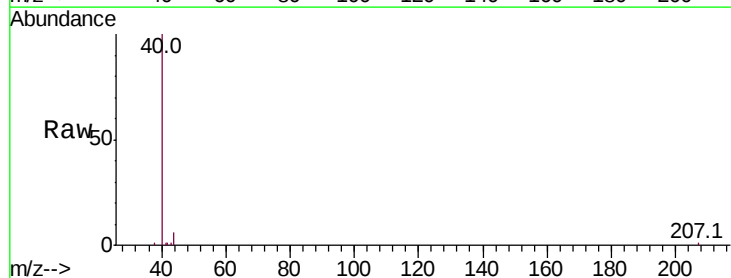
Acq: 19 Mar 2019 17:47

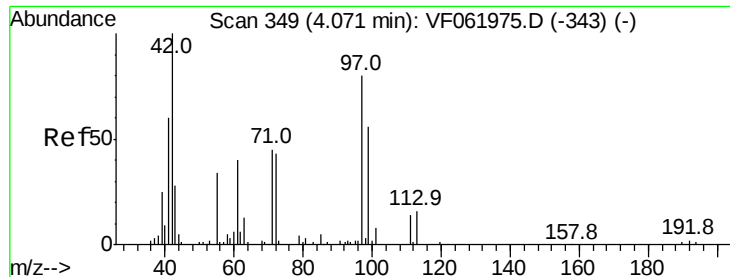
Tgt Ion: 43 Resp: 130

Ion Ratio Lower Upper

43 100

72 0.0 19.8 29.6#





#29

Tetrahydrofuran

Concen: 4.371 ug/l

RT: 4.04 min Scan# 346

Delta R.T. -0.03 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

Instrument :

MSVOA\_F

ClientSampleId :

TP-1

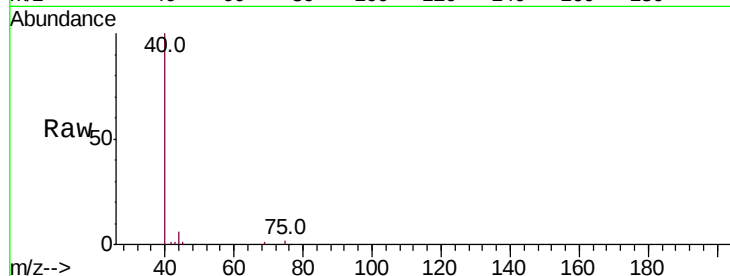
Tot Ion: 42 Resp: 151

Ion Ratio Lower Upper

42 100

72 0.0 34.0 51.0#

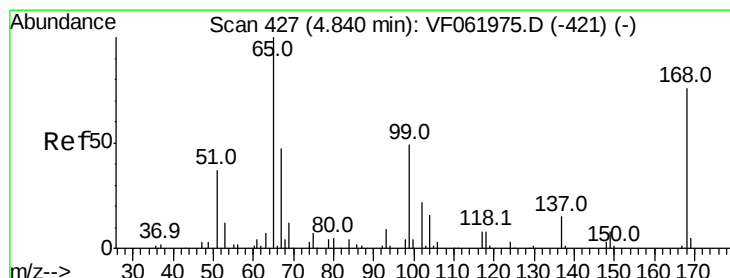
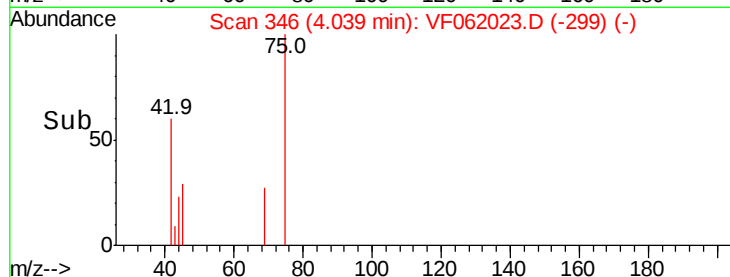
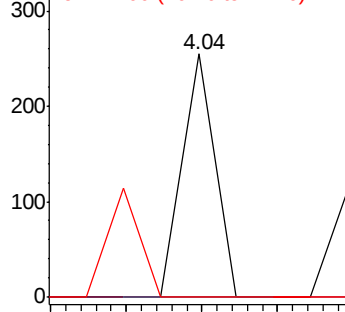
71 44.4 34.2 51.4



Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0



#33

1,2-Dichloroethane-d4

Concen: 19.767 ug/l

RT: 4.82 min Scan# 425

Delta R.T. -0.02 min

Lab File: VF062023.D

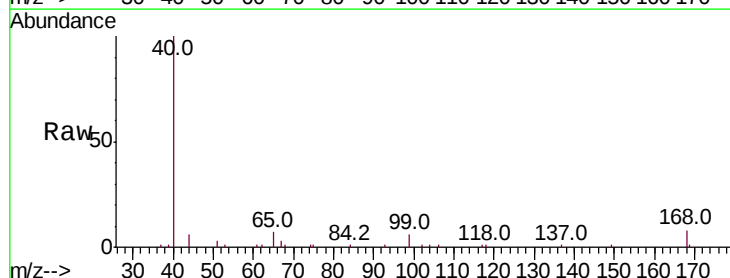
Acq: 19 Mar 2019 17:47

Tgt Ion: 65 Resp: 3531

Ion Ratio Lower Upper

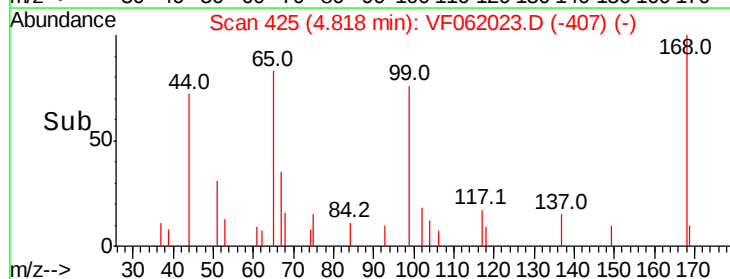
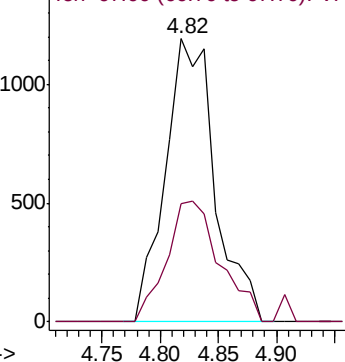
65 100

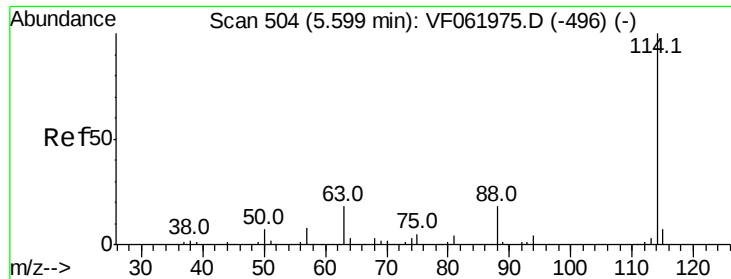
67 41.6 0.0 109.4



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

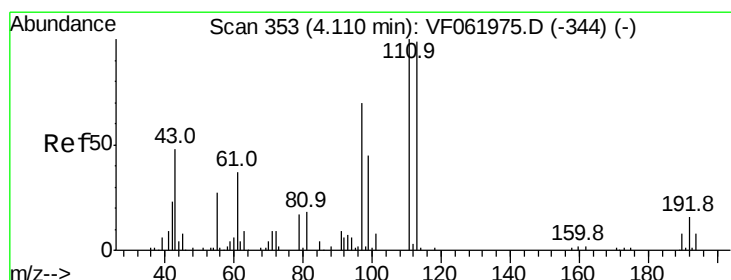
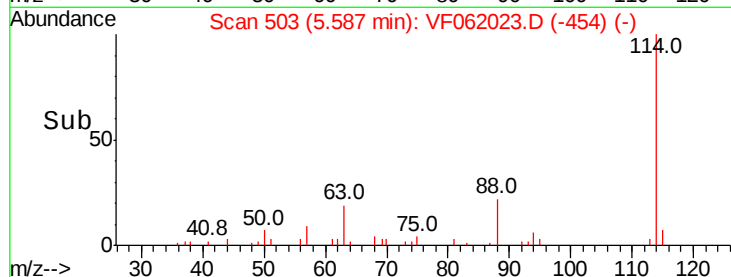
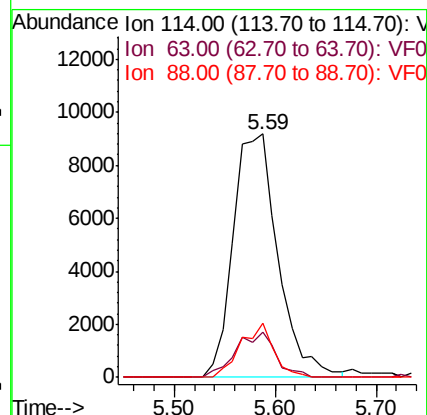
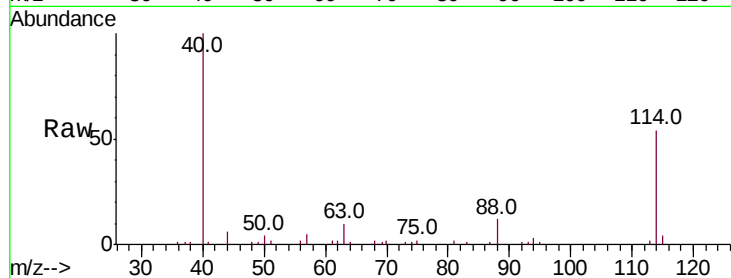




#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.59 min Scan# 503  
 Delta R.T. -0.01 min  
 Lab File: VF062023.D  
 Acq: 19 Mar 2019 17:47

