

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW061518\  
 Data File : VW003309.D  
 Acq On : 15 Jun 2018 22:45  
 Operator : SY/AP  
 Sample : J3458-04RE  
 Misc : 5.73G/5ML/MSVOA W/SOIL  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Jun 16 03:50:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W061318S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 14 08:20:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 23433    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 38297    | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 34210    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 9021     | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.31  | 65   | 23411    | 92.24 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 184.48% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 18562    | 78.00 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 156.00% |          |
| 50) Toluene-d8              | 10.33 | 98   | 51603    | 54.69 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 109.38% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 13379    | 40.07 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 80.14%  |          |

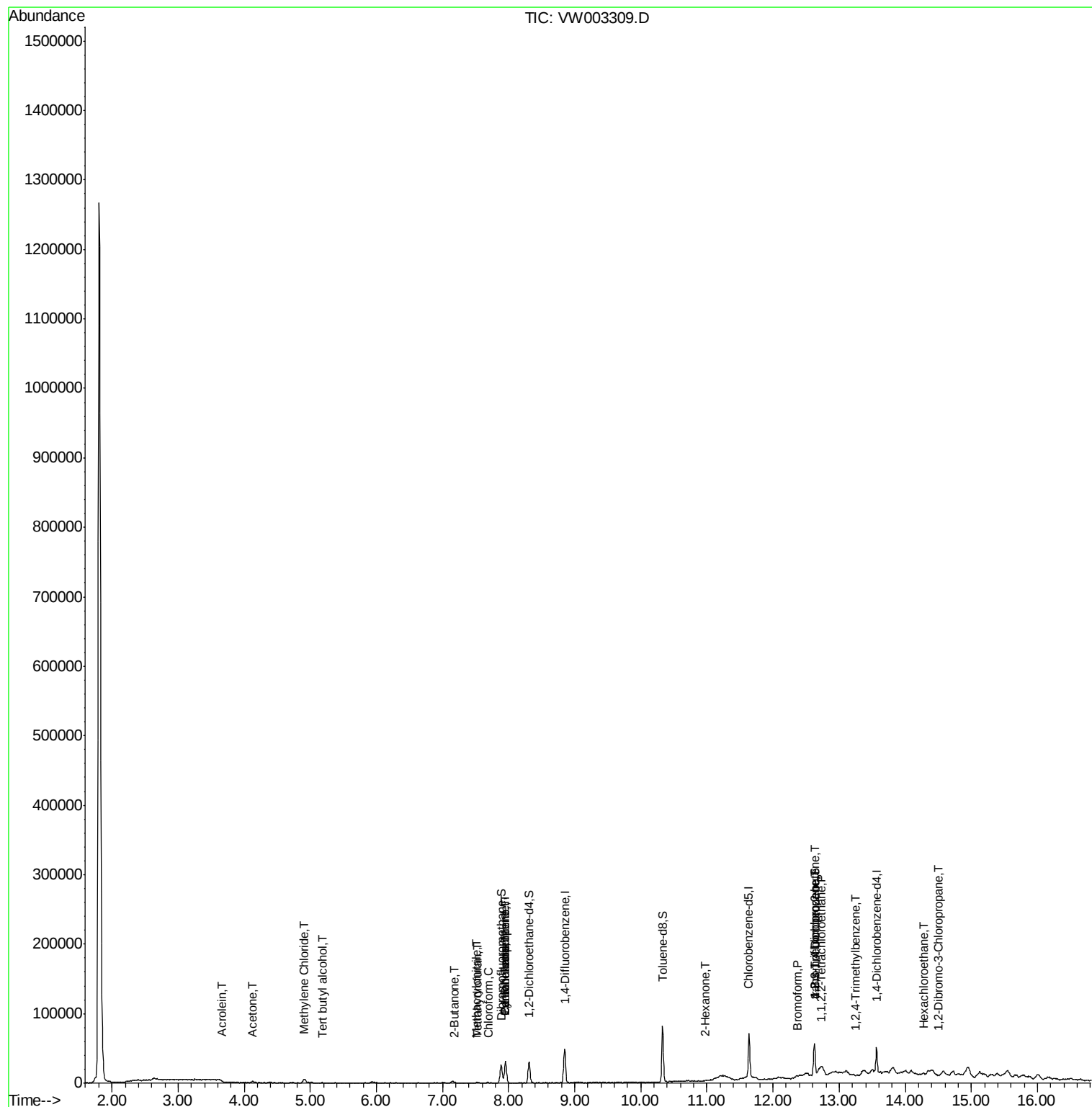
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 11) Tert butyl alcohol         | 5.20  | 59   | 26       | 1.910   | ug/l # | 84     |
| 13) Acrolein                   | 3.67  | 56   | 63       | 3.237   | ug/l # | 15     |
| 16) Acetone                    | 4.12  | 43   | 2719     | 51.078  | ug/l   | 92     |
| 20) Methylene Chloride         | 4.90  | 84   | 3593     | 13.186  | ug/l   | 94     |
| 25) 2-Butanone                 | 7.19  | 43   | 269      | 4.064   | ug/l # | 50     |
| 29) Tetrahydrofuran            | 7.53  | 42   | 140      | 3.461   | ug/l # | 35     |
| 30) Chloroform                 | 7.69  | 83   | 468      | 1.046   | ug/l # | 63     |
| 31) Cyclohexane                | 7.95  | 56   | 691      | 1.685   | ug/l # | 52     |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 1901     | 5.140   | ug/l # | 54     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 2370     | 6.533   | ug/l # | 17     |
| 41) Methacrylonitrile          | 7.51  | 41   | 149      | 1.585   | ug/l # | 41     |
| 59) 2-Hexanone                 | 10.96 | 43   | 265      | 2.447   | ug/l # | 27     |
| 71) Bromoform                  | 12.37 | 173  | 243      | 1.873   | ug/l # | 60     |
| 75) 1,1,2,2-Tetrachloroethane  | 12.73 | 83   | 574      | 5.407   | ug/l # | 26     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 7389     | 95.813  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 7389     | 220.471 | ug/l # | 8      |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 567      | 1.047   | ug/l   | 89     |
| 90) Hexachloroethane           | 14.29 | 117  | 113      | 1.062   | ug/l   | 68     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.50 | 75   | 28       | 1.567   | ug/l # | 1      |

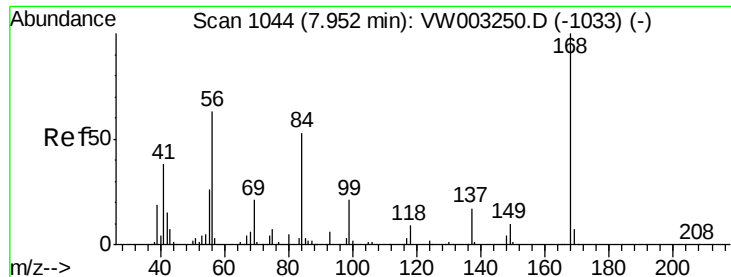
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ClientSampleId :

Quant Time: Jun 16 03:50:39 2018  
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Quant Title : SW846 8260  
QLast Update : Thu Jun 14 08:20:43 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 1044

Delta R.T. 0.00 min

Lab File: VW003309.D

Acq: 15 Jun 2018 22:45

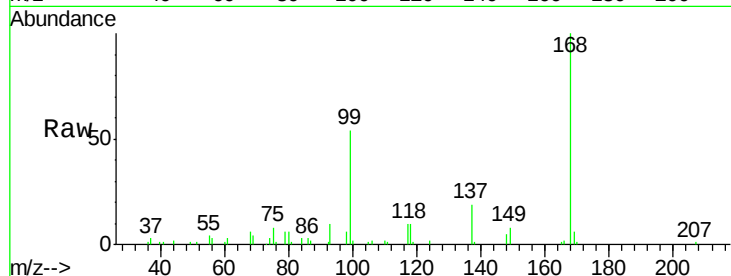
Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion:168 Resp: 23433

Ion Ratio Lower Upper

168 100

99 53.9 45.5 68.3



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

12000

10000

8000

6000

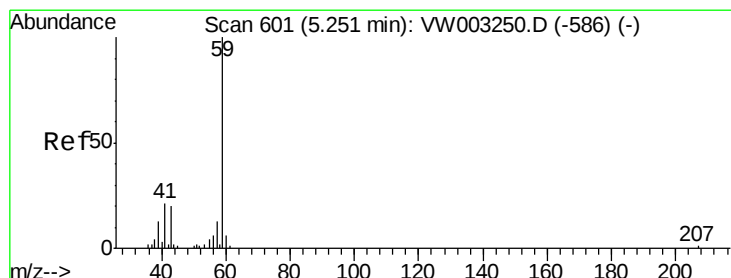
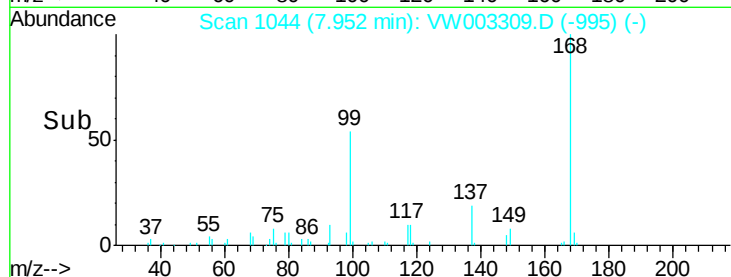
4000

