

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\VX082419\  
 Data File : VX011836.D  
 Acq On : 24 Aug 2019 22:07  
 Operator : JC/SP  
 Sample : K4474-37  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 55 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 T1-2-K4-(2.5)

Quant Time: Aug 26 04:13:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082219W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 23 01:48:12 2019  
 Response via : Initial Calibration

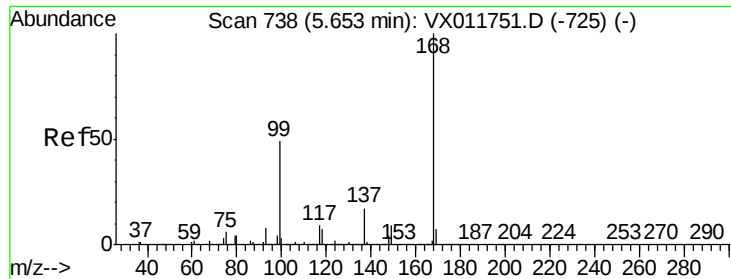
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 465334   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 624455   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 602029   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 331532   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 195397   | 41.80 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.60%  |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 184501   | 45.69 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.38%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 729047   | 51.76 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.52% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 270569   | 48.60 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.20%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 8) Diethyl Ether               | 2.19  | 74   | 554      | 0.269  | ug/l   | 74     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1176     | 1.273  | ug/l # | 79     |
| 13) Acrolein                   | 2.28  | 56   | 243      | 0.681  | ug/l # | 16     |
| 16) Acetone                    | 2.43  | 43   | 13137    | 6.460  | ug/l   | 93     |
| 18) Methyl Acetate             | 2.78  | 43   | 2564     | 0.465  | ug/l # | 51     |
| 20) Methylene Chloride         | 2.85  | 84   | 16982    | 4.085  | ug/l   | 92     |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 24624    | 5.029  | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 36462    | 6.570  | ug/l # | 17     |
| 43) Isopropyl Acetate          | 6.44  | 43   | 60197    | 7.177  | ug/l   | 98     |
| 48) Methyl methacrylate        | 7.68  | 41   | 3589     | 0.860  | ug/l # | 20     |
| 49) 1,4-Dioxane                | 7.70  | 88   | 468      | 4.047  | ug/l # | 29     |
| 51) 4-Methyl-2-Pentanone       | 8.61  | 43   | 59146    | 10.702 | ug/l # | 46     |
| 54) cis-1,3-Dichloropropene    | 8.61  | 75   | 29945    | 5.174  | ug/l # | 60     |
| 59) 2-Hexanone                 | 9.54  | 43   | 67945    | 16.018 | ug/l # | 51     |
| 74) N-amyl acetate             | 10.82 | 43   | 2699     | 0.349  | ug/l # | 49     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 123958   | 21.308 | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 123958   | 64.262 | ug/l # | 11     |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 361      | 0.235  | ug/l # | 26     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.00 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampleId :

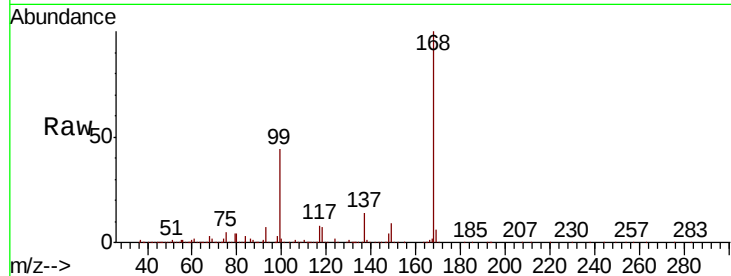
T1-2-K4-(2.5)

Tgt Ion:168 Resp: 465334

Ion Ratio Lower Upper

168 100

99 44.4 39.4 59.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

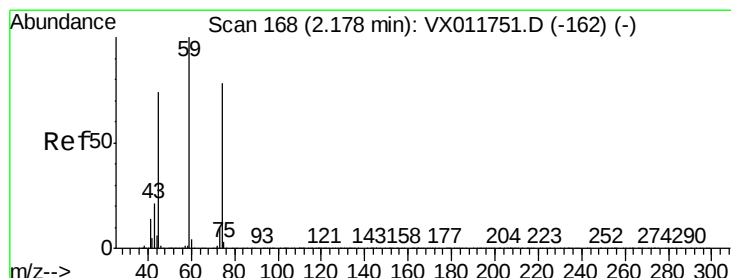
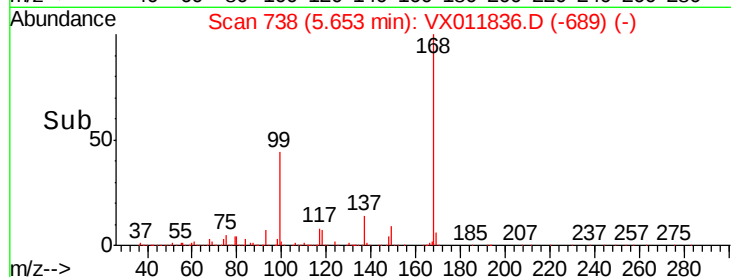
150000

100000

50000

0

Time-->



#8

Diethyl Ether

Concen: 0.269 ug/l

RT: 2.19 min Scan# 170

Delta R.T. 0.01 min

Lab File: VX011836.D

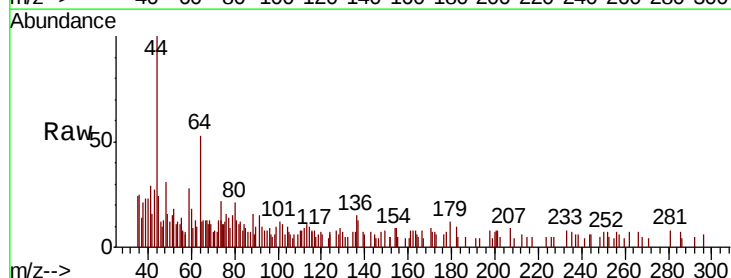
Acq: 24 Aug 2019 22:07

Tgt Ion: 74 Resp: 554

Ion Ratio Lower Upper

74 100

45 118.2 46.7 140.0



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0

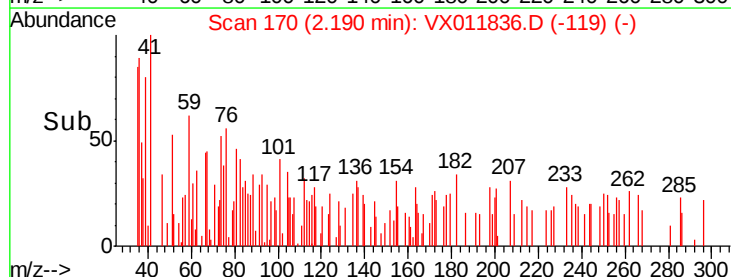
600

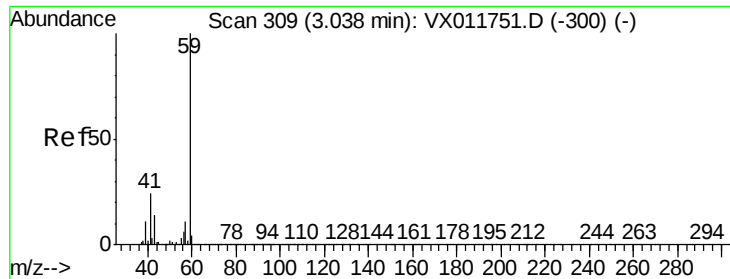
400

200

0

Time-->



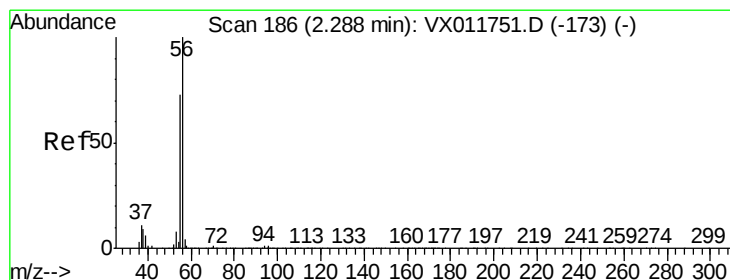
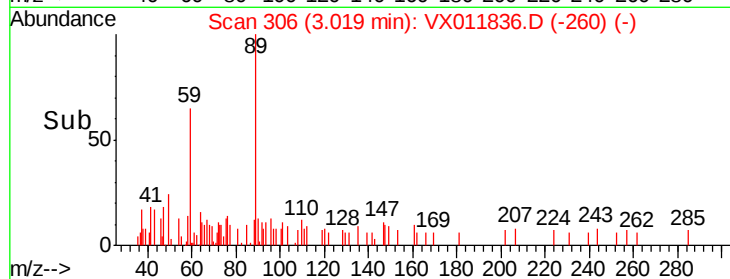
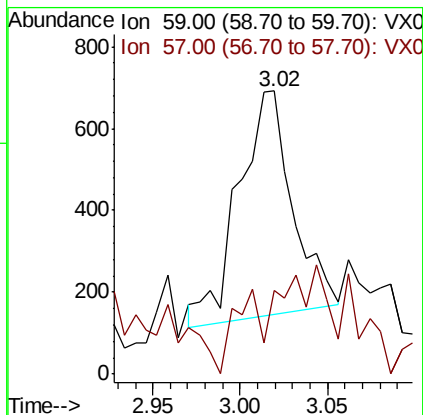
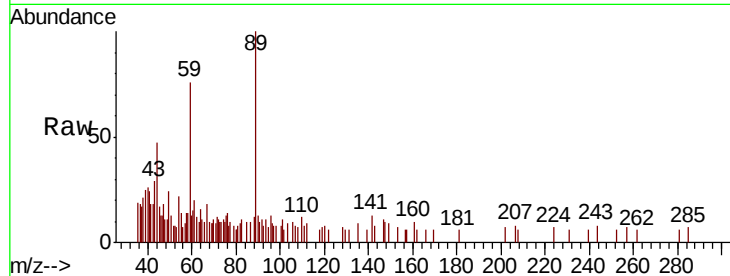