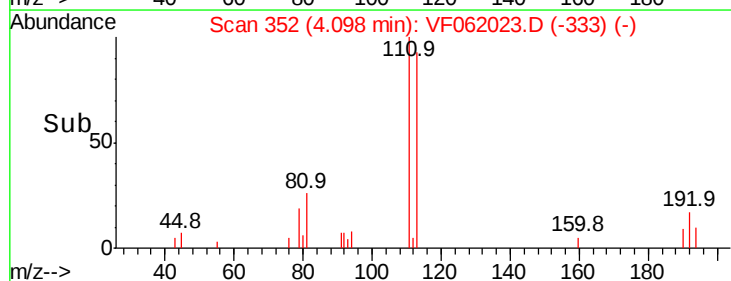
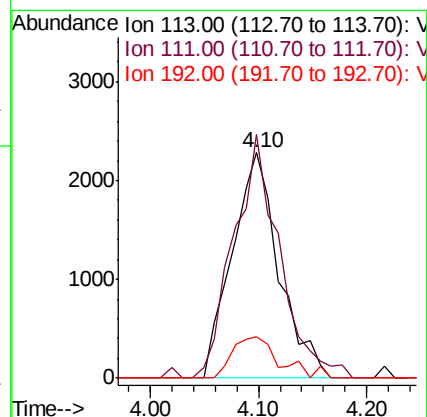
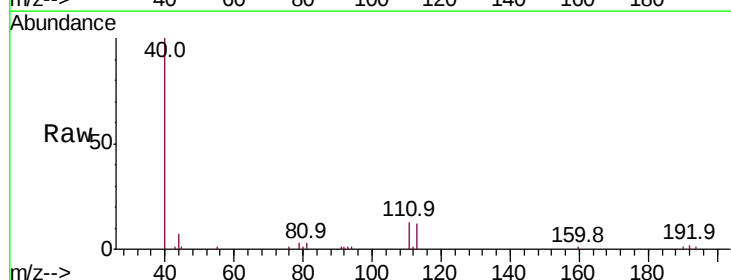
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 TP-1

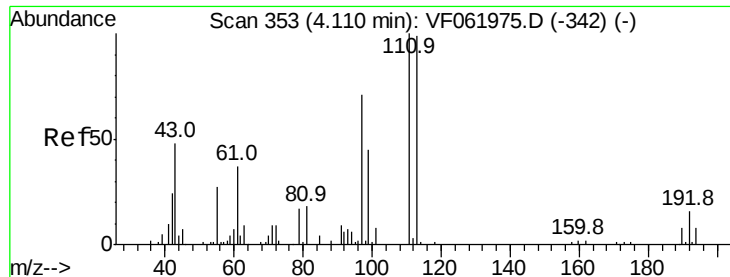
Tot Ion:114 Resp: 28412  
 Ion Ratio Lower Upper  
 114 100  
 63 18.5 0.0 36.4  
 88 22.2 0.0 36.4



#35  
 Dibromofluoromethane  
 Concen: 36.050 ug/l  
 RT: 4.10 min Scan# 352  
 Delta R.T. -0.01 min  
 Lab File: VF062023.D  
 Acq: 19 Mar 2019 17:47

Tgt Ion:113 Resp: 6878  
 Ion Ratio Lower Upper  
 113 100  
 111 108.0 80.8 121.2  
 192 18.4 13.0 19.6

