

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW082019\  
 Data File : VW012028.D  
 Acq On : 20 Aug 2019 13:44  
 Operator : SY/VA  
 Sample : K4386-13  
 Misc : 5.46G/5ML/MSVOA W/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Aug 20 17:50:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 27 00:23:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 261272   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 429469   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 347313   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 133461   | 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   | 156691   | 52.23 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.46% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 127640   | 52.98 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.96% |          |
| 50) Toluene-d8              | 10.32 | 98   | 521768   | 52.89 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.78% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 160666   | 45.68 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.36%  |          |

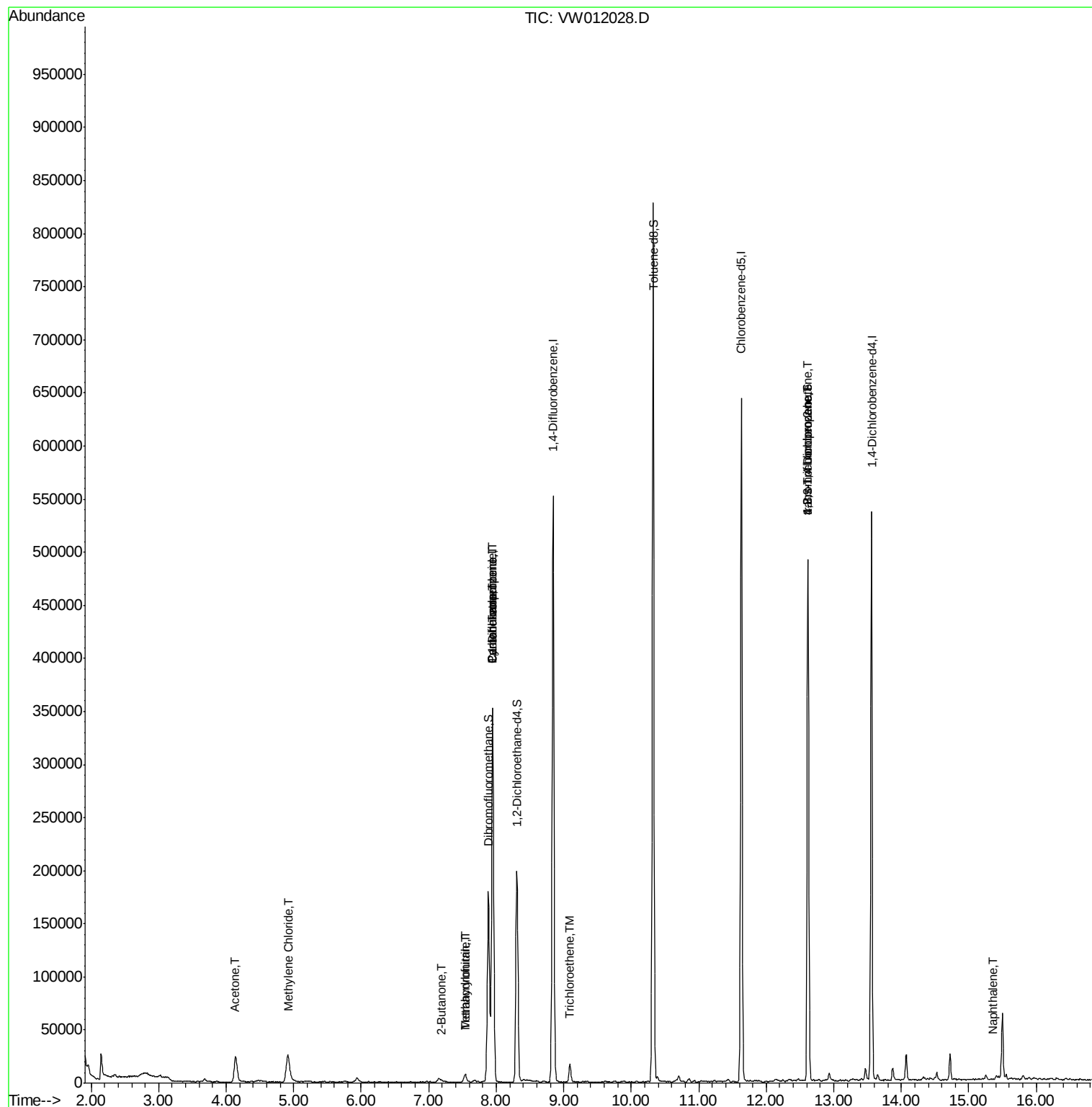
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 5.20  | 59   | 903      | Below Cal | #      | 72     |
| 16) Acetone                    | 4.14  | 43   | 50517    | 52.934    | ug/l   | 94     |
| 20) Methylene Chloride         | 4.92  | 84   | 19949    | 6.061     | ug/l   | 97     |
| 25) 2-Butanone                 | 7.19  | 43   | 2336     | 1.871     | ug/l   | 99     |
| 29) Tetrahydrofuran            | 7.54  | 42   | 6845     | 9.589     | ug/l   | 98     |
| 31) Cyclohexane                | 7.95  | 56   | 6553     | 1.168     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 22050    | 4.938     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 25659    | 6.712     | ug/l # | 17     |
| 41) Methacrylonitrile          | 7.54  | 41   | 4312     | 2.808     | ug/l # | 54     |
| 44) Trichloroethene            | 9.09  | 130  | 5393     | 1.794     | ug/l   | 72     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 84367    | 59.743    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 84367    | 137.686   | ug/l # | 6      |
| 95) Naphthalene                | 15.36 | 128  | 655      | 2.185     | ug/l # | 77     |

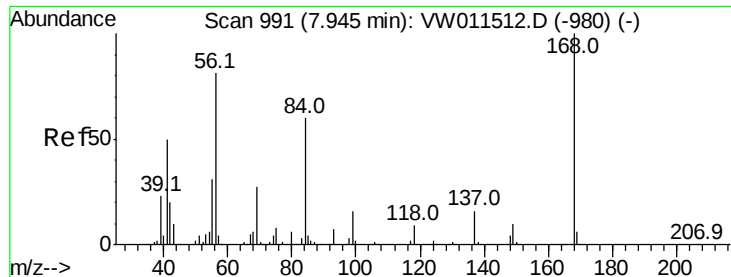
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ALS Vial : 12 Sample Multiplier: 1

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MSVOA\_W  
ClientSampleId :

Quant Time: Aug 20 17:50:53 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
Quant Title : SW846 8260  
QLast Update : Sat Jul 27 00:23:30 2019  
Response via : Initial Calibration



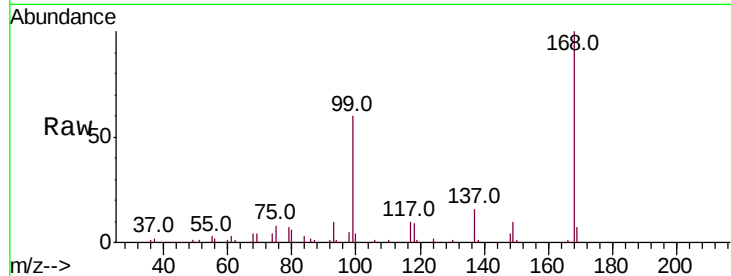


#1

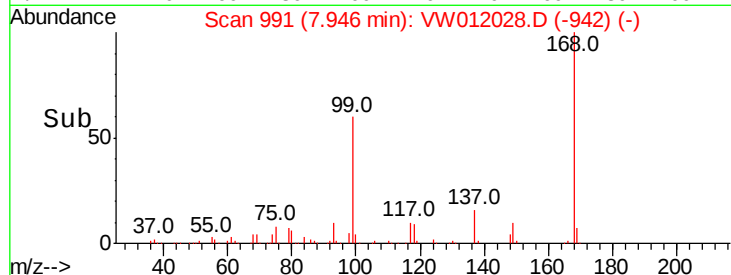
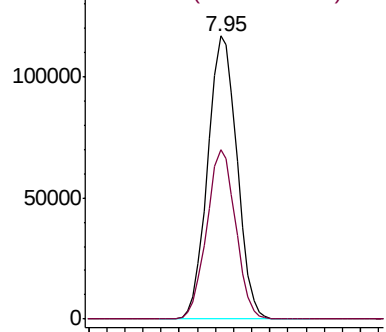
Pentafluorobenzene  
 Concen: 50.000 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. 0.00 min  
 Lab File: VW012028.D  
 Acq: 20 Aug 2019 13:44