#11

Tert butyl alcohol  
 Concen: 1.273 ug/l  
 RT: 3.02 min Scan# 306  
 Delta R.T. -0.02 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

Instrument :  
 MSVOA\_X  
 ClientSampled :  
 T1-2-K4-(2.5)

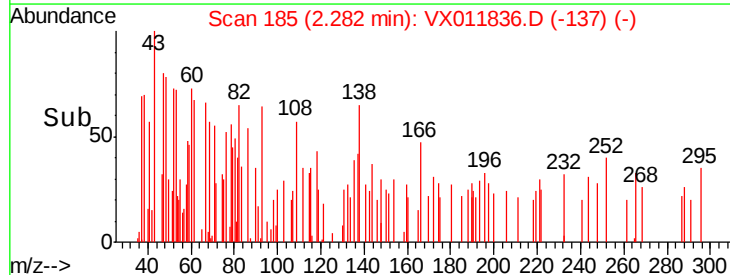
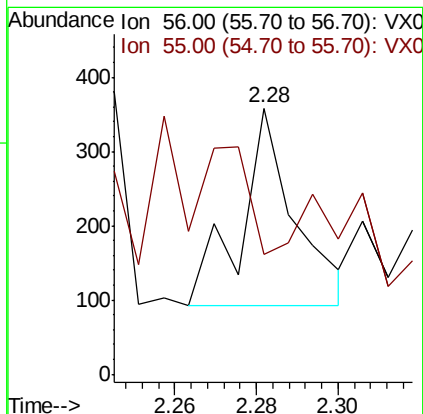
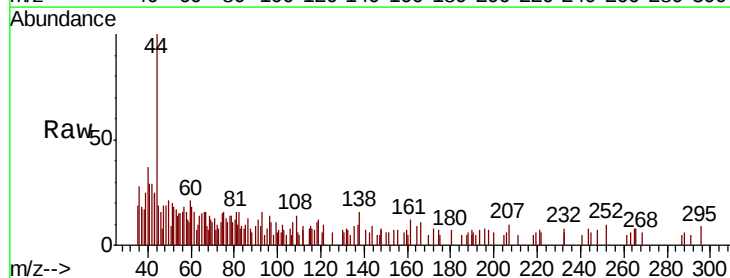
Tgt Ion: 59 Resp: 1176  
 Ion Ratio Lower Upper  
 59 100  
 57 18.3 8.4 12.6#

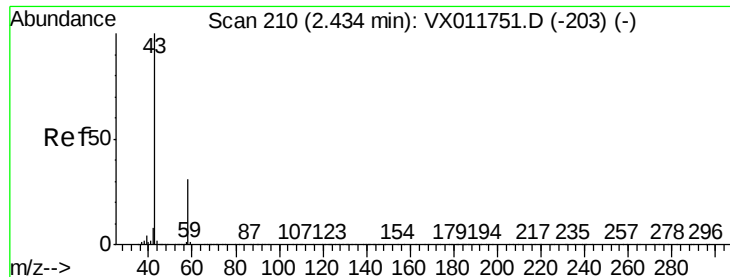


#13

Acrolein  
 Concen: 0.681 ug/l  
 RT: 2.28 min Scan# 185  
 Delta R.T. -0.01 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

Tgt Ion: 56 Resp: 243  
 Ion Ratio Lower Upper  
 56 100  
 55 0.0 54.8 82.2#





#16

Acetone

Concen: 6.460 ug/l

RT: 2.43 min Scan# 210

Delta R.T. -0.00 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampleId :

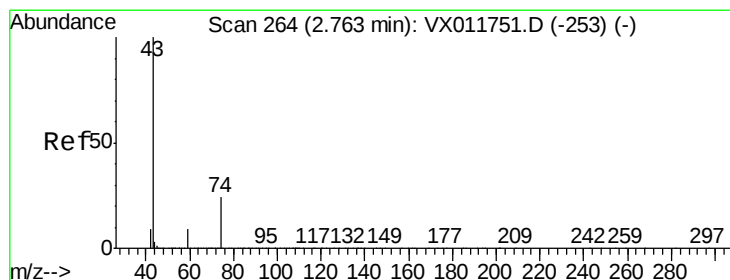
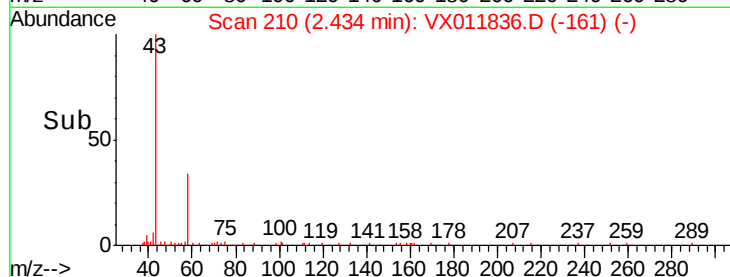
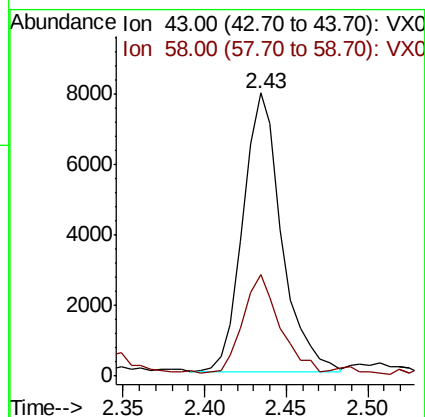
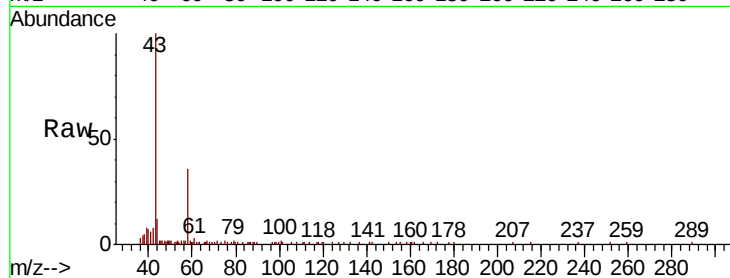
T1-2-K4-(2.5)

Tgt Ion: 43 Resp: 13137

Ion Ratio Lower Upper

43 100

58 34.2 24.4 36.6



#18

Methyl Acetate

Concen: 0.465 ug/l

RT: 2.78 min Scan# 266

Delta R.T. 0.01 min

Lab File: VX011836.D

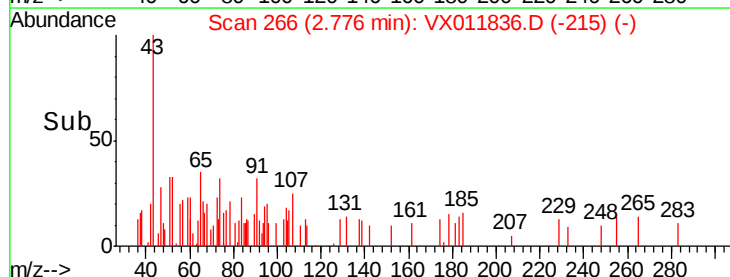
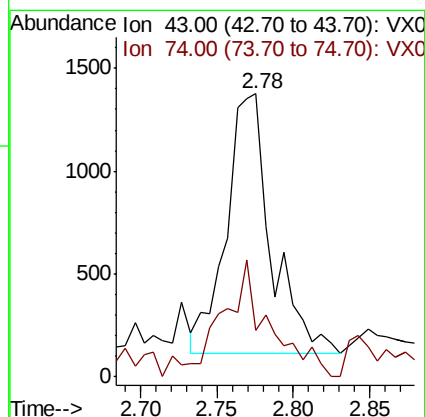
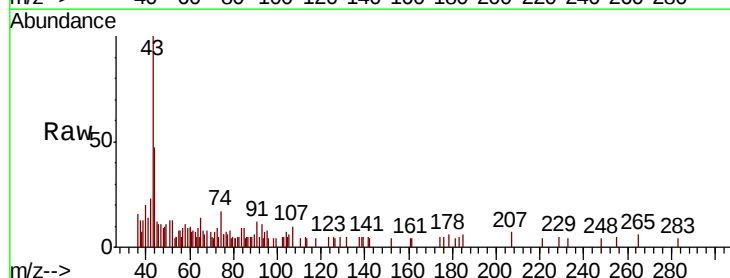
Acq: 24 Aug 2019 22:07

