

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW090919\  
 Data File : VW012825.D  
 Acq On : 09 Sep 2019 16:50  
 Operator : SY/VA  
 Sample : K4760-09RE  
 Misc : 5.79G/5ML/MSVOA W/SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Sep 09 17:16:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W090719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sun Sep 08 05:04:40 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 222032   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 327345   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 237143   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 69098    | 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   | 116936   | 47.14 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.28% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 96655    | 49.66 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.32% |          |
| 50) Toluene-d8              | 10.32 | 98   | 371415   | 48.71 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.42% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 92378    | 33.37 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 66.74% |          |

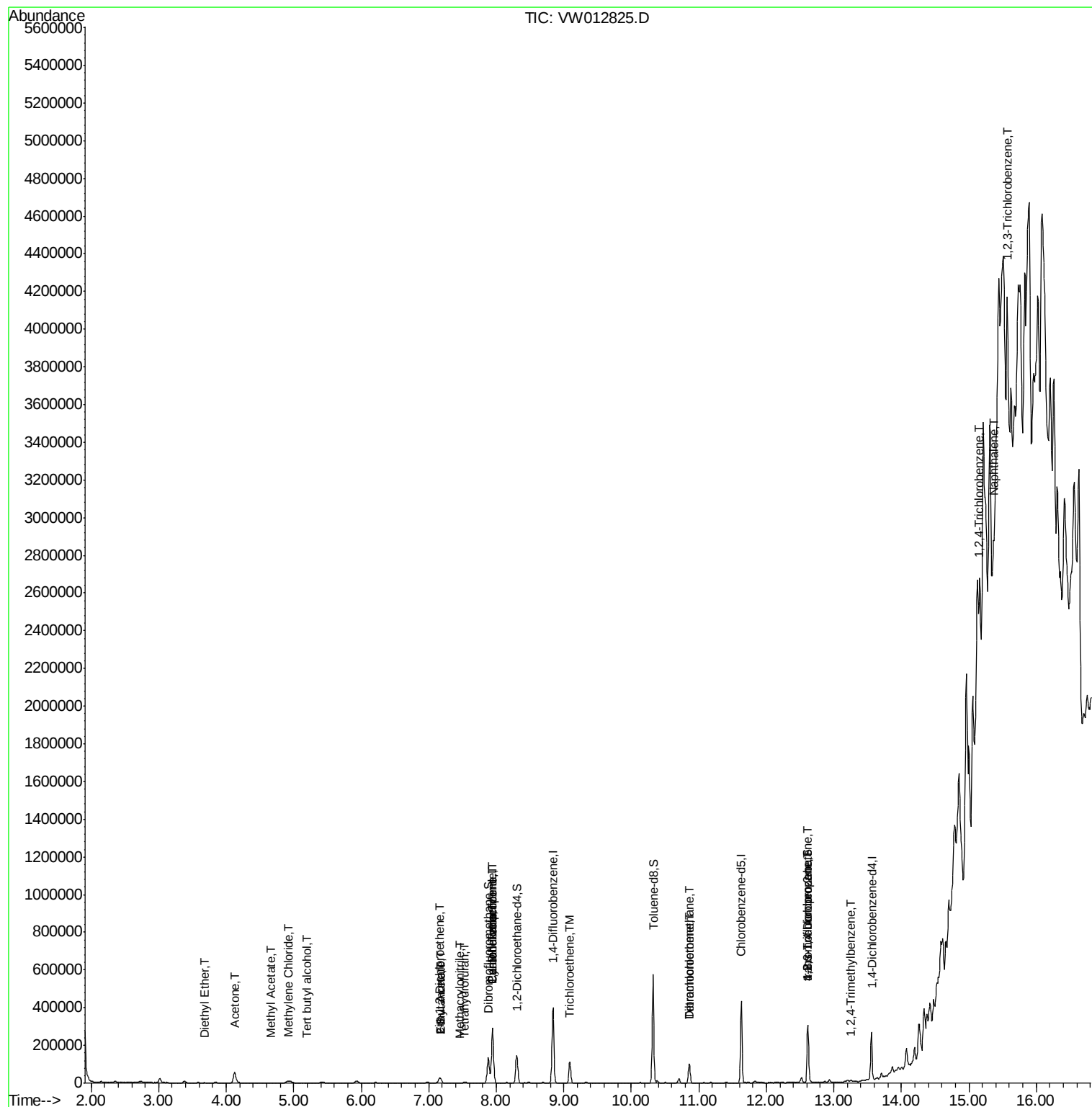
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 8) Diethyl Ether               | 3.68  | 74   | 1166     | 1.121   | ug/l   | 95     |
| 11) Tert butyl alcohol         | 5.19  | 59   | 3035     | 15.990  | ug/l # | 78     |
| 16) Acetone                    | 4.12  | 43   | 103552   | 153.110 | ug/l   | 99     |
| 18) Methyl Acetate             | 4.67  | 43   | 1689     | 1.064   | ug/l   | 92     |
| 20) Methylene Chloride         | 4.92  | 84   | 4982     | 2.355   | ug/l   | 91     |
| 25) 2-Butanone                 | 7.18  | 43   | 7892     | 26.981  | ug/l # | 88     |
| 27) cis-1,2-Dichloroethene     | 7.16  | 96   | 12304    | 5.672   | ug/l   | 90     |
| 29) Tetrahydrofuran            | 7.52  | 42   | 4350     | 7.965   | ug/l   | 98     |
| 31) Cyclohexane                | 7.94  | 56   | 5576     | 1.529   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 17106    | 5.881   | ug/l # | 52     |
| 37) Ethyl Acetate              | 7.18  | 43   | 7892     | 4.256   | ug/l # | 1      |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 21362    | 7.451   | ug/l # | 16     |
| 41) Methacrylonitrile          | 7.46  | 41   | 84       | 3.900   | ug/l # | 39     |
| 44) Trichloroethene            | 9.09  | 130  | 40183    | 19.317  | ug/l   | 96     |
| 60) Dibromochloromethane       | 10.86 | 129  | 19612    | 10.509  | ug/l # | 11     |
| 64) Tetrachloroethene          | 10.86 | 164  | 23617    | 16.413  | ug/l   | 97     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 48323    | 68.392  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 48323    | 144.654 | ug/l # | 6      |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 5028     | 1.195   | ug/l   | 93     |
| 93) 1,2,4-Trichlorobenzene     | 15.15 | 180  | 25481    | 18.425  | ug/l # | 12     |
| 95) Naphthalene                | 15.36 | 128  | 1461     | 4.898   | ug/l # | 75     |
| 96) 1,2,3-Trichlorobenzene     | 15.58 | 180  | 43991    | 36.036  | ug/l # | 23     |

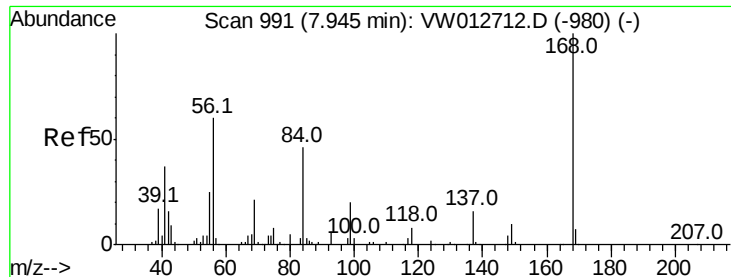
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA W\DATA\VW090919\  
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Sample : K4760-09RE  
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ALS Vial : 14 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :

Quant Time: Sep 09 17:16:55 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W090719S.M  
Quant Title : SW846 8260  
QLast Update : Sun Sep 08 05:04:40 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.00 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

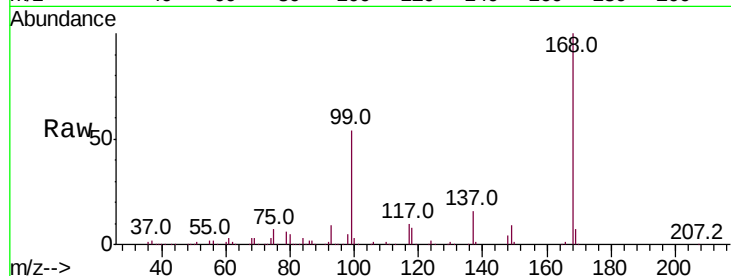
Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion:168 Resp: 222032

Ion Ratio Lower Upper

168 100

99 53.8 47.8 71.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

120000

100000

80000

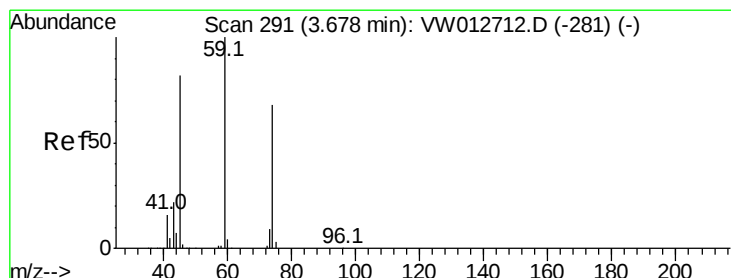
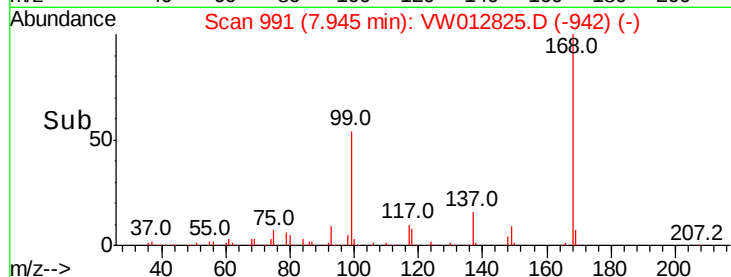
60000