Instrument :  
 MSVOA\_W  
 ClientSampled :

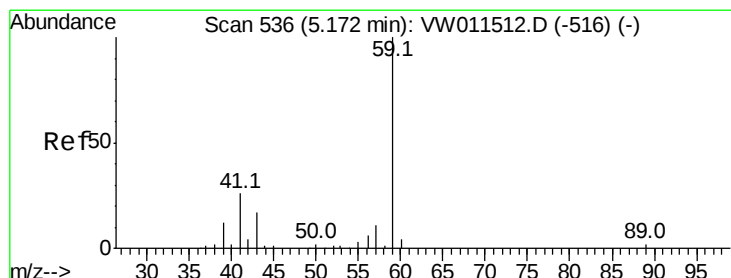
Tot Ion:168 Resp: 261272  
 Ion Ratio Lower Upper  
 168 100  
 99 59.7 48.2 72.4



Abundance Ion 167.90 (167.60 to 168.60): V  
 Ion 98.90 (98.60 to 99.60): VW



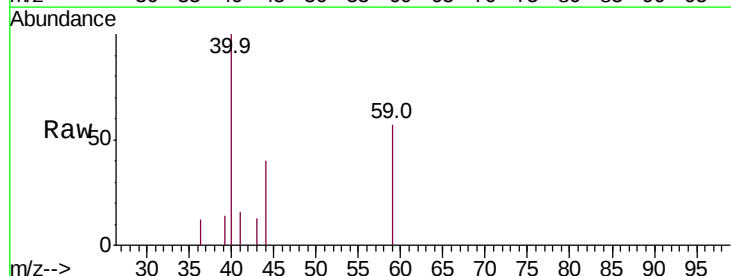
Time-->



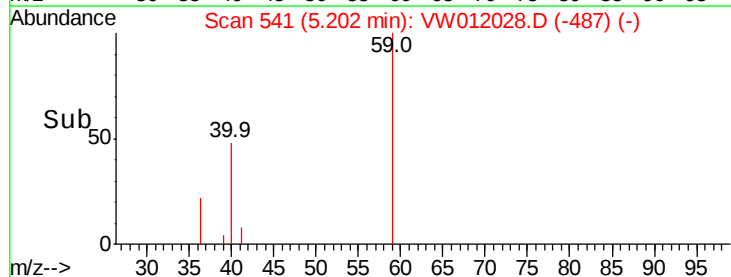
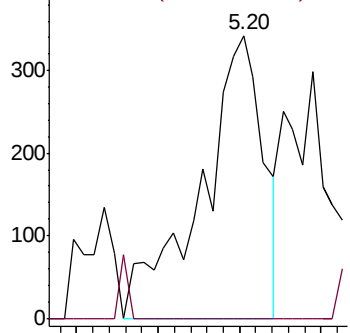
#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.20 min Scan# 541  
 Delta R.T. 0.03 min  
 Lab File: VW012028.D  
 Acq: 20 Aug 2019 13:44

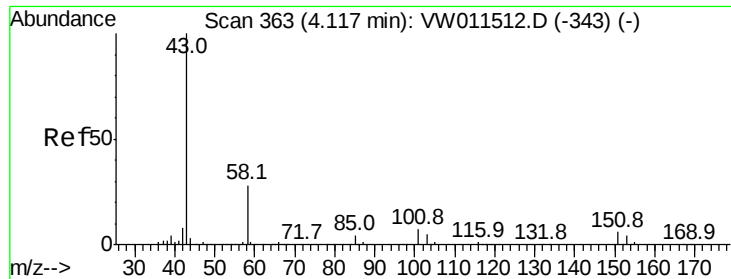
Tgt Ion: 59 Resp: 903  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.5 12.7#



Abundance Ion 59.00 (58.70 to 59.70): VW  
 Ion 57.00 (56.70 to 57.70): VW



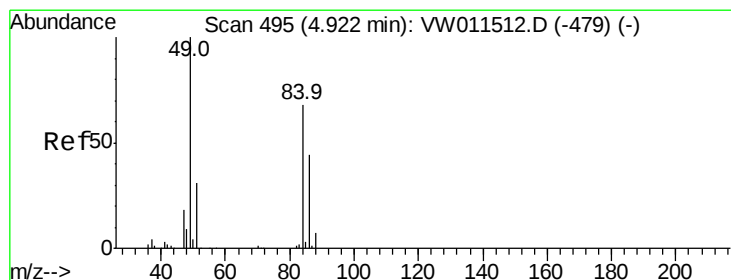
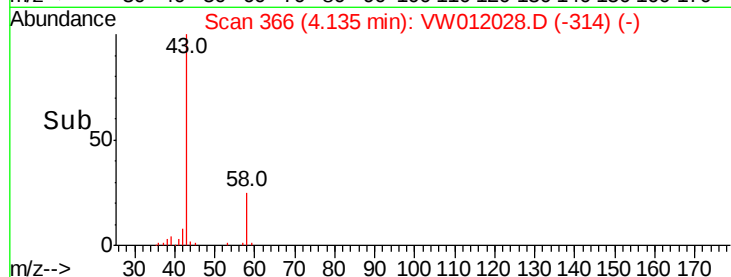
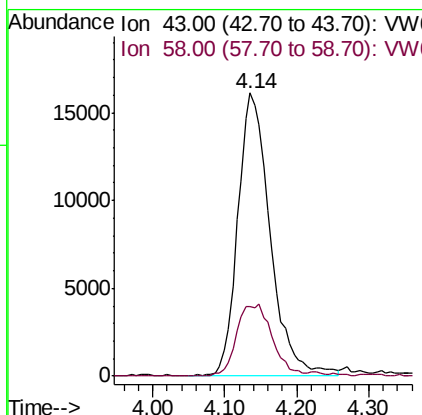
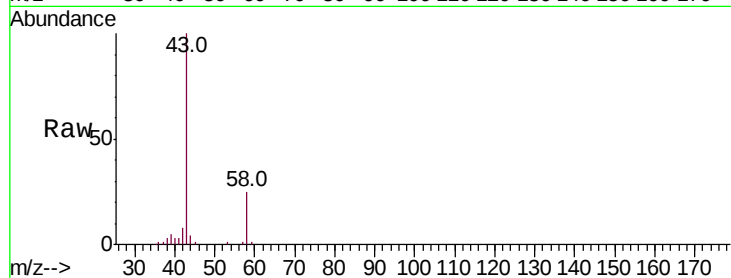
Time-->



#16  
Acetone  
Concen: 52.934 ug/l  
RT: 4.14 min Scan# 366  
Delta R.T. 0.02 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