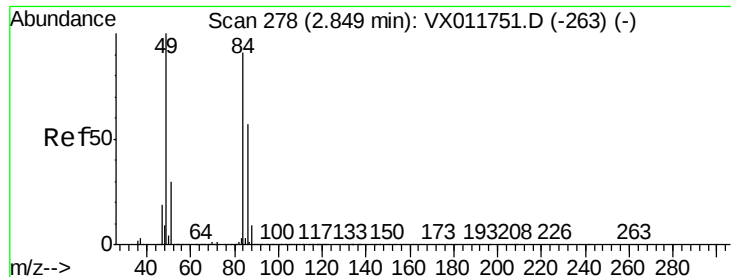
Tgt Ion: 43 Resp: 2564

Ion Ratio Lower Upper

43 100

74 48.7 19.5 29.3#

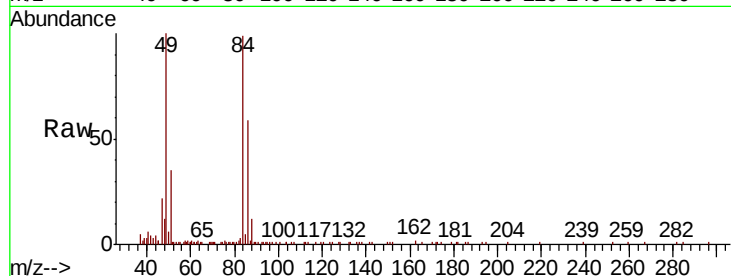




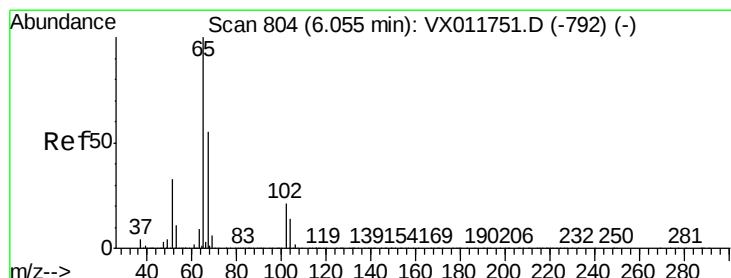
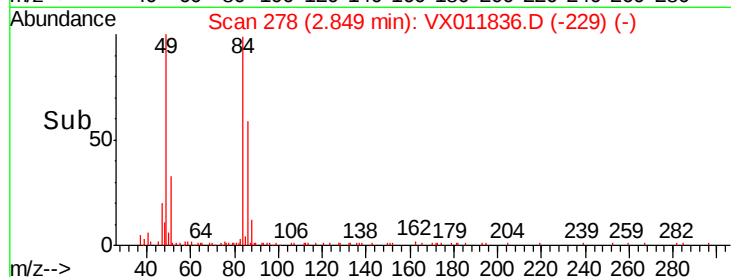
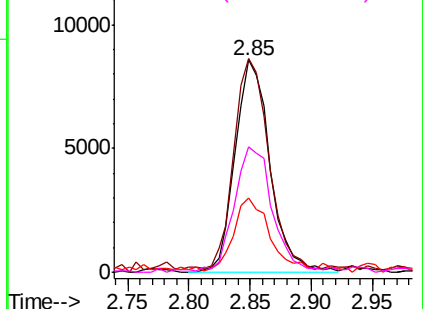
#20  
Methylene Chloride  
Concen: 4.085 ug/l  
RT: 2.85 min Scan# 278  
Delta R.T. -0.00 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

Instrument :  
MSVOA\_X  
ClientSampled :  
T1-2-K4-(2.5)

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 16982 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 98.1  | 88.3  | 132.5 |
| 51       | 33.4  | 26.2  | 39.2  |
| 86       | 58.0  | 50.6  | 76.0  |

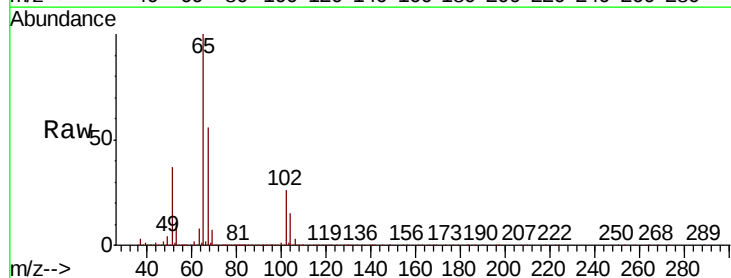


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

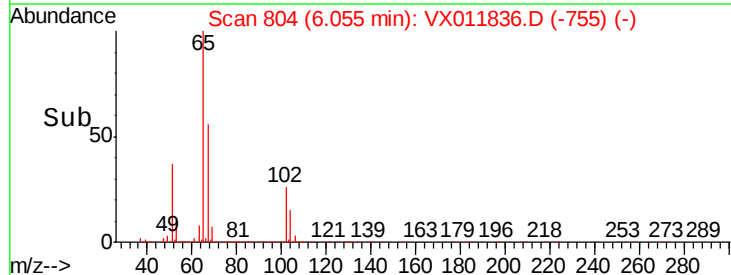
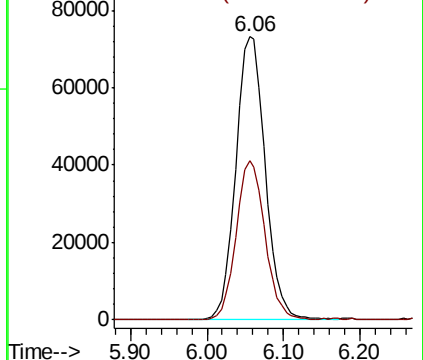


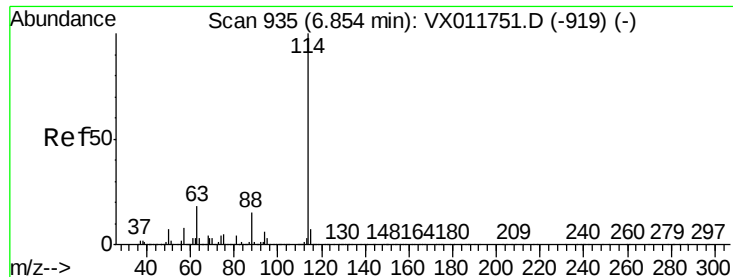
#33  
1,2-Dichloroethane-d4  
Concen: 41.800 ug/l  
RT: 6.06 min Scan# 804  
Delta R.T. -0.00 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 65    | Resp: | 195397 |
| Ion      | Ratio | Lower | Upper  |
| 65       | 100   |       |        |
| 67       | 54.5  | 0.0   | 107.8  |



Abundance Ion 64.90 (64.60 to 65.60): VX0  
Ion 66.90 (66.60 to 67.60): VX0

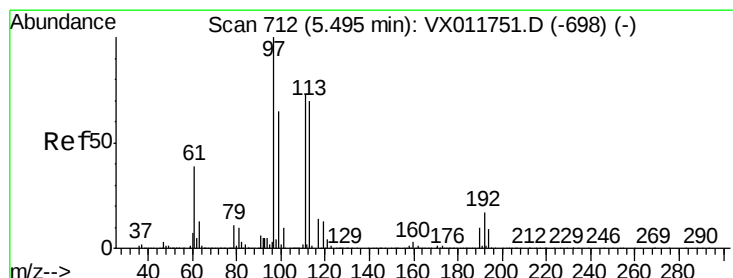
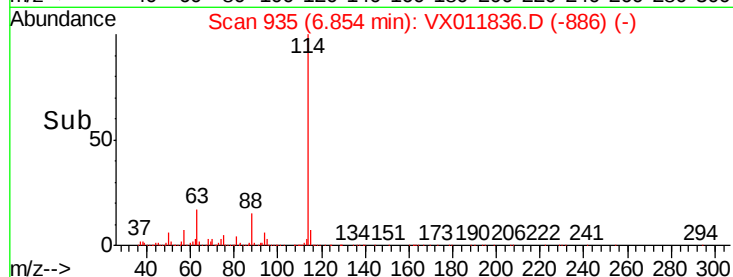
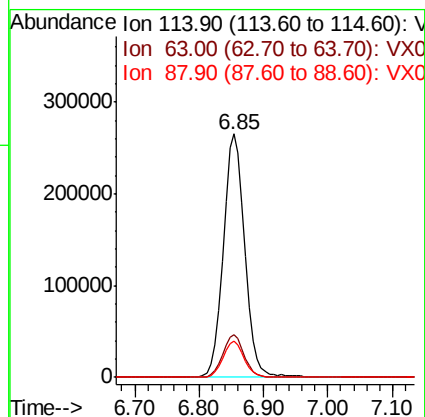
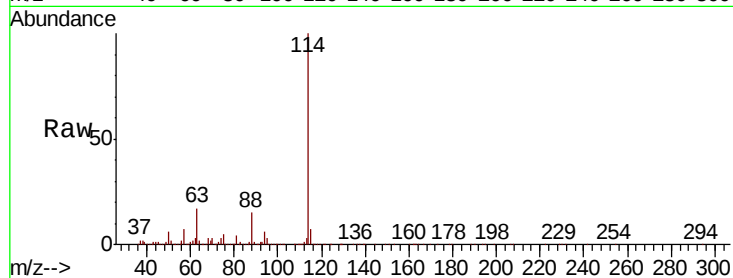




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.85 min Scan# 935  
Delta R.T. -0.00 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