40000

20000

0

Time--> 7.80 7.90 8.00 8.10



#8

Diethyl Ether

Concen: 1.121 ug/l

RT: 3.68 min Scan# 291

Delta R.T. -0.00 min

Lab File: VW012825.D

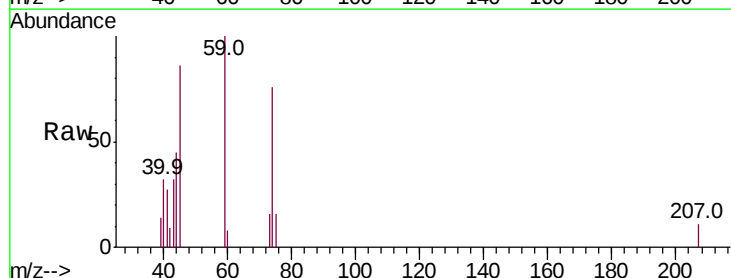
Acq: 09 Sep 2019 16:50

Tgt Ion: 74 Resp: 1166

Ion Ratio Lower Upper

74 100

45 123.2 58.8 176.4



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

3.68

600

500

400

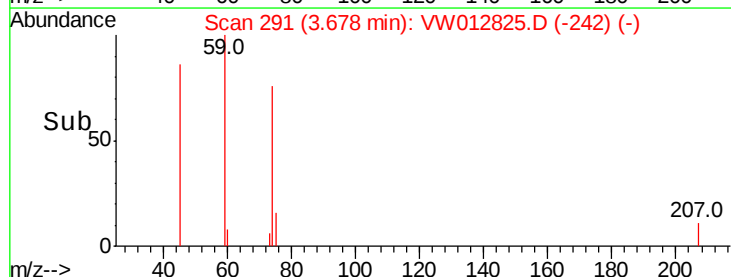
300

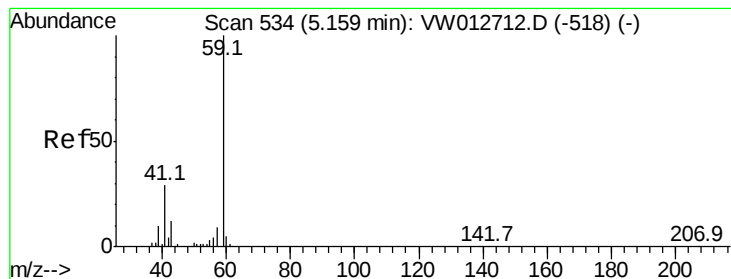
200

100

0

Time--> 3.60 3.65 3.70



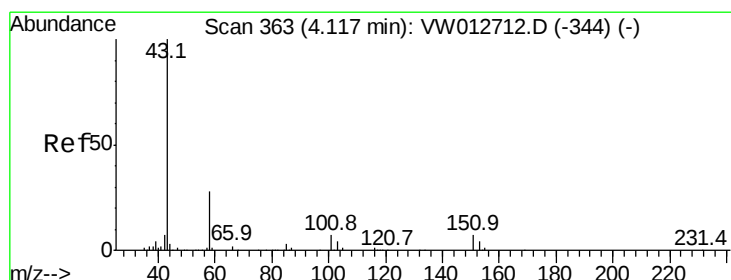
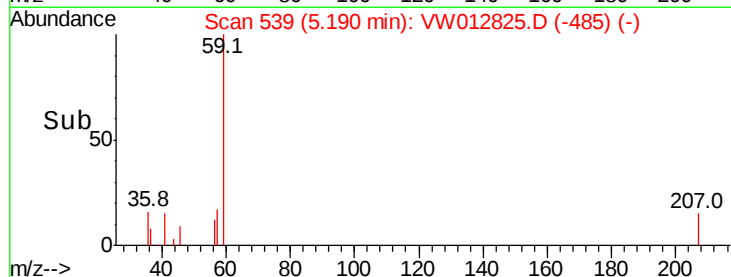
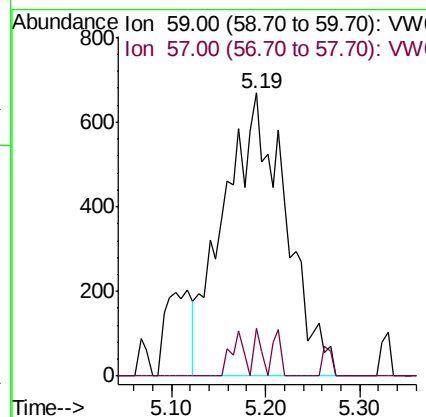
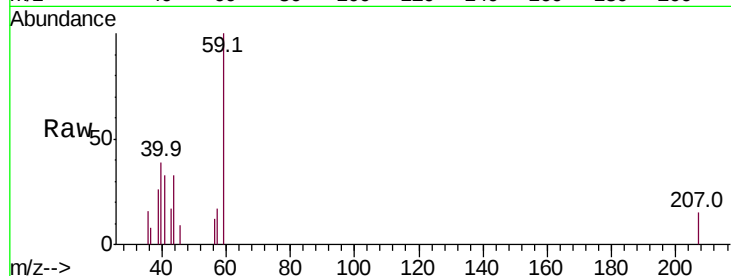


#11

Tert butyl alcohol  
 Concen: 15.990 ug/l  
 RT: 5.19 min Scan# 539  
 Delta R.T. 0.03 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

Instrument :  
 MSVOA\_W  
 ClientSampleId :

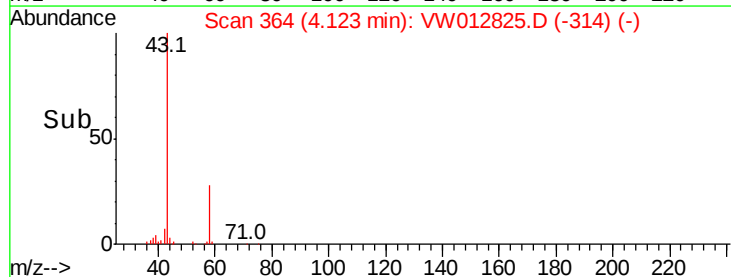
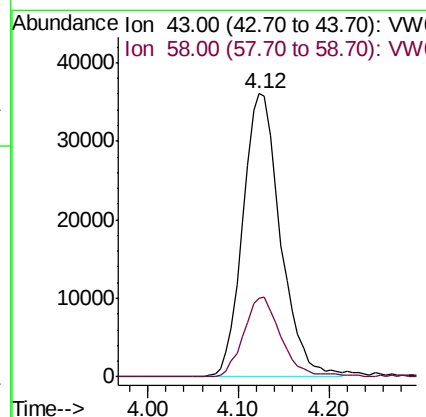
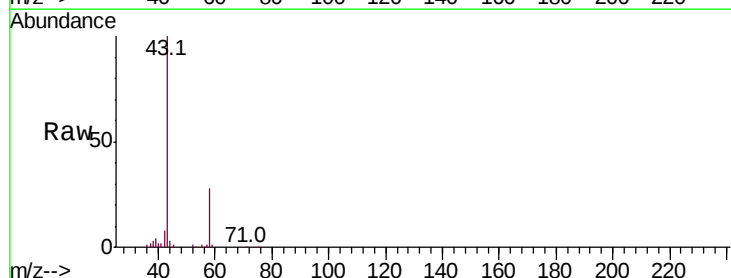
Tot Ion: 59 Resp: 3035  
 Ion Ratio Lower Upper  
 59 100  
 57 2.1 8.2 12.4#

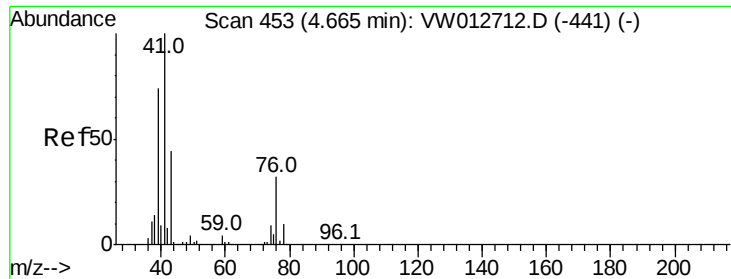


#16

Acetone  
 Concen: 153.110 ug/l  
 RT: 4.12 min Scan# 364  
 Delta R.T. 0.01 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

Tgt Ion: 43 Resp: 103552  
 Ion Ratio Lower Upper  
 43 100  
 58 27.7 22.6 33.8

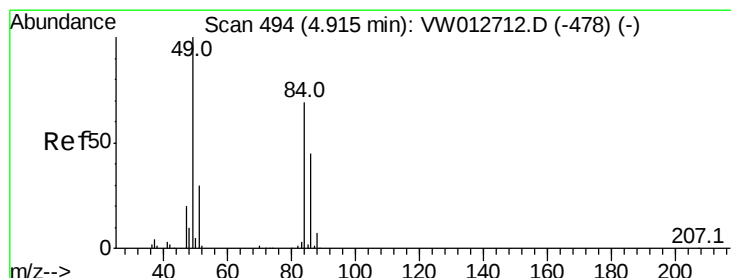
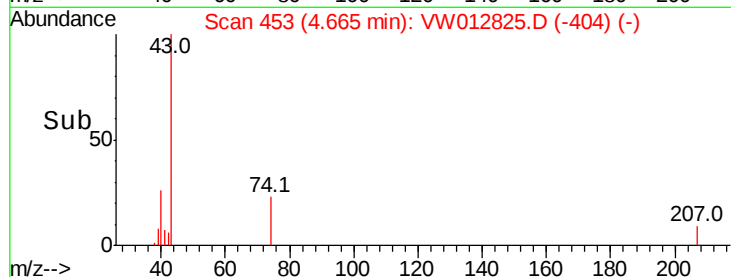
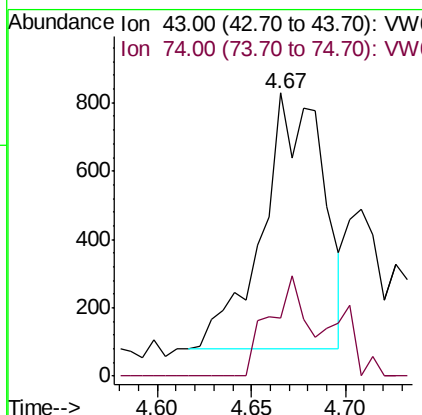
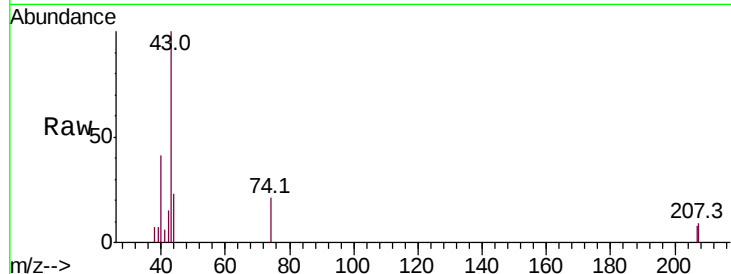




#18  
Methyl Acetate  
Concen: 1.064 ug/l  
RT: 4.67 min Scan# 453  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

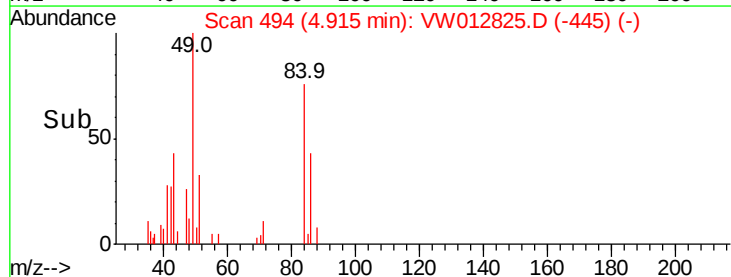
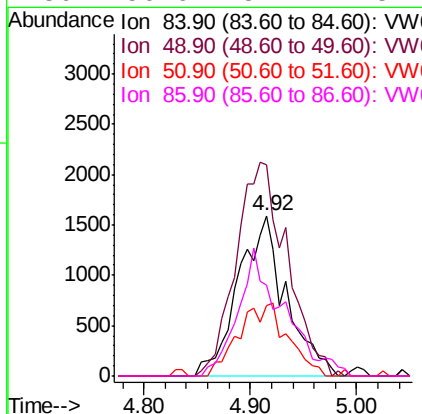
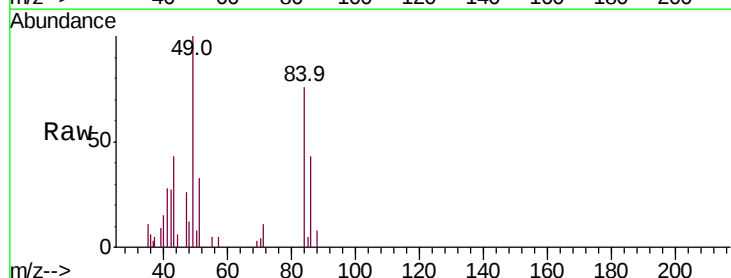
Instrument :  
MSVOA\_W  
ClientSampled :