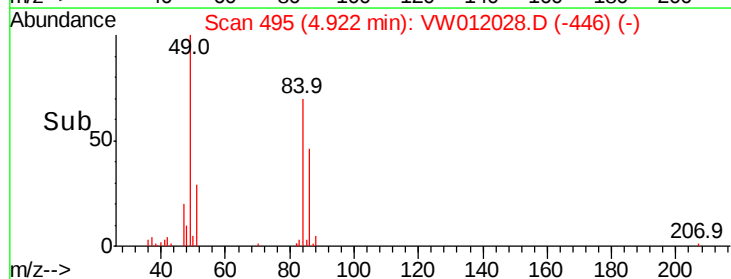
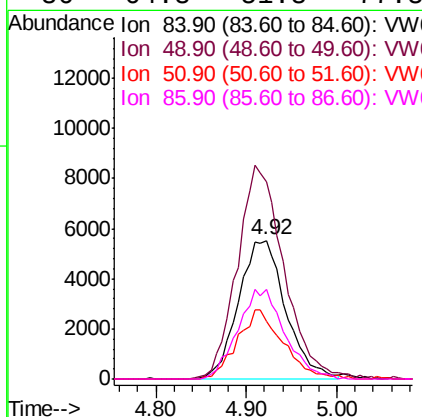
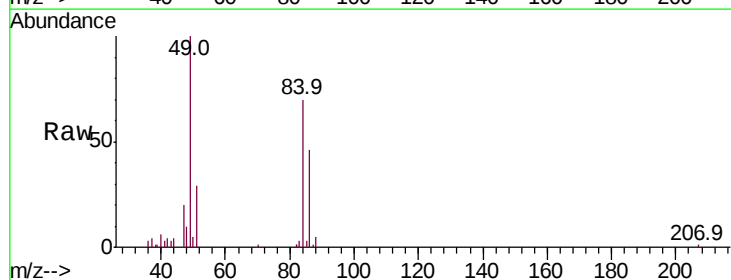
Instrument :  
MSVOA\_W  
ClientSampleId :

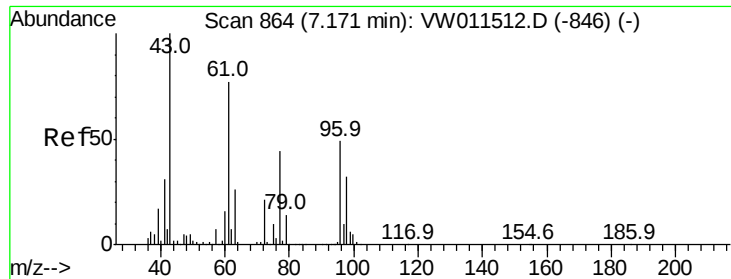
Tot Ion: 43 Resp: 50517  
Ion Ratio Lower Upper  
43 100  
58 24.6 22.3 33.5



#20  
Methylene Chloride  
Concen: 6.061 ug/l  
RT: 4.92 min Scan# 495  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Tgt Ion: 84 Resp: 19949  
Ion Ratio Lower Upper  
84 100  
49 142.2 117.8 176.6  
51 41.7 37.0 55.4  
86 64.8 51.8 77.8





#25

2-Butanone

Concen: 1.871 ug/l

RT: 7.19 min Scan# 867

Delta R.T. 0.02 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

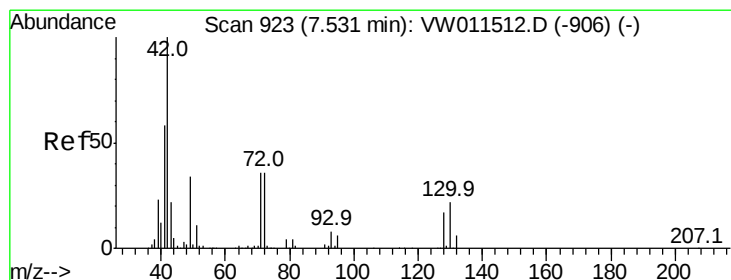
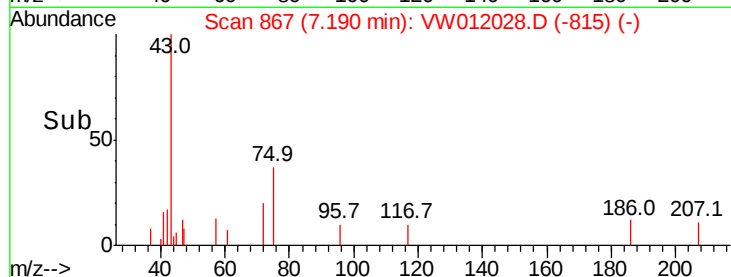
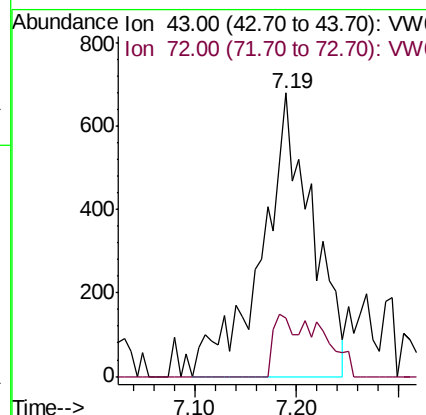
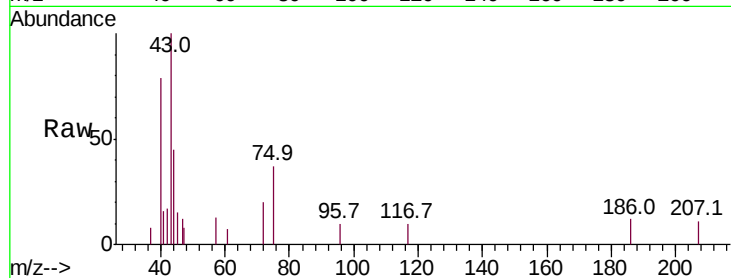
Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion: 43 Resp: 2336

Ion Ratio Lower Upper

43 100

72 20.4 16.6 24.8



#29

Tetrahydrofuran

Concen: 9.589 ug/l

RT: 7.54 min Scan# 924

Delta R.T. 0.01 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

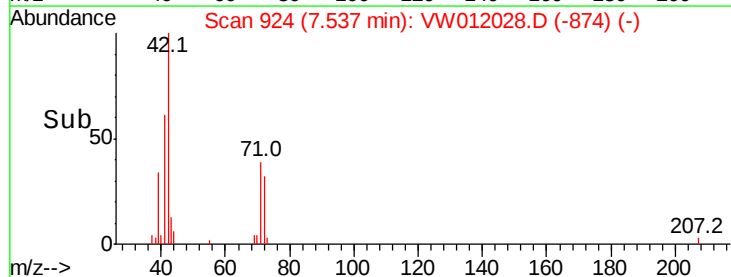
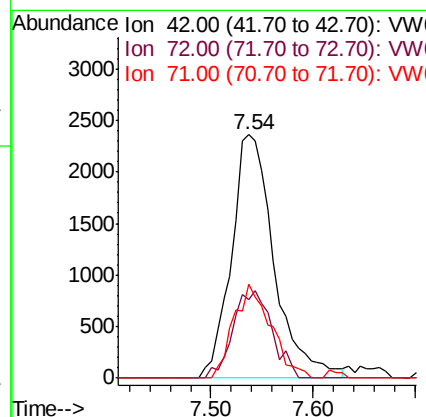
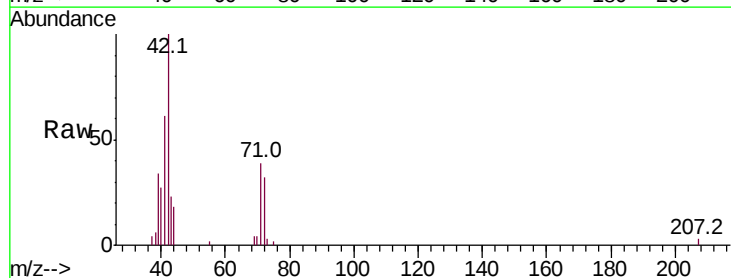
Tgt Ion: 42 Resp: 6845