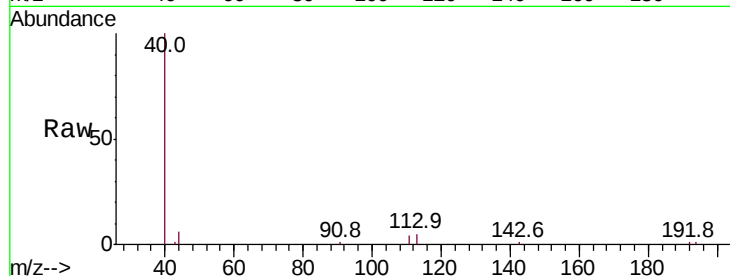




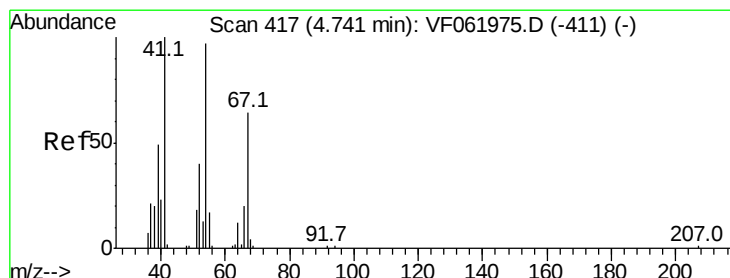
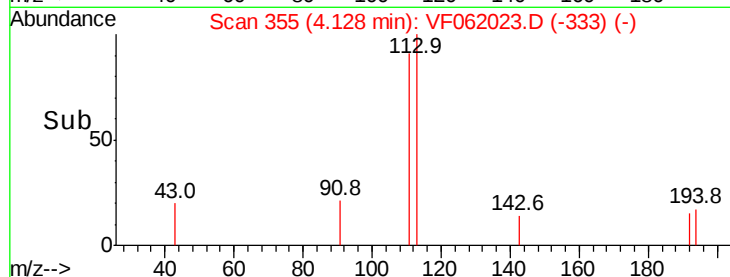
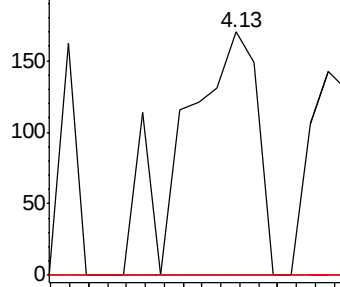
#37  
Ethyl Acetate  
Concen: 4.114 ug/l  
RT: 4.13 min Scan# 355  
Delta R.T. 0.02 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Instrument :  
MSVOA\_F  
ClientSampled :  
TP-1

Tot Ion: 43 Resp: 474  
Ion Ratio Lower Upper  
43 100  
61 0.0 59.8 89.6#  
70 0.0 7.8 11.8#

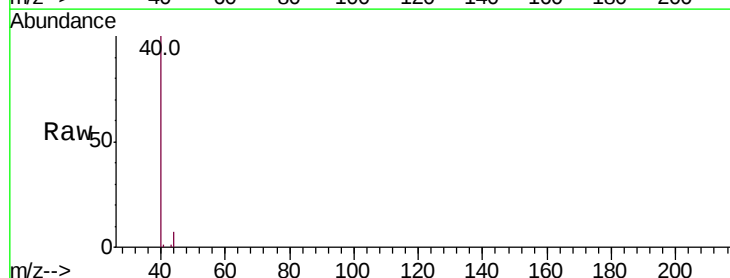


Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 70.00 (69.70 to 70.70): VF0

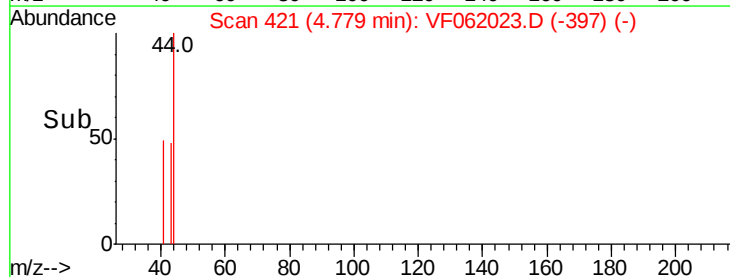
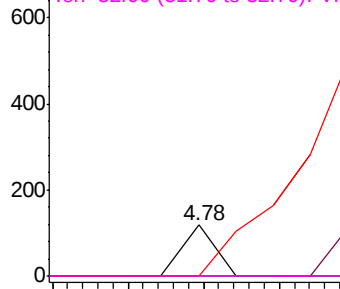


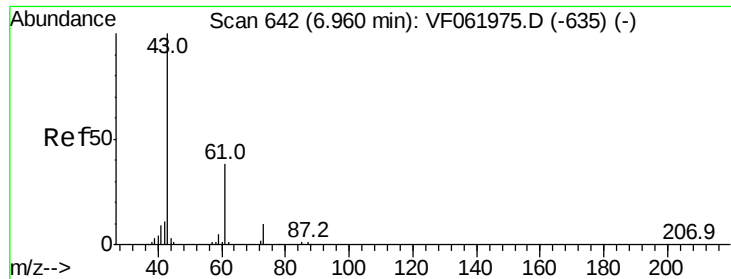
#41  
Methacrylonitrile  
Concen: 1.137 ug/l  
RT: 4.78 min Scan# 421  
Delta R.T. 0.04 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Tgt Ion: 41 Resp: 70  
Ion Ratio Lower Upper  
41 100  
39 0.0 46.2 69.4#  
67 0.0 49.8 74.8#  
52 0.0 42.7 64.1#



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





#43

Isopropyl Acetate

Concen: 1.438 ug/l

RT: 6.98 min Scan# 644

Delta R.T. 0.02 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

Instrument :

MSVOA\_F

ClientSampleId :