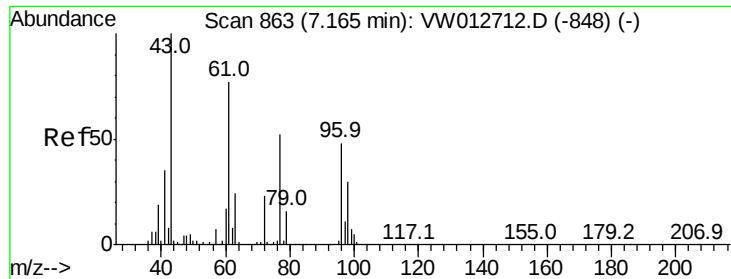
Tot Ion: 43 Resp: 1689  
Ion Ratio Lower Upper  
43 100  
74 23.3 15.8 23.6



#20  
Methylene Chloride  
Concen: 2.355 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Tgt Ion: 84 Resp: 4982  
Ion Ratio Lower Upper  
84 100  
49 131.6 115.4 173.0  
51 43.6 34.9 52.3  
86 56.6 52.2 78.4





#25

2-Butanone

Concen: 26.981 ug/l

RT: 7.18 min Scan# 865

Delta R.T. 0.01 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

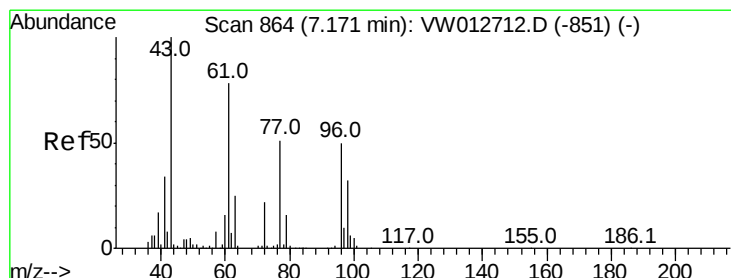
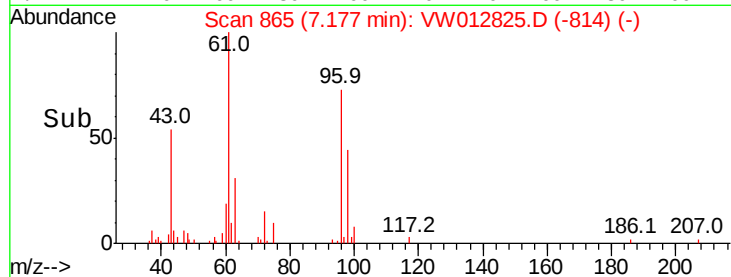
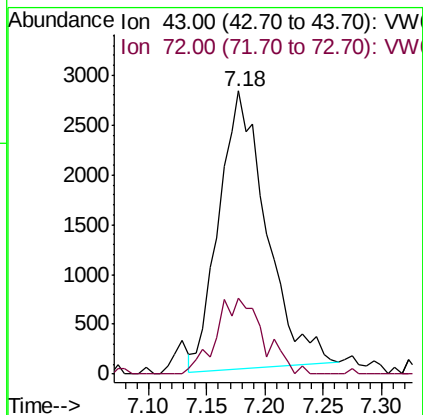
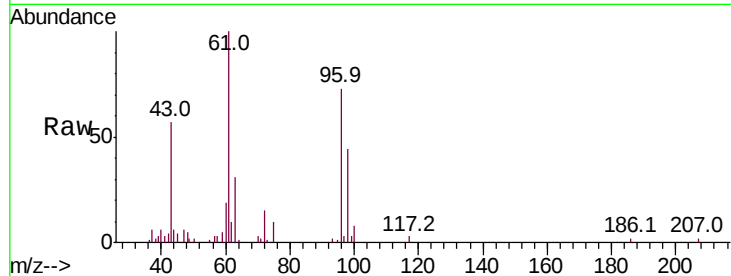
Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion: 43 Resp: 7892

Ion Ratio Lower Upper

43 100

72 28.2 18.0 27.0#



#27

cis-1,2-Dichloroethene

Concen: 5.672 ug/l

RT: 7.16 min Scan# 863

Delta R.T. -0.01 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

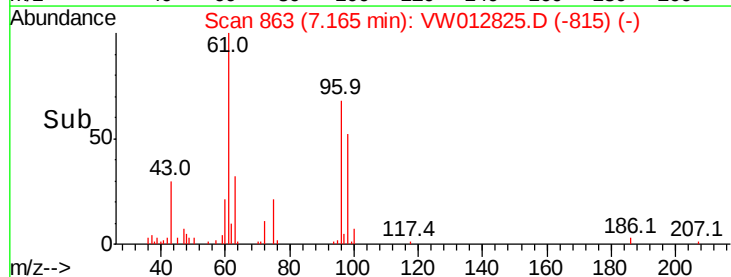
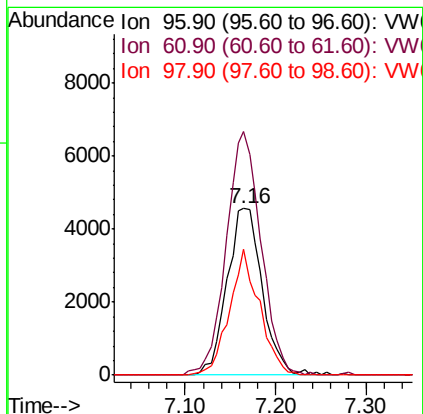
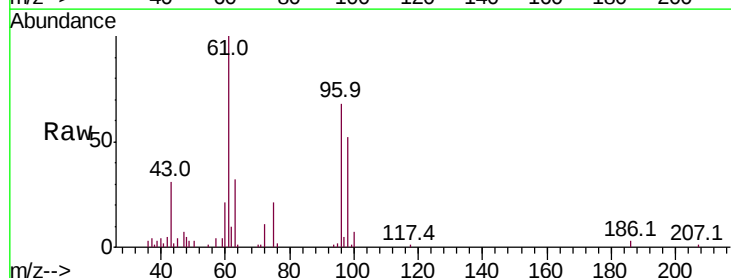
Tgt Ion: 96 Resp: 12304

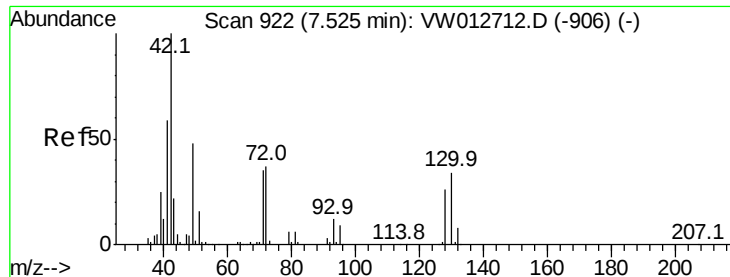
Ion Ratio Lower Upper

96 100

61 144.1 0.0 325.8

98 64.3 0.0 127.0

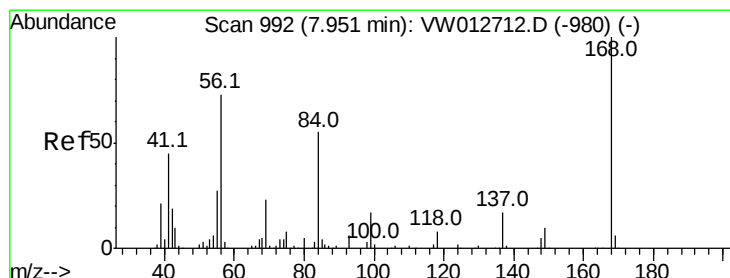
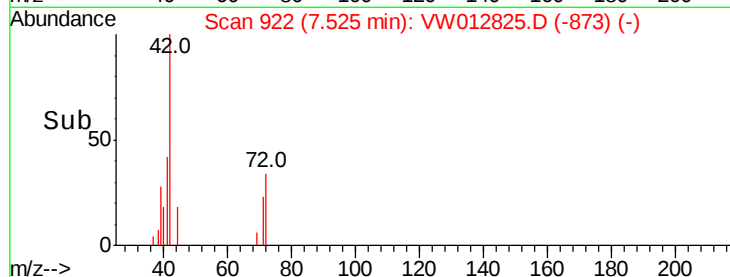
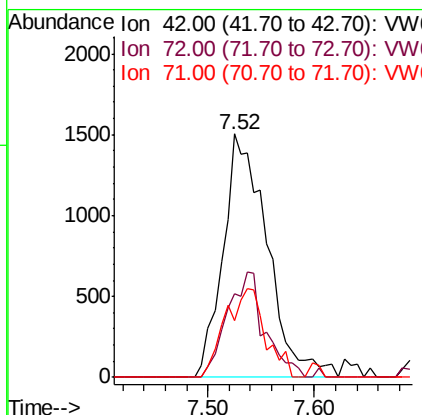
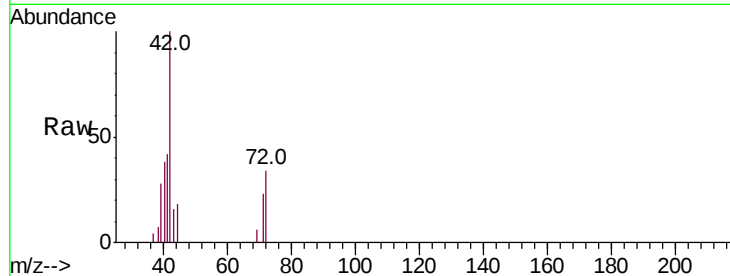




#29  
Tetrahydrofuran  
Concen: 7.965 ug/l  
RT: 7.52 min Scan# 922  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

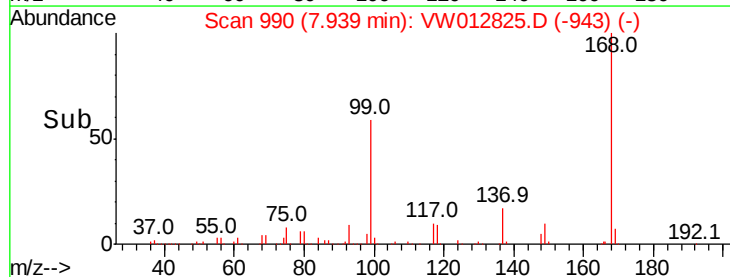
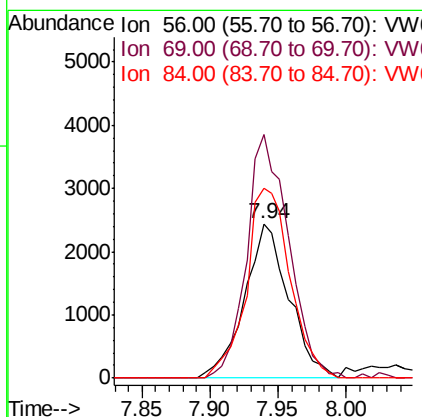
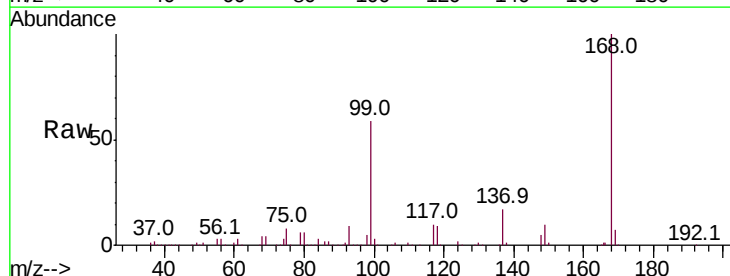
Instrument :  
MSVOA\_W  
ClientSampleId :