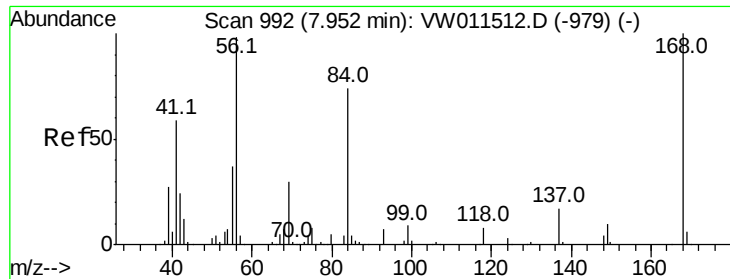
Ion Ratio Lower Upper

42 100

72 32.8 27.1 40.7

71 33.7 26.2 39.4

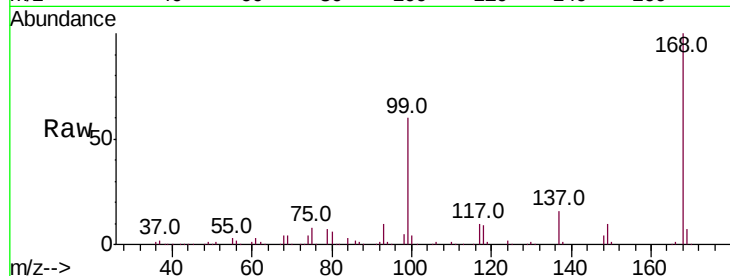




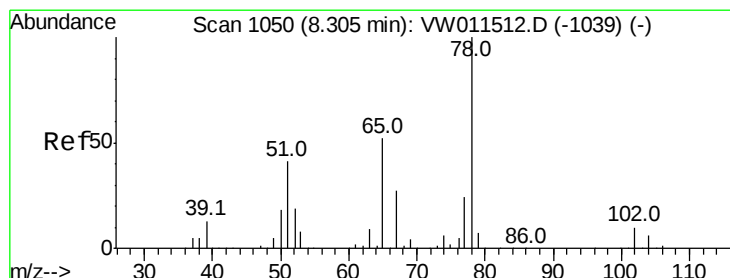
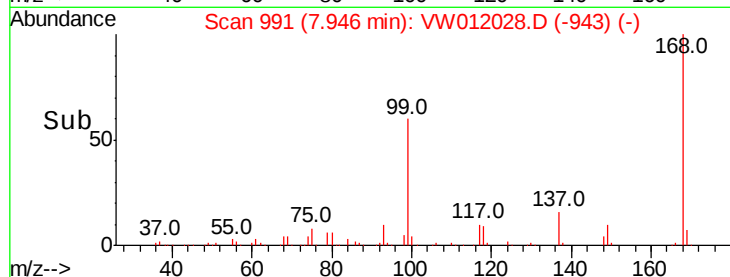
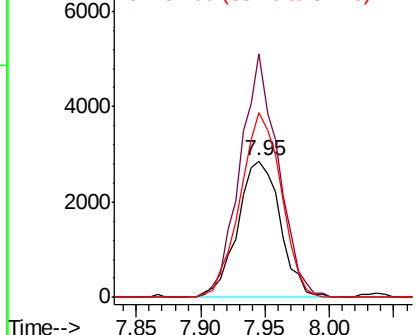
#31  
Cyclohexane  
Concen: 1.168 ug/l  
RT: 7.95 min Scan# 991  
Delta R.T. -0.01 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion: 56 Resp: 6553  
Ion Ratio Lower Upper  
56 100  
69 178.2 24.3 36.5#  
84 135.0 60.4 90.6#

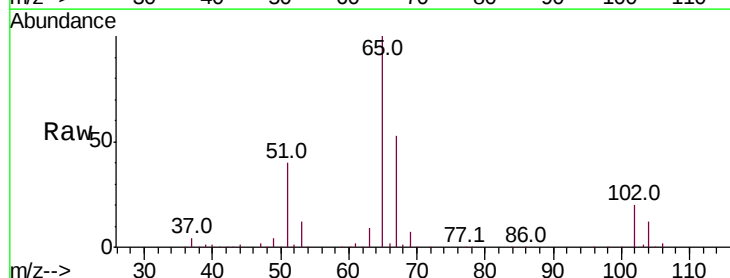


Abundance Ion 56.00 (55.70 to 56.70): VW  
Ion 69.00 (68.70 to 69.70): VW  
Ion 84.00 (83.70 to 84.70): VW

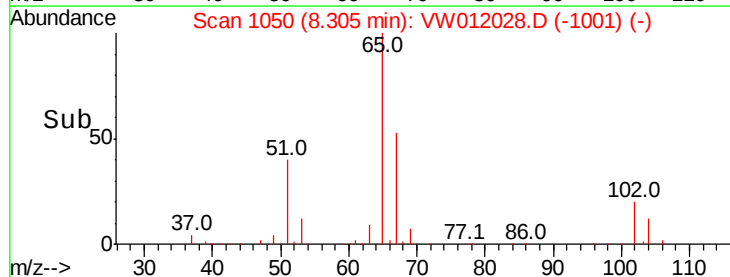
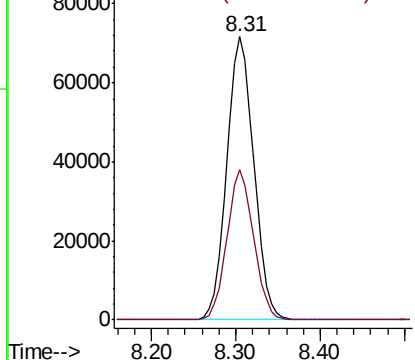


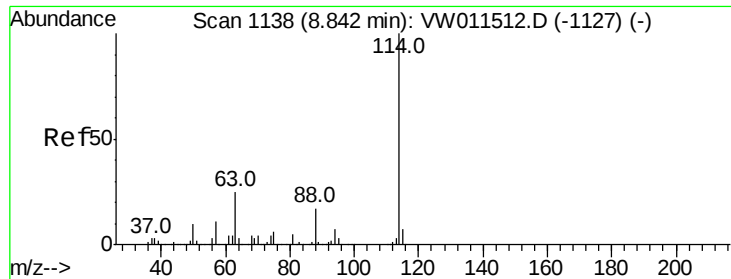
#33  
1,2-Dichloroethane-d4  
Concen: 52.228 ug/l  
RT: 8.31 min Scan# 1050  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Tgt Ion: 65 Resp: 156691  
Ion Ratio Lower Upper  
65 100  
67 52.1 0.0 105.2



Abundance Ion 64.90 (64.60 to 65.60): VW  
Ion 66.90 (66.60 to 67.60): VW

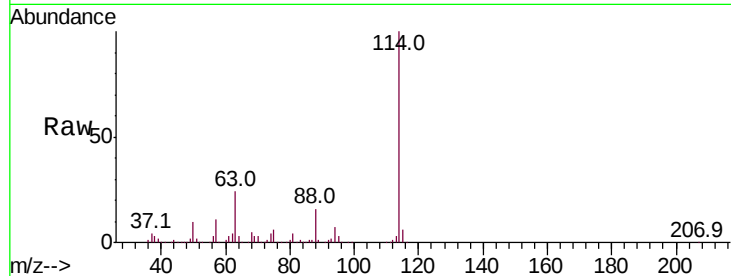




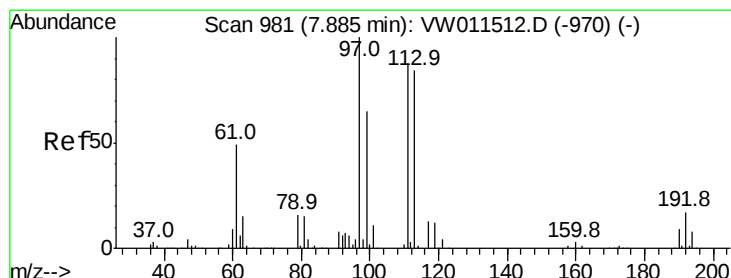
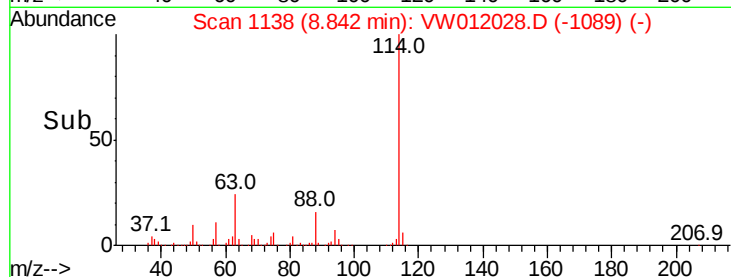
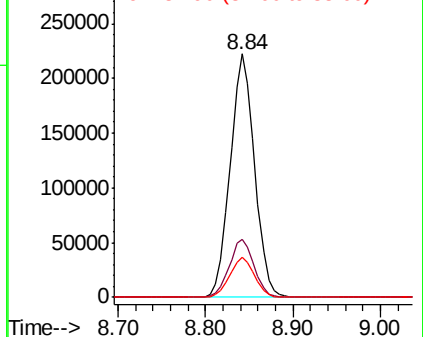
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.84 min Scan# 1138  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion:114 Resp: 429469  
Ion Ratio Lower Upper  
114 100  
63 23.8 0.0 49.2  
88 16.5 0.0 33.8

