

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF092018\  
 Data File : VF060308.D  
 Acq On : 20 Sep 2018 20:16  
 Operator : VA/AP  
 Sample : J5023-09  
 Misc : 5.91/5mL/MSVOA F/SOIL  
 ALS Vial : 43 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 NB-PIT-3

Quant Time: Sep 21 05:24:34 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F091918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 20 02:58:42 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.02  | 168  | 264619   | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 5.74  | 114  | 461011   | 50.00 | ug/l  | -0.02    |
| 63) Chlorobenzene-d5       | 9.90  | 117  | 385064   | 50.00 | ug/l  | -0.02    |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 203092   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.99  | 65   | 167740   | 47.08 | ug/l   | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 94.16% |          |
| 35) Dibromofluoromethane    | 4.27  | 113  | 181395   | 44.14 | ug/l   | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 88.28% |          |
| 50) Toluene-d8              | 7.68  | 98   | 383868   | 35.87 | ug/l   | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 71.74% |          |
| 62) 4-Bromofluorobenzene    | 11.50 | 95   | 176401   | 38.13 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 76.26% |          |

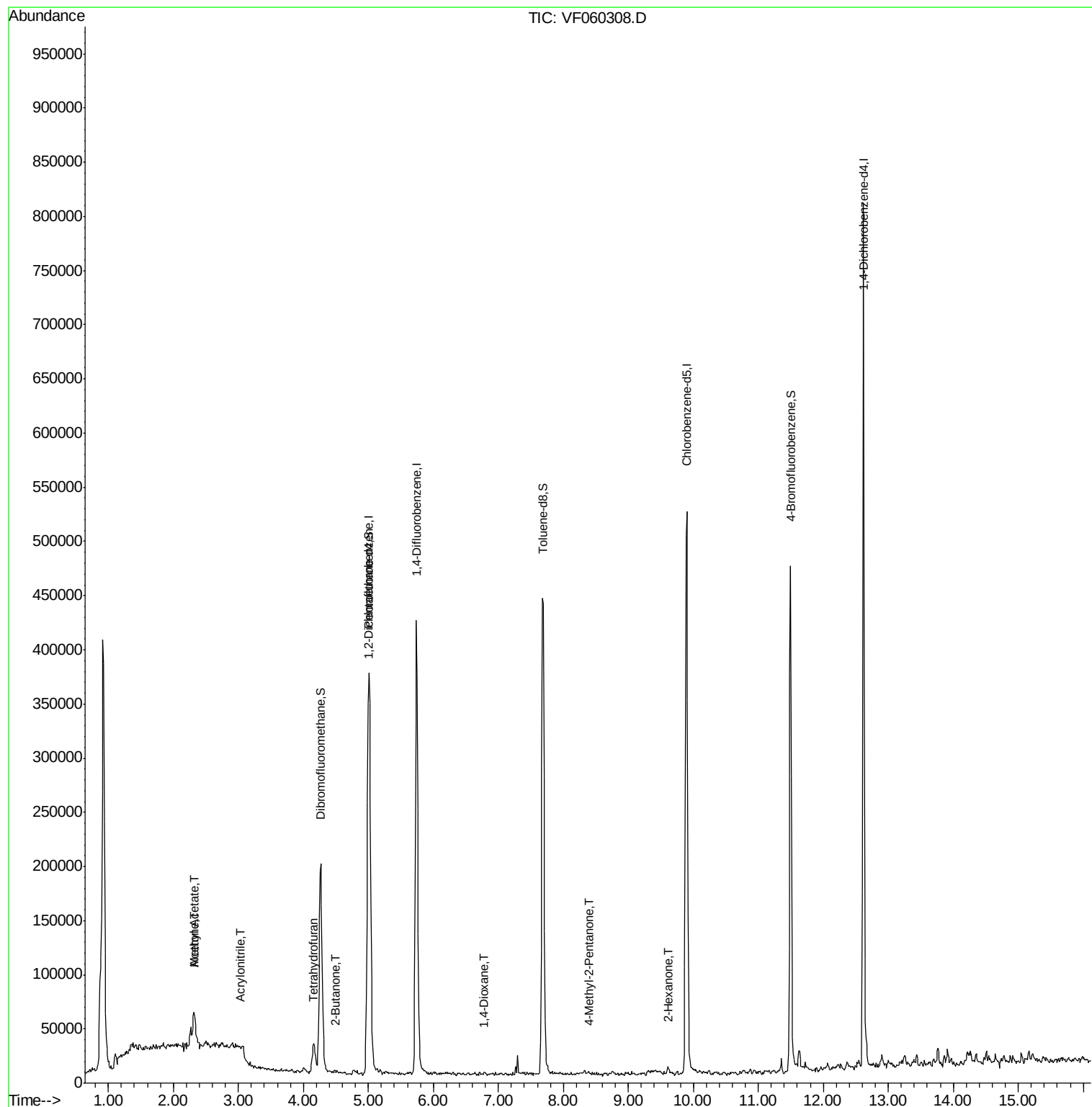
| Target Compounds           | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|----------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane | 0.98  | 85   | 209      | Below Cal | #     | 40     |
| 5) Bromomethane            | 1.21  | 94   | 229      | Below Cal |       | 84     |
| 11) Tert butyl alcohol     | 2.66  | 59   | 894      | Below Cal | #     | 1      |
| 13) Acrolein               | 2.15  | 56   | 1056     | Below Cal |       | 87     |
| 15) Acrylonitrile          | 3.03  | 53   | 507      | 1.01      | ug/l  | # 37   |
| 16) Acetone                | 2.33  | 43   | 49850    | 49.68     | ug/l  | 92     |
| 17) Carbon Disulfide       | 1.86  | 76   | 1488     | Below Cal | #     | 5      |
| 18) Methyl Acetate         | 2.33  | 43   | 49746    | 29.76     | ug/l  | # 64   |
| 20) Methylene Chloride     | 2.27  | 84   | 7776     | Below Cal | #     | 84     |
| 25) 2-Butanone             | 4.50  | 43   | 4263     | 3.16      | ug/l  | 97     |
| 29) Tetrahydrofuran        | 4.14  | 42   | 1229     | 2.48      | ug/l  | # 56   |
| 49) 1,4-Dioxane            | 6.78  | 88   | 92       | 5.01      | ug/l  | # 1    |
| 51) 4-Methyl-2-Pentanone   | 8.39  | 43   | 2976     | 1.32      | ug/l  | 100    |
| 59) 2-Hexanone             | 9.61  | 43   | 5860     | 3.65      | ug/l  | 77     |
| 78) n-propylbenzene        | 11.67 | 91   | 1589     | Below Cal |       | 94     |
| 85) sec-Butylbenzene       | 12.37 | 105  | 2940     | Below Cal | #     | 55     |
| 86) p-Isopropyltoluene     | 12.53 | 119  | 1916     | Below Cal | #     | 84     |
| 89) n-Butylbenzene         | 12.90 | 91   | 2679     | Below Cal |       | 84     |

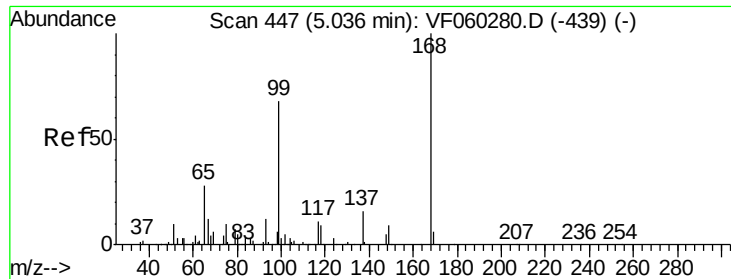
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF092018\  
Data File : VF060308.D  
Acq On : 20 Sep 2018 20:16  
Operator : VA/AP  
Sample : J5023-09  
Misc : 5.91/5mL/MSVOA F/SOIL  
ALS Vial : 43 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
NB-PIT-3

Quant Time: Sep 21 05:24:34 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F091918S.M  
Quant Title : SW846 8260  
QLast Update : Thu Sep 20 02:58:42 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.02 min Scan# 445

Delta R.T. -0.02 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampleId :

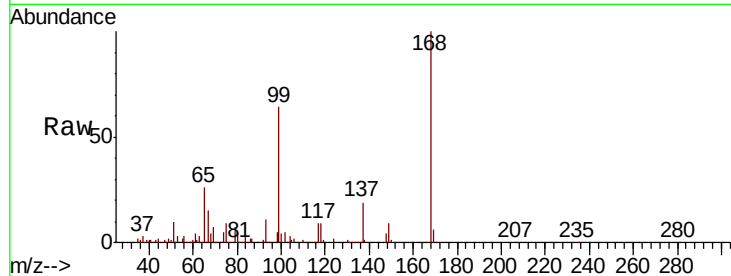
NB-PIT-3

Tot Ion:168 Resp: 264619

Ion Ratio Lower Upper

168 100

99 63.6 54.8 82.2



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.02

100000

80000

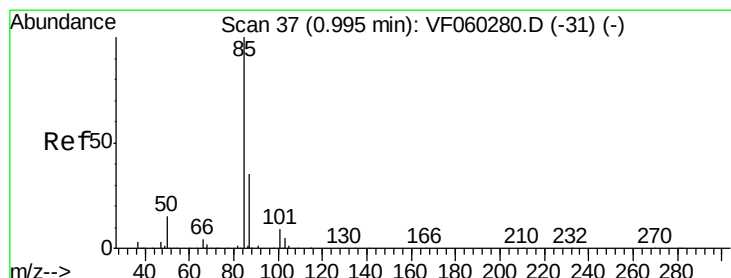
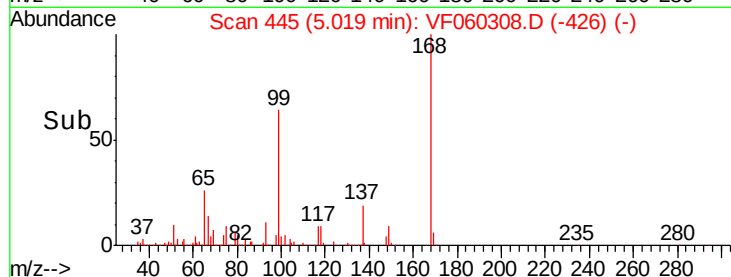
60000