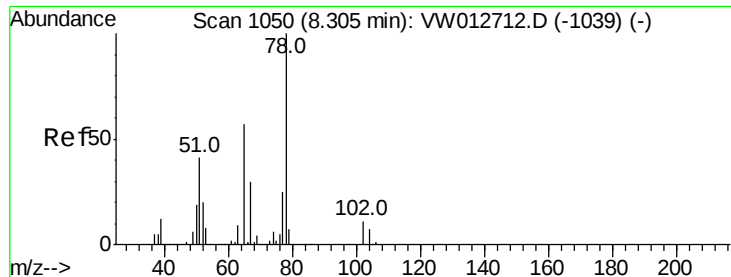
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 36.9  | 28.4  | 42.6  |
| 71      | 33.2  | 27.1  | 40.7  |



#31  
Cyclohexane  
Concen: 1.529 ug/l  
RT: 7.94 min Scan# 990  
Delta R.T. -0.01 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 158.0 | 25.7  | 38.5# |
| 84      | 123.3 | 60.4  | 90.6# |

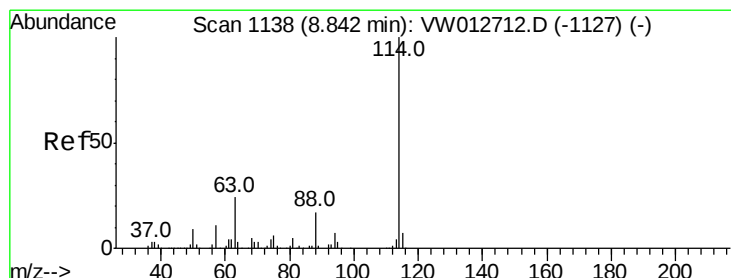
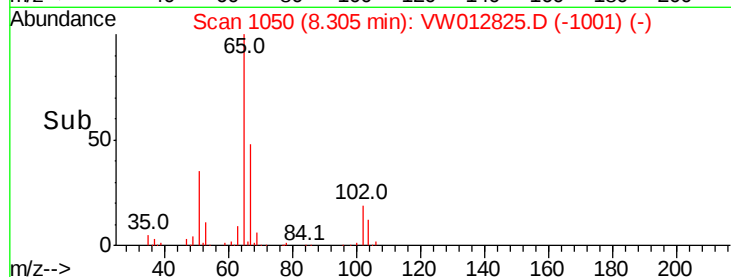
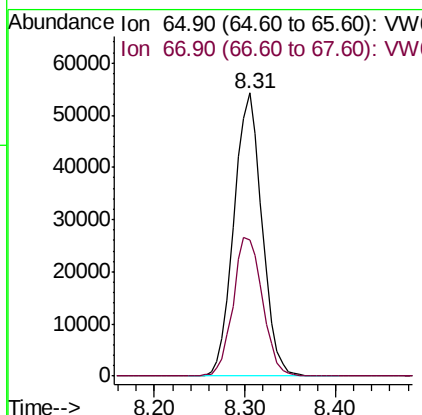
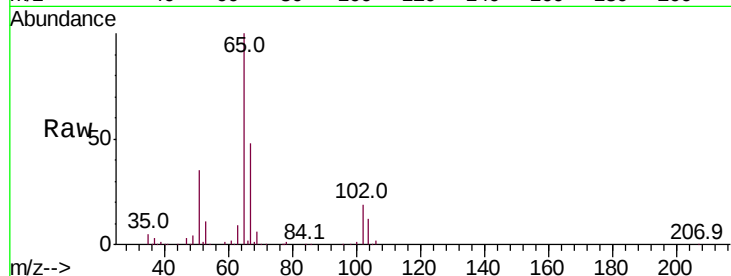




#33  
 1,2-Dichloroethane-d4  
 Concen: 47.136 ug/l  
 RT: 8.31 min Scan# 1050  
 Delta R.T. -0.00 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

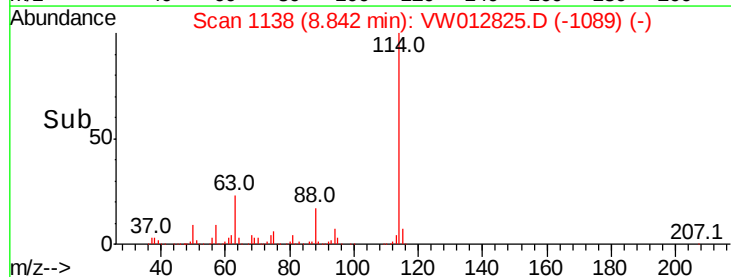
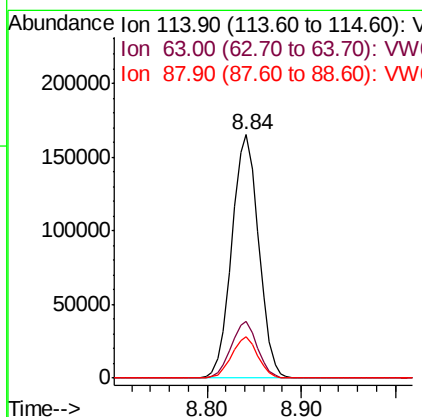
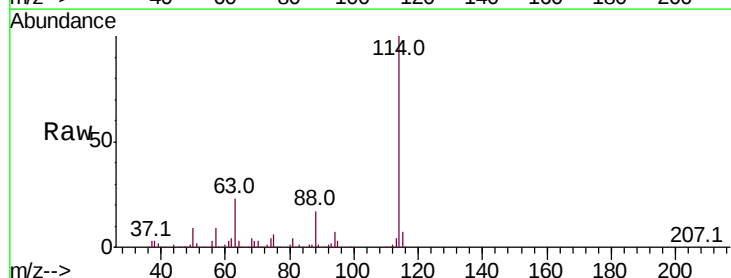
Instrument :  
 MSVOA\_W  
 ClientSampled :

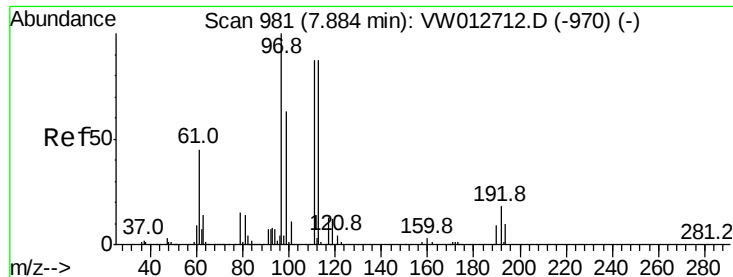
Tot Ion: 65 Resp: 116936  
 Ion Ratio Lower Upper  
 65 100  
 67 51.4 0.0 101.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

Tgt Ion: 114 Resp: 327345  
 Ion Ratio Lower Upper  
 114 100  
 63 23.1 0.0 47.2  
 88 16.9 0.0 34.0

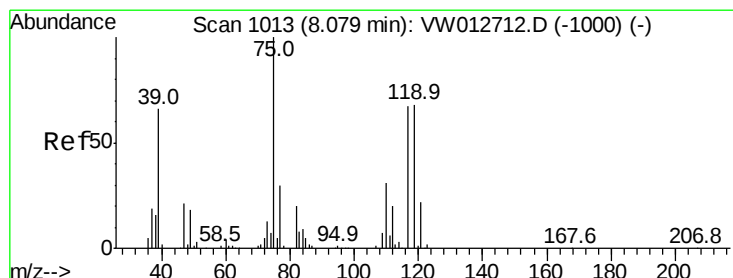
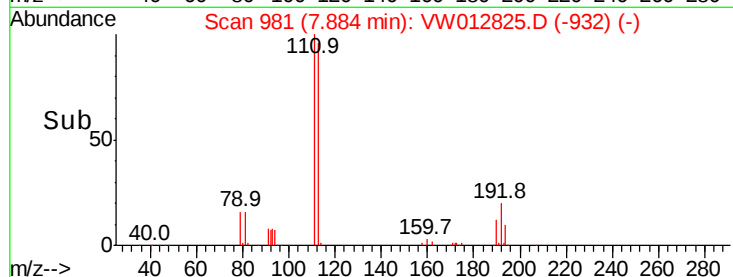
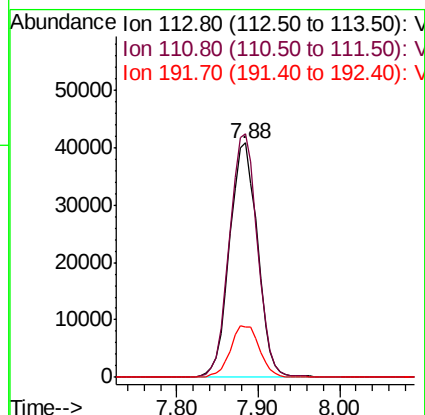
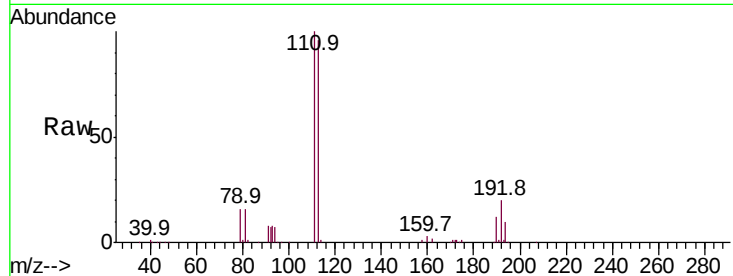




#35  
 Dibromofluoromethane  
 Concen: 49.665 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. -0.00 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

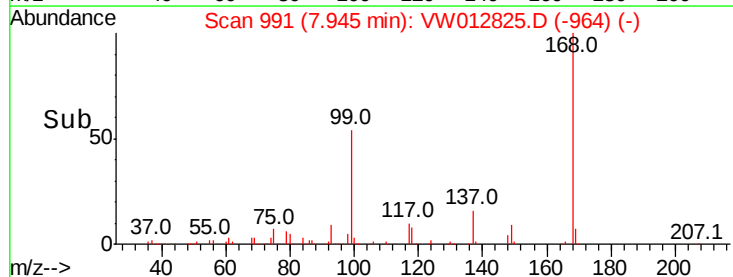
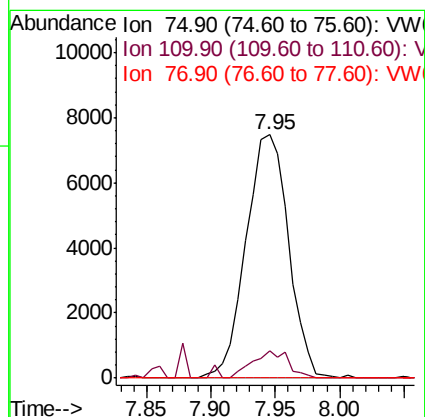
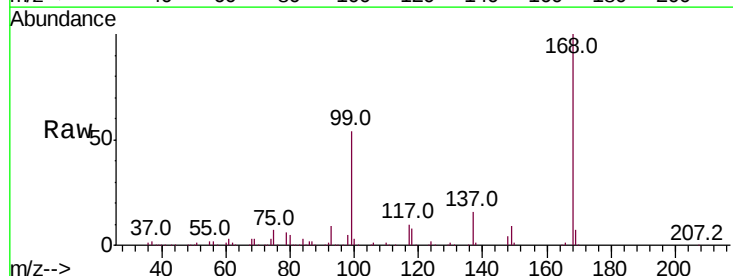
Instrument :  
 MSVOA\_W  
 ClientSampled :