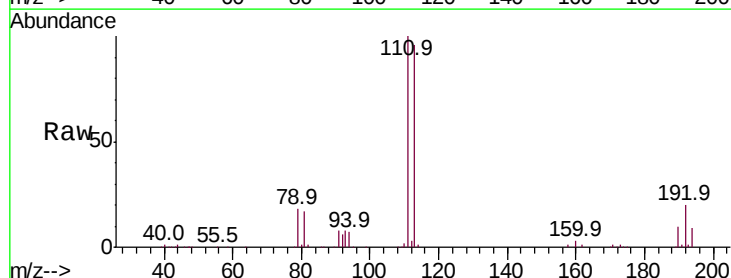


Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): VW  
Ion 87.90 (87.60 to 88.60): VW

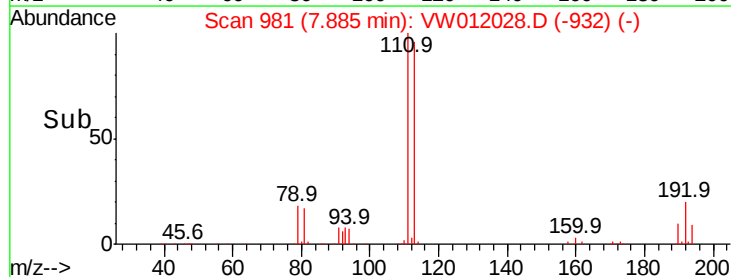
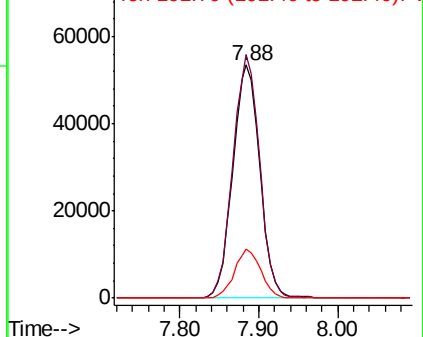


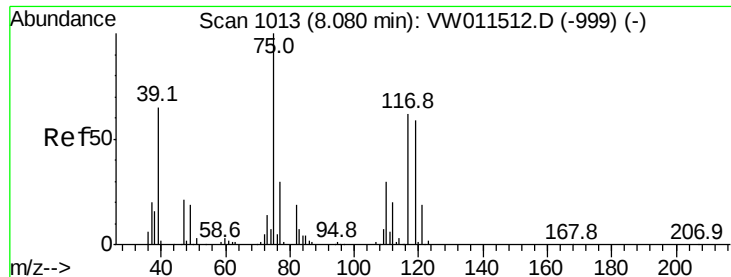
#35  
Dibromofluoromethane  
Concen: 52.976 ug/l  
RT: 7.88 min Scan# 981  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Tgt Ion:113 Resp: 127640  
Ion Ratio Lower Upper  
113 100  
111 103.0 82.7 124.1  
192 20.4 16.1 24.1



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

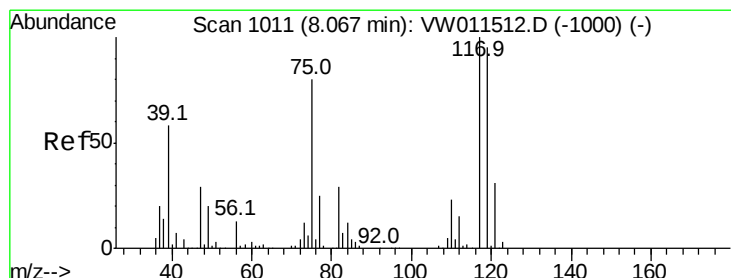
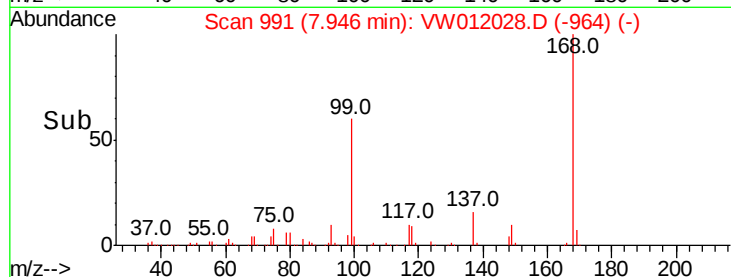
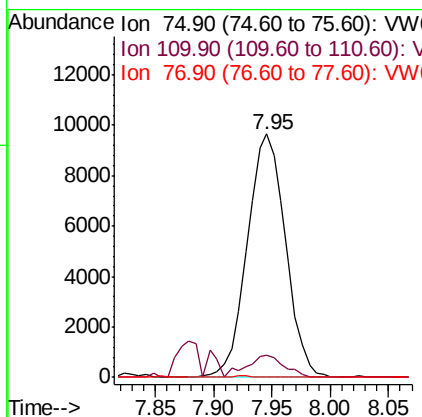
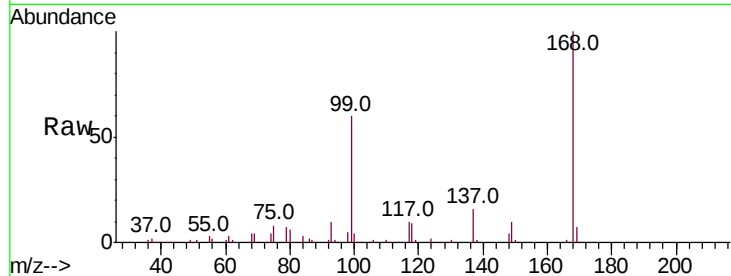




#36  
 1,1-Dichloropropene  
 Concen: 4.938 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW012028.D  
 Acq: 20 Aug 2019 13:44

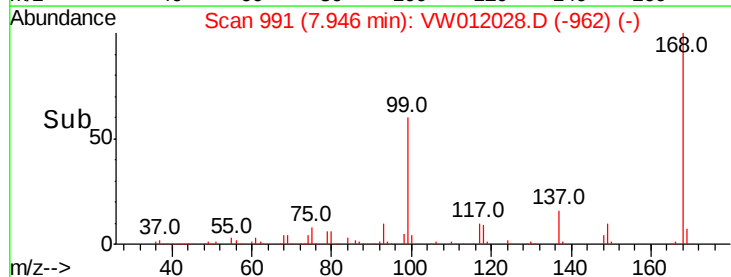
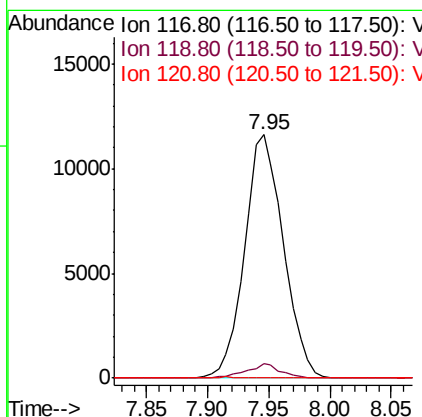
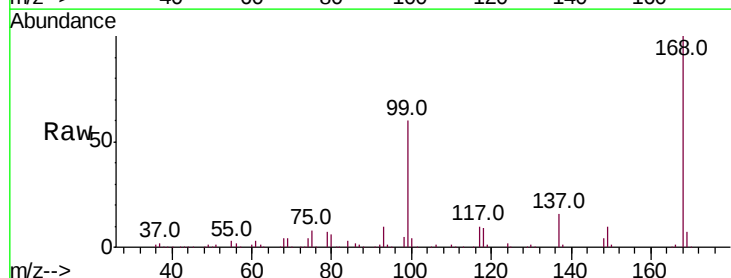
Instrument :  
 MSVOA\_W  
 ClientSampleId :