40000

20000

0

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 0.98 min Scan# 35

Delta R.T. -0.02 min

Lab File: VF060308.D

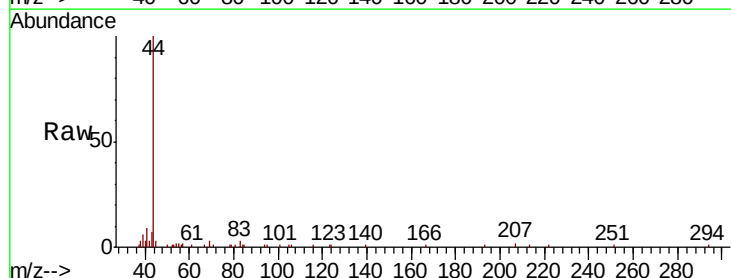
Acq: 20 Sep 2018 20:16

Tgt Ion: 85 Resp: 209

Ion Ratio Lower Upper

85 100

87 0.0 17.3 52.0#



Abundance Ion 85.00 (84.70 to 85.70): VF0

Ion 87.00 (86.70 to 87.70): VF0

0.98

200

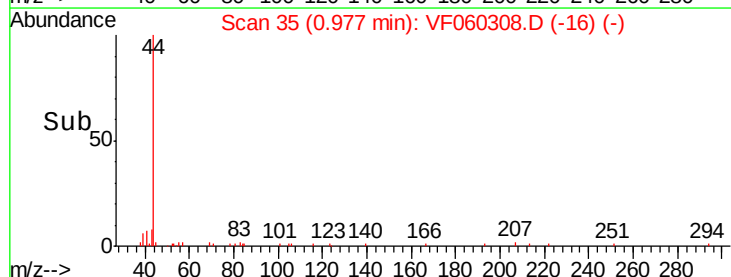
150

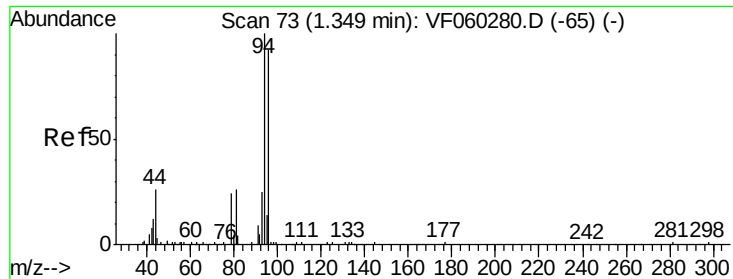
100

50

0

Time-->





#5

Bromomethane

Concen: Below Cal

RT: 1.21 min Scan# 59

Delta R.T. -0.14 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampleId :

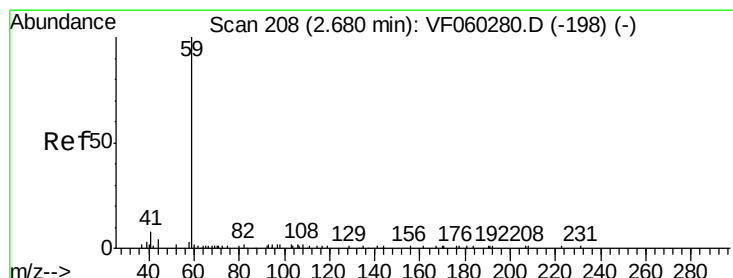
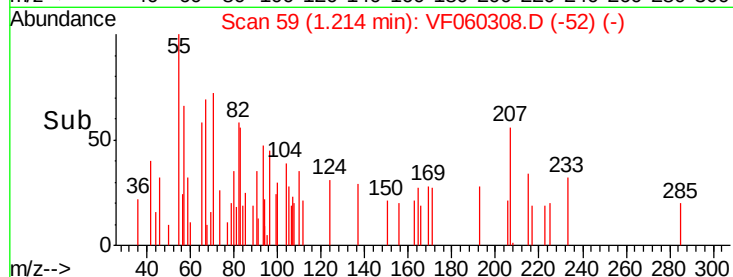
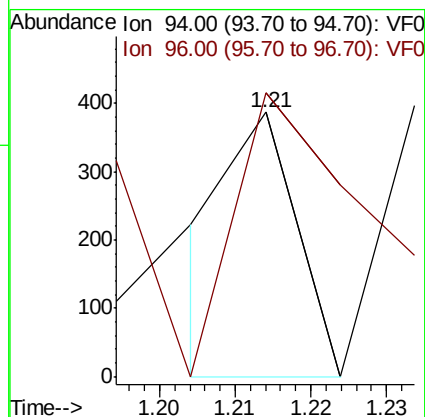
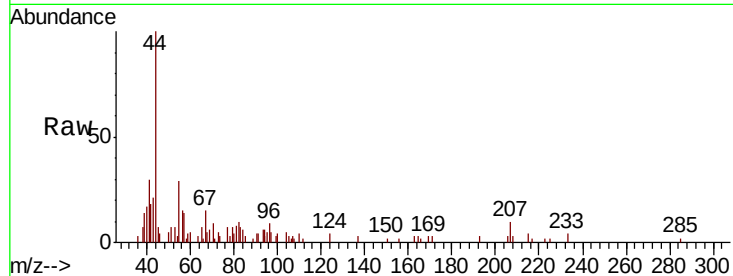
NB-PIT-3

Tot Ion: 94 Resp: 229

Ion Ratio Lower Upper

94 100

96 107.2 73.9 110.9



#11

Tert butyl alcohol

Concen: Below Cal

RT: 2.66 min Scan# 206

Delta R.T. -0.02 min

Lab File: VF060308.D

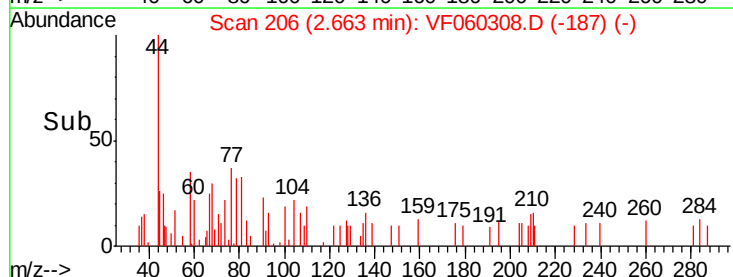
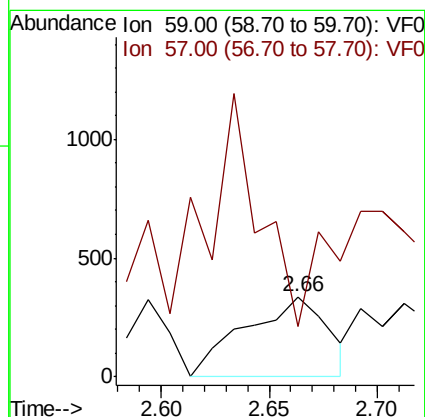
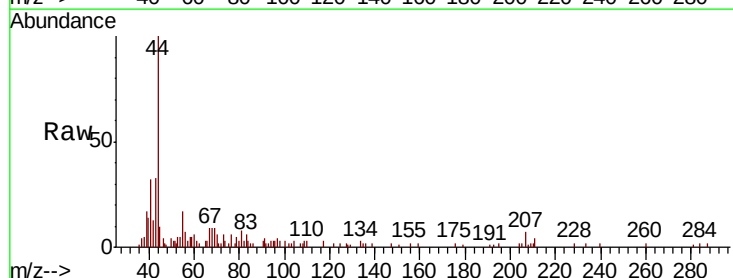
Acq: 20 Sep 2018 20:16

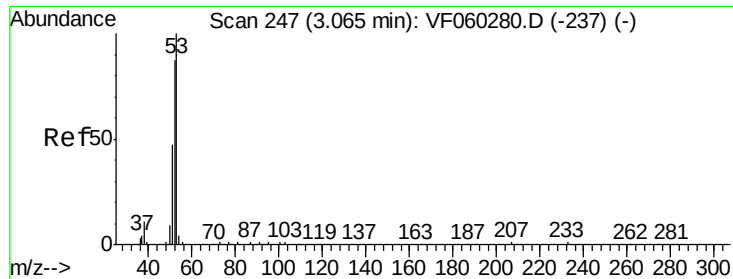
Tgt Ion: 59 Resp: 894

Ion Ratio Lower Upper

59 100

57 62.8 12.4 18.6#





#15

Acrylonitrile

Concen: 1.01 ug/l

RT: 3.03 min Scan# 243

Delta R.T. -0.04 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampleId :

NB-PIT-3

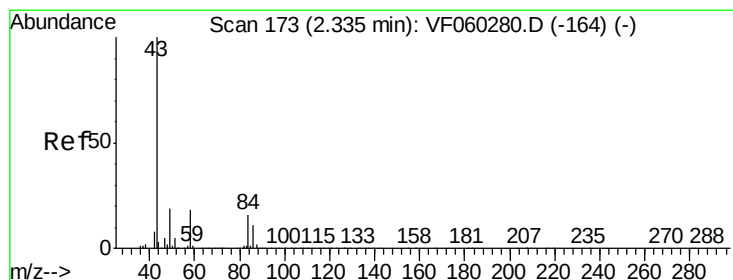
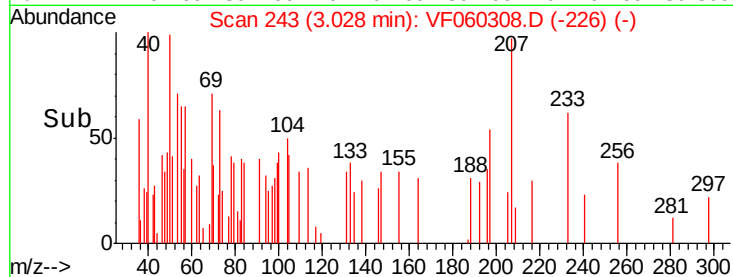
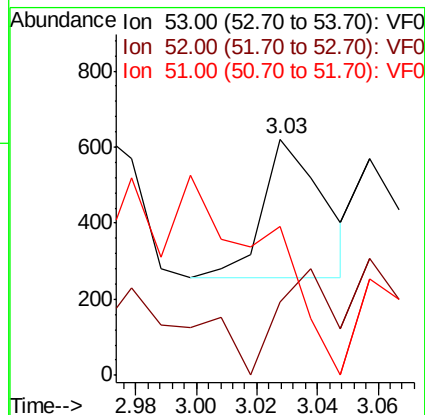
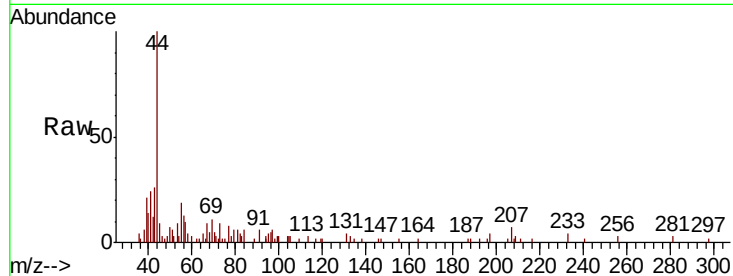
Tot Ion: 53 Resp: 507

Ion Ratio Lower Upper

53 100

52 31.1 69.5 104.3#

51 94.0 38.1 57.1#



#16

Acetone

Concen: 49.68 ug/l

RT: 2.33 min Scan# 172

Delta R.T. -0.01 min

Lab File: VF060308.D

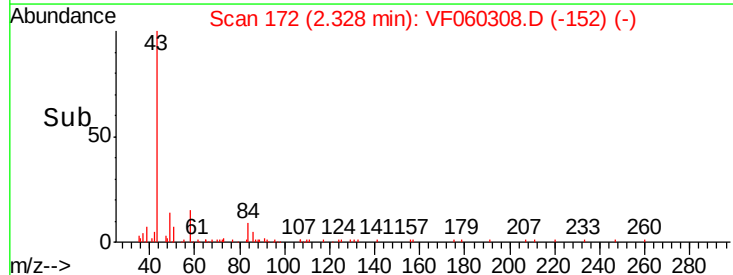
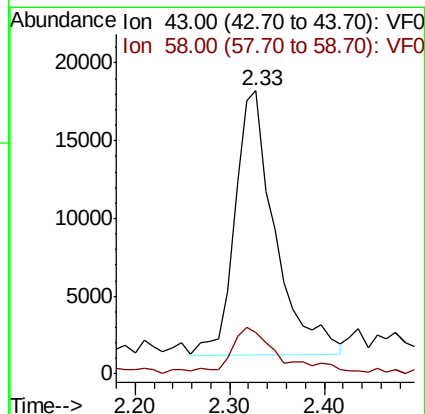
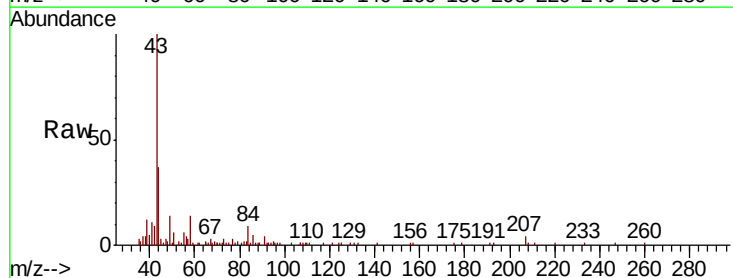
Acq: 20 Sep 2018 20:16

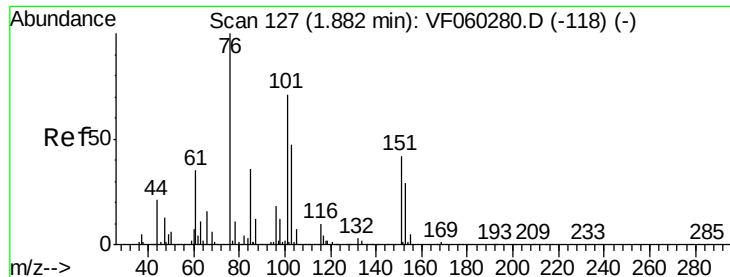
Tgt Ion: 43 Resp: 49850

Ion Ratio Lower Upper

43 100

58 14.5 14.5 21.7

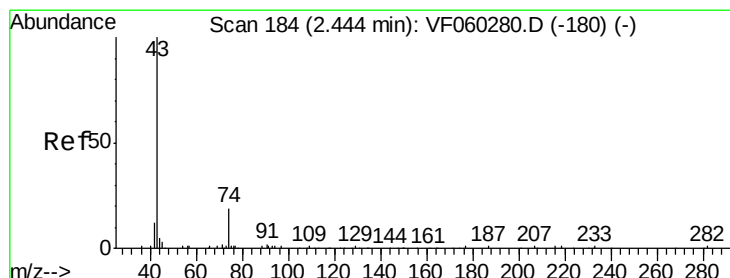
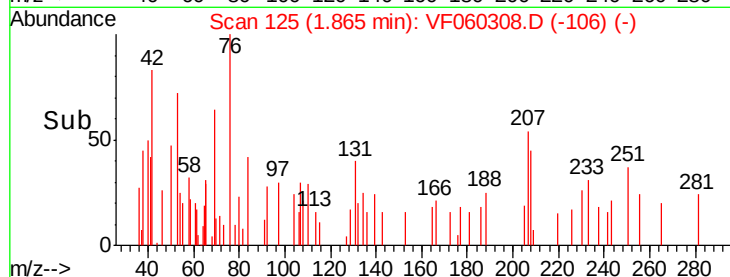
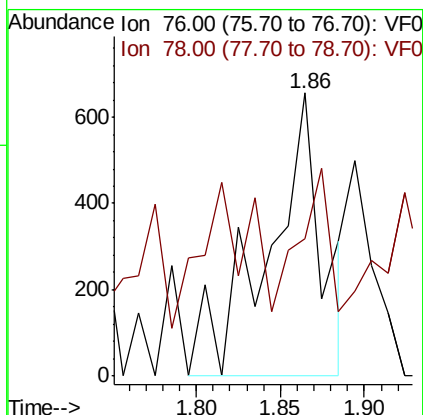
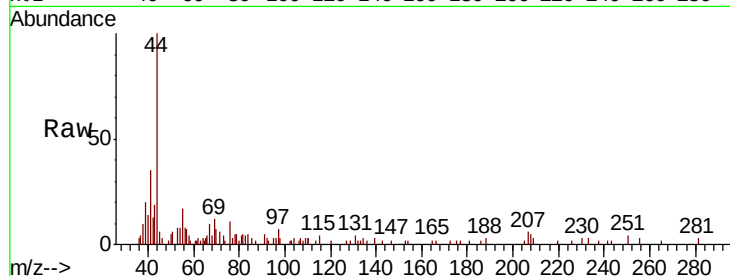




#17  
Carbon Disulfide  
Concen: Below Cal  
RT: 1.86 min Scan# 125  
Delta R.T. -0.02 min  
Lab File: VF060308.D  
Acq: 20 Sep 2018 20:16