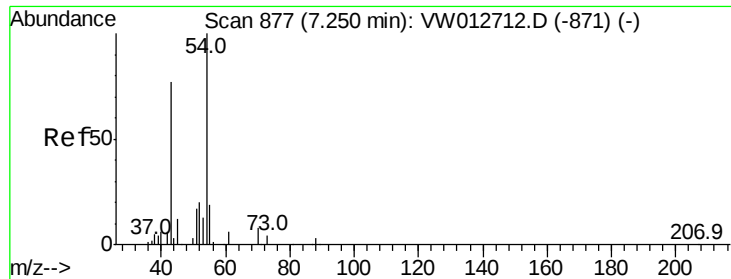
Tot Ion:113 Resp: 96655  
 Ion Ratio Lower Upper  
 113 100  
 111 104.2 80.2 120.4  
 192 22.6 17.3 25.9



#36  
 1,1-Dichloropropene  
 Concen: 5.881 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

Tgt Ion: 75 Resp: 17106  
 Ion Ratio Lower Upper  
 75 100  
 110 9.4 15.9 47.7#  
 77 0.0 25.0 37.4#





#37

Ethyl Acetate

Concen: 4.256 ug/l

RT: 7.18 min Scan# 865

Delta R.T. -0.07 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

Instrument :  
MSVOA\_W  
ClientSampleId :

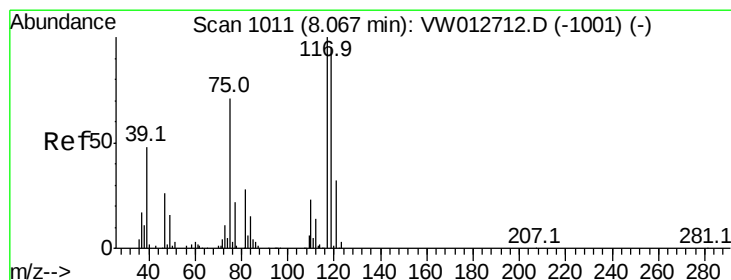
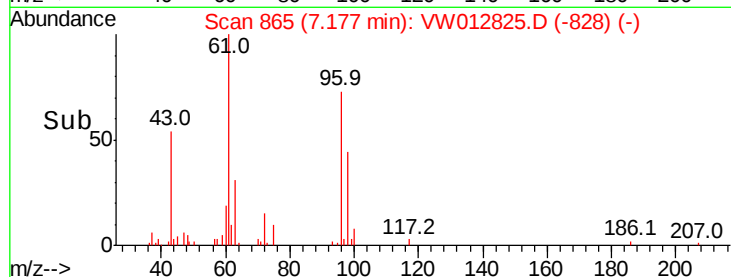
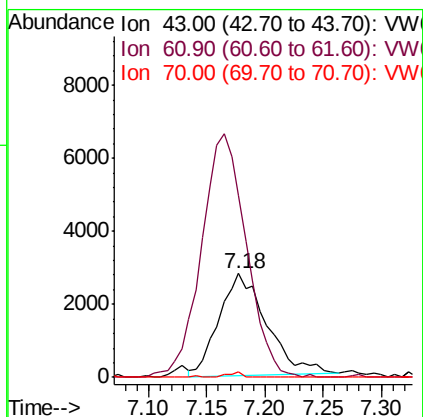
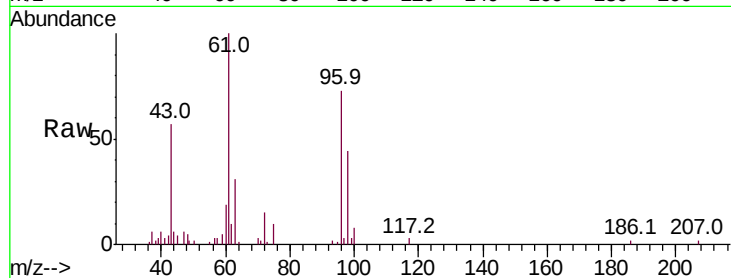
Tot Ion: 43 Resp: 7892

Ion Ratio Lower Upper

43 100

61 224.7 9.5 14.3#

70 1.4 7.0 10.6#



#38

Carbon Tetrachloride

Concen: 7.451 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

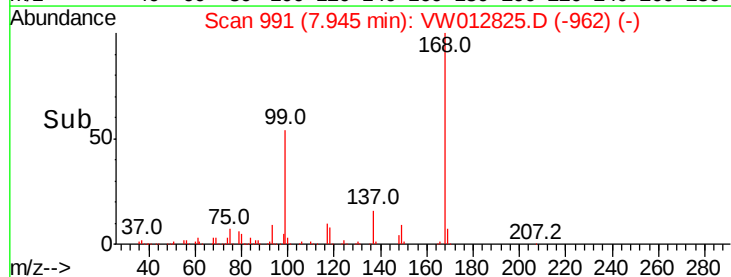
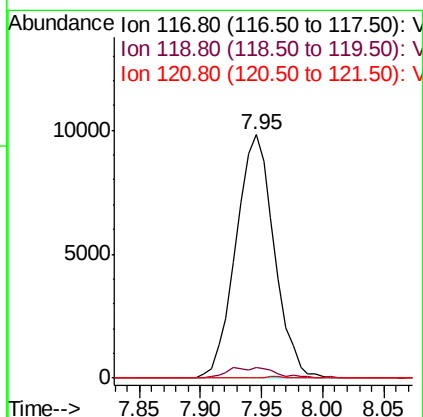
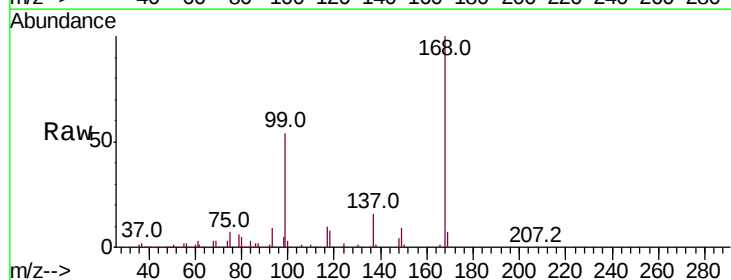
Tgt Ion: 117 Resp: 21362

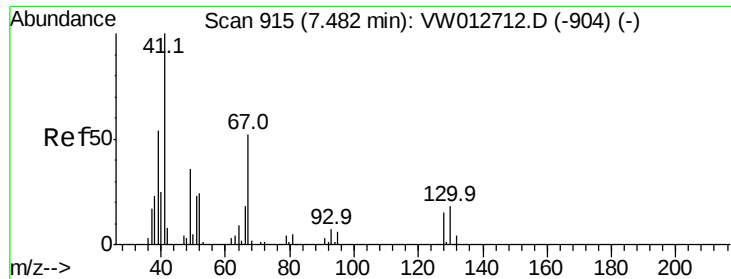
Ion Ratio Lower Upper

117 100

119 4.3 76.2 114.2#

121 0.0 25.4 38.2#

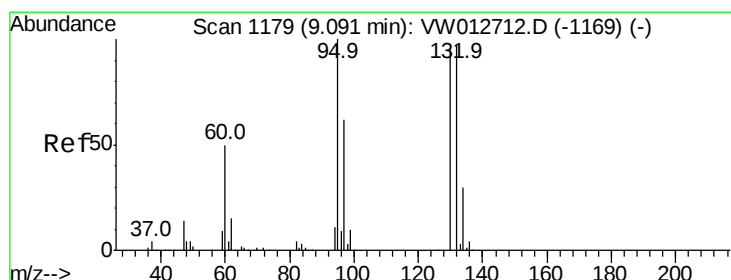
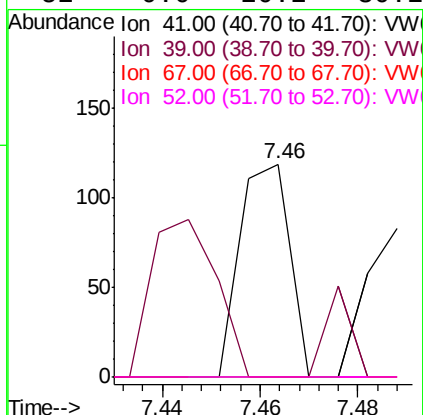
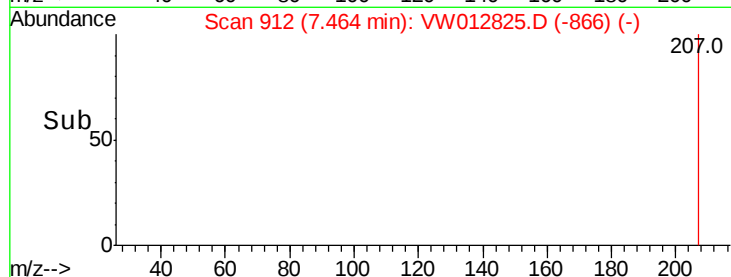
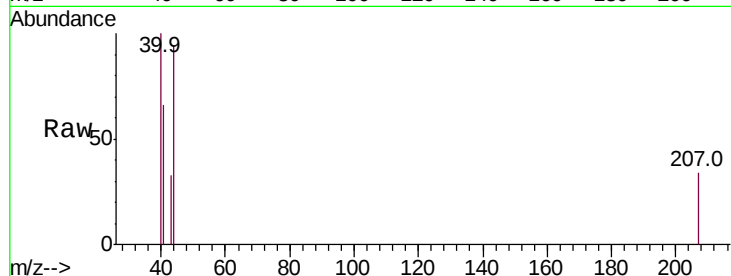




#41  
Methacrylonitrile  
Concen: 3.900 ug/l  
RT: 7.46 min Scan# 912  
Delta R.T. -0.02 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

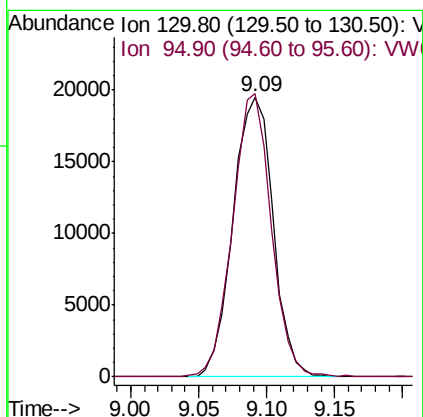
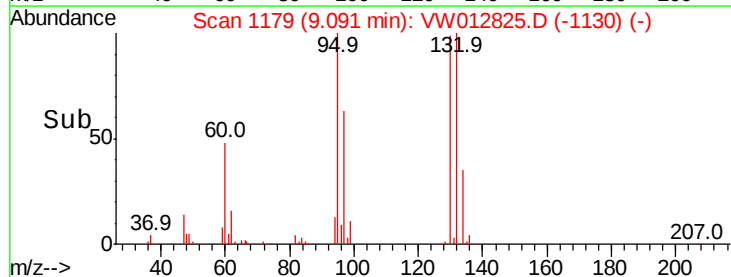
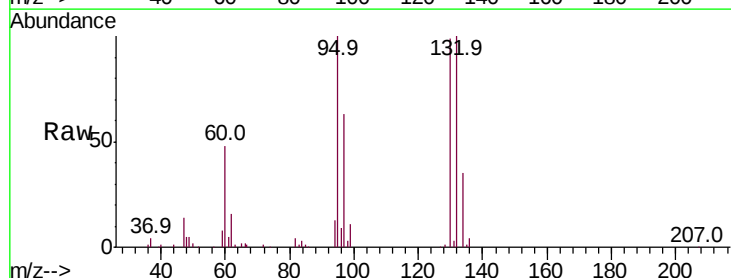
Instrument :  
MSVOA\_W  
ClientSampled :