2000

0

Time-->

7.85 7.90 7.95 8.00 8.05



#11

Tert butyl alcohol

Concen: 1.910 ug/l

RT: 5.20 min Scan# 592

Delta R.T. -0.05 min

Lab File: VW003309.D

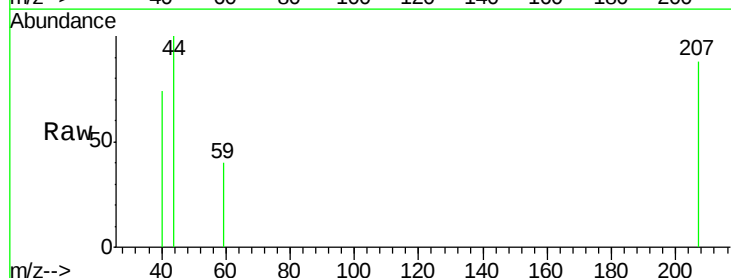
Acq: 15 Jun 2018 22:45

Tgt Ion: 59 Resp: 26

Ion Ratio Lower Upper

59 100

57 0.0 4.2 6.2#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW

5.20

80

60

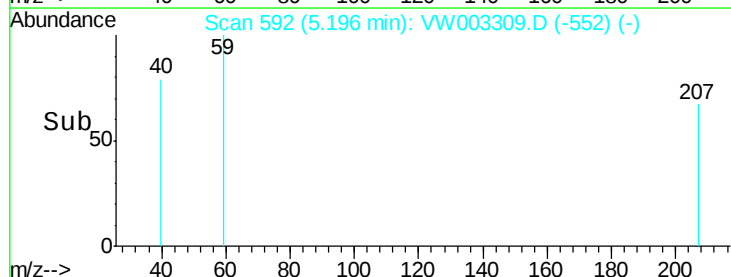
40

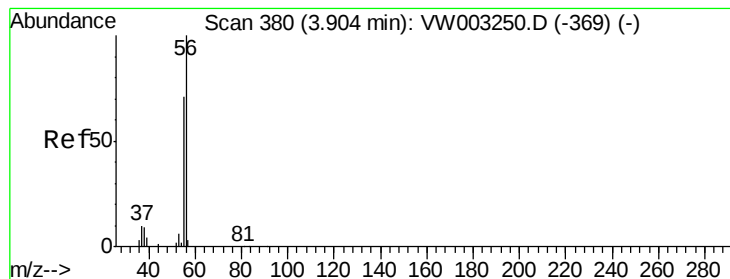
20

0

Time-->

5.18 5.19 5.20 5.21





#13

Acrolein

Concen: 3.237 ug/l

RT: 3.67 min Scan# 342

Delta R.T. -0.23 min

Lab File: VW003309.D

Acq: 15 Jun 2018 22:45

Instrument :

MSVOA\_W

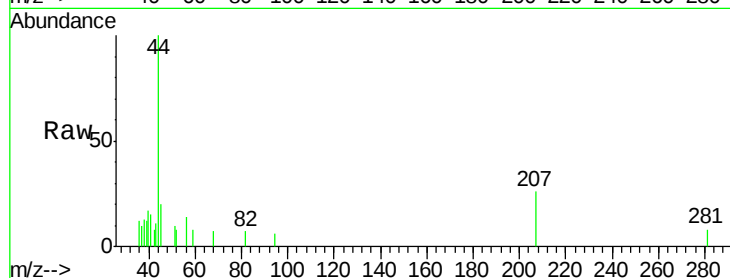
ClientSampled :

Tot Ion: 56 Resp: 63

Ion Ratio Lower Upper

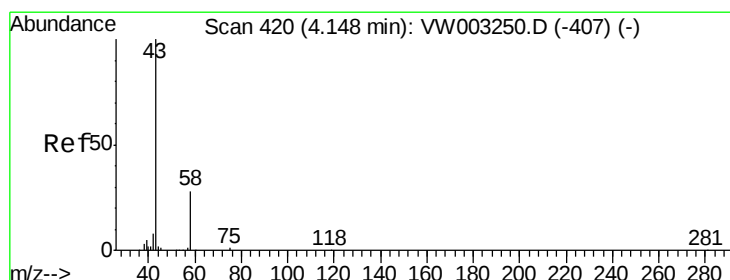
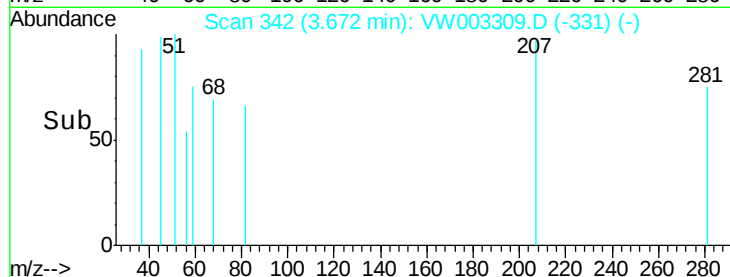
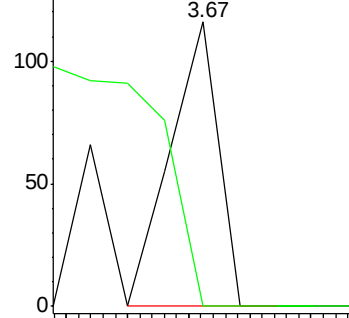
56 100

55 0.0 55.4 83.2#



Abundance Ion 56.00 (55.70 to 56.70): VW

Ion 55.00 (54.70 to 55.70): VW



#16

Acetone

Concen: 51.078 ug/l

RT: 4.12 min Scan# 416

Delta R.T. -0.02 min

Lab File: VW003309.D

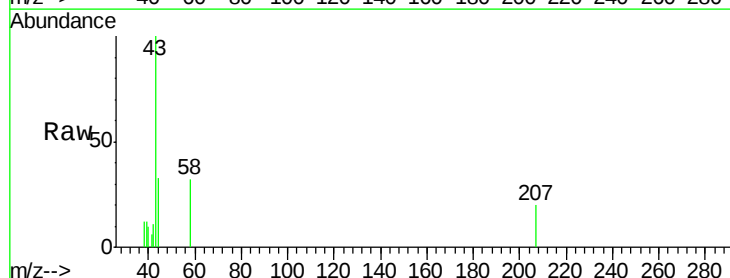
Acq: 15 Jun 2018 22:45

Tgt Ion: 43 Resp: 2719

Ion Ratio Lower Upper

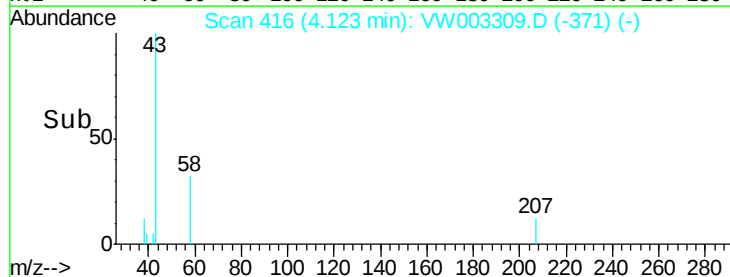
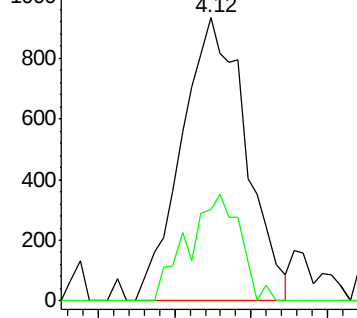
43 100

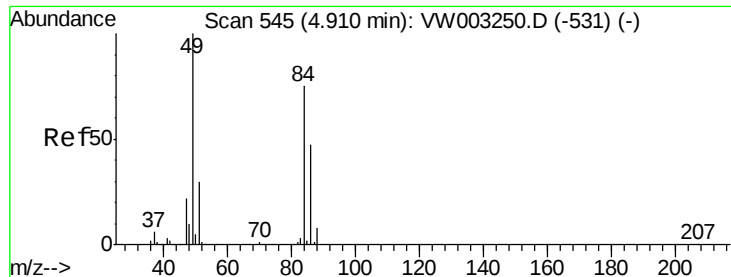
58 32.5 22.6 34.0



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW

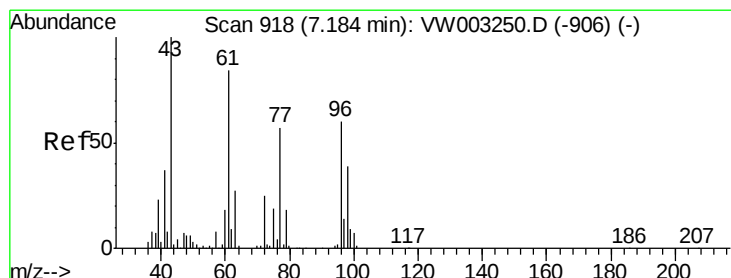
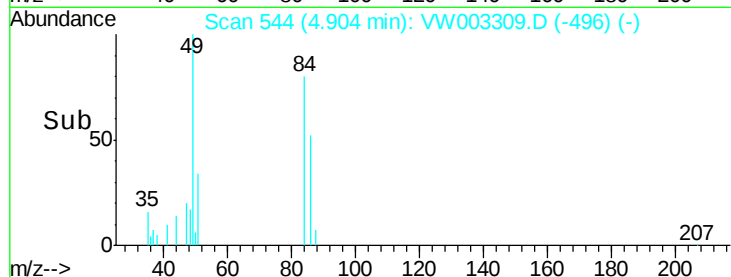
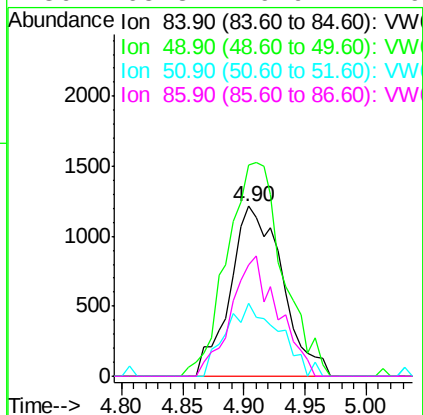
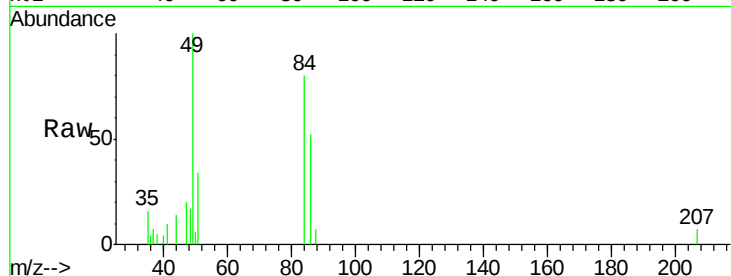




#20  
Methvlene Chloride  
Concen: 13.186 ug/l  
RT: 4.90 min Scan# 544  
Delta R.T. -0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