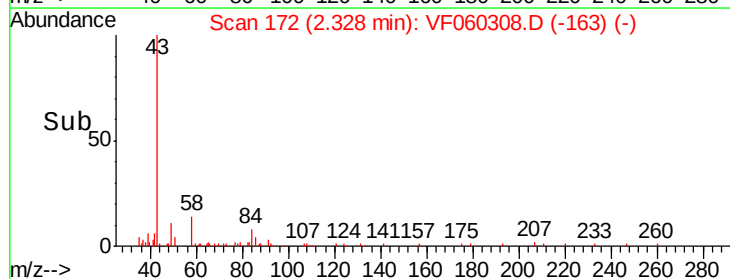
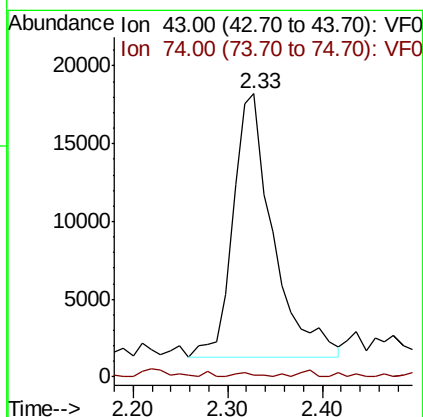
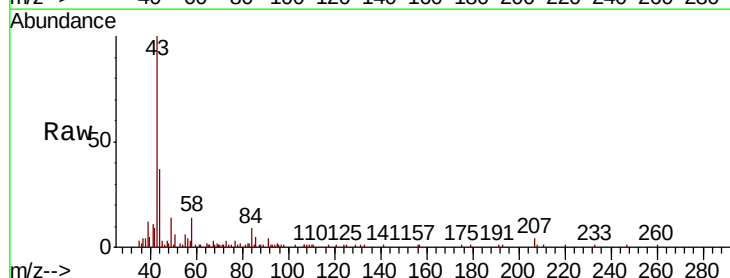
Instrument :  
MSVOA\_F  
ClientSampleId :  
NB-PIT-3

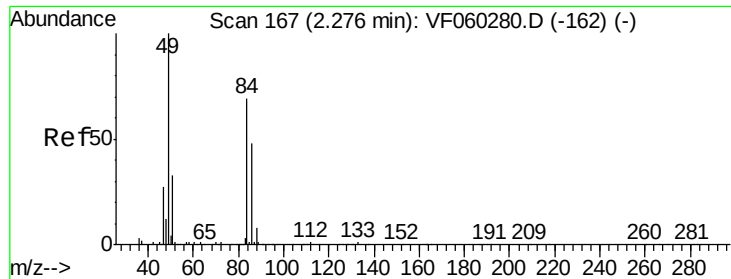
Tot Ion: 76 Resp: 1488  
Ion Ratio Lower Upper  
76 100  
78 48.5 9.4 14.0#



#18  
Methyl Acetate  
Concen: 29.76 ug/l  
RT: 2.33 min Scan# 172  
Delta R.T. -0.12 min  
Lab File: VF060308.D  
Acq: 20 Sep 2018 20:16

Tgt Ion: 43 Resp: 49746  
Ion Ratio Lower Upper  
43 100  
74 0.6 12.7 19.1#





#20

Methylene Chloride

Concen: Below Cal

RT: 2.27 min Scan# 166

Delta R.T. -0.01 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampleId :

NB-PIT-3

Tot Ion: 84 Resp: 7776

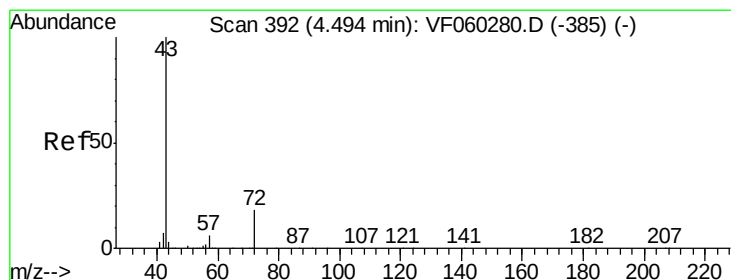
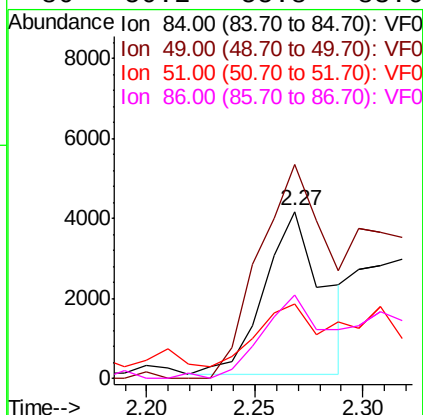
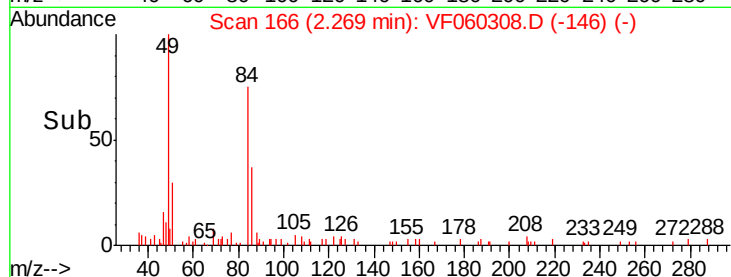
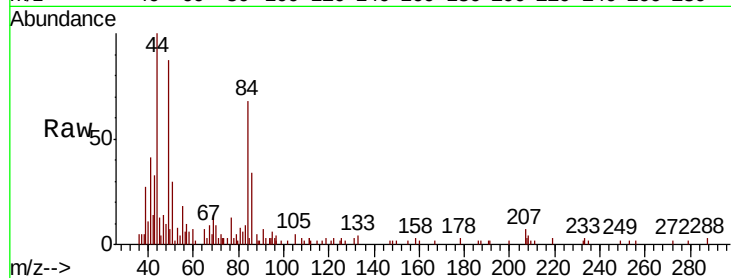
Ion Ratio Lower Upper

84 100

49 128.1 118.3 177.5

51 44.3 38.7 58.1

86 50.2 55.8 83.6#



#25

2-Butanone

Concen: 3.16 ug/l

RT: 4.50 min Scan# 392

Delta R.T. 0.00 min

Lab File: VF060308.D

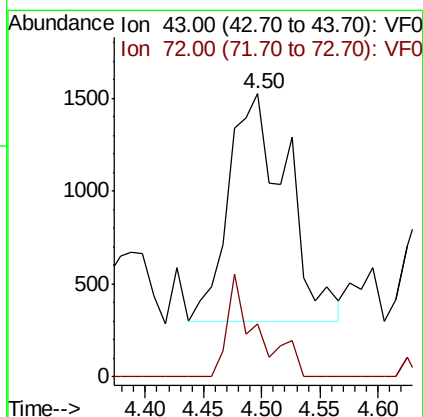
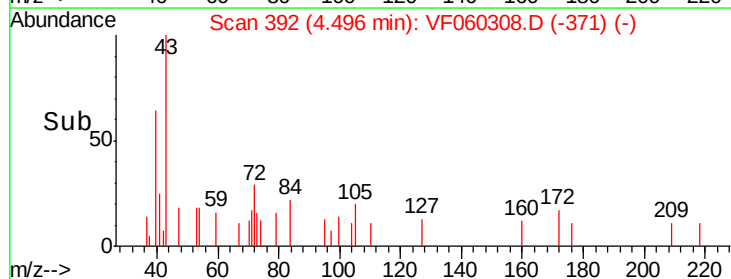
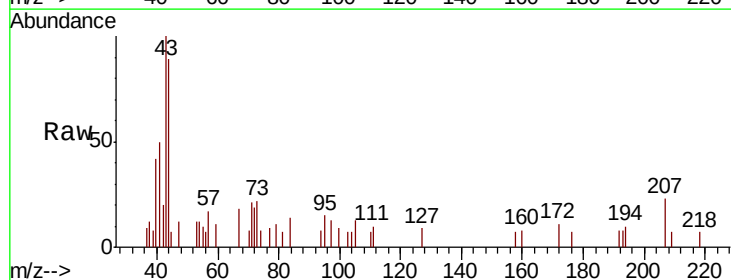
Acq: 20 Sep 2018 20:16