TP-1

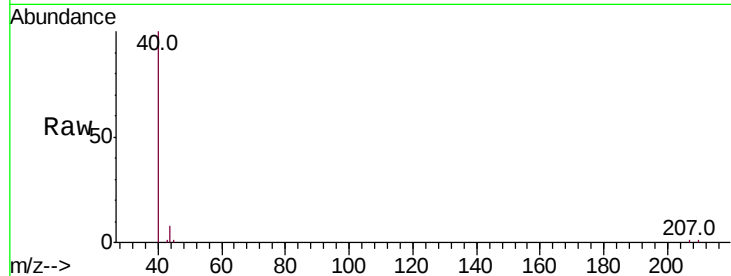
Tot Ion: 43 Resp: 196

Ion Ratio Lower Upper

43 100

61 0.0 30.1 45.1#

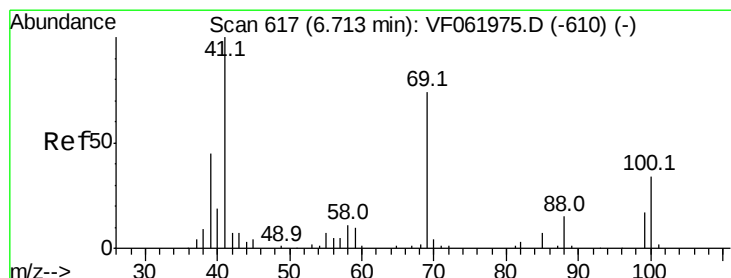
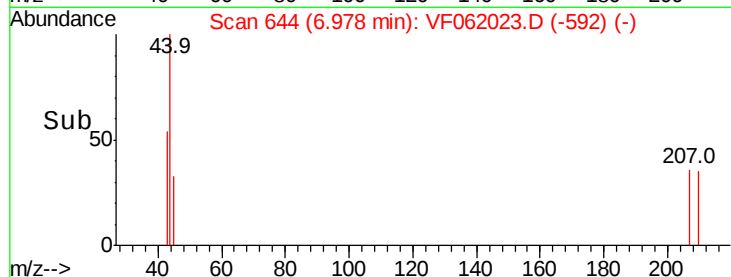
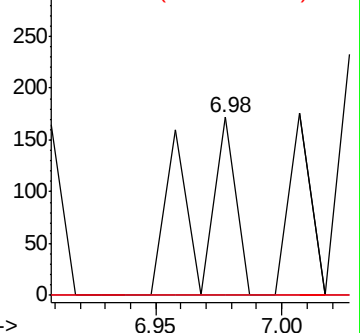
87 0.0 0.4 0.6#



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: 3.201 ug/l

RT: 6.69 min Scan# 615

Delta R.T. -0.02 min

Lab File: VF062023.D

Acq: 19 Mar 2019 17:47

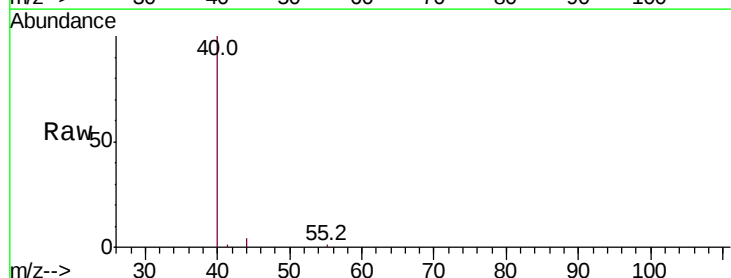
Tgt Ion: 41 Resp: 282

Ion Ratio Lower Upper

41 100

69 0.0 59.0 88.6#

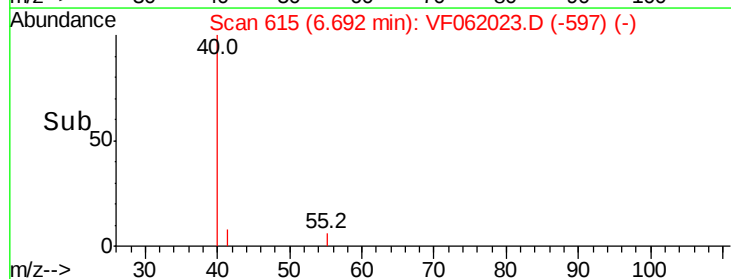
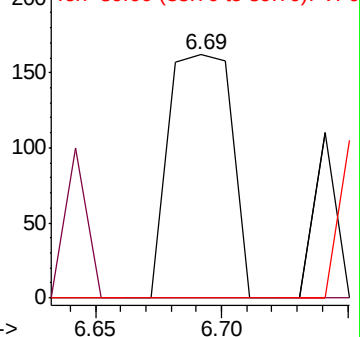
39 0.0 35.6 53.4#