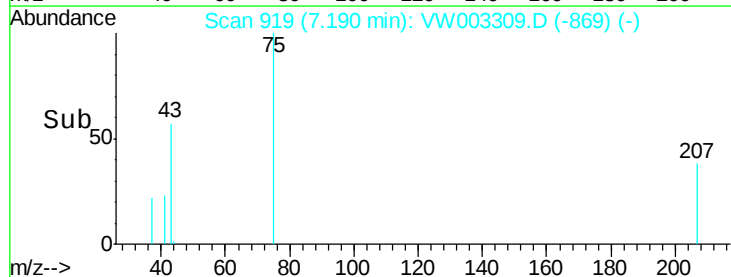
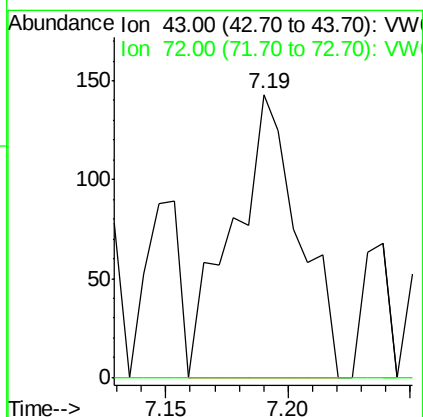
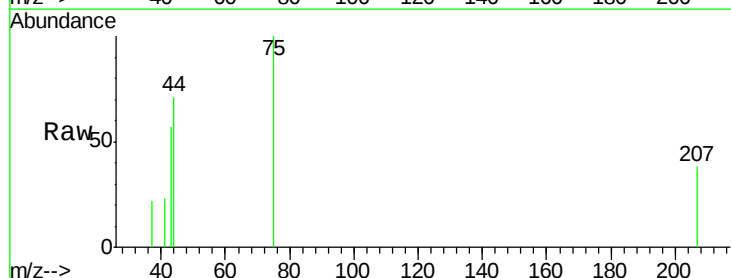
Instrument :  
MSVOA\_W  
ClientSampleId :

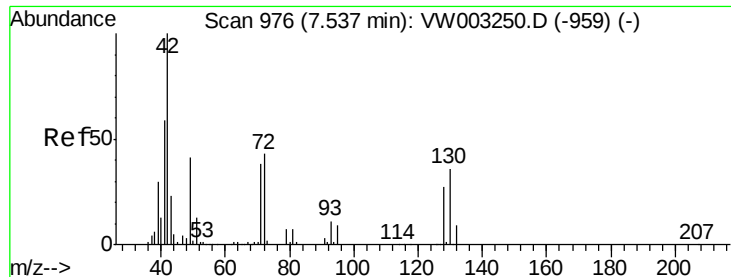
Tot Ion: 84 Resp: 3593  
Ion Ratio Lower Upper  
84 100  
49 124.5 106.3 159.5  
51 42.6 32.0 48.0  
86 65.3 49.9 74.9



#25  
2-Butanone  
Concen: 4.064 ug/l  
RT: 7.19 min Scan# 919  
Delta R.T. 0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 43 Resp: 269  
Ion Ratio Lower Upper  
43 100  
72 0.0 20.3 30.5#

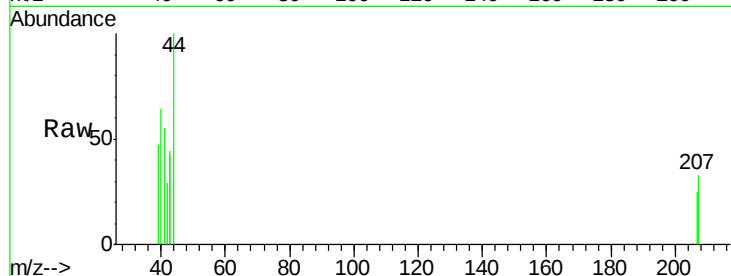




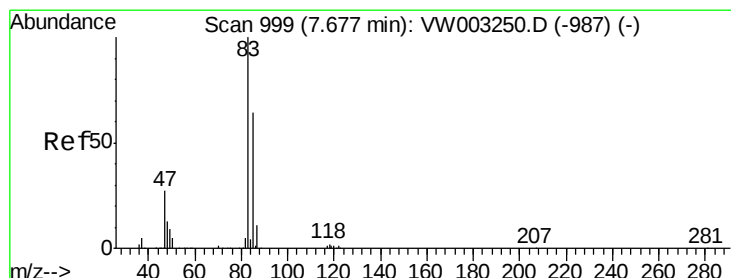
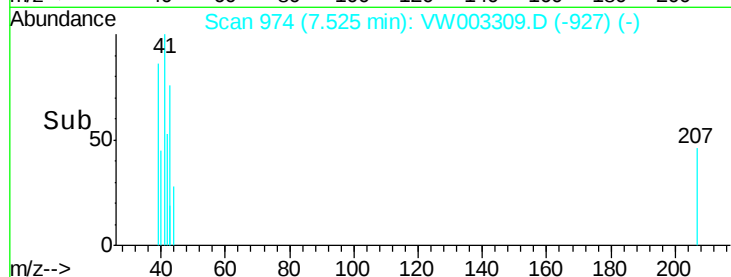
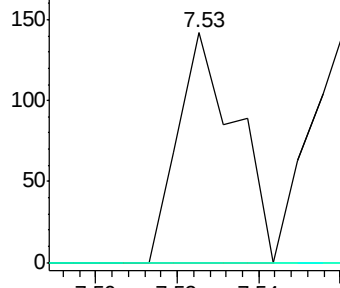
#29  
Tetrahydrofuran  
Concen: 3.461 ug/l  
RT: 7.53 min Scan# 974  
Delta R.T. -0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion: 42 Resp: 140  
Ion Ratio Lower Upper  
42 100  
72 0.0 32.4 48.6#  
71 0.0 31.2 46.8#

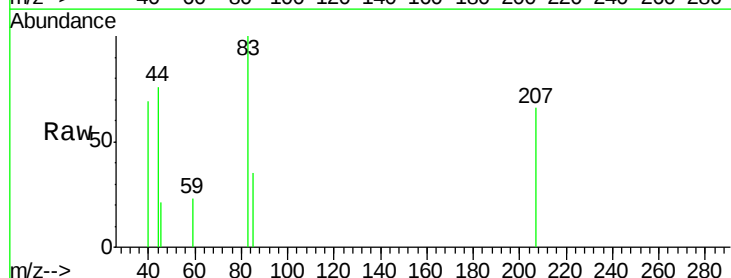


Abundance Ion 42.00 (41.70 to 42.70): VW  
Ion 72.00 (71.70 to 72.70): VW  
Ion 71.00 (70.70 to 71.70): VW

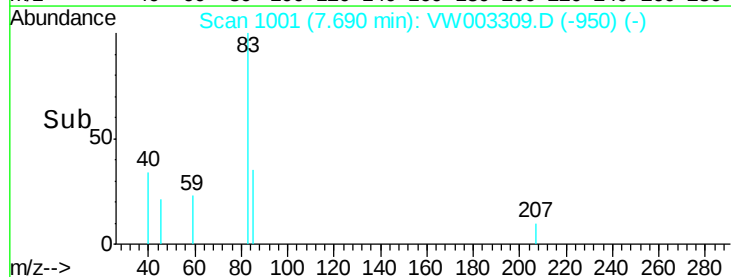
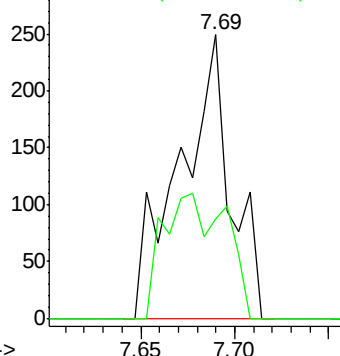


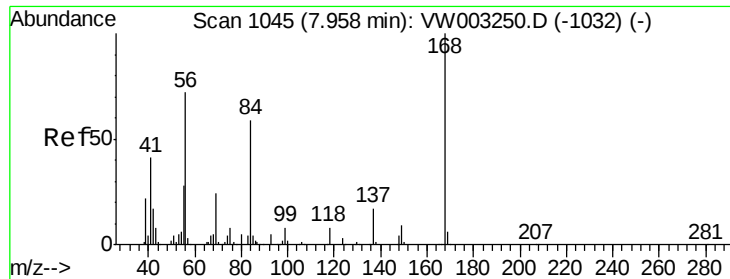
#30  
Chloroform  
Concen: 1.046 ug/l  
RT: 7.69 min Scan# 1001  
Delta R.T. 0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 83 Resp: 468  
Ion Ratio Lower Upper  
83 100  
85 34.9 51.3 76.9#



Abundance Ion 82.90 (82.60 to 83.60): VW  
Ion 84.90 (84.60 to 85.60): VW

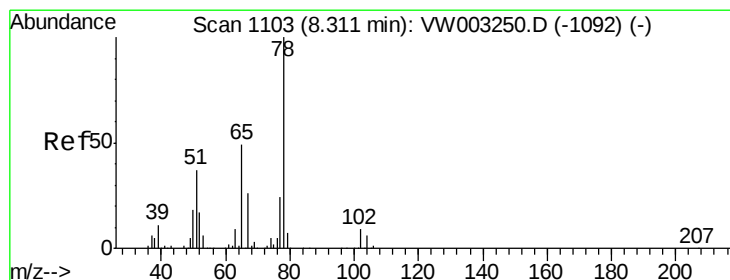
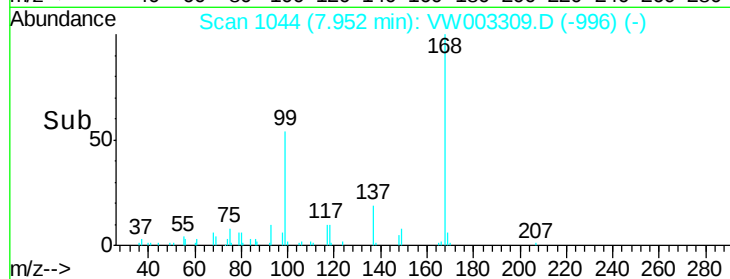
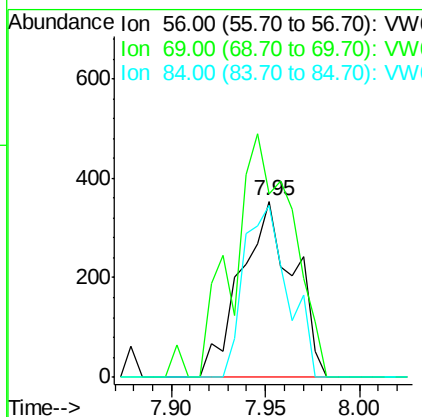
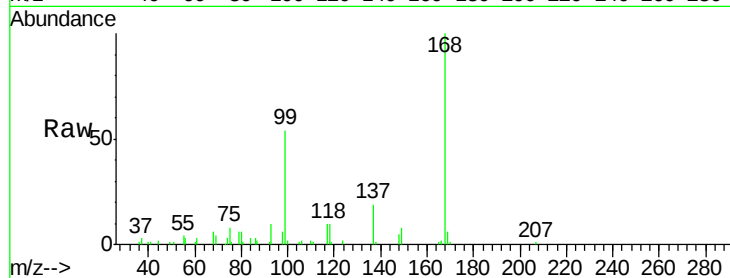