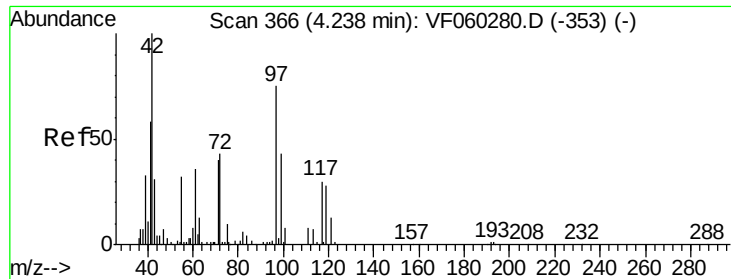
Tgt Ion: 43 Resp: 4263

Ion Ratio Lower Upper

43 100

72 18.9 16.2 24.2

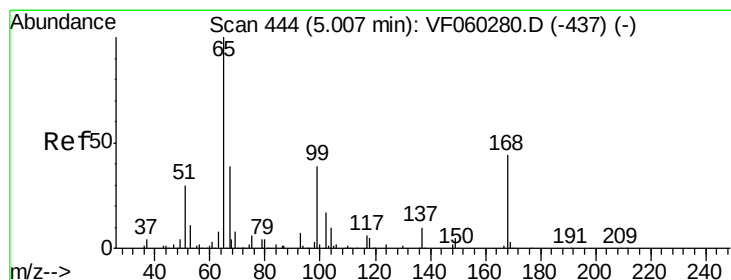
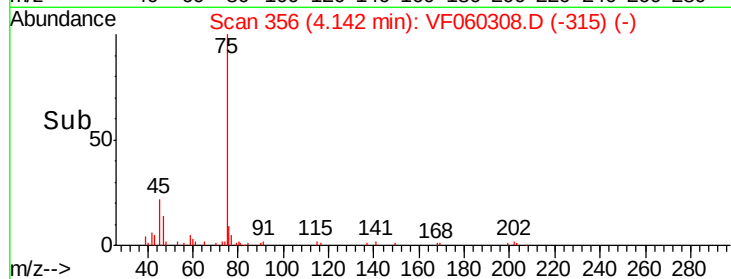
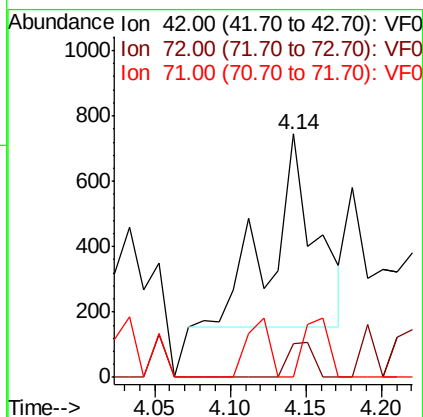
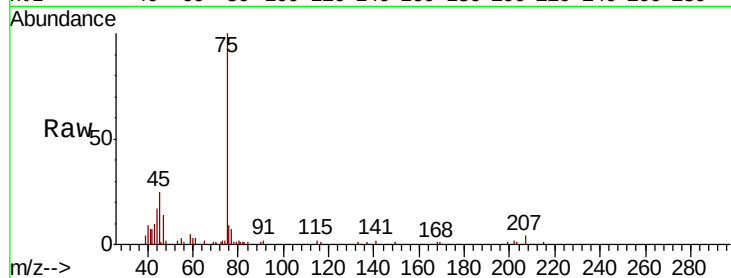




#29  
Tetrahydrofuran  
Concen: 2.48 ug/l  
RT: 4.14 min Scan# 356  
Delta R.T. -0.10 min  
Lab File: VF060308.D  
Acq: 20 Sep 2018 20:16

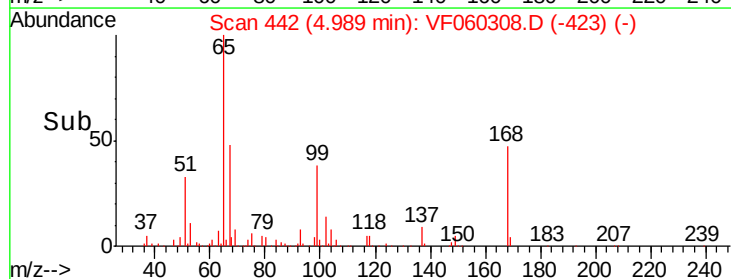
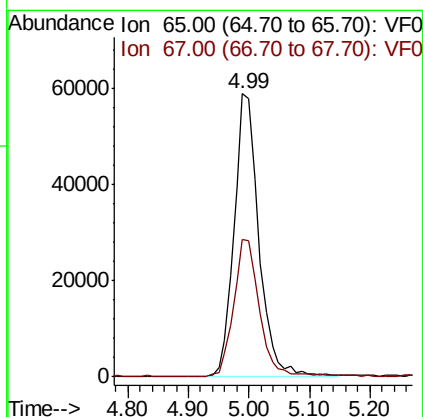
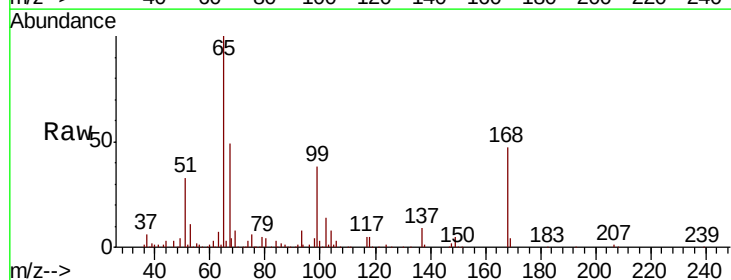
Instrument :  
MSVOA\_F  
ClientSampleId :  
NB-PIT-3

Tot Ion: 42 Resp: 1229  
Ion Ratio Lower Upper  
42 100  
72 10.1 32.6 49.0#  
71 16.4 32.7 49.1#

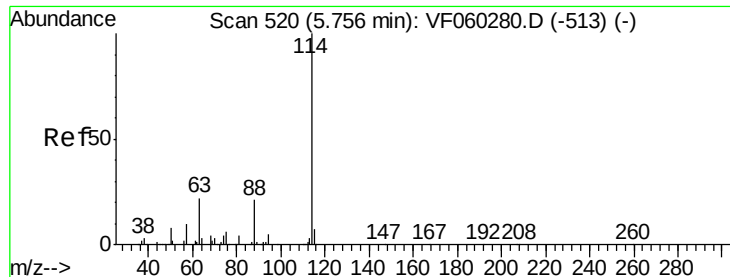


#33  
1,2-Dichloroethane-d4  
Concen: 47.08 ug/l  
RT: 4.99 min Scan# 442  
Delta R.T. -0.02 min  
Lab File: VF060308.D  
Acq: 20 Sep 2018 20:16

Tgt Ion: 65 Resp: 167740  
Ion Ratio Lower Upper  
65 100  
67 48.7 0.0 94.4



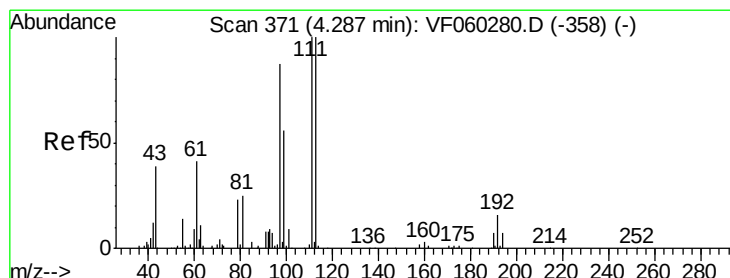
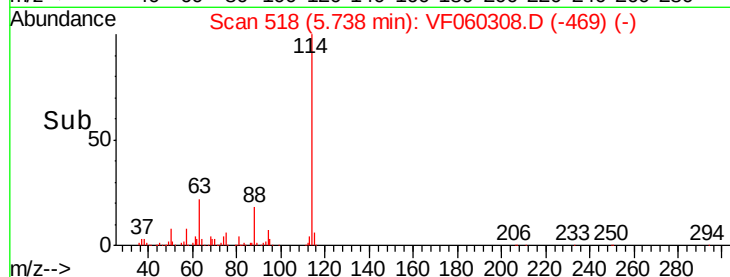
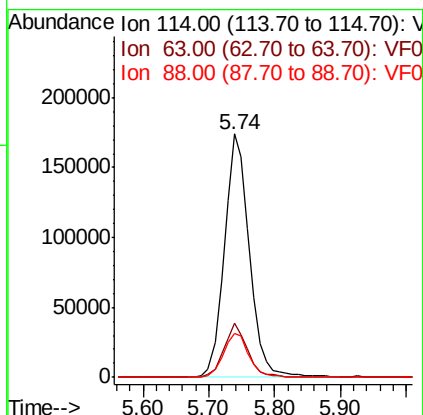
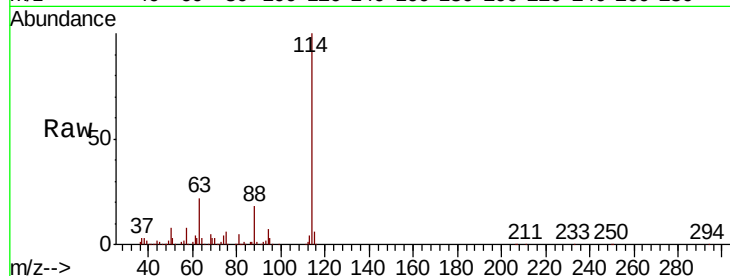




#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 5.74 min Scan# 518  
 Delta R.T. -0.02 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

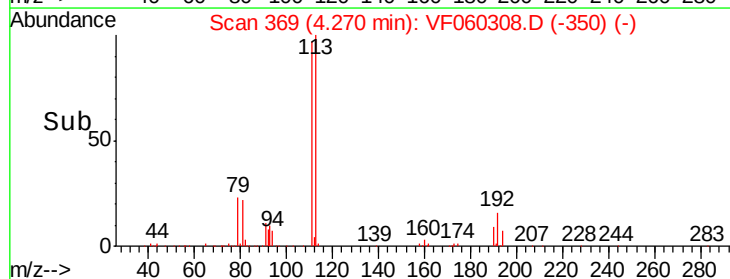
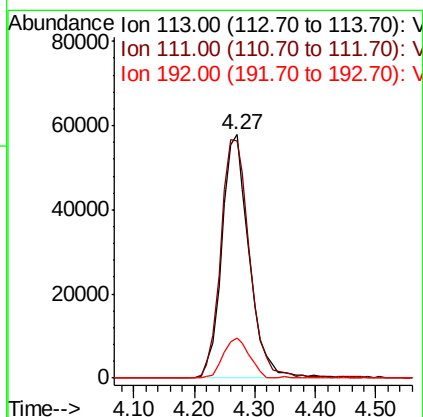
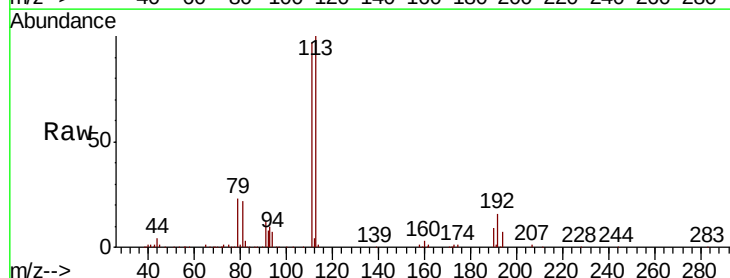
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 NB-PIT-3