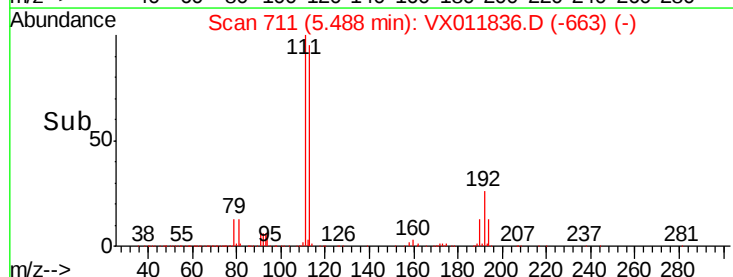
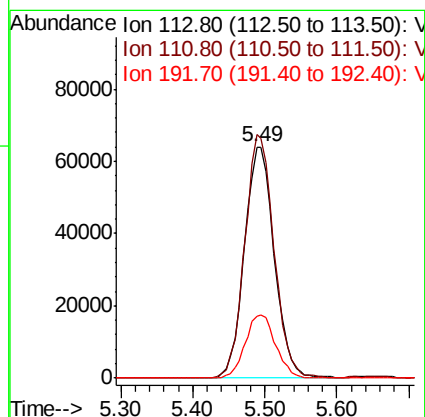
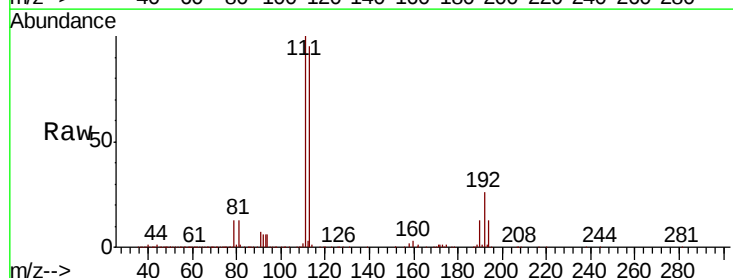
Instrument :  
MSVOA\_X  
ClientSampleId :  
T1-2-K4-(2.5)

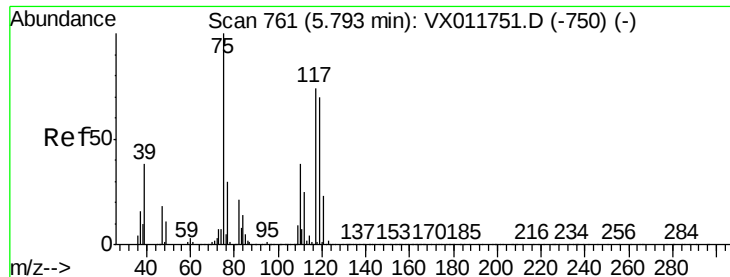
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 17.4  | 0.0   | 36.8  |
| 88      | 15.0  | 0.0   | 30.2  |



#35  
Dibromofluoromethane  
Concen: 45.691 ug/l  
RT: 5.49 min Scan# 711  
Delta R.T. -0.01 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.0 | 81.0  | 121.4 |
| 192     | 27.9  | 19.9  | 29.9  |





#36

1,1-Dichloropropene

Concen: 5.029 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.14 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampled :

T1-2-K4-(2.5)

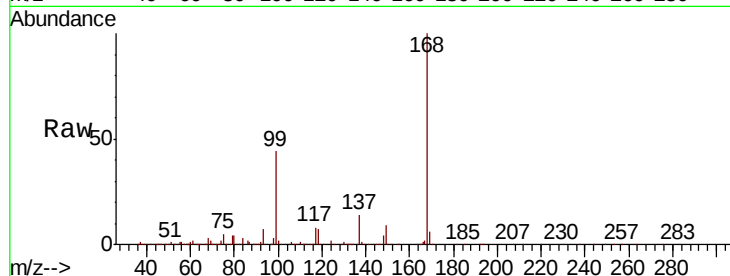
Tgt Ion: 75 Resp: 24624

Ion Ratio Lower Upper

75 100

110 11.1 19.0 57.0#

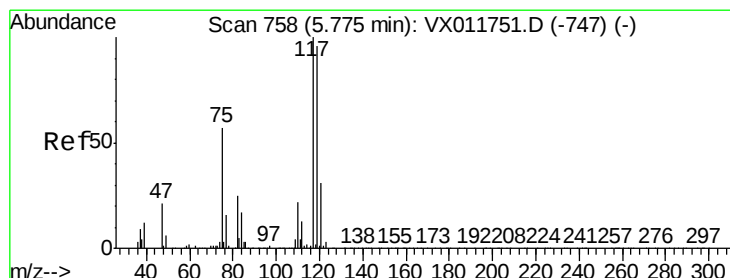
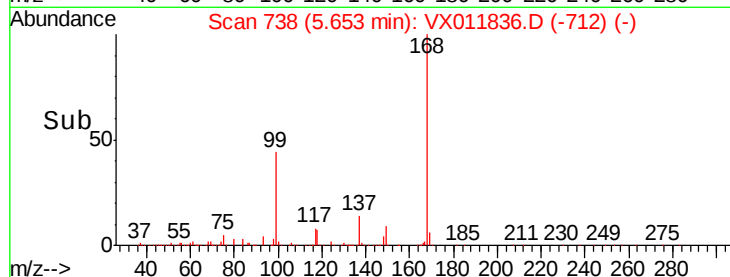
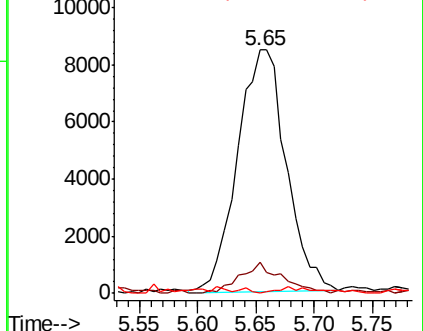
77 0.0 24.6 36.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0



#38

Carbon Tetrachloride

Concen: 6.570 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.12 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

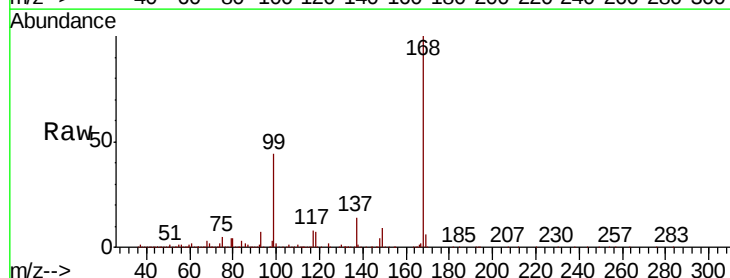
Tgt Ion: 117 Resp: 36462

Ion Ratio Lower Upper

117 100

119 6.0 76.6 114.8#

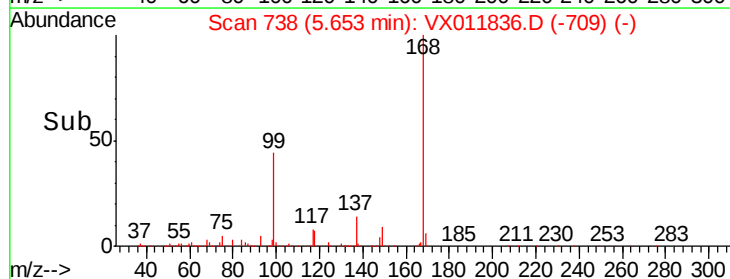
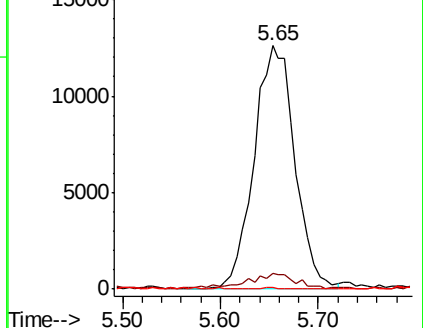
121 0.6 25.2 37.8#