#31  
Cyclohexane  
Concen: 1.685 ug/l  
RT: 7.95 min Scan# 1044  
Delta R.T. -0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

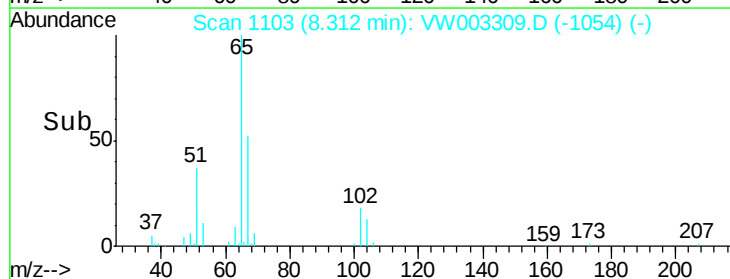
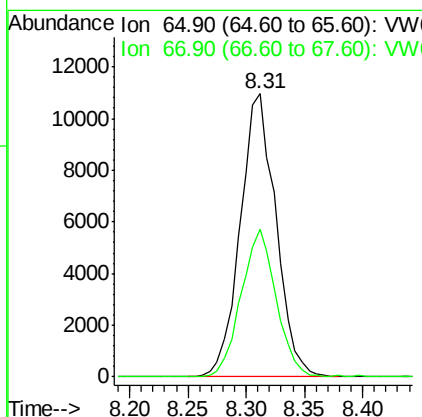
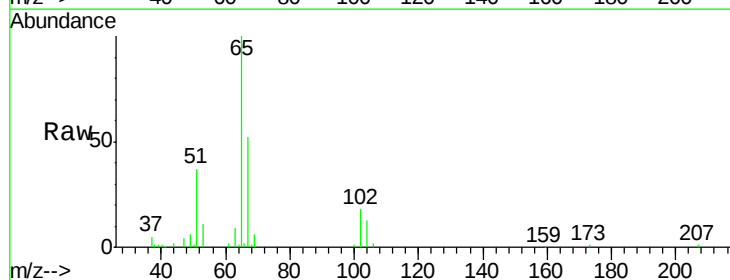
Instrument :  
MSVOA\_W  
ClientSampleId :

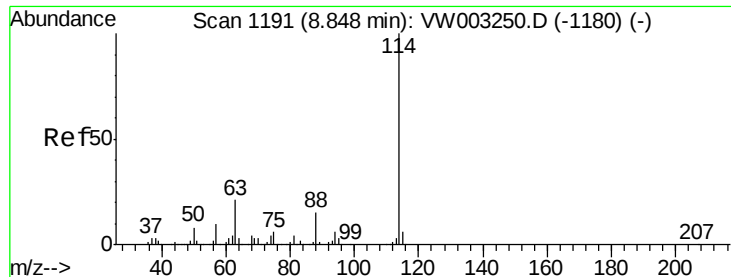
Tot Ion: 56 Resp: 691  
Ion Ratio Lower Upper  
56 100  
69 104.2 26.3 39.5#  
84 97.5 65.7 98.5



#33  
1,2-Dichloroethane-d4  
Concen: 92.236 ug/l  
RT: 8.31 min Scan# 1103  
Delta R.T. 0.00 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 65 Resp: 23411  
Ion Ratio Lower Upper  
65 100  
67 51.2 0.0 104.2

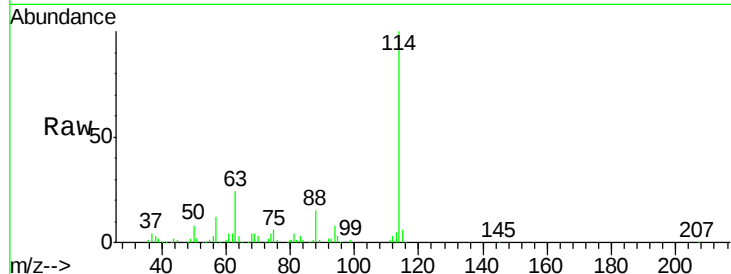




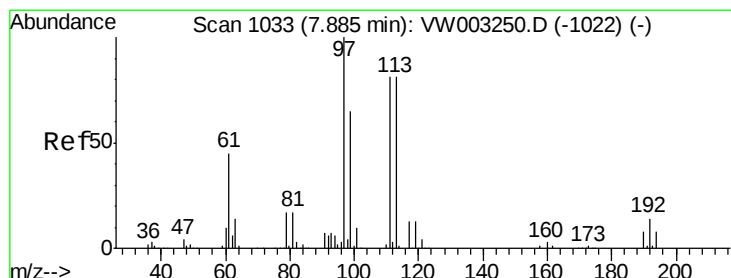
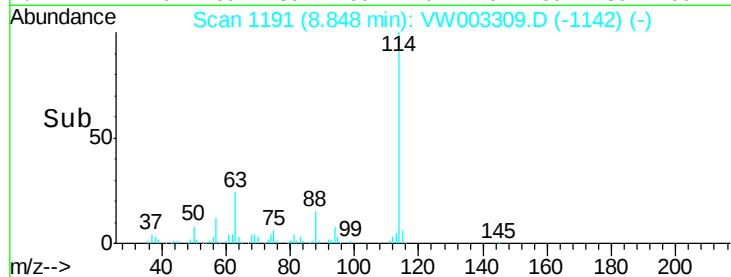
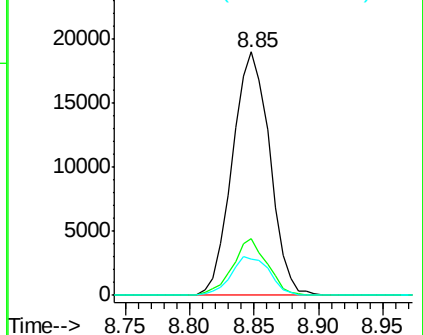
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.85 min Scan# 1191  
 Delta R.T. 0.00 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

Instrument :  
 MSVOA\_W  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 23.5  | 0.0   | 43.0  |
| 88      | 14.8  | 0.0   | 29.6  |

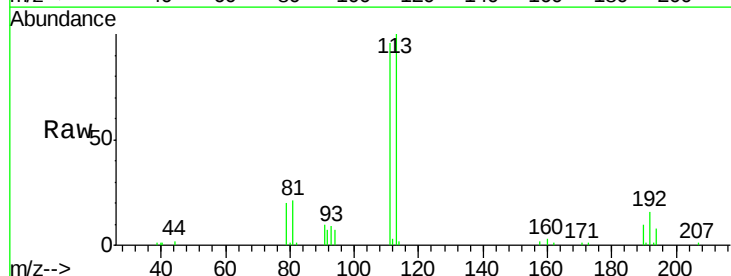


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

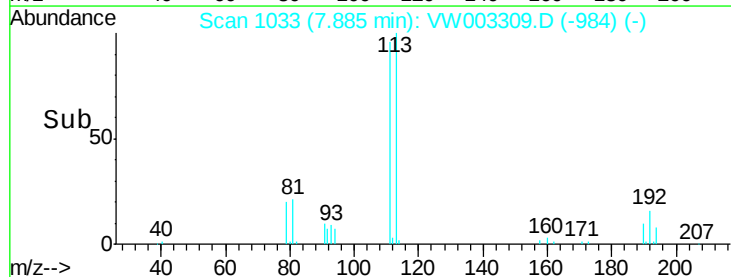
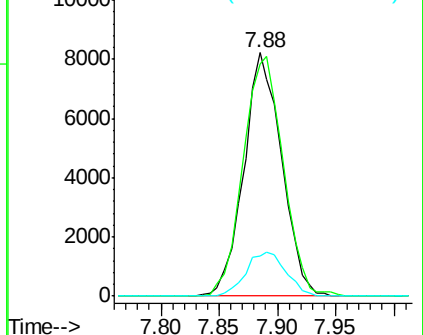


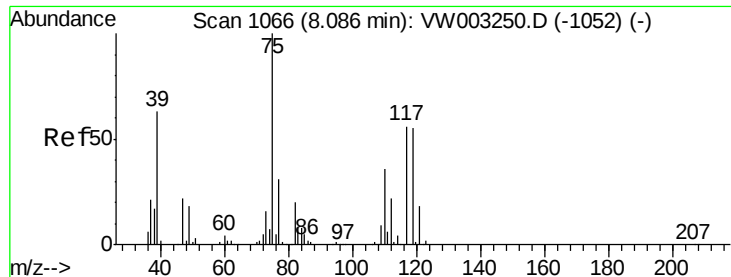
#35  
 Dibromofluoromethane  
 Concen: 78.003 ug/l  
 RT: 7.88 min Scan# 1033  
 Delta R.T. 0.00 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 104.5 | 82.2  | 123.2 |
| 192     | 19.1  | 16.2  | 24.2  |



Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

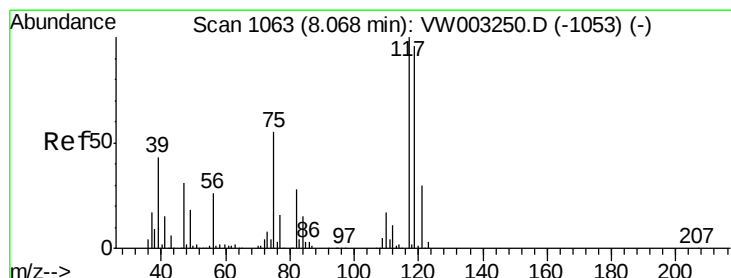
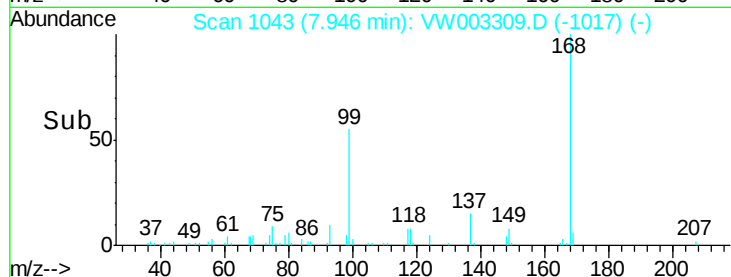
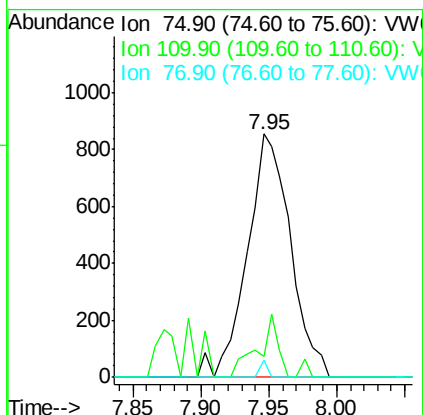
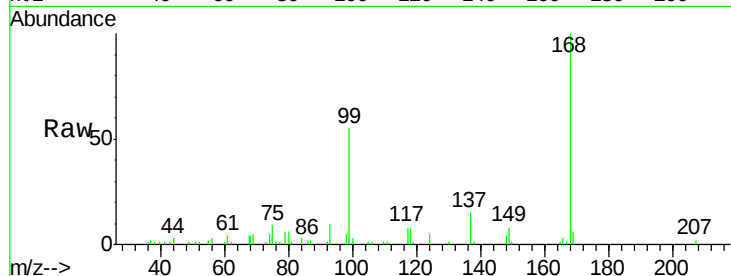




#36  
 1,1-Dichloropropene  
 Concen: 5.140 ug/l  
 RT: 7.95 min Scan# 1043  
 Delta R.T. -0.14 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

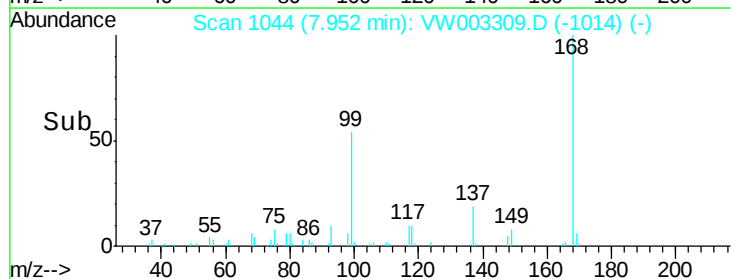
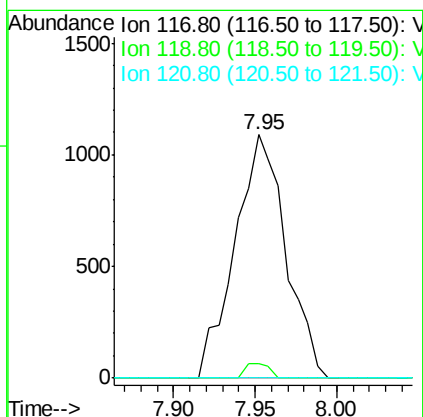
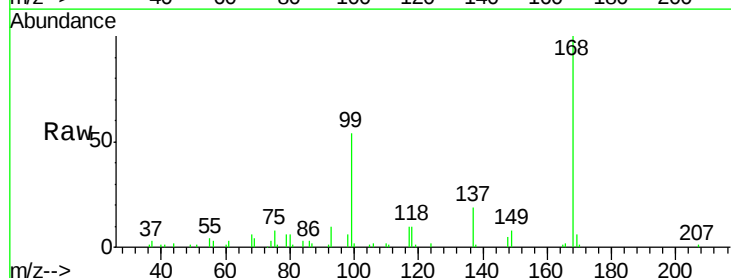
Instrument :  
 MSVOA\_W  
 ClientSampled :

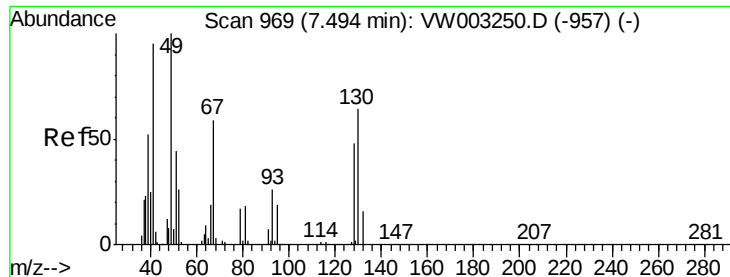
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 12.2  | 17.1  | 51.3# |
| 77      | 1.2   | 24.9  | 37.3# |



#38  
 Carbon Tetrachloride  
 Concen: 6.533 ug/l  
 RT: 7.95 min Scan# 1044  
 Delta R.T. -0.12 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 6.0   | 76.6  | 115.0# |
| 121     | 0.0   | 23.9  | 35.9#  |

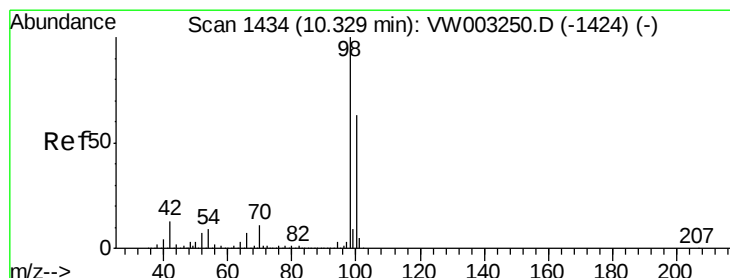
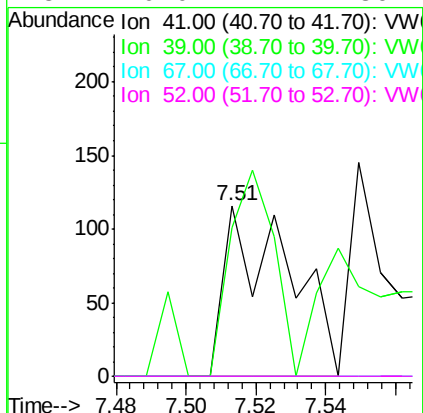
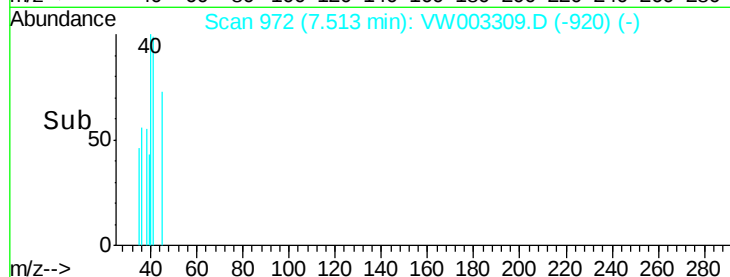
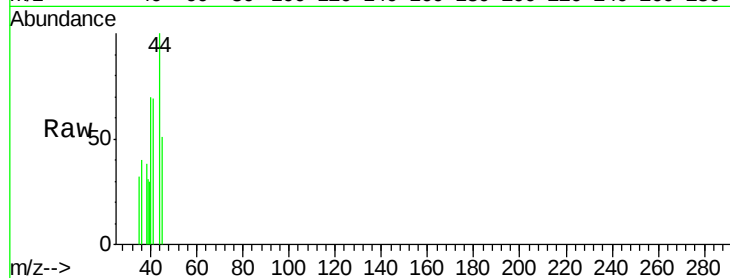




#41  
Methacrylonitrile  
Concen: 1.585 ug/l  
RT: 7.51 min Scan# 972  
Delta R.T. 0.02 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

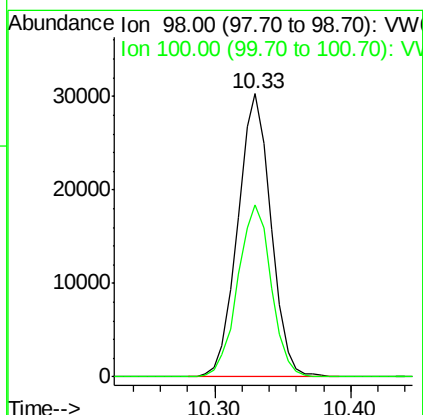
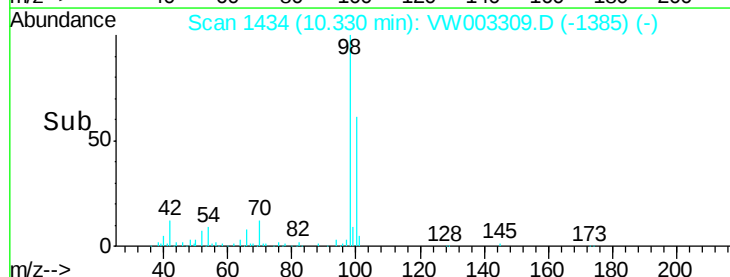
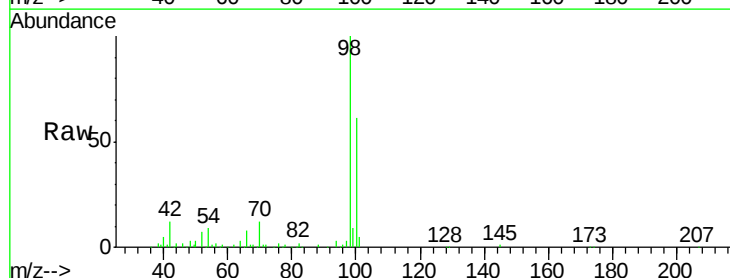
Instrument :  
MSVOA\_W  
ClientSampled :