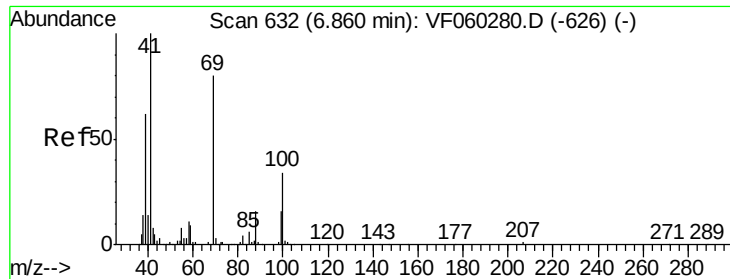
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 22.4  | 0.0   | 43.8  |
| 88      | 17.9  | 0.0   | 41.2  |



#35  
 Dibromofluoromethane  
 Concen: 44.14 ug/l  
 RT: 4.27 min Scan# 369  
 Delta R.T. -0.02 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 97.3  | 79.6  | 119.4 |
| 192     | 16.4  | 13.0  | 19.6  |





#49

1,4-Dioxane

Concen: 5.01 ug/l

RT: 6.78 min Scan# 624

Delta R.T. -0.08 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampled :

NB-PIT-3

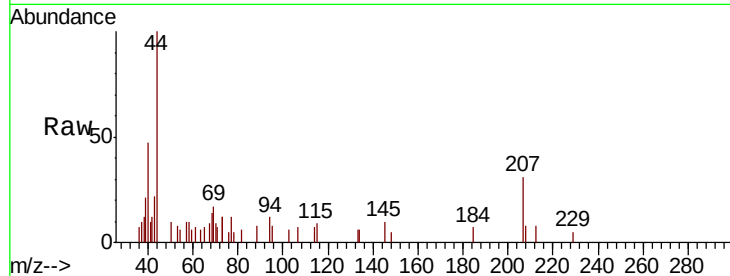
Tot Ion: 88 Resp: 92

Ion Ratio Lower Upper

88 100

43 263.2 40.2 60.4#

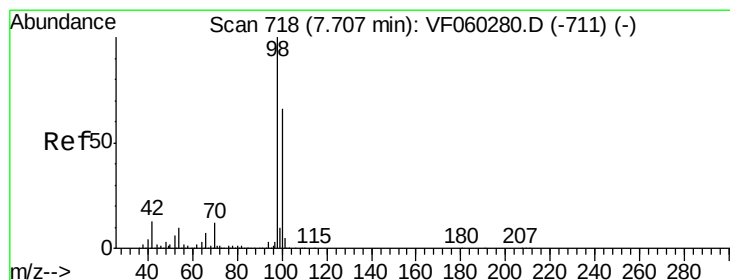
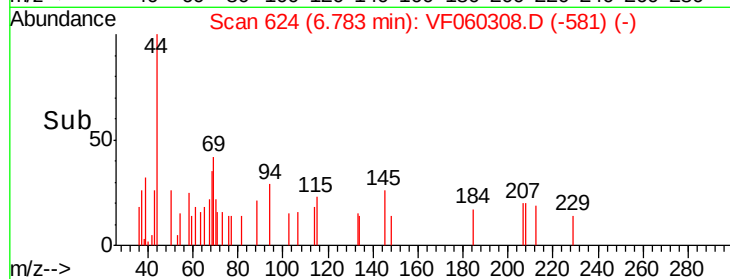
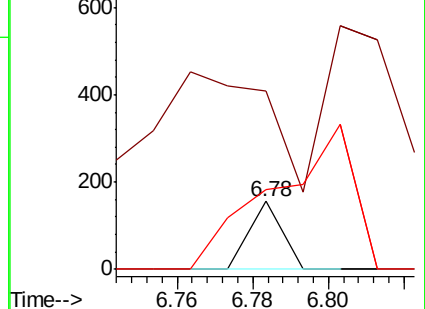
58 118.1 56.7 85.1#



Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#50

Toluene-d8

Concen: 35.87 ug/l

RT: 7.68 min Scan# 715

Delta R.T. -0.03 min

Lab File: VF060308.D

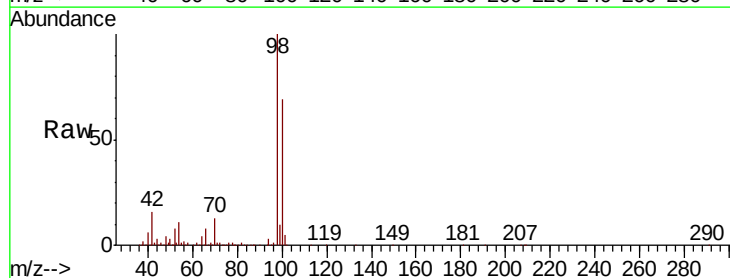
Acq: 20 Sep 2018 20:16

Tgt Ion: 98 Resp: 383868

Ion Ratio Lower Upper

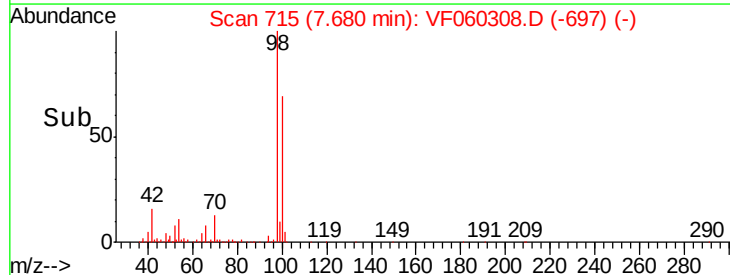
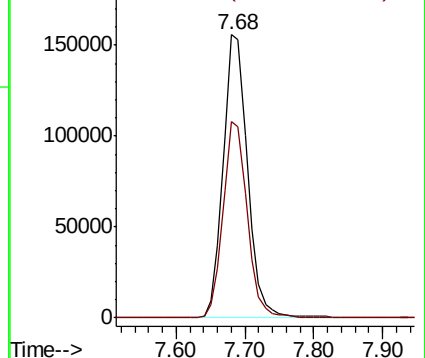
98 100

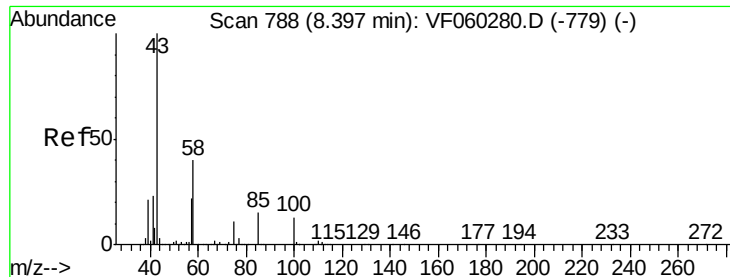
100 69.3 53.0 79.6



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: 1.32 ug/l

RT: 8.39 min Scan# 787

Delta R.T. -0.01 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampleId :

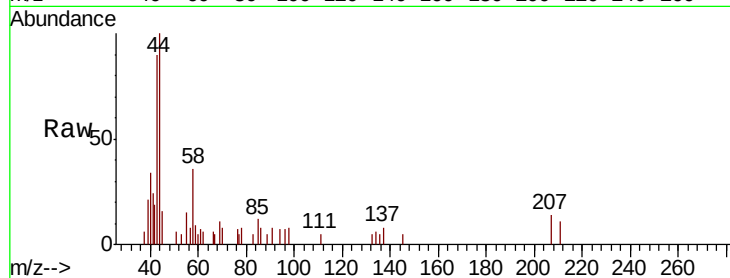
NB-PIT-3

Tot Ion: 43 Resp: 2976

Ion Ratio Lower Upper

43 100

58 39.8 31.8 47.8



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.39

1500

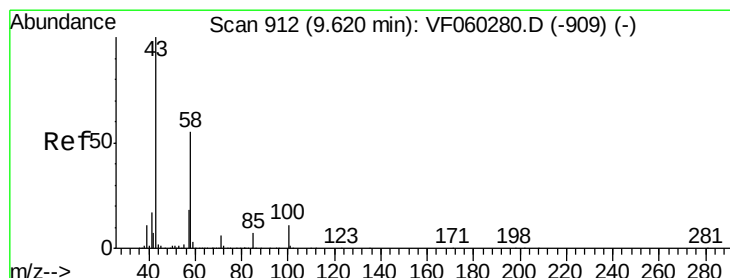
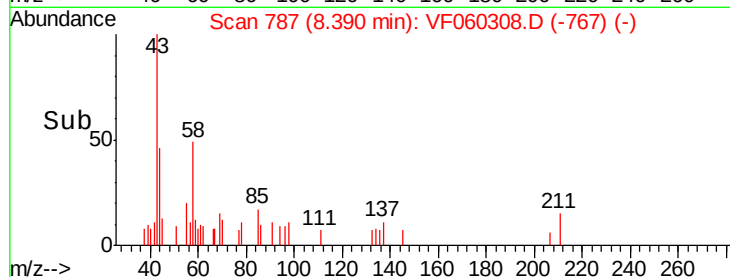
1000