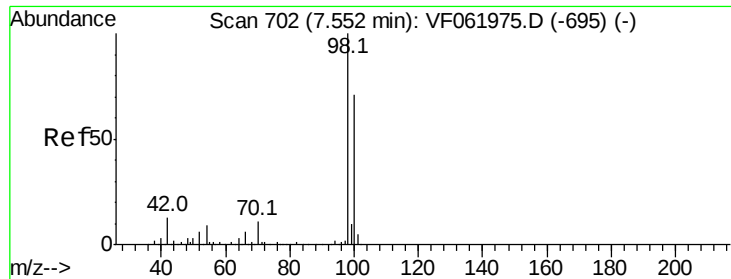


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

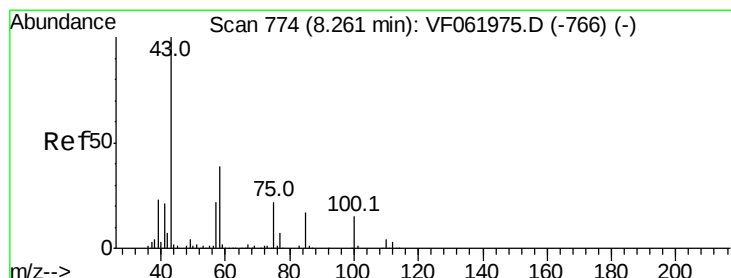
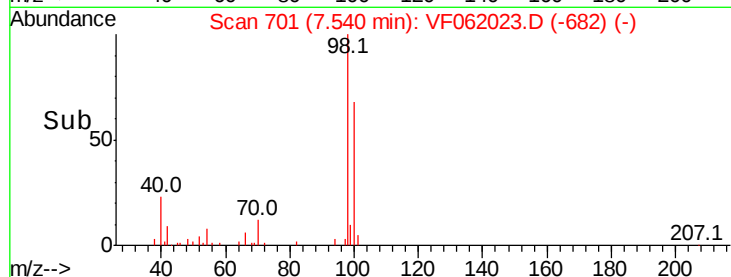
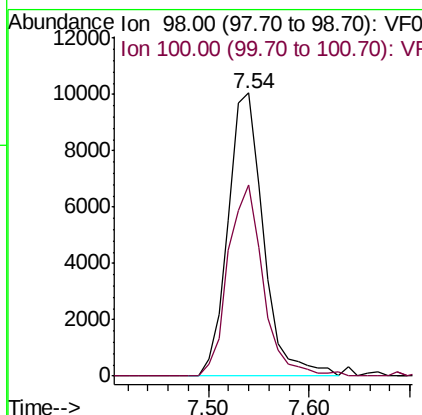
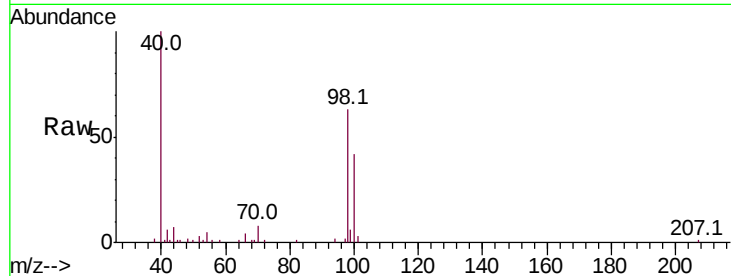




#50  
Toluene-d8  
Concen: 44.067 ug/l  
RT: 7.54 min Scan# 701  
Delta R.T. -0.01 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

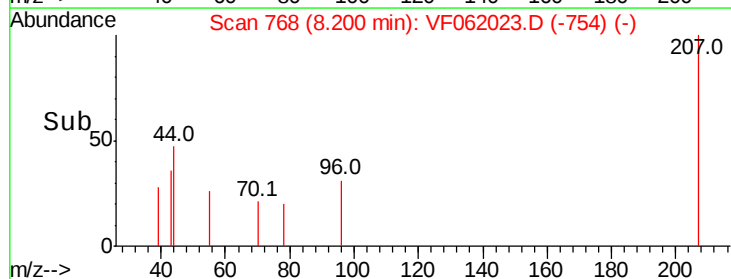
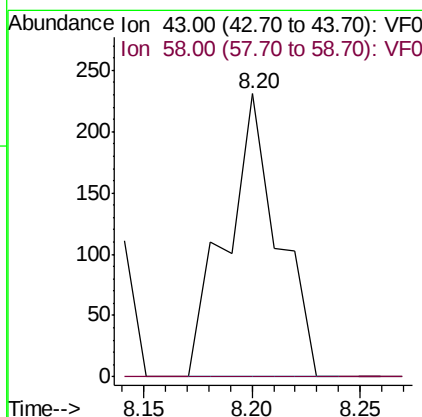
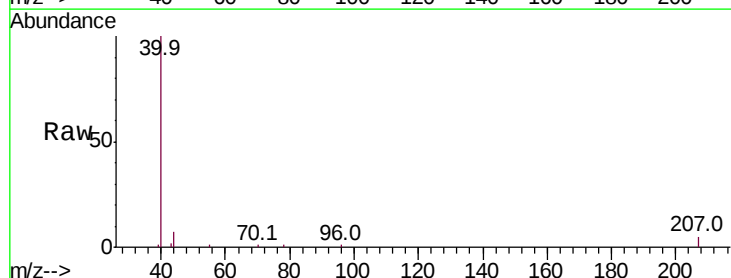
Instrument :  
MSVOA\_F  
ClientSampleId :  
TP-1

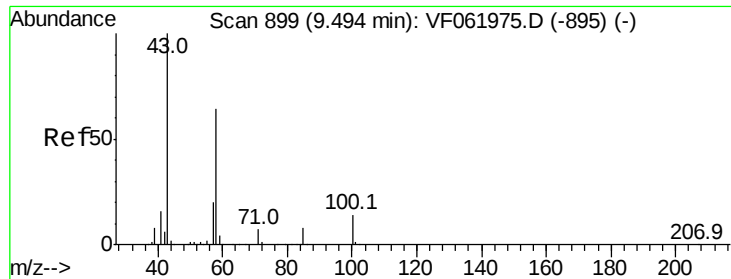
Tot Ion: 98 Resp: 24578  
Ion Ratio Lower Upper  
98 100  
100 67.5 56.8 85.2