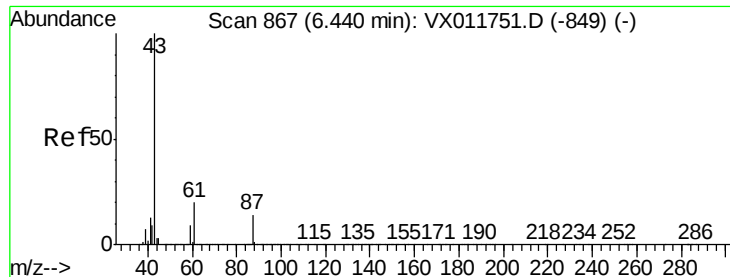


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V





#43

Isopropyl Acetate

Concen: 7.177 ug/l

RT: 6.44 min Scan# 867

Delta R.T. -0.00 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

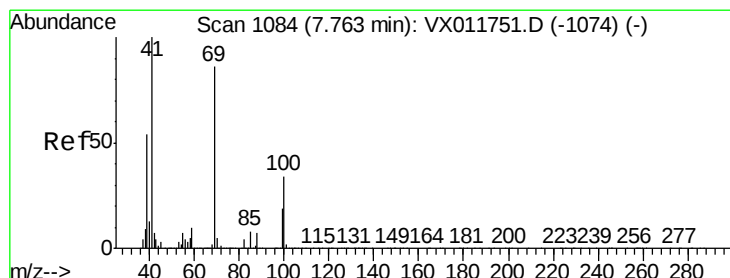
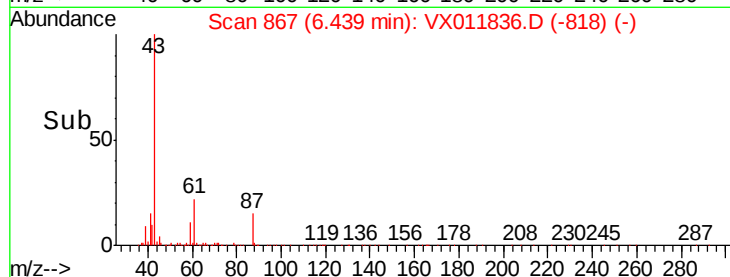
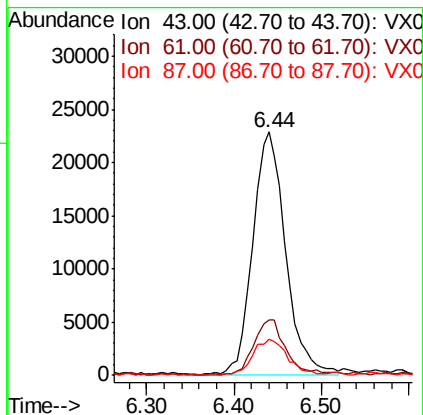
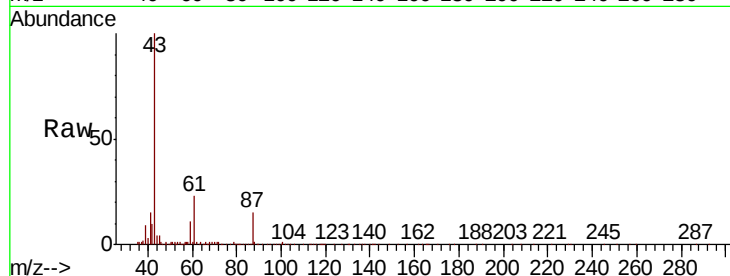
Instrument :

MSVOA\_X

ClientSampleId :

T1-2-K4-(2.5)

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 60197 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 21.1  | 16.2  | 24.2  |
| 87       | 14.9  | 11.6  | 17.4  |



#48

Methyl methacrylate

Concen: 0.860 ug/l

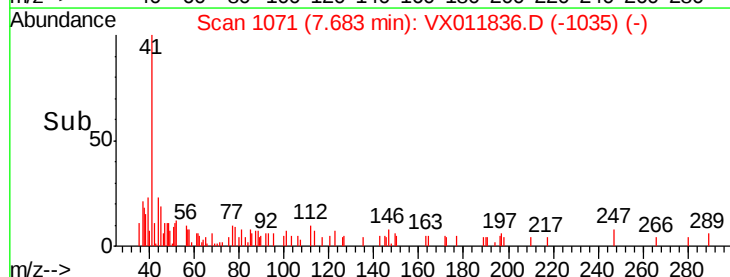
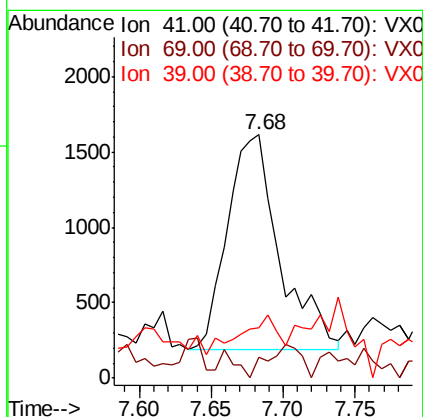
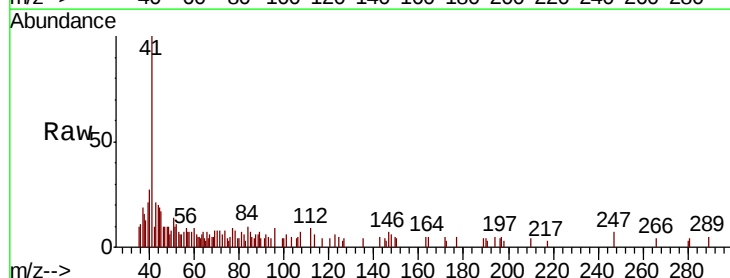
RT: 7.68 min Scan# 1071

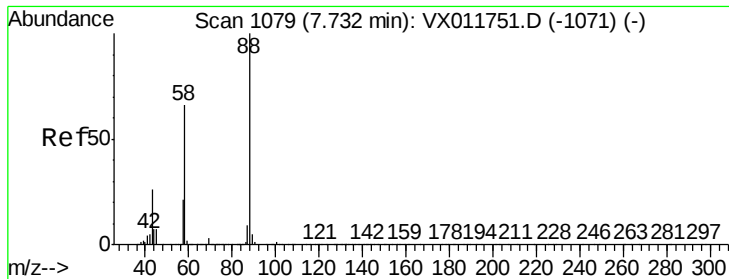
Delta R.T. -0.08 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 41    | Resp: | 3589   |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 69       | 9.9   | 69.4  | 104.2# |
| 39       | 0.0   | 43.6  | 65.4#  |





#49

1,4-Dioxane

Concen: 4.047 ug/l

RT: 7.70 min Scan# 1074

Delta R.T. -0.03 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampled :

T1-2-K4-(2.5)

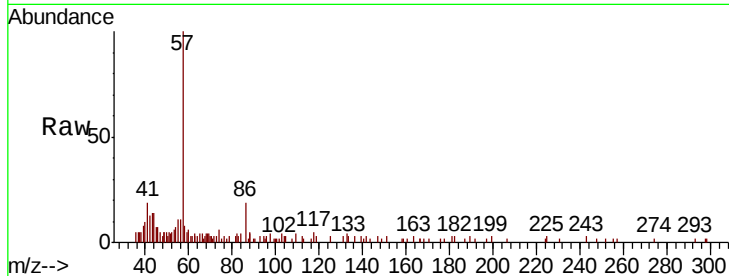
Tgt Ion: 88 Resp: 468

Ion Ratio Lower Upper

88 100

43 0.0 24.6 37.0#

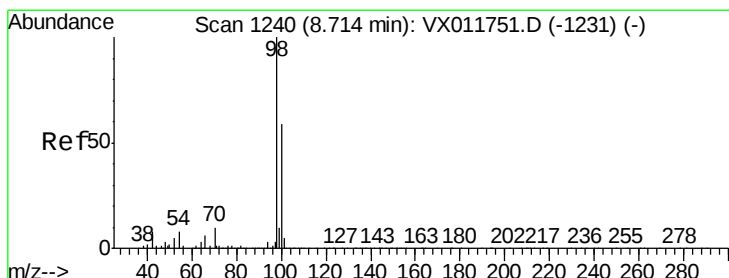
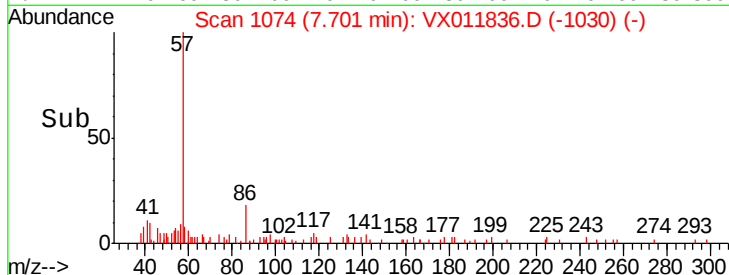
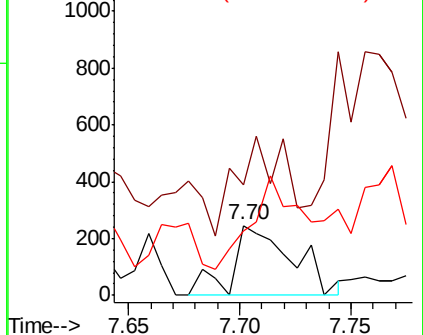
58 125.4 51.4 77.2#



Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#50

Toluene-d8

Concen: 51.762 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX011836.D

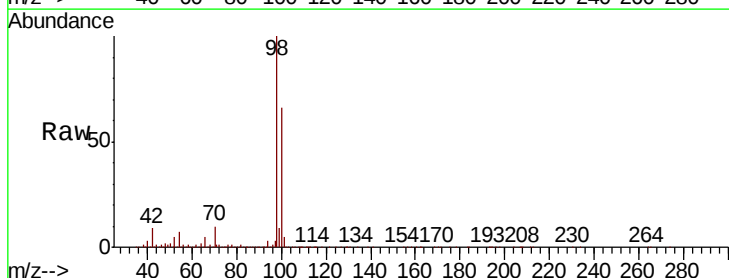
Acq: 24 Aug 2019 22:07

Tgt Ion: 98 Resp: 729047

Ion Ratio Lower Upper

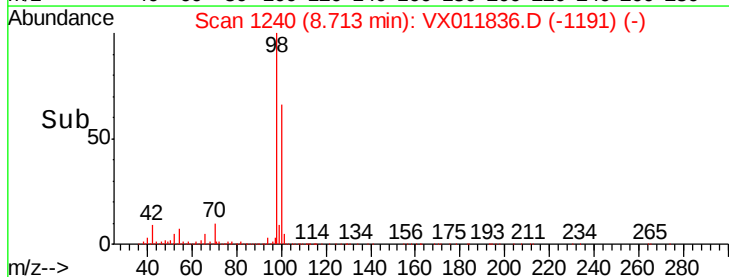
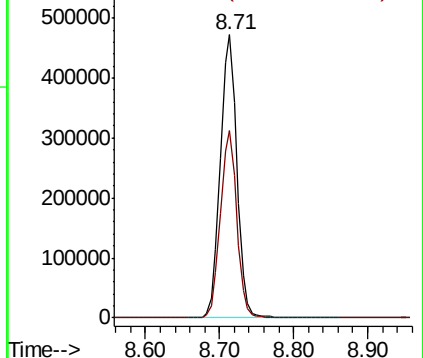
98 100