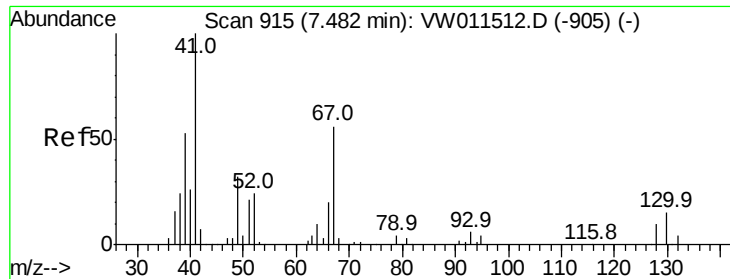
Tot Ion: 75 Resp: 22050  
 Ion Ratio Lower Upper  
 75 100  
 110 7.8 15.6 46.8#  
 77 0.2 24.3 36.5#



#38  
 Carbon Tetrachloride  
 Concen: 6.712 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.12 min  
 Lab File: VW012028.D  
 Acq: 20 Aug 2019 13:44

Tgt Ion: 117 Resp: 25659  
 Ion Ratio Lower Upper  
 117 100  
 119 6.1 75.8 113.6#  
 121 0.0 24.7 37.1#

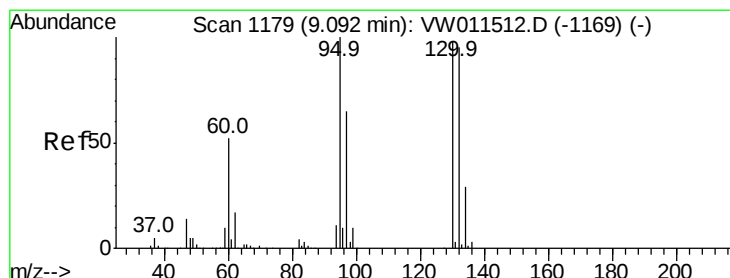
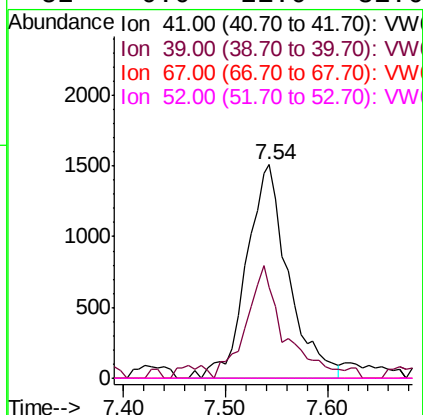
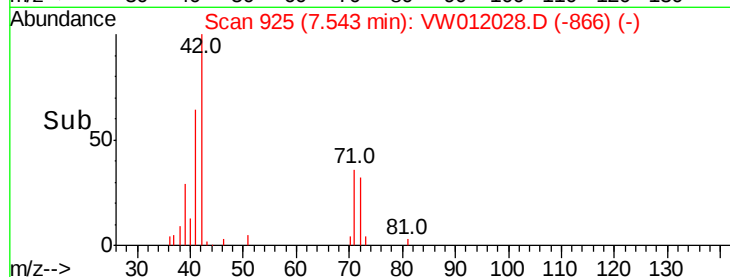
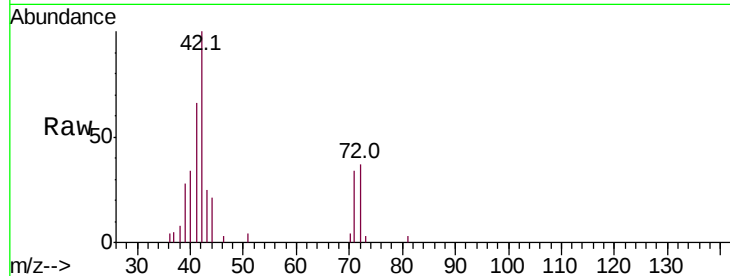




#41  
Methacrylonitrile  
Concen: 2.808 ug/l  
RT: 7.54 min Scan# 925  
Delta R.T. 0.06 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

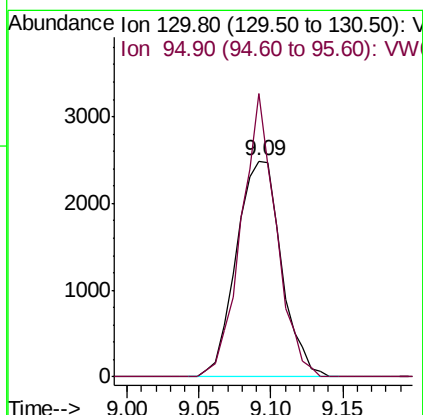
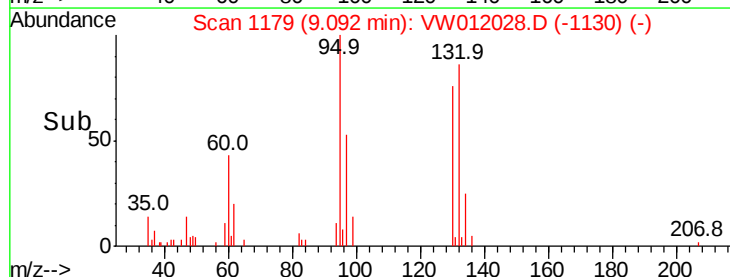
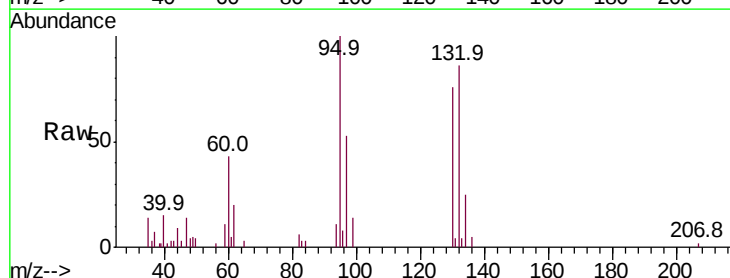
Instrument :  
MSVOA\_W  
ClientSampleId :

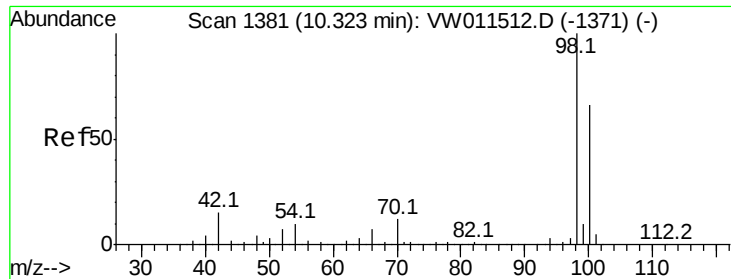
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 4312  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 49.5  | 43.0  | 64.4  |
| 67       | 0.0   | 47.5  | 71.3# |
| 52       | 0.0   | 21.0  | 31.6# |



#44  
Trichloroethene  
Concen: 1.794 ug/l  
RT: 9.09 min Scan# 1179  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 5393  |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 130.9 | 0.0   | 204.8 |





#50

Toluene-d8

Concen: 52.892 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. 0.00 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

Instrument :