#51  
4-Methyl-2-Pentanone  
Concen: 3.978 ug/l  
RT: 8.20 min Scan# 768  
Delta R.T. -0.06 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Tgt Ion: 43 Resp: 385  
Ion Ratio Lower Upper  
43 100  
58 0.0 31.1 46.7#

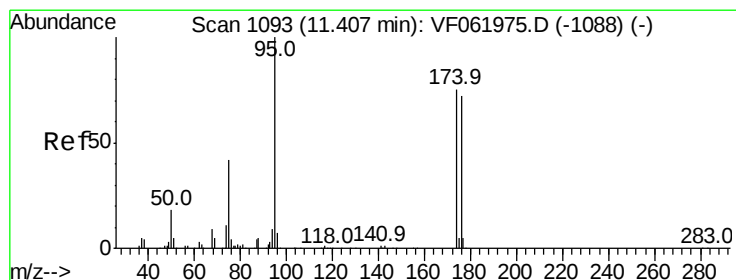
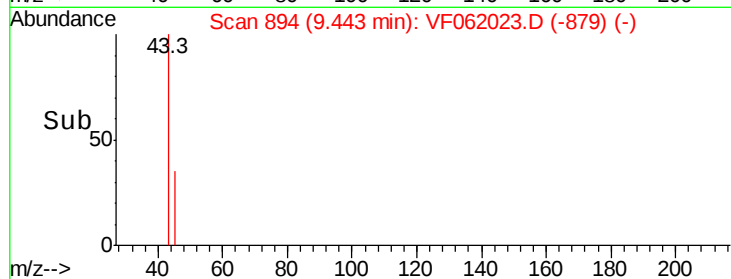
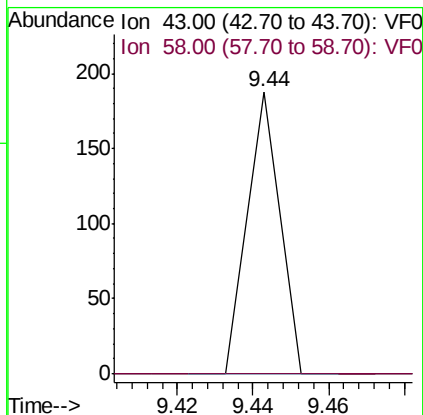
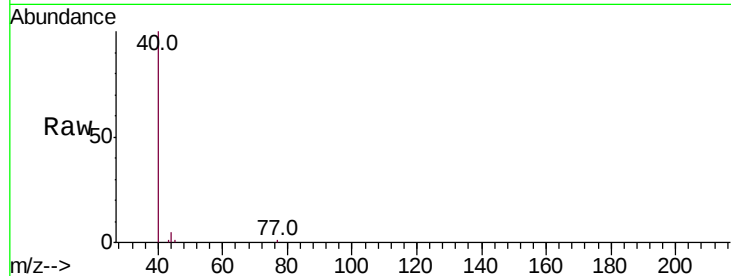




#59  
2-Hexanone  
Concen: 1.585 ug/l  
RT: 9.44 min Scan# 894  
Delta R.T. -0.05 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

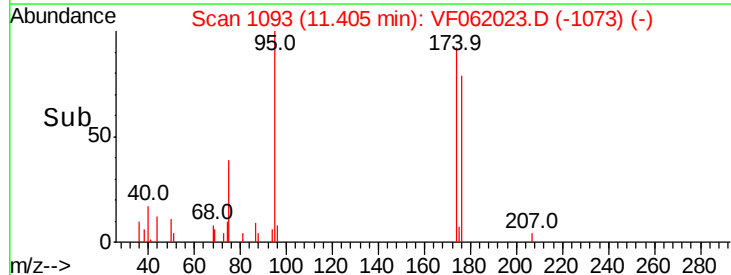
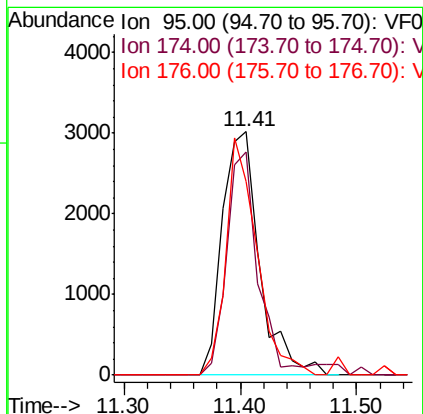
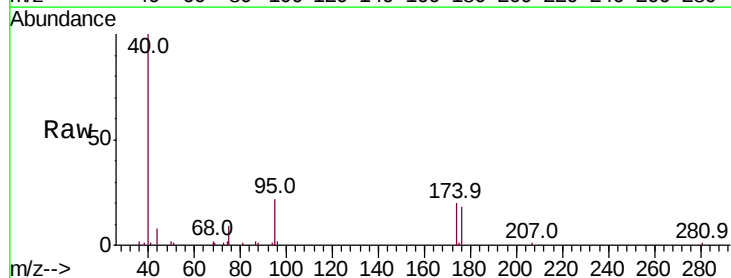
Instrument :  
MSVOA\_F  
ClientSampleId :  
TP-1