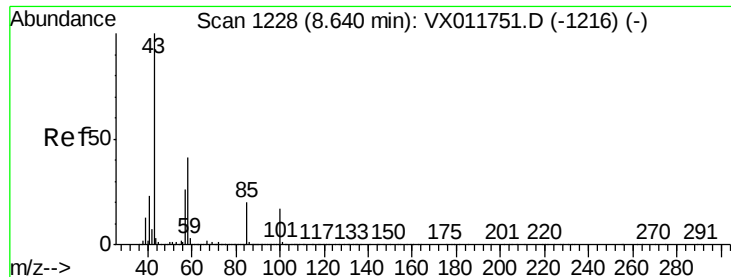
100 65.3 52.1 78.1



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0

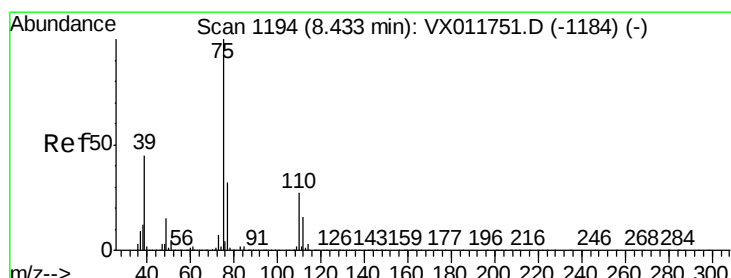
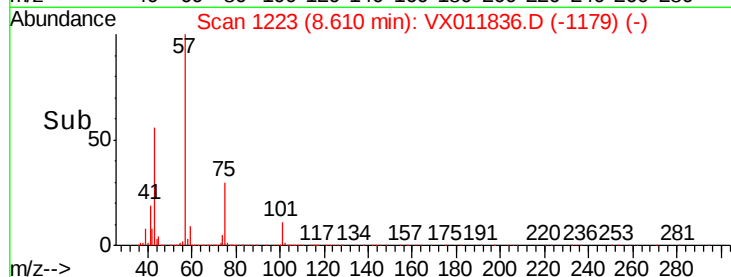
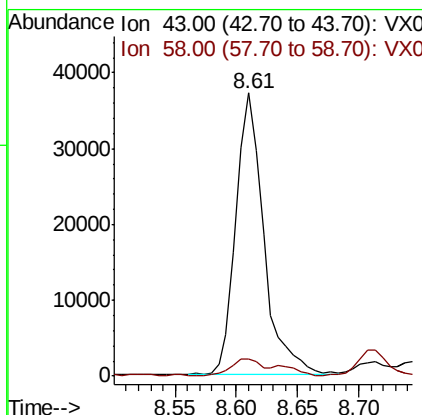
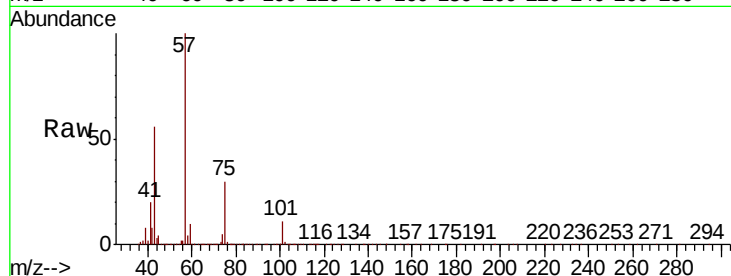




#51  
 4-Methyl-2-Pentanone  
 Concen: 10.702 ug/l  
 RT: 8.61 min Scan# 1223  
 Delta R.T. -0.03 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

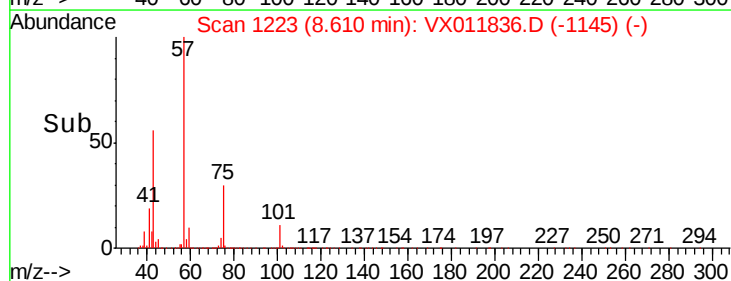
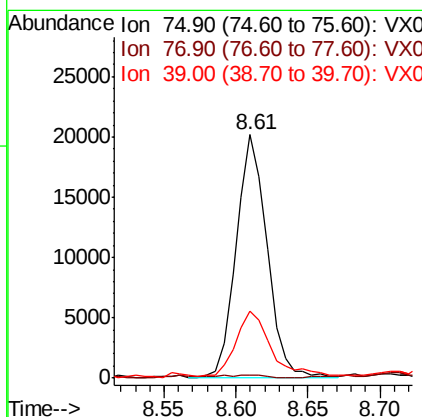
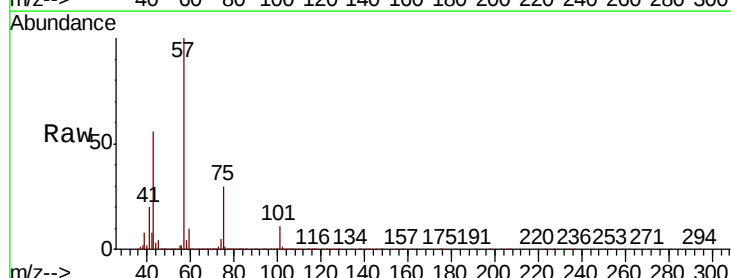
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 T1-2-K4-(2.5)

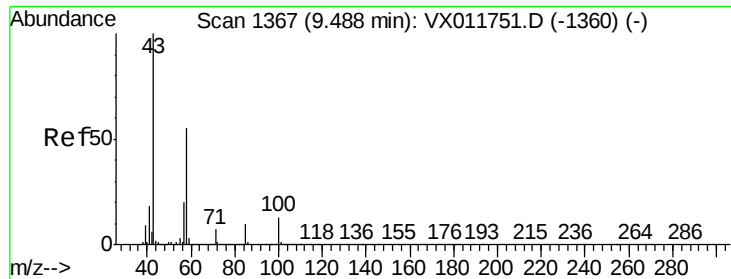
Tgt Ion: 43 Resp: 59146  
 Ion Ratio Lower Upper  
 43 100  
 58 6.7 31.8 47.6#



#54  
 cis-1,3-Dichloropropene  
 Concen: 5.174 ug/l  
 RT: 8.61 min Scan# 1223  
 Delta R.T. 0.18 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

Tgt Ion: 75 Resp: 29945  
 Ion Ratio Lower Upper  
 75 100  
 77 0.3 25.4 38.2#  
 39 26.5 36.2 54.4#

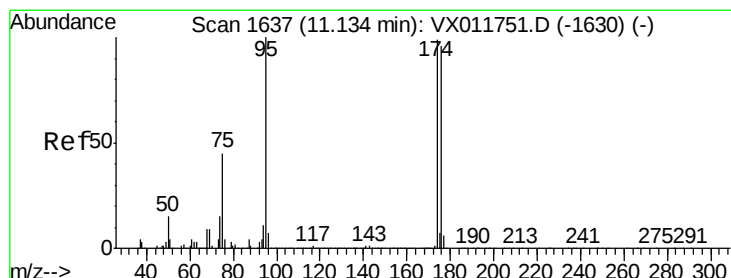
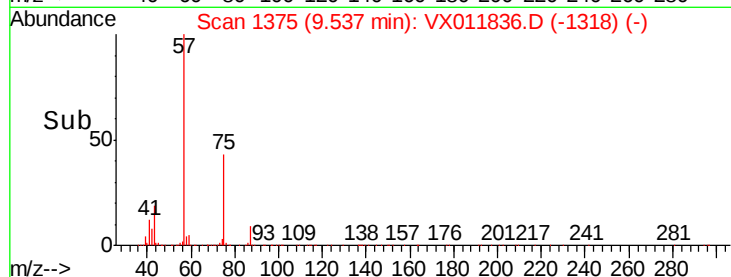
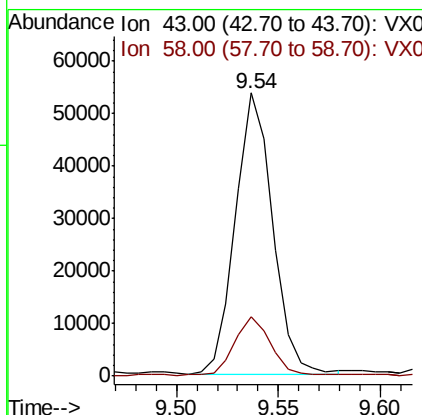
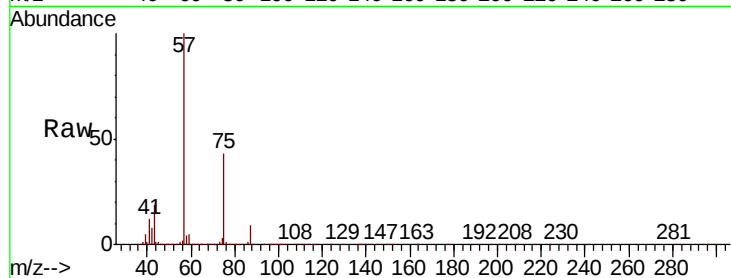