500

0

8.30 8.35 8.40 8.45

Time-->



#59

2-Hexanone

Concen: 3.65 ug/l

RT: 9.61 min Scan# 911

Delta R.T. -0.01 min

Lab File: VF060308.D

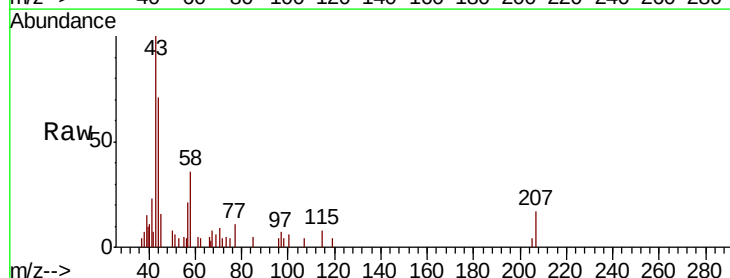
Acq: 20 Sep 2018 20:16

Tgt Ion: 43 Resp: 5860

Ion Ratio Lower Upper

43 100

58 35.7 25.9 77.6



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

9.61

3000

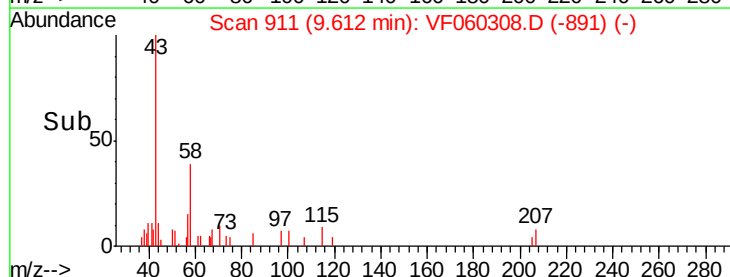
2000

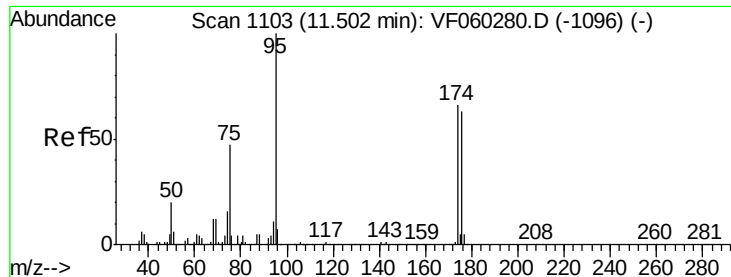
1000

0

9.55 9.60 9.65

Time-->

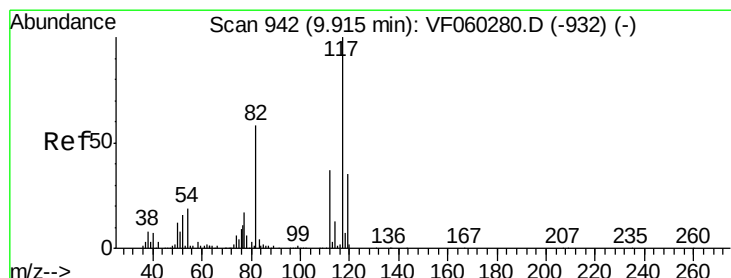
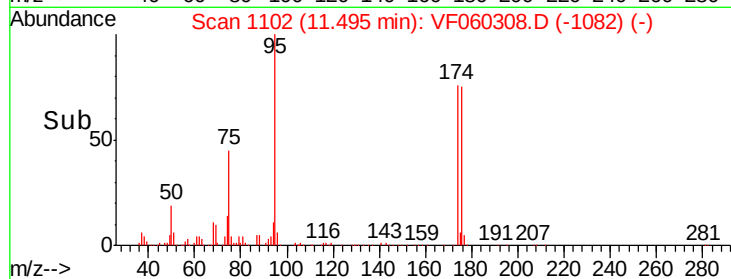
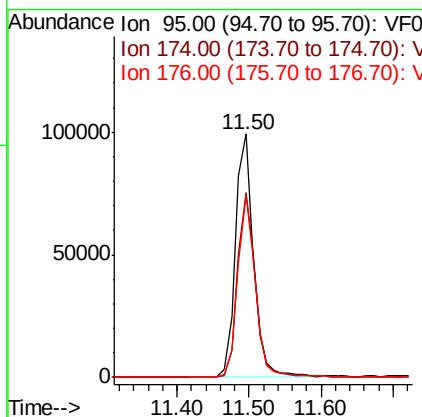
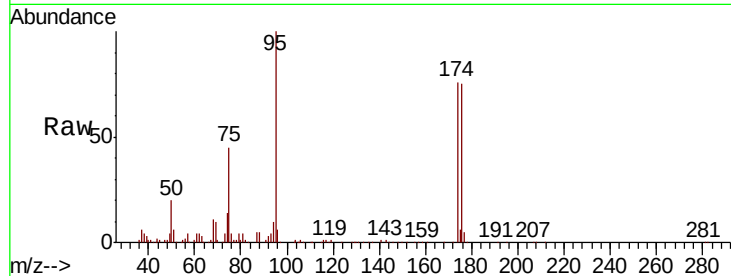




#62  
 4-Bromofluorobenzene  
 Concen: 38.13 ug/l  
 RT: 11.50 min Scan# 1102  
 Delta R.T. -0.01 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

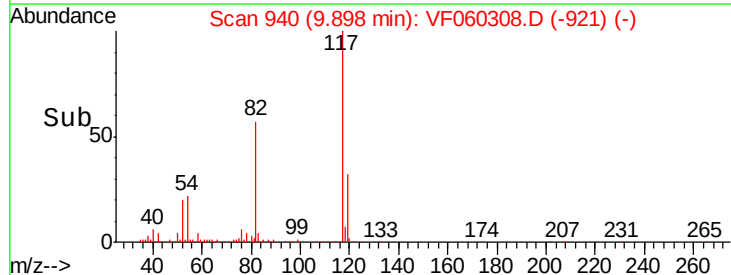
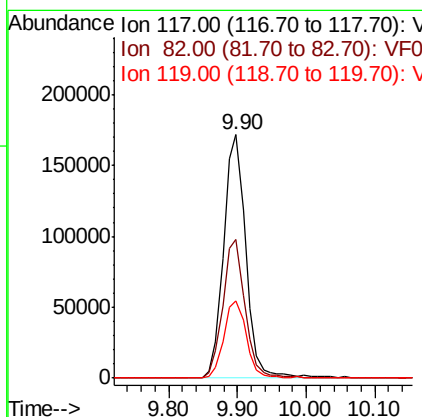
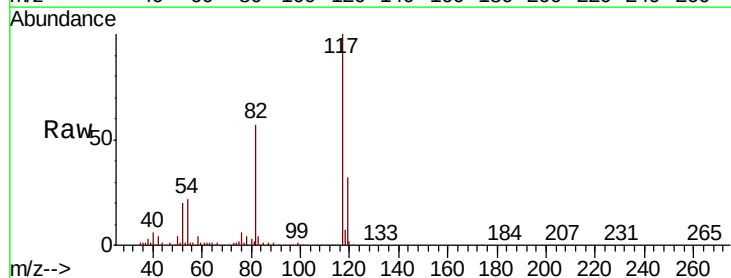
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 NB-PIT-3

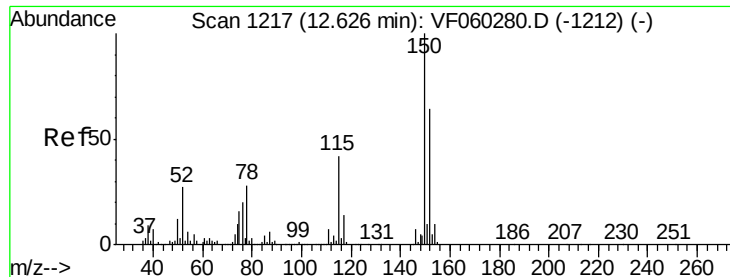
Tot Ion: 95 Resp: 176401  
 Ion Ratio Lower Upper  
 95 100  
 174 76.1 0.0 131.2  
 176 74.9 0.0 126.6



#63  
 Chlorobenzene-d5  
 Concen: 50.00 ug/l  
 RT: 9.90 min Scan# 940  
 Delta R.T. -0.02 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

Tgt Ion: 117 Resp: 385064  
 Ion Ratio Lower Upper  
 117 100  
 82 56.8 46.2 69.2  
 119 31.6 27.8 41.6