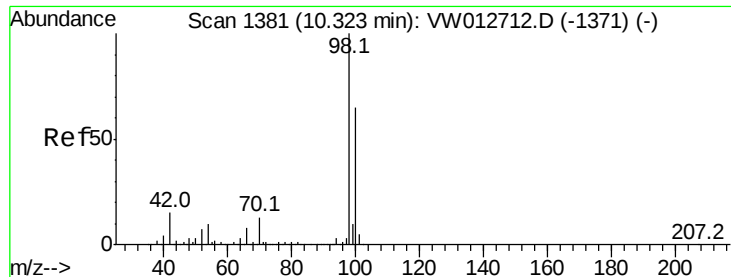
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 84    |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 97.6  | 47.5  | 71.3# |
| 67       | 0.0   | 45.1  | 67.7# |
| 52       | 0.0   | 20.2  | 30.2# |



#44  
Trichloroethene  
Concen: 19.317 ug/l  
RT: 9.09 min Scan# 1179  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 40183 |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 100.7 | 0.0   | 210.6 |

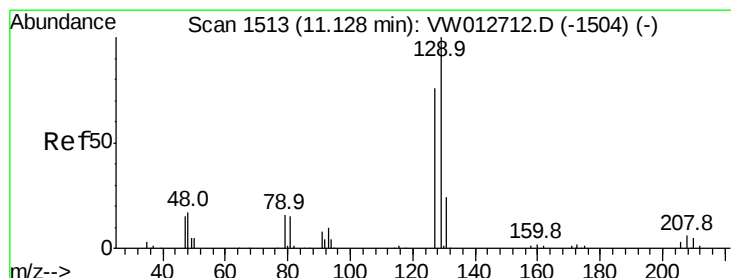
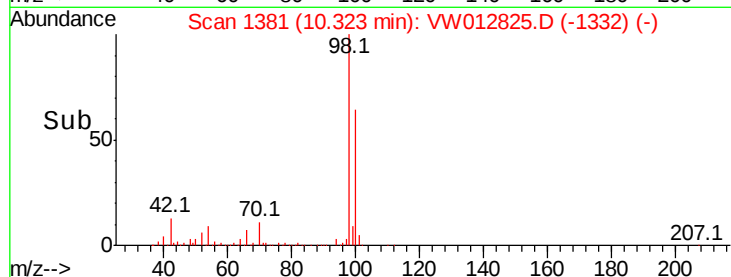
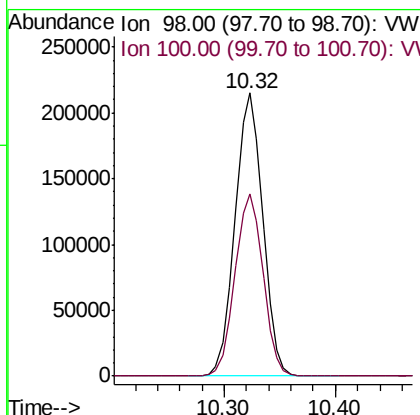
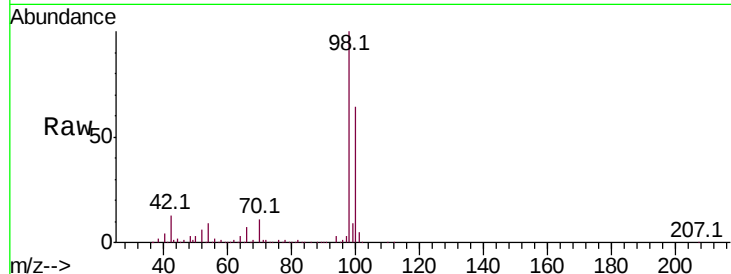




#50  
Toluene-d8  
Concen: 48.713 ug/l  
RT: 10.32 min Scan# 1381  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

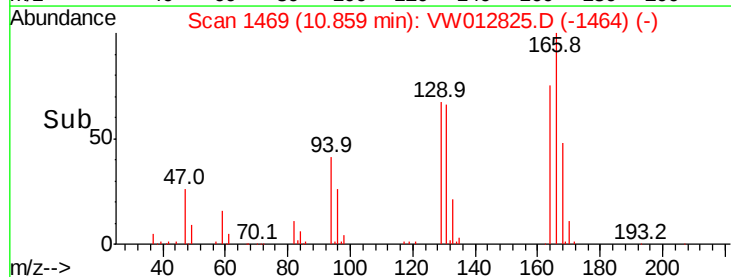
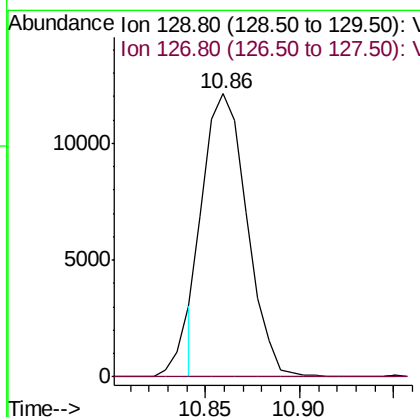
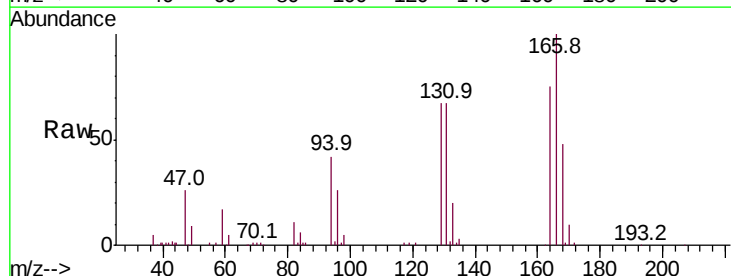
Instrument :  
MSVOA\_W  
ClientSampleId :

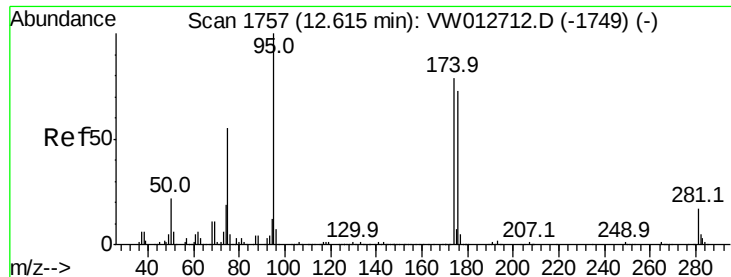
Tot Ion: 98 Resp: 371415  
Ion Ratio Lower Upper  
98 100  
100 65.0 52.2 78.4



#60  
Dibromochloromethane  
Concen: 10.509 ug/l  
RT: 10.86 min Scan# 1469  
Delta R.T. -0.27 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Tgt Ion: 129 Resp: 19612  
Ion Ratio Lower Upper  
129 100  
127 0.0 38.6 115.8#

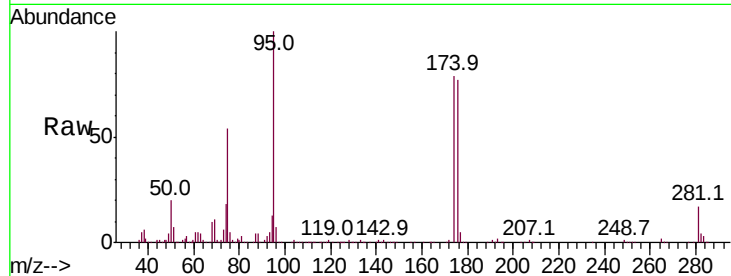




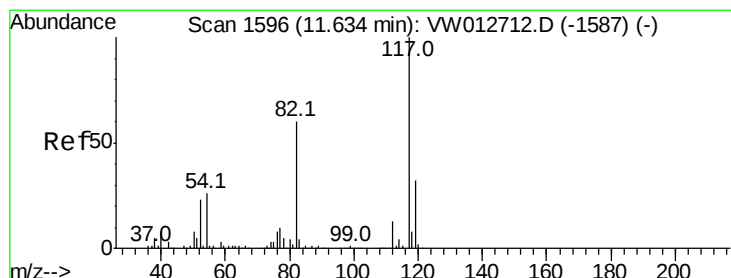
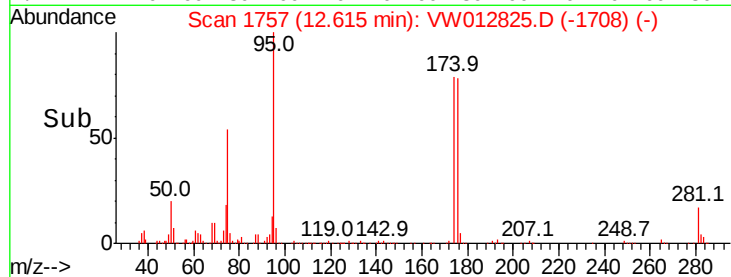
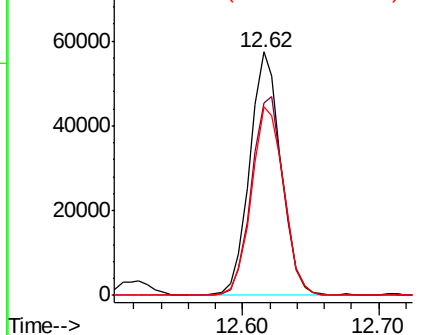
#62  
4-Bromofluorobenzene  
Concen: 33.374 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Instrument :  
MSVOA\_W  
ClientSampleId :

| Tot Ion   | 95    | Resp  | 92378 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 95        | 100   |       |       |
| 174       | 83.8  | 0.0   | 161.0 |
| 176       | 80.5  | 0.0   | 156.4 |

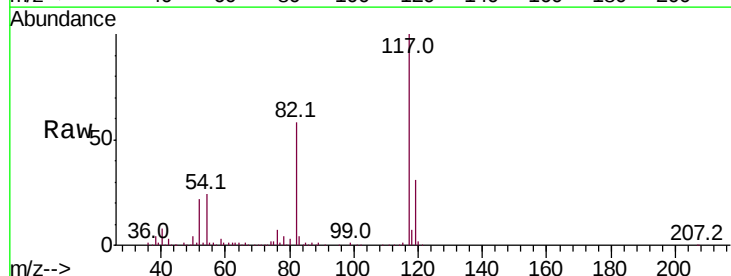


Abundance Ion 94.90 (94.60 to 95.60): VW  
Ion 173.80 (173.50 to 174.50): VW  
Ion 175.80 (175.50 to 176.50): VW