#59  
 2-Hexanone  
 Concen: 16.018 ug/l  
 RT: 9.54 min Scan# 1375  
 Delta R.T. 0.05 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

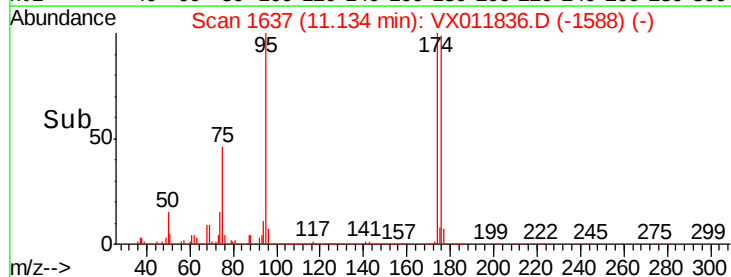
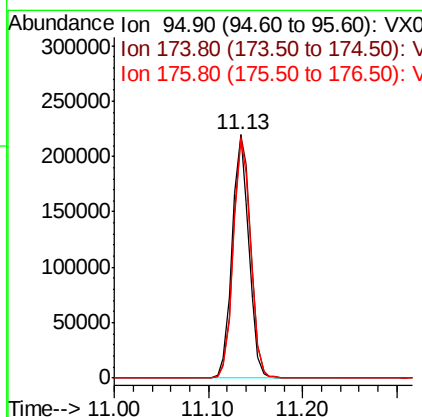
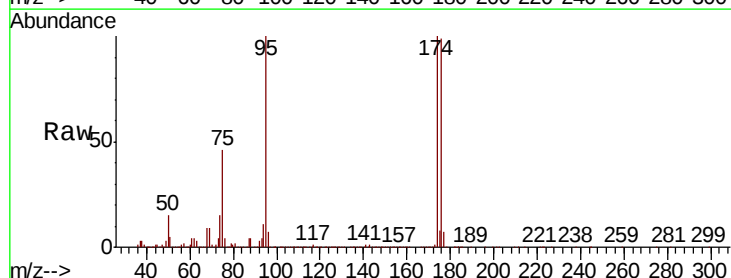
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 T1-2-K4-(2.5)

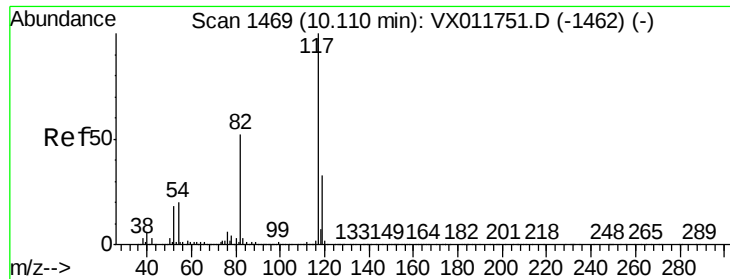
Tgt Ion: 43 Resp: 67945  
 Ion Ratio Lower Upper  
 43 100  
 58 20.0 27.7 83.1#



#62  
 4-Bromofluorobenzene  
 Concen: 48.602 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.00 min  
 Lab File: VX011836.D  
 Acq: 24 Aug 2019 22:07

Tgt Ion: 95 Resp: 270569  
 Ion Ratio Lower Upper  
 95 100  
 174 103.6 0.0 197.4  
 176 100.7 0.0 194.4

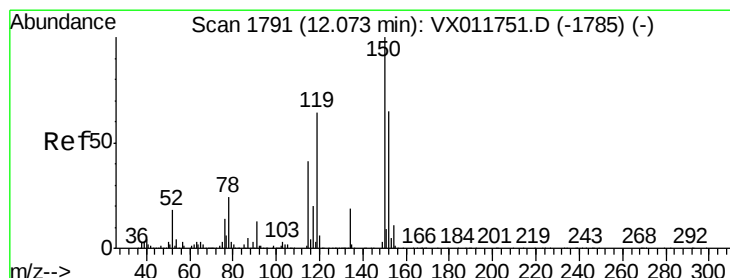
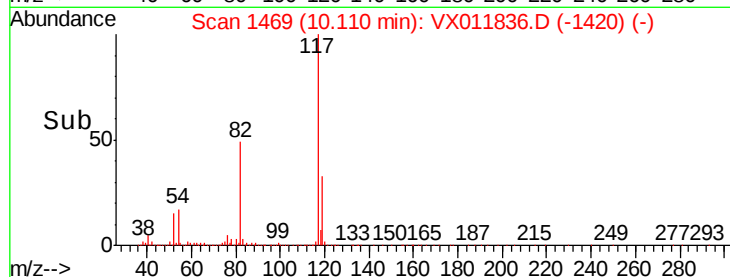
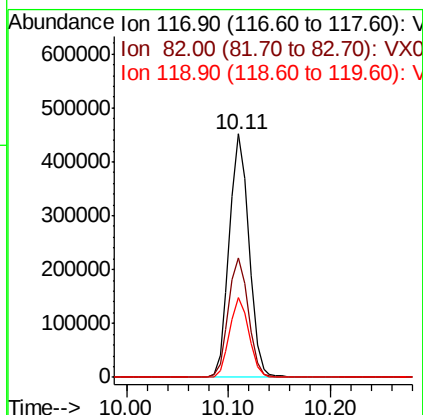
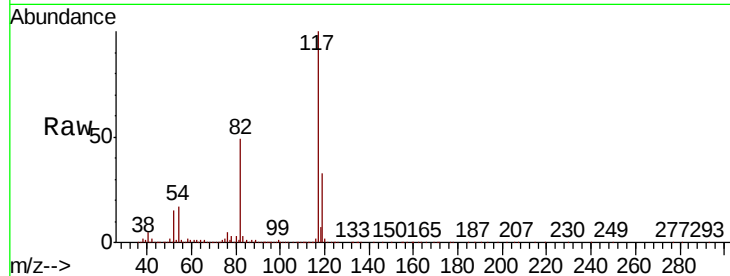




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. -0.00 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

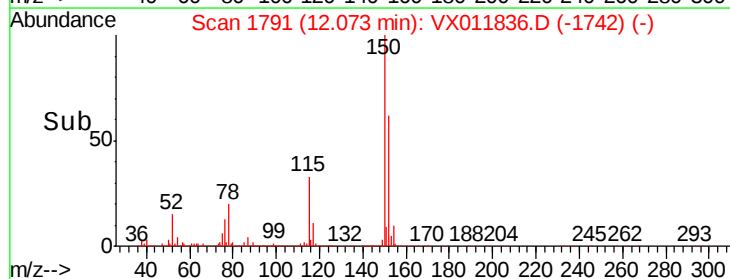
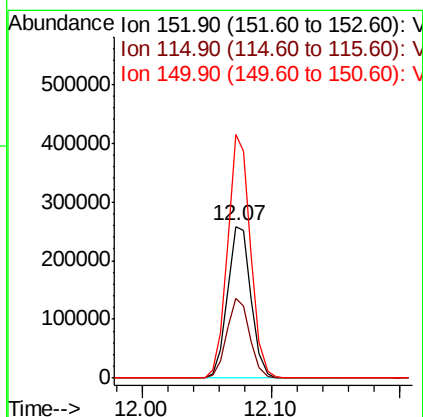
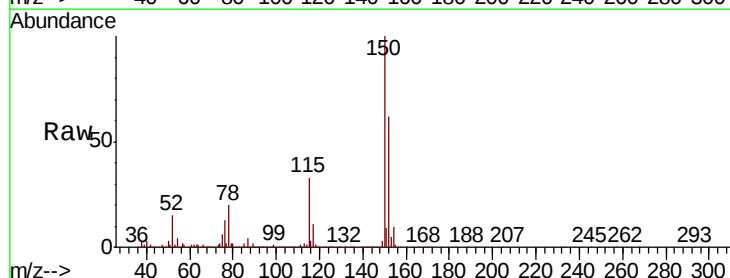
Instrument :  
MSVOA\_X  
ClientSampleId :  
T1-2-K4-(2.5)

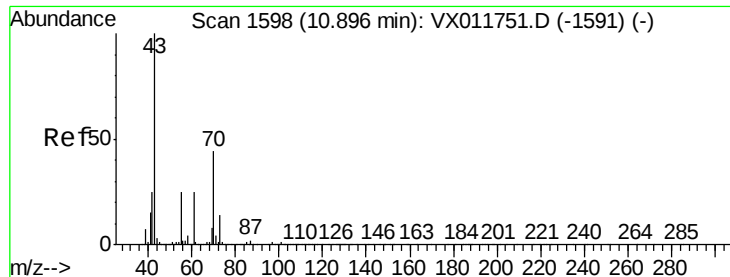
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 49.2  | 41.7  | 62.5  |
| 119     | 32.7  | 26.2  | 39.2  |



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.07 min Scan# 1791  
Delta R.T. -0.00 min  
Lab File: VX011836.D  
Acq: 24 Aug 2019 22:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 51.8  | 37.3  | 111.8 |
| 150     | 156.4 | 0.0   | 343.0 |





#74

N-amyI acetate

Concen: 0.349 ug/l

RT: 10.82 min Scan# 1586

Delta R.T. -0.07 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampleId :

T1-2-K4-(2.5)