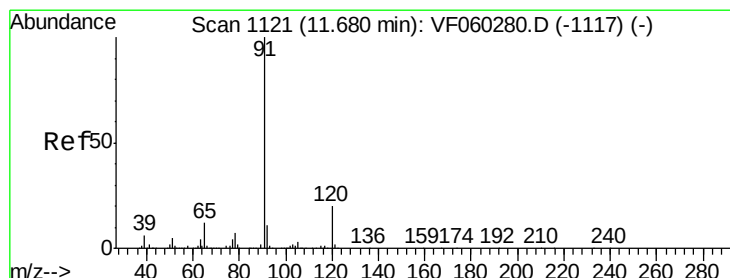
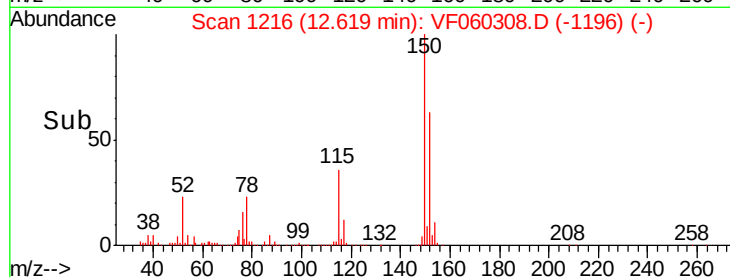
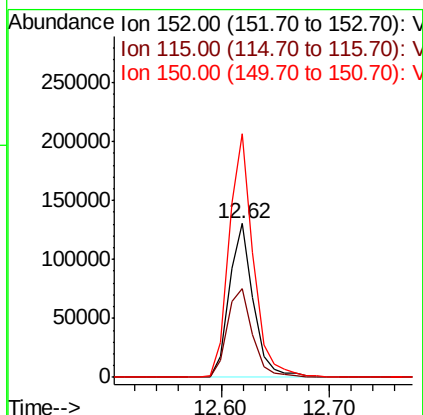
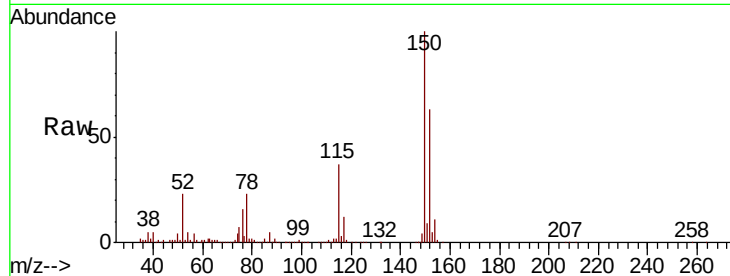




#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.00 ug/l  
 RT: 12.62 min Scan# 1216  
 Delta R.T. -0.01 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

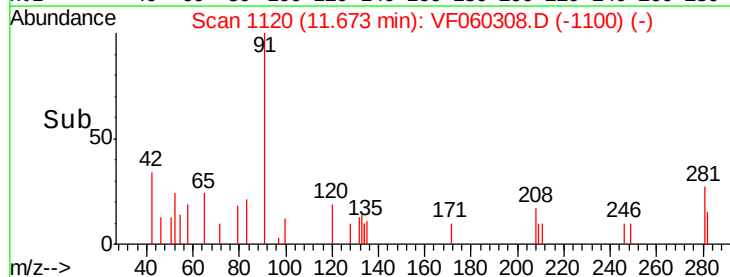
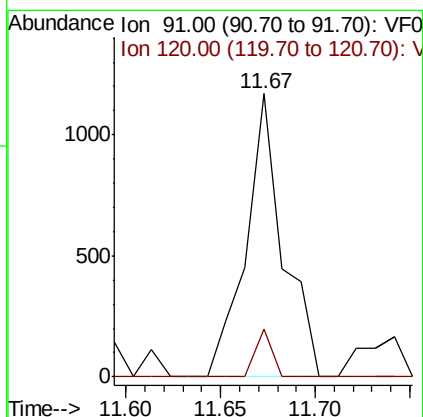
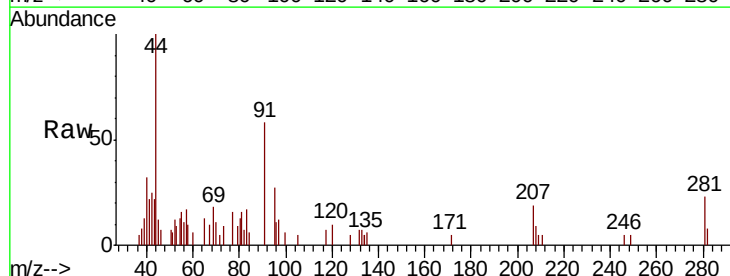
Instrument :  
 MSVOA\_F  
 ClientSampled :  
 NB-PIT-3

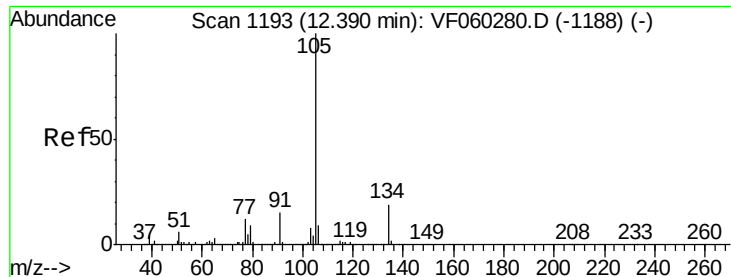
Tot Ion:152 Resp: 203092  
 Ion Ratio Lower Upper  
 152 100  
 115 57.7 32.6 97.8  
 150 158.1 0.0 314.2



#78  
 n-propylbenzene  
 Concen: Below Cal  
 RT: 11.67 min Scan# 1120  
 Delta R.T. -0.01 min  
 Lab File: VF060308.D  
 Acq: 20 Sep 2018 20:16

Tgt Ion: 91 Resp: 1589  
 Ion Ratio Lower Upper  
 91 100  
 120 17.1 10.0 29.8





#85

sec-Butylbenzene

Concen: Below Cal

RT: 12.37 min Scan# 1191

Delta R.T. -0.02 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Instrument :

MSVOA\_F

ClientSampled :

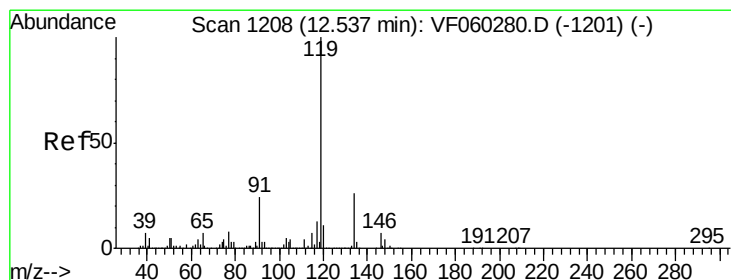
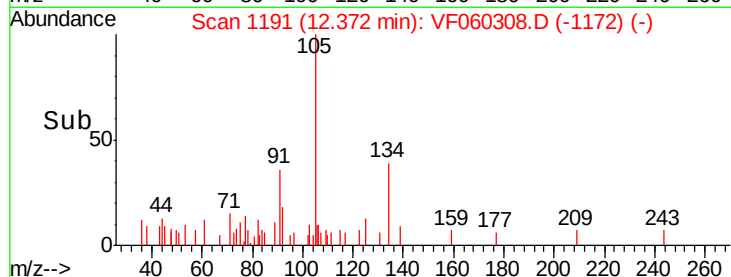
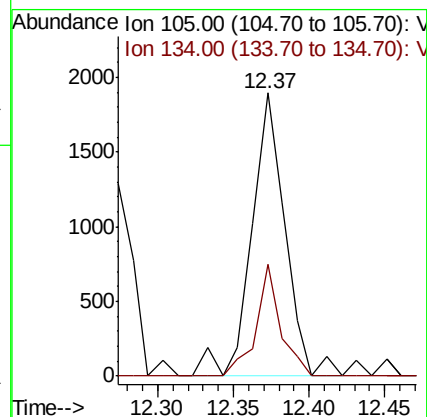
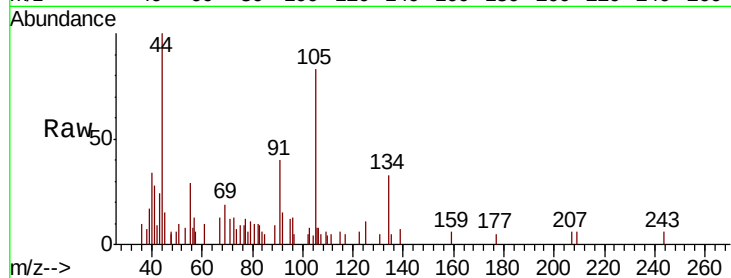
NB-PIT-3

Tot Ion:105 Resp: 2940

Ion Ratio Lower Upper

105 100

134 39.4 9.6 28.6#



#86

p-Isopropyltoluene

Concen: Below Cal

RT: 12.53 min Scan# 1207

Delta R.T. -0.01 min

Lab File: VF060308.D

Acq: 20 Sep 2018 20:16

Tgt Ion:119 Resp: 1916

Ion Ratio Lower Upper

119 100

134 23.6 12.9 38.7

91 9.6 11.9 35.7#