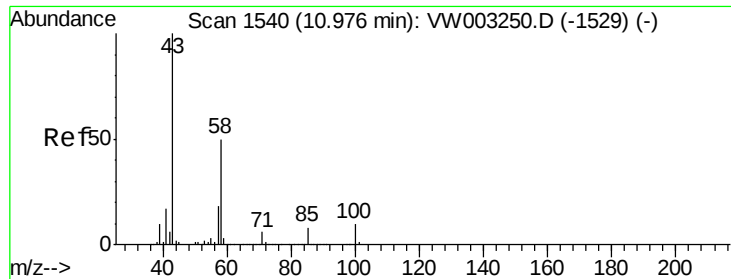
Tot Ion: 41 Resp: 149  
Ion Ratio Lower Upper  
41 100  
39 82.6 45.8 68.8#  
67 0.0 52.3 78.5#  
52 0.0 24.1 36.1#



#50  
Toluene-d8  
Concen: 54.688 ug/l  
RT: 10.33 min Scan# 1434  
Delta R.T. 0.00 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 98 Resp: 51603  
Ion Ratio Lower Upper  
98 100  
100 61.3 50.8 76.2

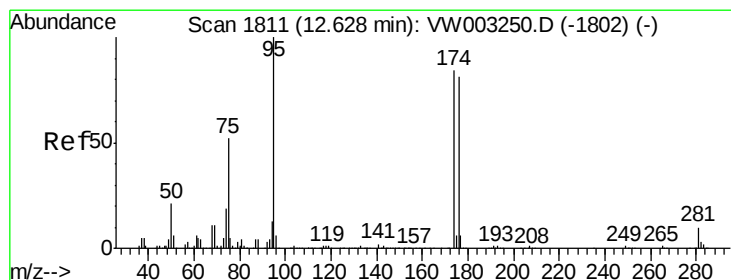
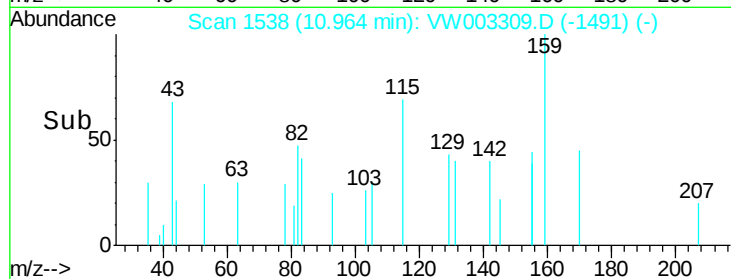
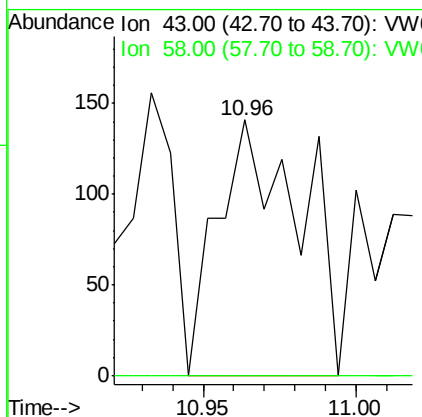
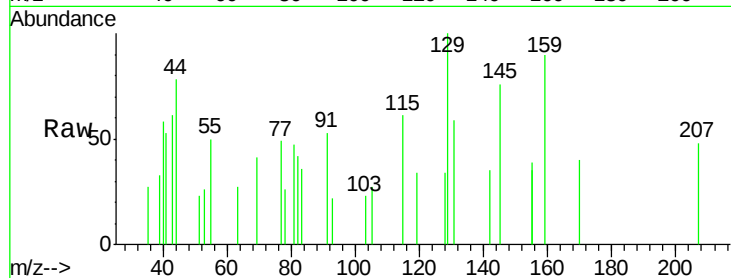




#59  
2-Hexanone  
Concen: 2.447 ug/l  
RT: 10.96 min Scan# 1538  
Delta R.T. -0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

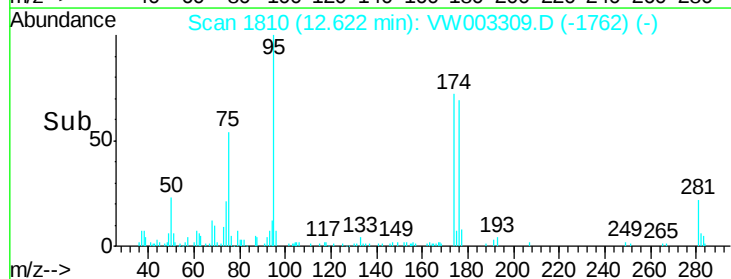
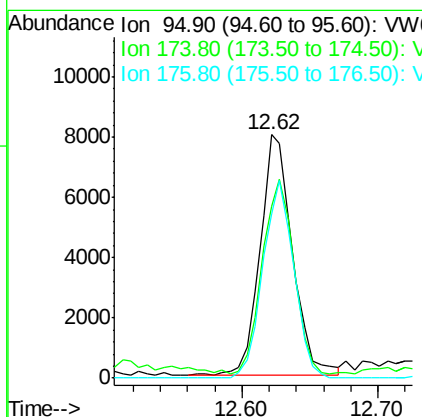
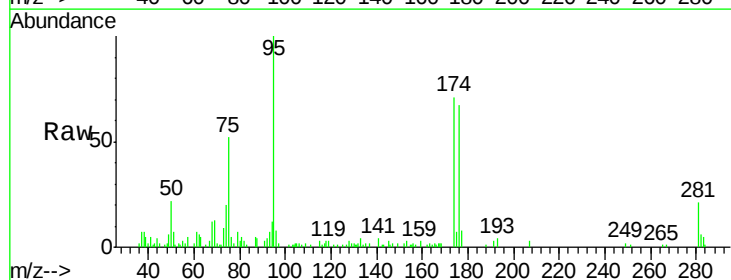
Instrument :  
MSVOA\_W  
ClientSampleId :

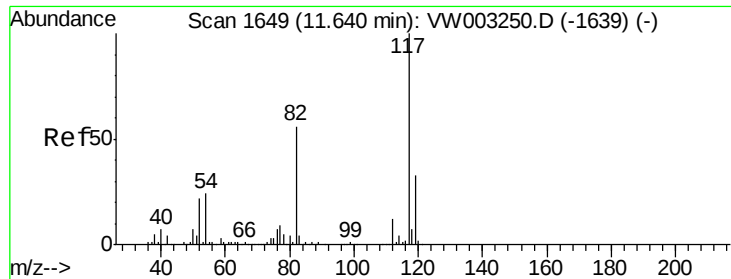
Tot Ion: 43 Resp: 265  
Ion Ratio Lower Upper  
43 100  
58 0.0 25.0 75.0#



#62  
4-Bromofluorobenzene  
Concen: 40.066 ug/l  
RT: 12.62 min Scan# 1810  
Delta R.T. -0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 95 Resp: 13379  
Ion Ratio Lower Upper  
95 100  
174 78.9 0.0 166.4  
176 78.0 0.0 162.0

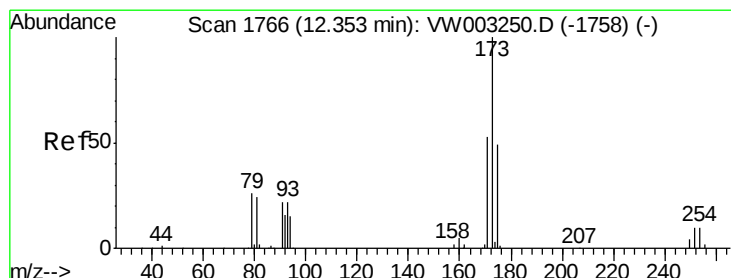
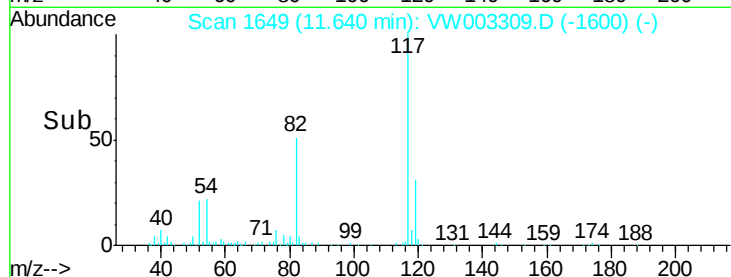
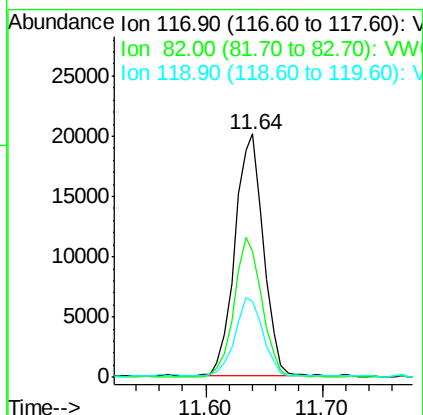
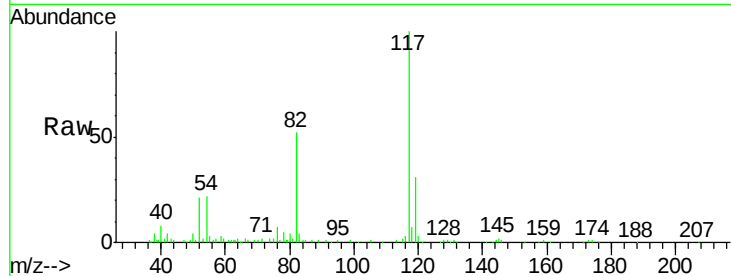




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.64 min Scan# 1649  
Delta R.T. 0.00 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