MSVOA\_W

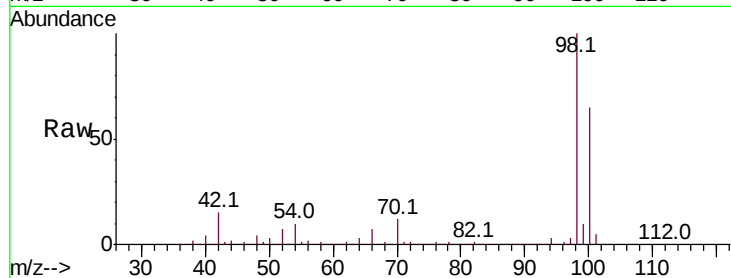
ClientSampleId :

Tot Ion: 98 Resp: 521768

Ion Ratio Lower Upper

98 100

100 65.6 52.7 79.1



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW

10.32

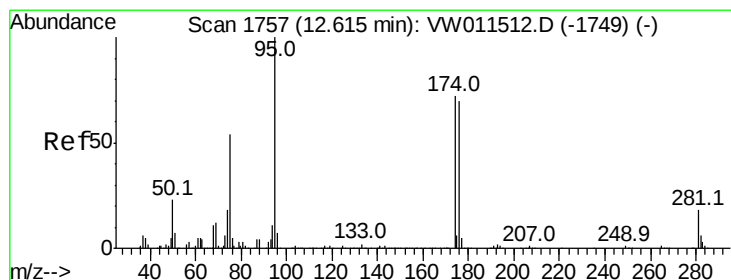
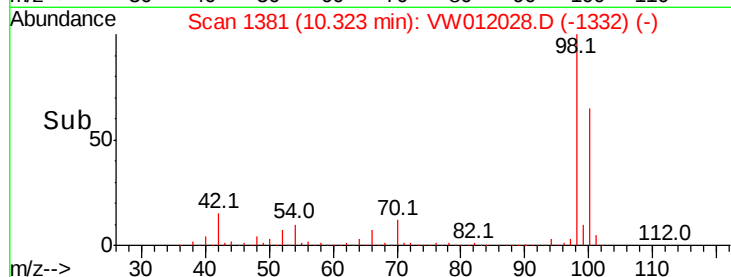
300000

200000

100000

0

Time--> 10.20 10.30 10.40



#62

4-Bromofluorobenzene

Concen: 45.683 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.00 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

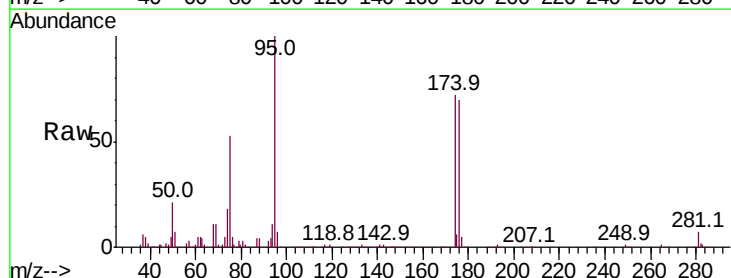
Tgt Ion: 95 Resp: 160666

Ion Ratio Lower Upper

95 100

174 76.2 0.0 150.2

176 73.7 0.0 144.4



Abundance Ion 94.90 (94.60 to 95.60): VW

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

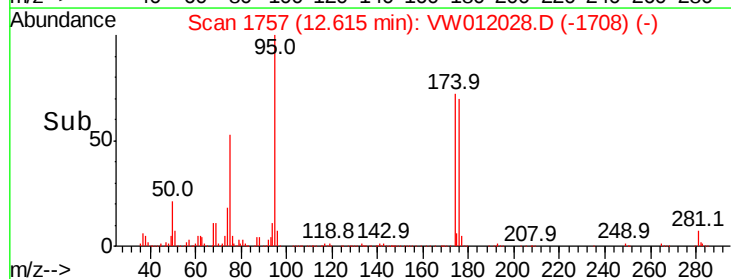
12.62

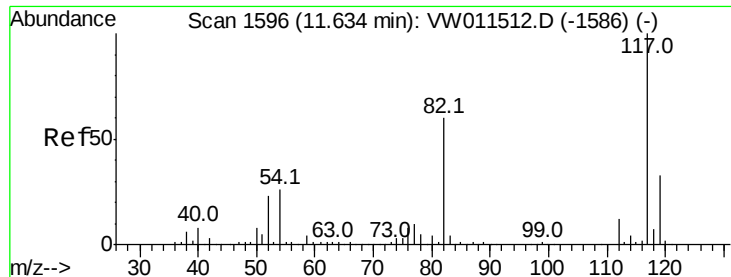
100000

50000

0

Time--> 12.60 12.70

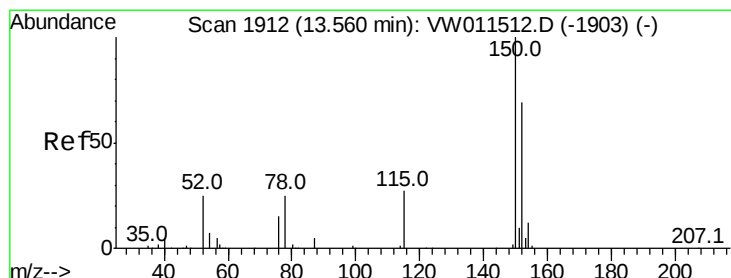
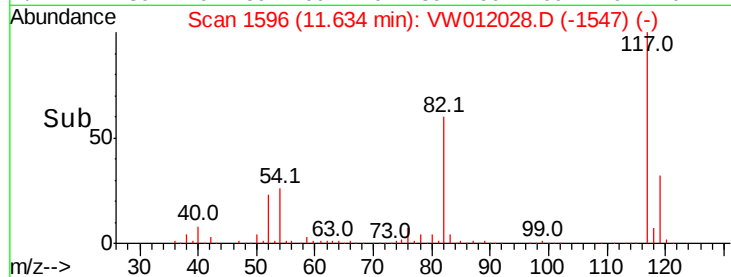
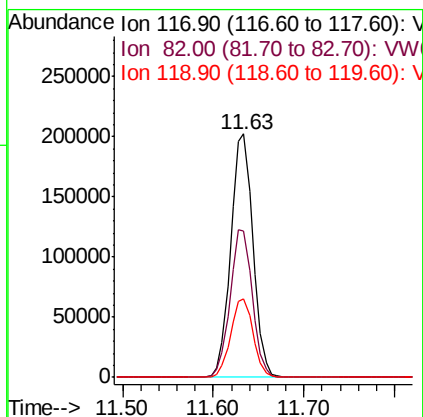
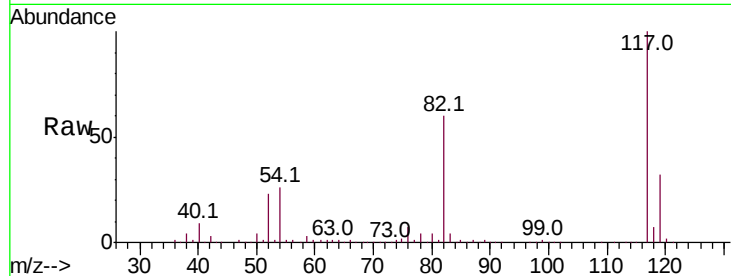