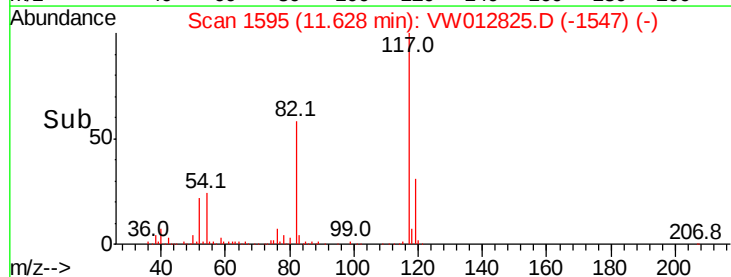
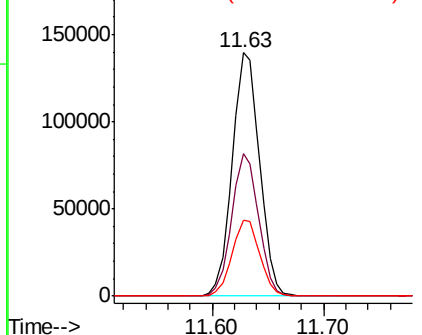


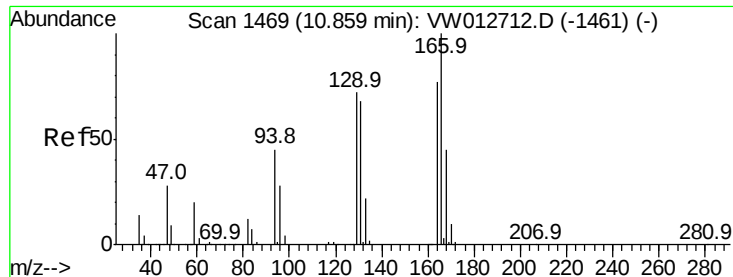
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1595  
Delta R.T. -0.01 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

| Tgt Ion   | 117   | Resp  | 237143 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 58.4  | 48.2  | 72.4   |
| 119       | 31.0  | 25.8  | 38.6   |



Abundance Ion 116.90 (116.60 to 117.60): VW  
Ion 82.00 (81.70 to 82.70): VW  
Ion 118.90 (118.60 to 119.60): VW

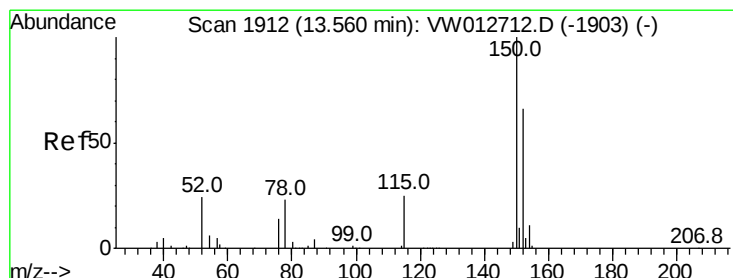
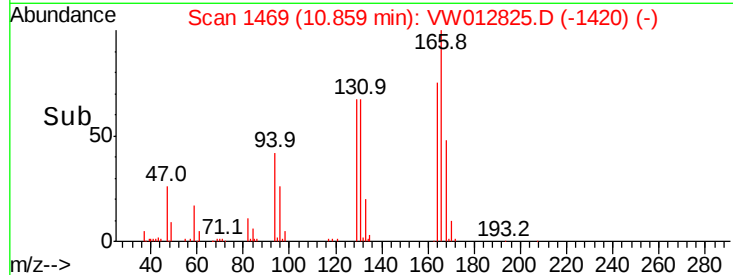
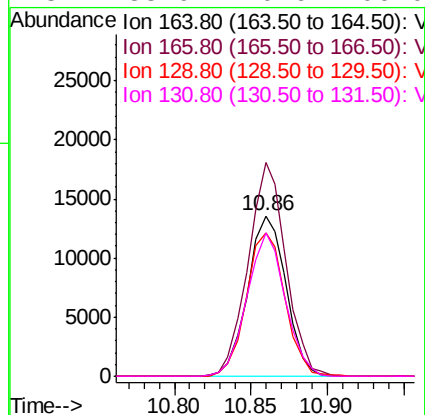
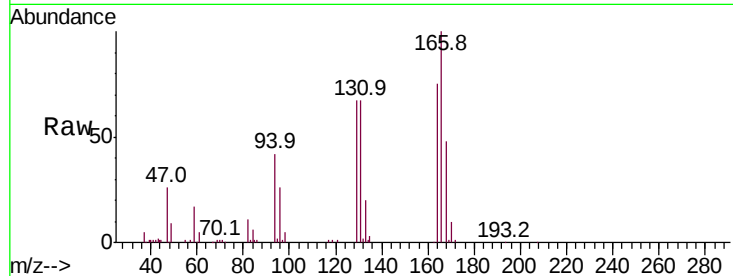




#64  
Tetrachloroethene  
Concen: 16.413 ug/l  
RT: 10.86 min Scan# 1469  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

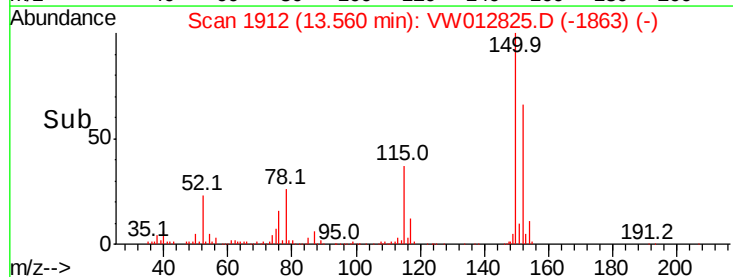
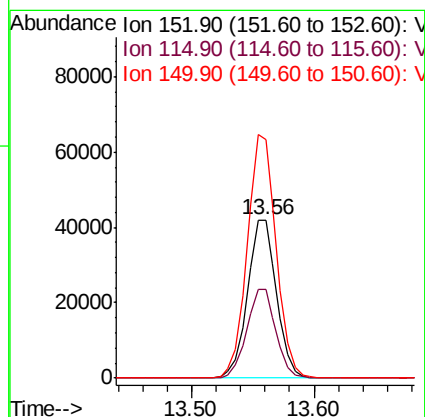
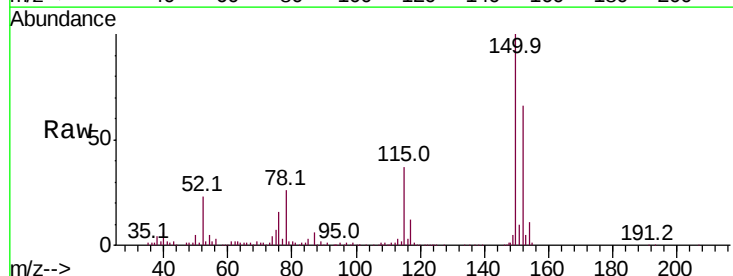
Instrument :  
MSVOA\_W  
ClientSampled :

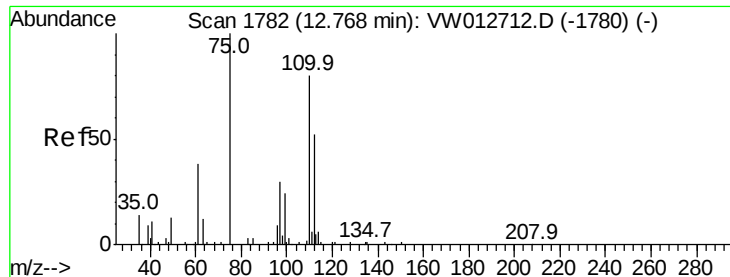
Tot Ion:164 Resp: 23617  
Ion Ratio Lower Upper  
164 100  
166 132.9 103.6 155.4  
129 89.1 74.6 112.0  
131 88.9 70.6 106.0



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.56 min Scan# 1912  
Delta R.T. -0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Tgt Ion:152 Resp: 69098  
Ion Ratio Lower Upper  
152 100  
115 56.3 30.0 90.1  
150 153.2 0.0 349.0





#76

1,2,3-Trichloropropane

Concen: 68.392 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

Instrument :

MSVOA\_W

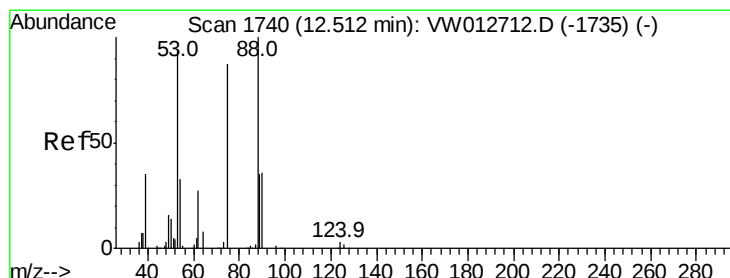
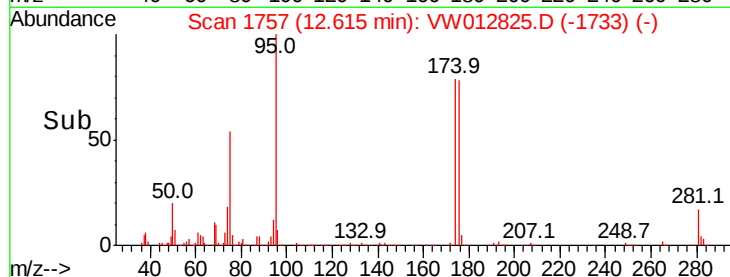
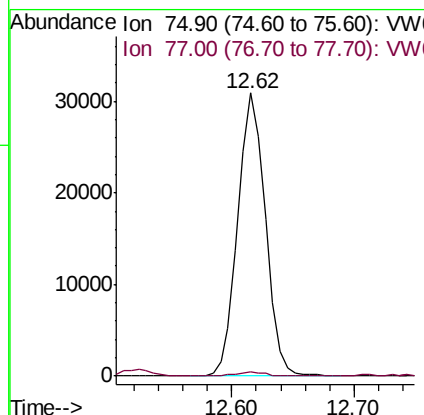
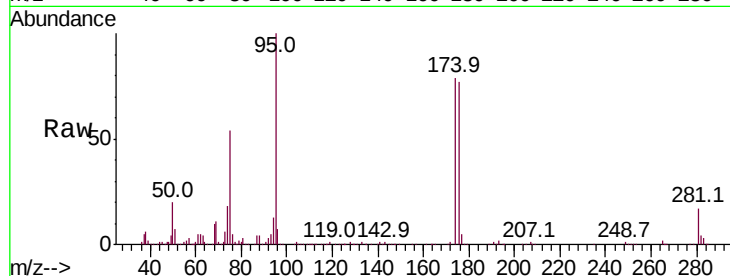
ClientSampleId :