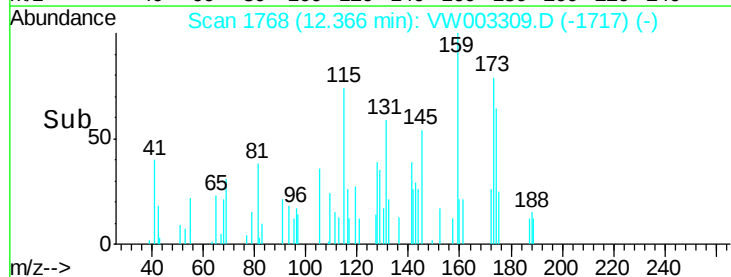
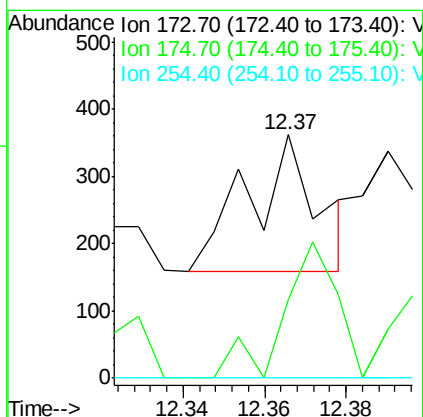
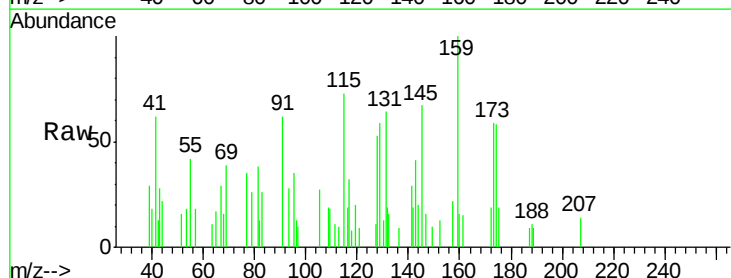
Instrument :  
MSVOA\_W  
ClientSampled :

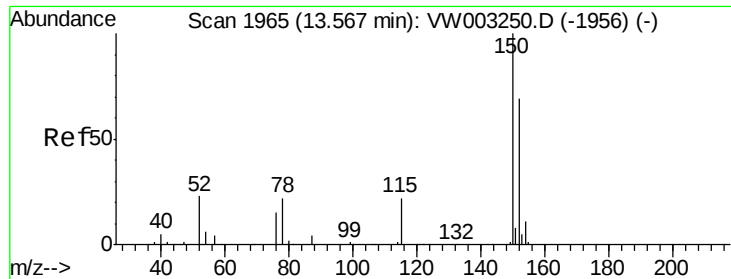
Tot Ion:117 Resp: 34210  
Ion Ratio Lower Upper  
117 100  
82 51.8 44.6 67.0  
119 30.7 26.7 40.1



#71  
Bromoform  
Concen: 1.873 ug/l  
RT: 12.37 min Scan# 1768  
Delta R.T. 0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion:173 Resp: 243  
Ion Ratio Lower Upper  
173 100  
175 76.1 24.4 73.4#  
254 0.0 0.1 0.1#



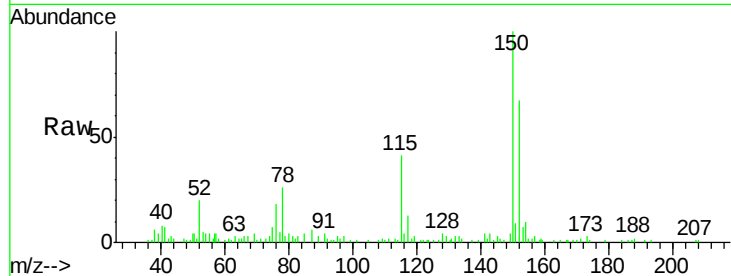


#72

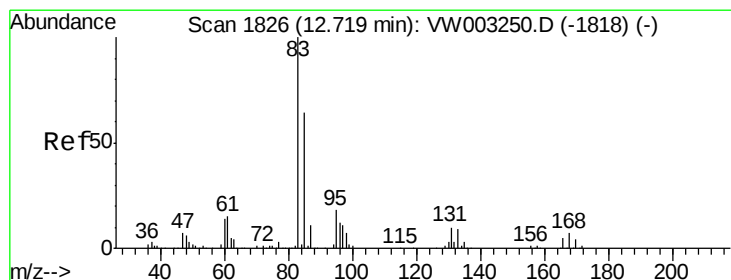
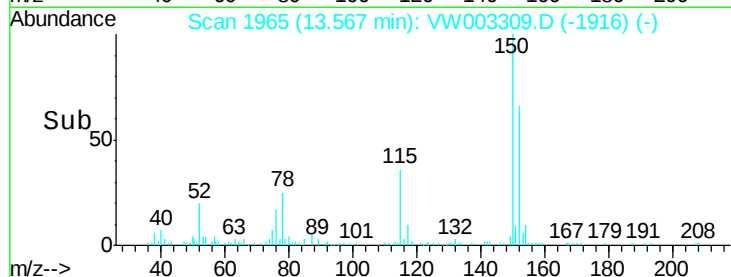
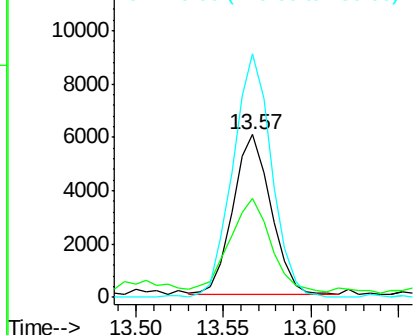
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.57 min Scan# 1965  
Delta R.T. 0.00 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion:152 Resp: 9021  
Ion Ratio Lower Upper  
152 100  
115 62.3 29.3 88.0  
150 156.8 0.0 349.6



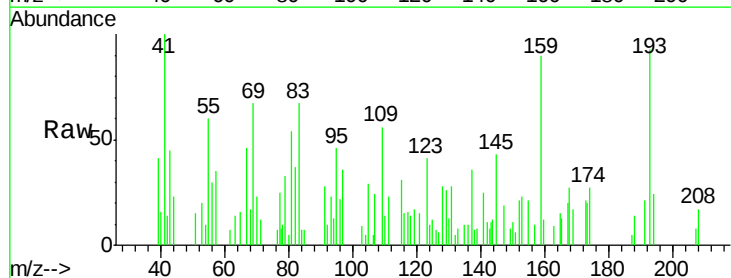
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



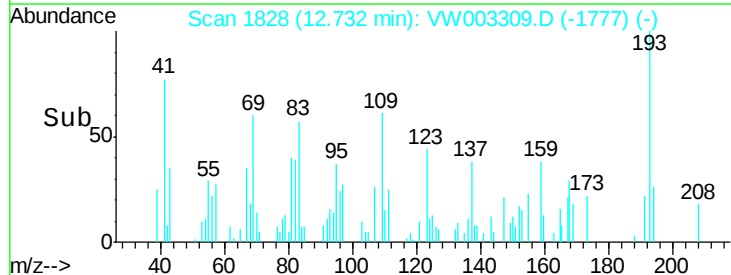
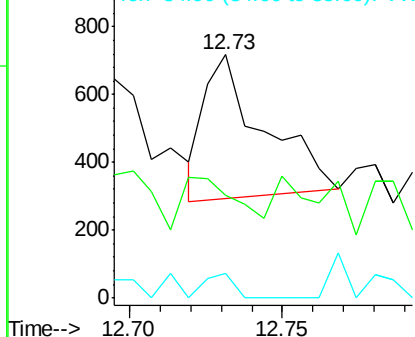
#75

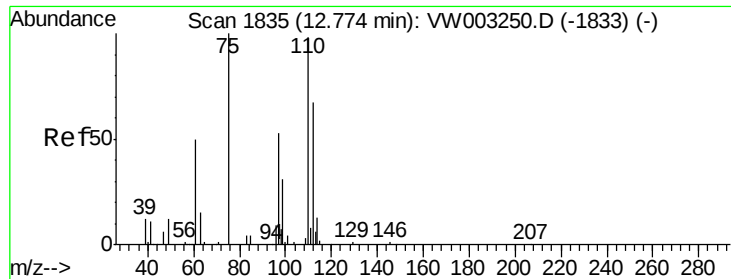
1,1,2,2-Tetrachloroethane  
Concen: 5.407 ug/l  
RT: 12.73 min Scan# 1828  
Delta R.T. 0.01 min  
Lab File: VW003309.D  
Acq: 15 Jun 2018 22:45

Tgt Ion: 83 Resp: 574  
Ion Ratio Lower Upper  
83 100  
131 43.4 5.4 16.2#  
85 8.0 31.9 95.7#



Abundance Ion 82.90 (82.60 to 83.60): VW  
Ion 130.80 (130.50 to 131.50): V  
Ion 84.90 (84.60 to 85.60): VW





#76

1,2,3-Trichloropropane

Concen: 95.813 ug/l

RT: 12.62 min Scan# 1810

Delta R.T. -0.15 min

Lab File: VW003309.D

Acq: 15 Jun 2018 22:45

Instrument :

MSVOA\_W

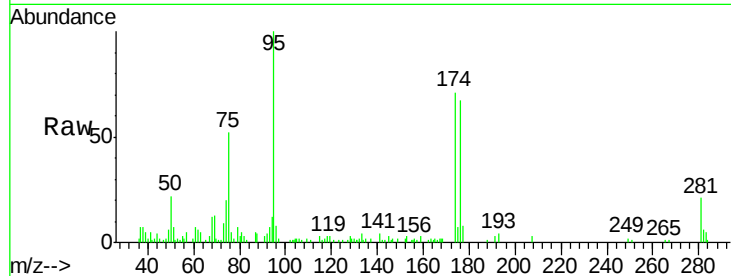
ClientSampleId :

Tot Ion: 75 Resp: 7389

Ion Ratio Lower Upper

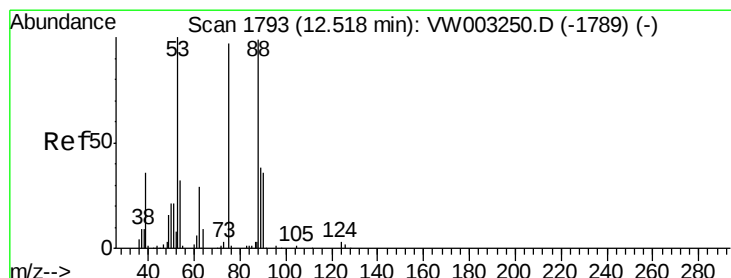
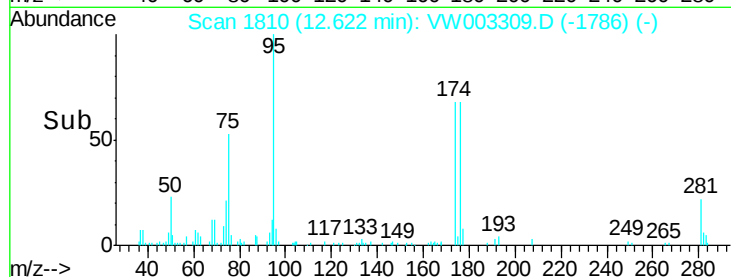
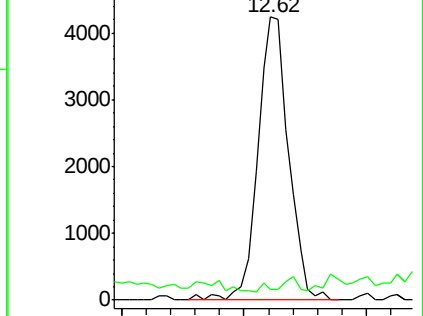
75 100