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

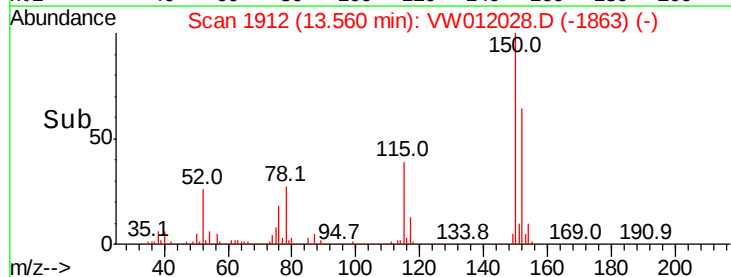
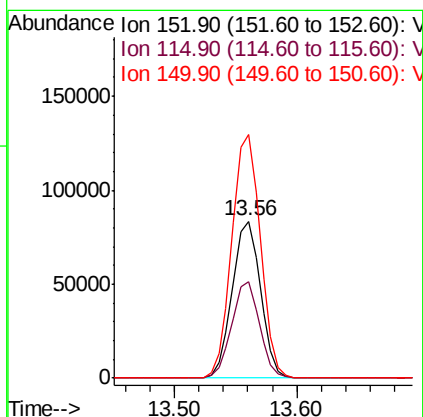
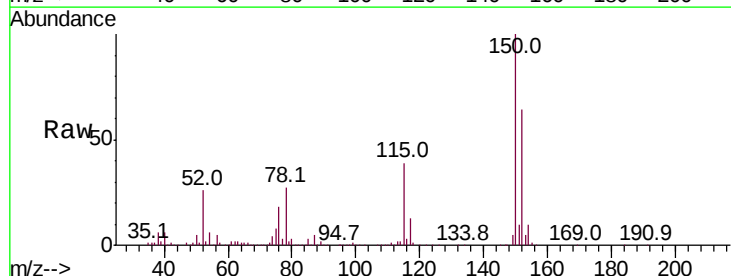
Instrument :  
MSVOA\_W  
ClientSampled :

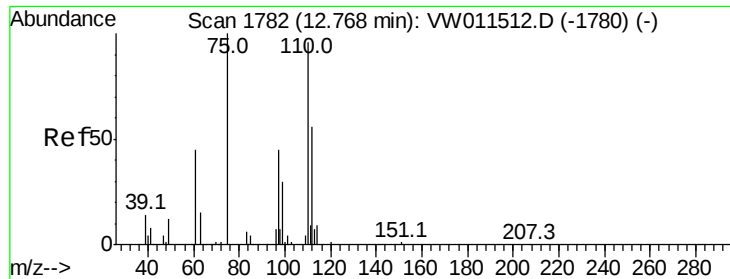
Tot Ion:117 Resp: 347313  
Ion Ratio Lower Upper  
117 100  
82 60.2 47.9 71.9  
119 32.3 26.2 39.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.56 min Scan# 1912  
Delta R.T. 0.00 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Tgt Ion:152 Resp: 133461  
Ion Ratio Lower Upper  
152 100  
115 60.0 30.5 91.5  
150 156.4 0.0 352.6





#76

1,2,3-Trichloropropane

Concen: 59.743 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

Instrument :

MSVOA\_W

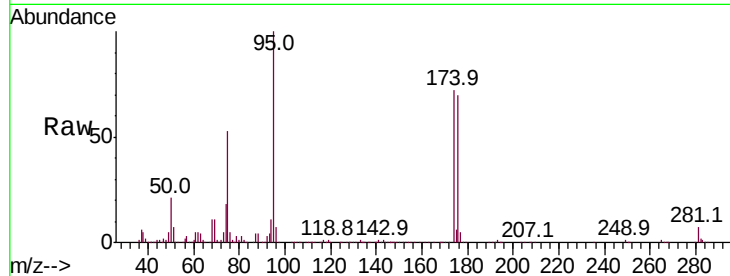
ClientSampleId :

Tot Ion: 75 Resp: 84367

Ion Ratio Lower Upper

75 100

77 1.4 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW

60000

50000

40000

30000

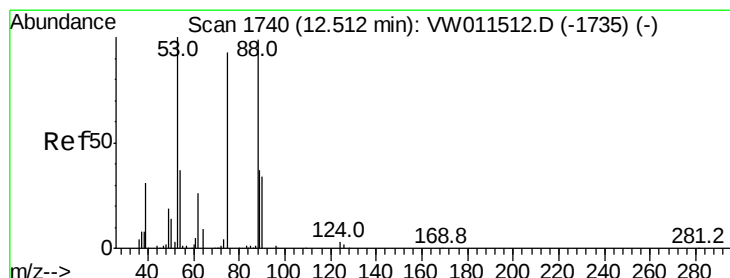
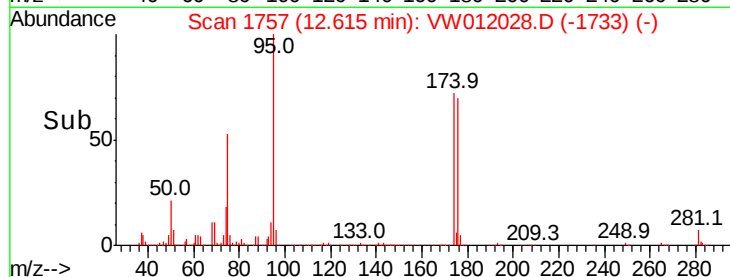
20000

10000

0

12.60 12.70

Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 137.686 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW012028.D

Acq: 20 Aug 2019 13:44

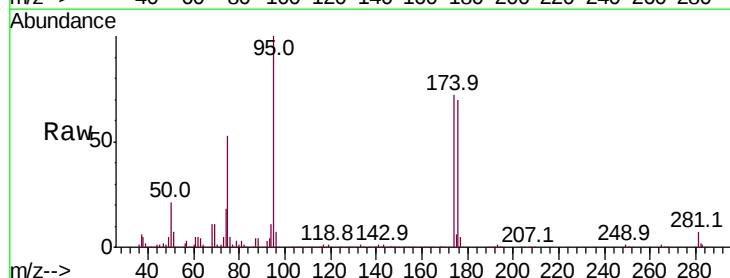
Tgt Ion: 75 Resp: 84367

Ion Ratio Lower Upper

75 100

53 0.3 88.0 132.0#

89 0.1 35.3 52.9#



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

60000

50000

40000

30000

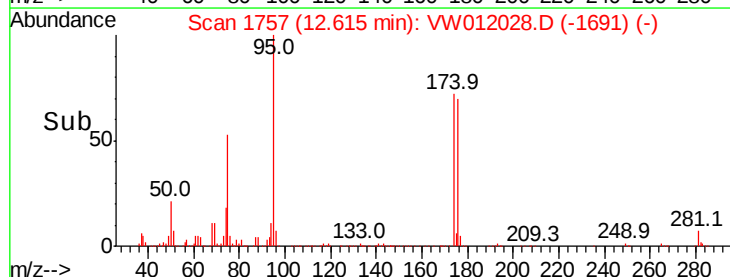
20000

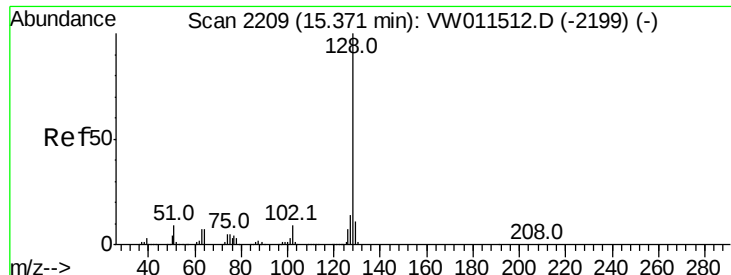
10000

0

12.60 12.70

Time-->

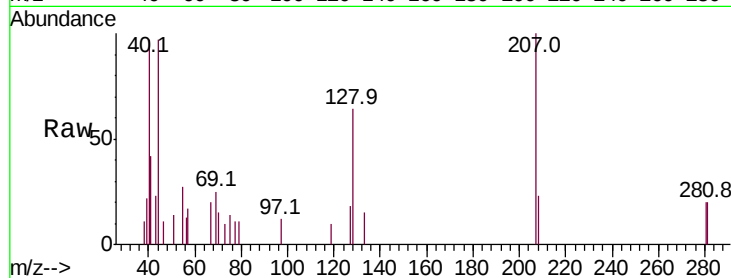




#95  
Naphthalene  
Concen: 2.185 ug/l  
RT: 15.36 min Scan# 2207  
Delta R.T. -0.01 min  
Lab File: VW012028.D  
Acq: 20 Aug 2019 13:44

Instrument :  
MSVOA\_W  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 5.6   | 10.6  | 16.0# |
| 129     | 0.0   | 8.6   | 13.0# |



Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 127.00 (126.70 to 127.70): V  
Ion 129.00 (128.70 to 129.70): V