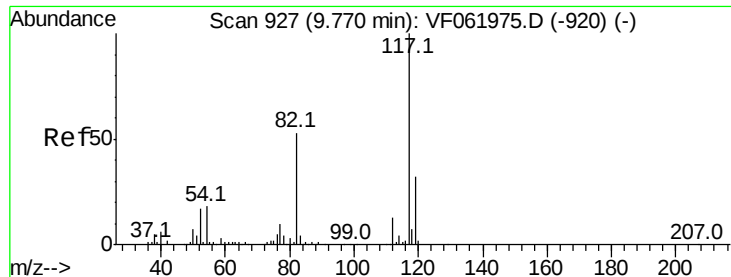
Tot Ion: 43 Resp: 111  
Ion Ratio Lower Upper  
43 100  
58 0.0 28.4 85.2#



#62  
4-Bromofluorobenzene  
Concen: 30.352 ug/l  
RT: 11.41 min Scan# 1093  
Delta R.T. -0.00 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Tgt Ion: 95 Resp: 6725  
Ion Ratio Lower Upper  
95 100  
174 91.7 0.0 149.4  
176 79.4 0.0 143.4

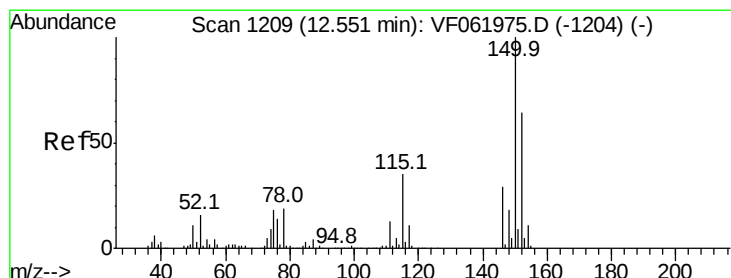
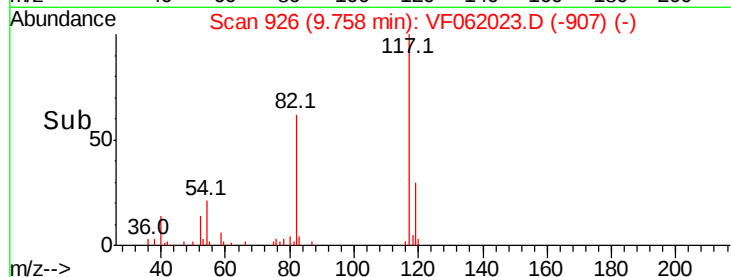
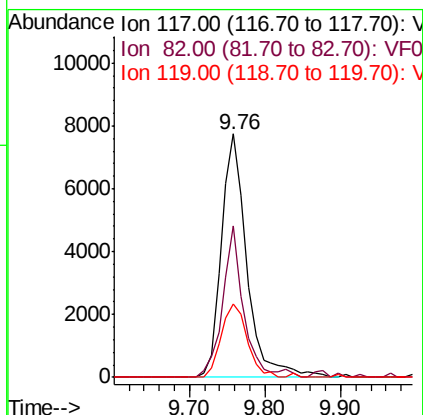
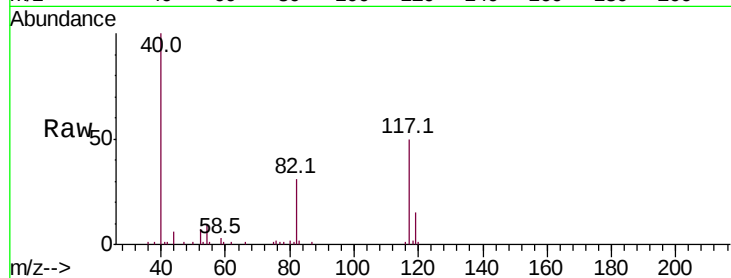




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.76 min Scan# 926  
Delta R.T. -0.01 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Instrument :  
MSVOA\_F  
ClientSampled :  
TP-1

Tot Ion:117 Resp: 18061  
Ion Ratio Lower Upper  
117 100  
82 62.4 42.5 63.7  
119 30.3 25.4 38.0



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.54 min Scan# 1208  
Delta R.T. -0.01 min  
Lab File: VF062023.D  
Acq: 19 Mar 2019 17:47

Tgt Ion:152 Resp: 6925  
Ion Ratio Lower Upper  
152 100  
115 53.8 27.3 81.9  
150 146.3 0.0 316.2