77 0.9 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW



#81

trans-1,4-Dichloro-2-butene

Concen: 220.471 ug/l

RT: 12.62 min Scan# 1810

Delta R.T. 0.10 min

Lab File: VW003309.D

Acq: 15 Jun 2018 22:45

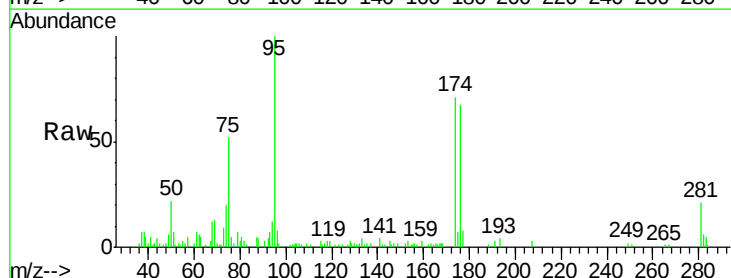
Tgt Ion: 75 Resp: 7389

Ion Ratio Lower Upper

75 100

53 0.0 82.9 124.3#

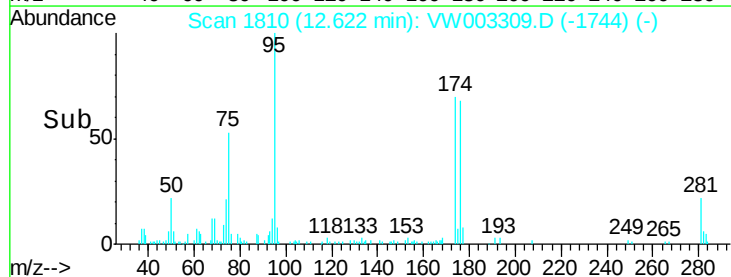
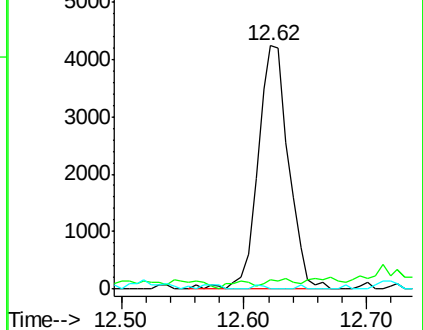
89 0.0 36.7 55.1#

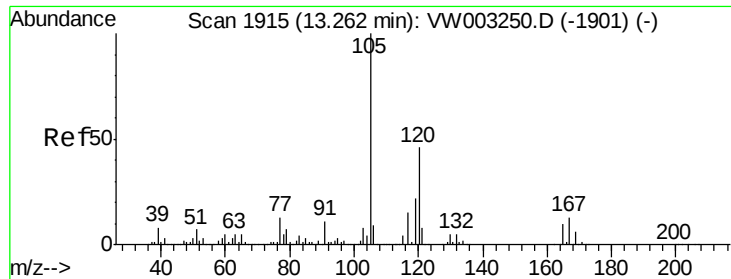


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW

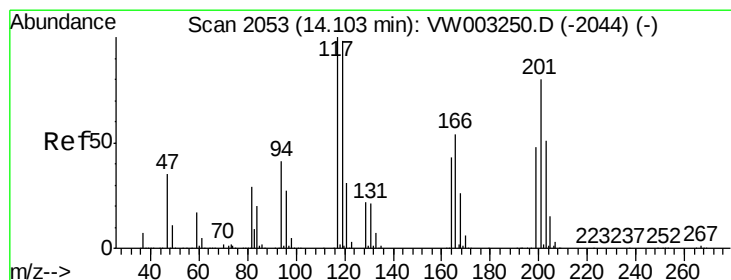
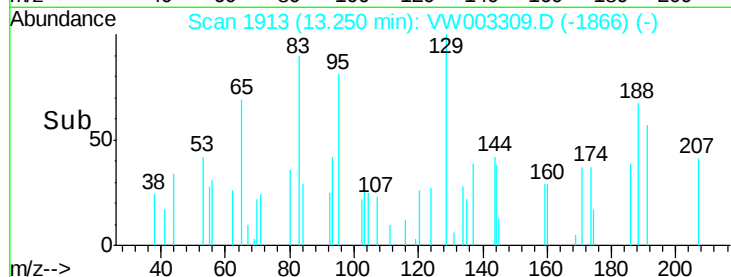
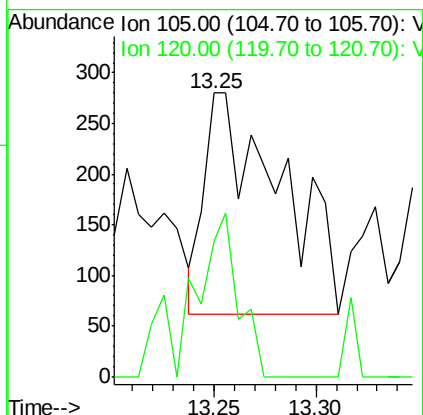
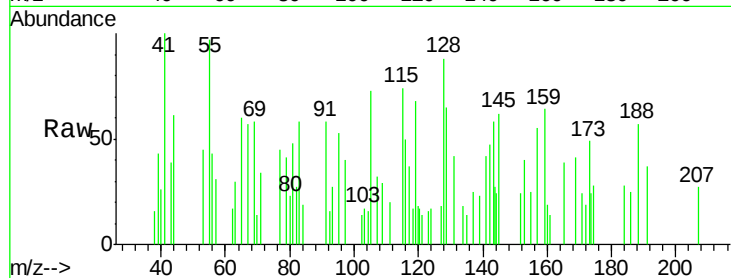




#84  
 1,2,4-Trimethylbenzene  
 Concen: 1.047 ug/l  
 RT: 13.25 min Scan# 1913  
 Delta R.T. -0.01 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

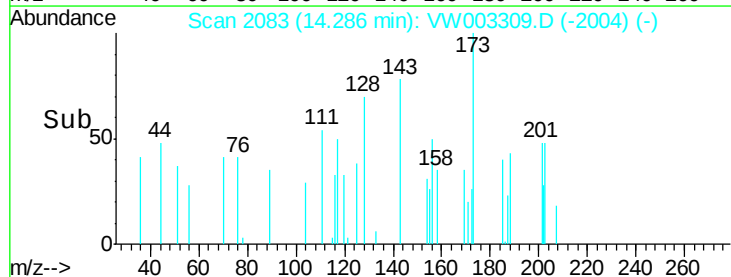
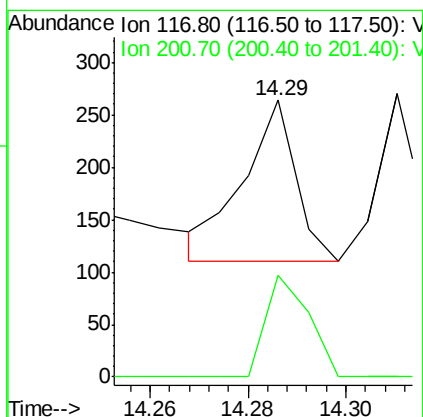
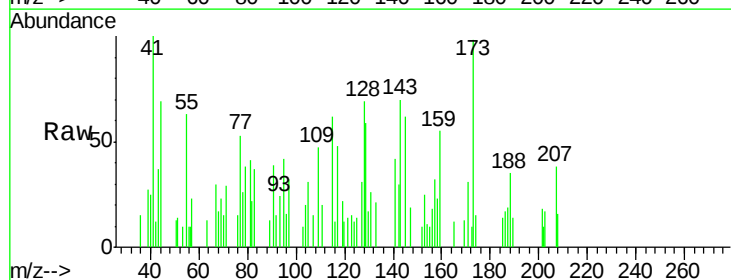
Instrument :  
 MSVOA\_W  
 ClientSampled :

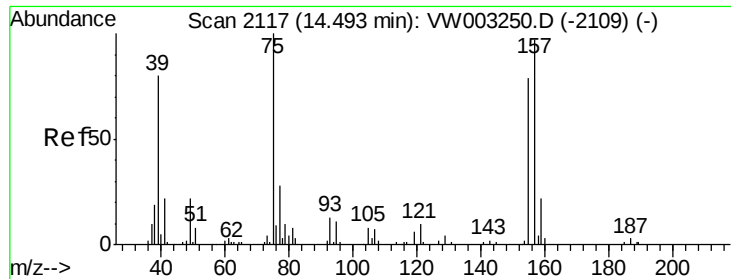
Tot Ion:105 Resp: 567  
 Ion Ratio Lower Upper  
 105 100  
 120 37.9 22.5 67.5



#90  
 Hexachloroethane  
 Concen: 1.062 ug/l  
 RT: 14.29 min Scan# 2083  
 Delta R.T. 0.18 min  
 Lab File: VW003309.D  
 Acq: 15 Jun 2018 22:45

Tgt Ion:117 Resp: 113  
 Ion Ratio Lower Upper  
 117 100  
 201 51.3 39.5 118.5





#92

1,2-Dibromo-3-Chloropropane

Concen: 1.567 ug/l

RT: 14.50 min Scan# 2118

Delta R.T. 0.01 min

Lab File: VW003309.D

Acq: 15 Jun 2018 22:45

Instrument :

MSVOA\_W

ClientSampleId :

Tot Ion: 75 Resp: 28

Ion Ratio Lower Upper

75 100

155 410.7 39.4 118.2#

157 185.7 51.5 154.5#