Tot Ion: 75 Resp: 48323

Ion Ratio Lower Upper

75 100

77 1.6 0.0 0.0#



#81

trans-1,4-Dichloro-2-butene

Concen: 144.654 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW012825.D

Acq: 09 Sep 2019 16:50

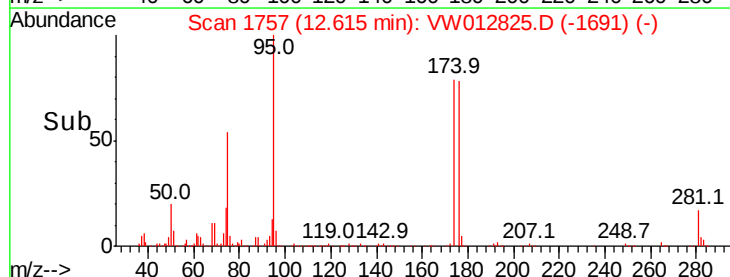
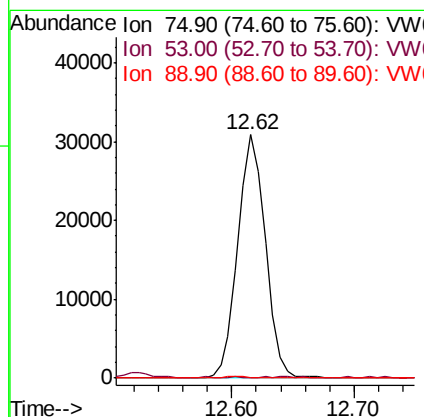
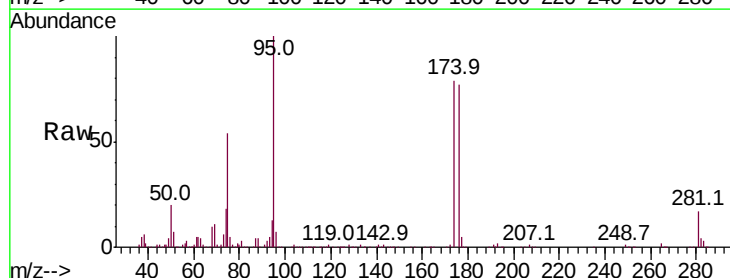
Tgt Ion: 75 Resp: 48323

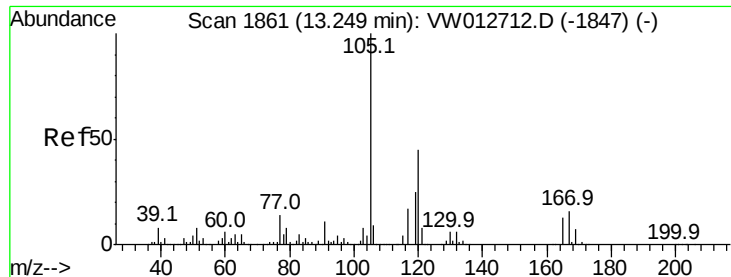
Ion Ratio Lower Upper

75 100

53 0.1 87.6 131.4#

89 0.0 35.5 53.3#

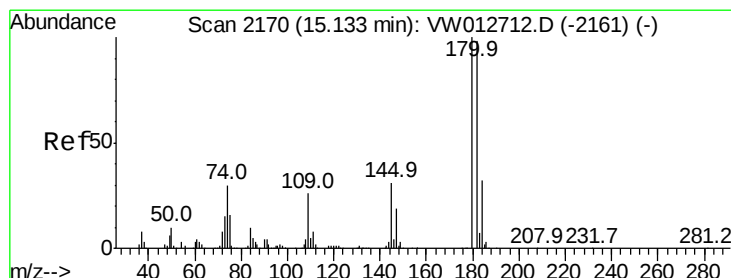
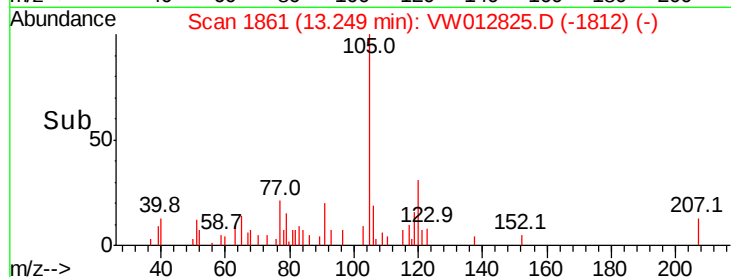
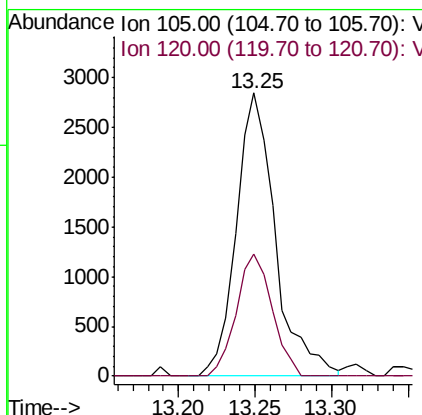
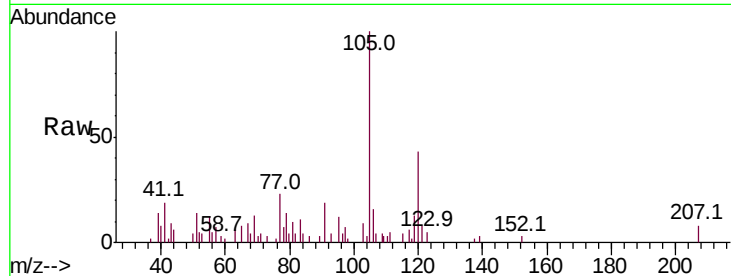




#84  
 1,2,4-Trimethylbenzene  
 Concen: 1.195 ug/l  
 RT: 13.25 min Scan# 1861  
 Delta R.T. -0.00 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

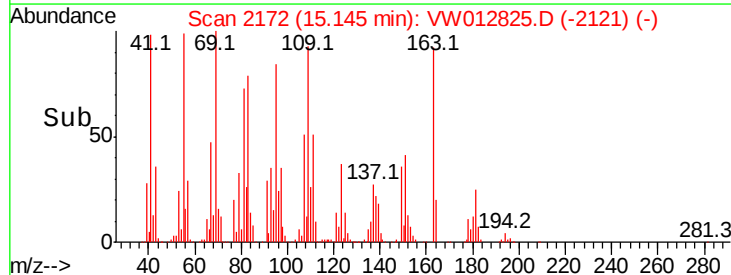
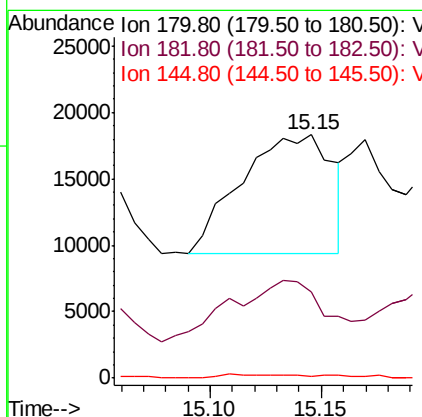
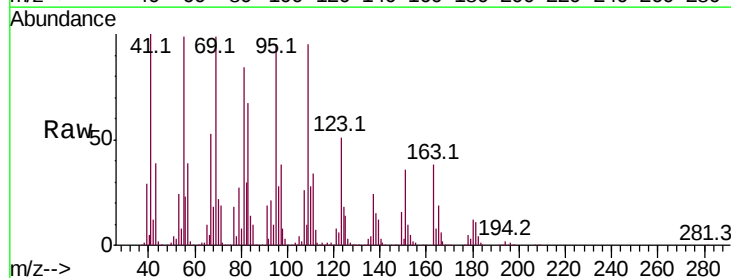
Instrument :  
 MSVOA\_W  
 ClientSampleId :

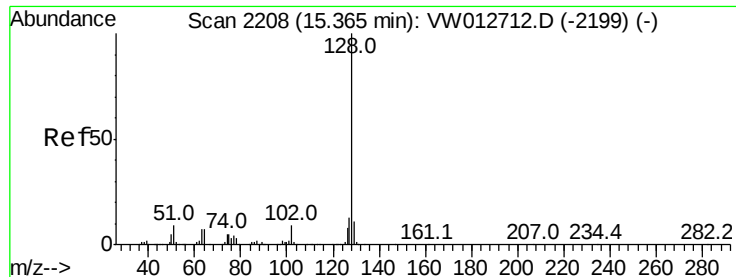
Tot Ion:105 Resp: 5028  
 Ion Ratio Lower Upper  
 105 100  
 120 39.3 22.1 66.3



#93  
 1,2,4-Trichlorobenzene  
 Concen: 18.425 ug/l  
 RT: 15.15 min Scan# 2172  
 Delta R.T. 0.01 min  
 Lab File: VW012825.D  
 Acq: 09 Sep 2019 16:50

Tgt Ion:180 Resp: 25481  
 Ion Ratio Lower Upper  
 180 100  
 182 0.0 48.7 146.1#  
 145 1.5 15.0 45.1#

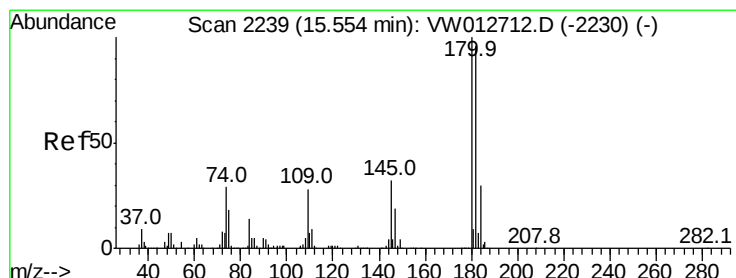
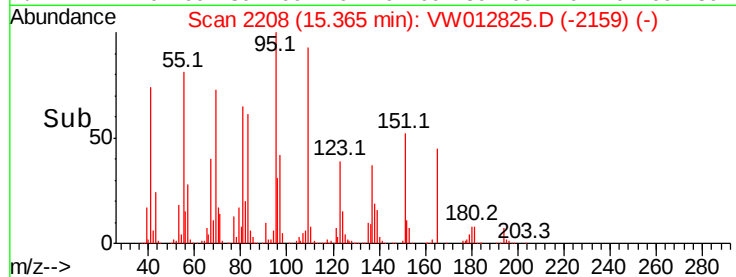
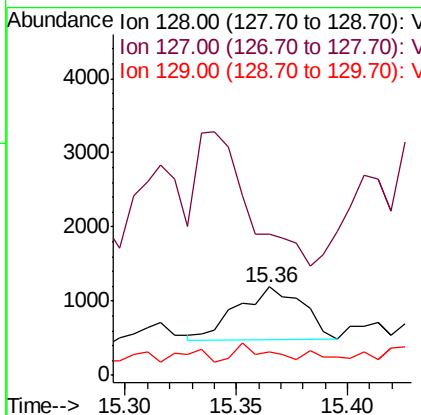
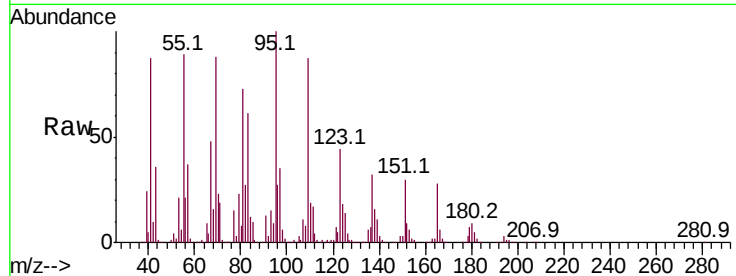




#95  
Naphthalene  
Concen: 4.898 ug/l  
RT: 15.36 min Scan# 2208  
Delta R.T. 0.00 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion:128 Resp: 1461  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.7 16.1#  
129 16.2 8.7 13.1#



#96  
1,2,3-Trichlorobenzene  
Concen: 36.036 ug/l  
RT: 15.58 min Scan# 2243  
Delta R.T. 0.02 min  
Lab File: VW012825.D  
Acq: 09 Sep 2019 16:50

Tgt Ion:180 Resp: 43991  
Ion Ratio Lower Upper  
180 100  
182 13.7 47.8 143.3#  
145 0.0 15.4 46.2#