Tgt Ion: 43 Resp: 2699

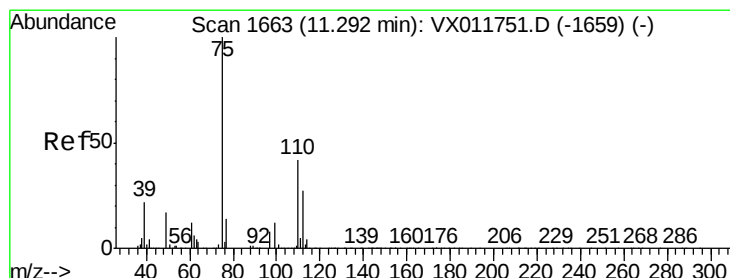
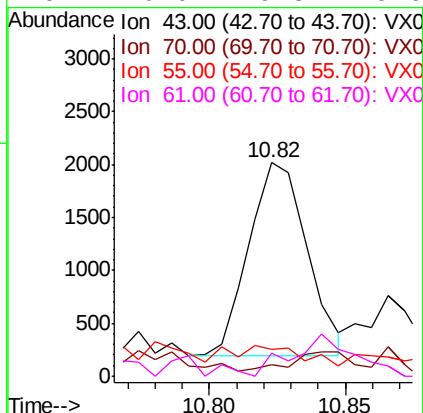
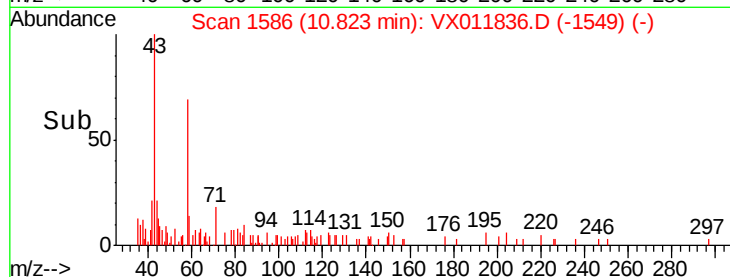
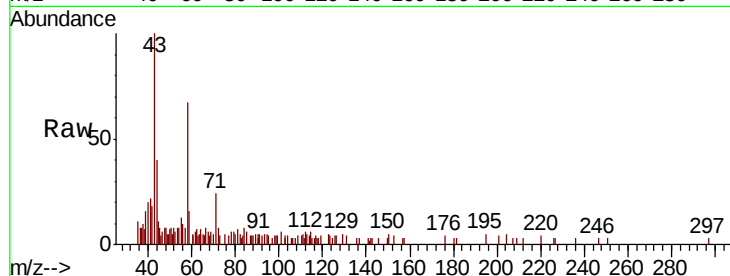
Ion Ratio Lower Upper

43 100

70 0.0 34.8 52.2#

55 12.7 19.5 29.3#

61 0.0 19.8 29.6#



#76

1,2,3-Trichloropropane

Concen: 21.308 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX011836.D

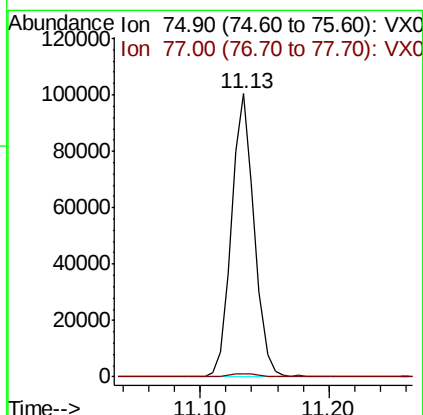
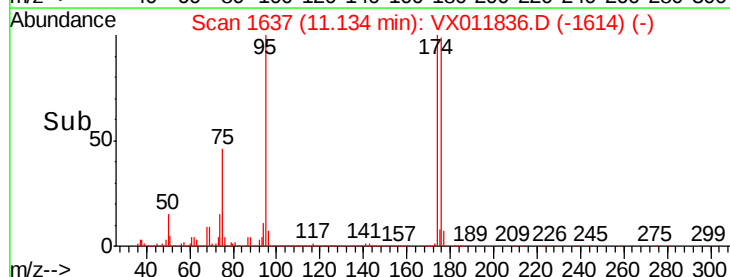
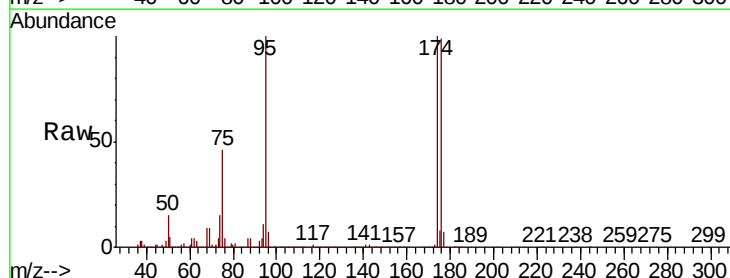
Acq: 24 Aug 2019 22:07

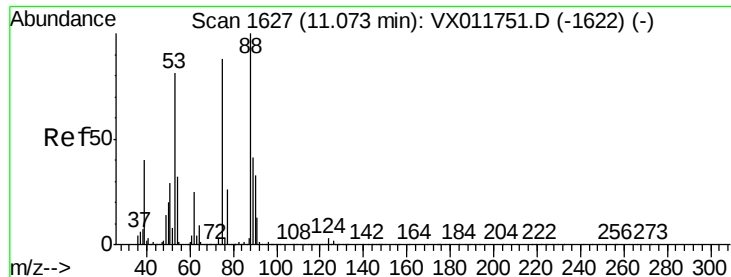
Tgt Ion: 75 Resp: 123958

Ion Ratio Lower Upper

75 100

77 1.5 21.1 63.3#





#81

trans-1,4-Dichloro-2-butene

Concen: 64.262 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

Instrument :

MSVOA\_X

ClientSampled :

T1-2-K4-(2.5)

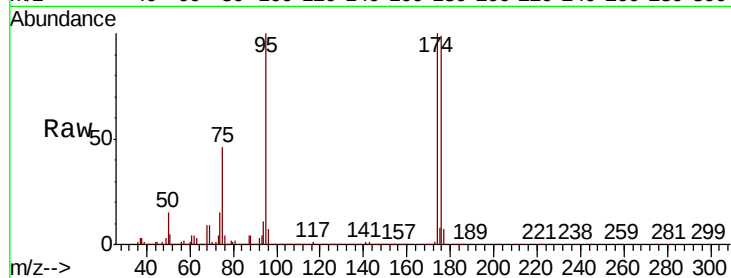
Tgt Ion: 75 Resp: 123958

Ion Ratio Lower Upper

75 100

53 0.2 77.1 115.7#

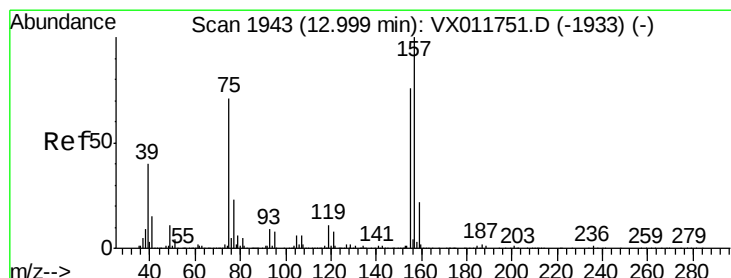
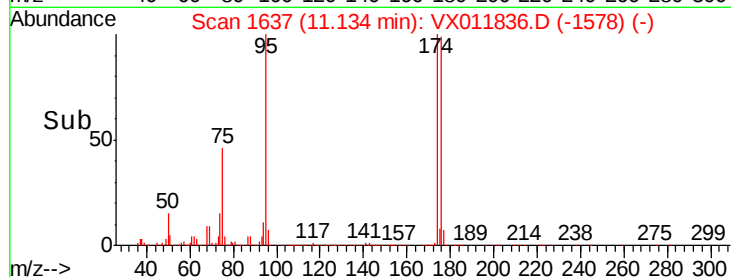
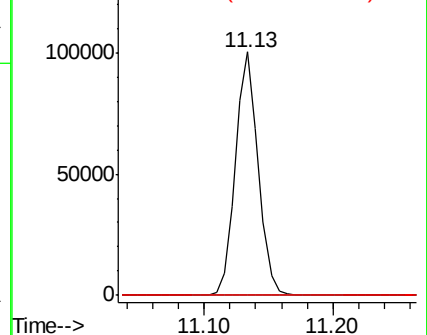
89 0.0 38.5 57.7#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.235 ug/l

RT: 13.00 min Scan# 1943

Delta R.T. -0.00 min

Lab File: VX011836.D

Acq: 24 Aug 2019 22:07

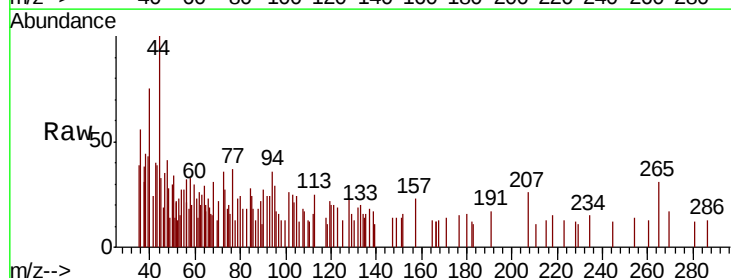
Tgt Ion: 75 Resp: 361

Ion Ratio Lower Upper

75 100

155 36.0 52.6 157.9#

157 42.1 68.3 204.9#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

