

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX090519\  
 Data File : VX012134.D  
 Acq On : 06 Sep 2019 07:59  
 Operator : SY/SP  
 Sample : K4580-09  
 Misc : 4.43g/5.0mL/MSVOA X/SOIL  
 ALS Vial : 47 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Sep 06 11:31:29 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X090319S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 03 15:26:48 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 148106   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 262704   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 221798   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 86810    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.05  | 65   | 103177   | 50.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.98% |          |
| 35) Dibromofluoromethane    | 5.48  | 113  | 77664    | 48.07 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.14%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 306592   | 51.72 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.44% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 114816   | 41.64 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.28%  |          |

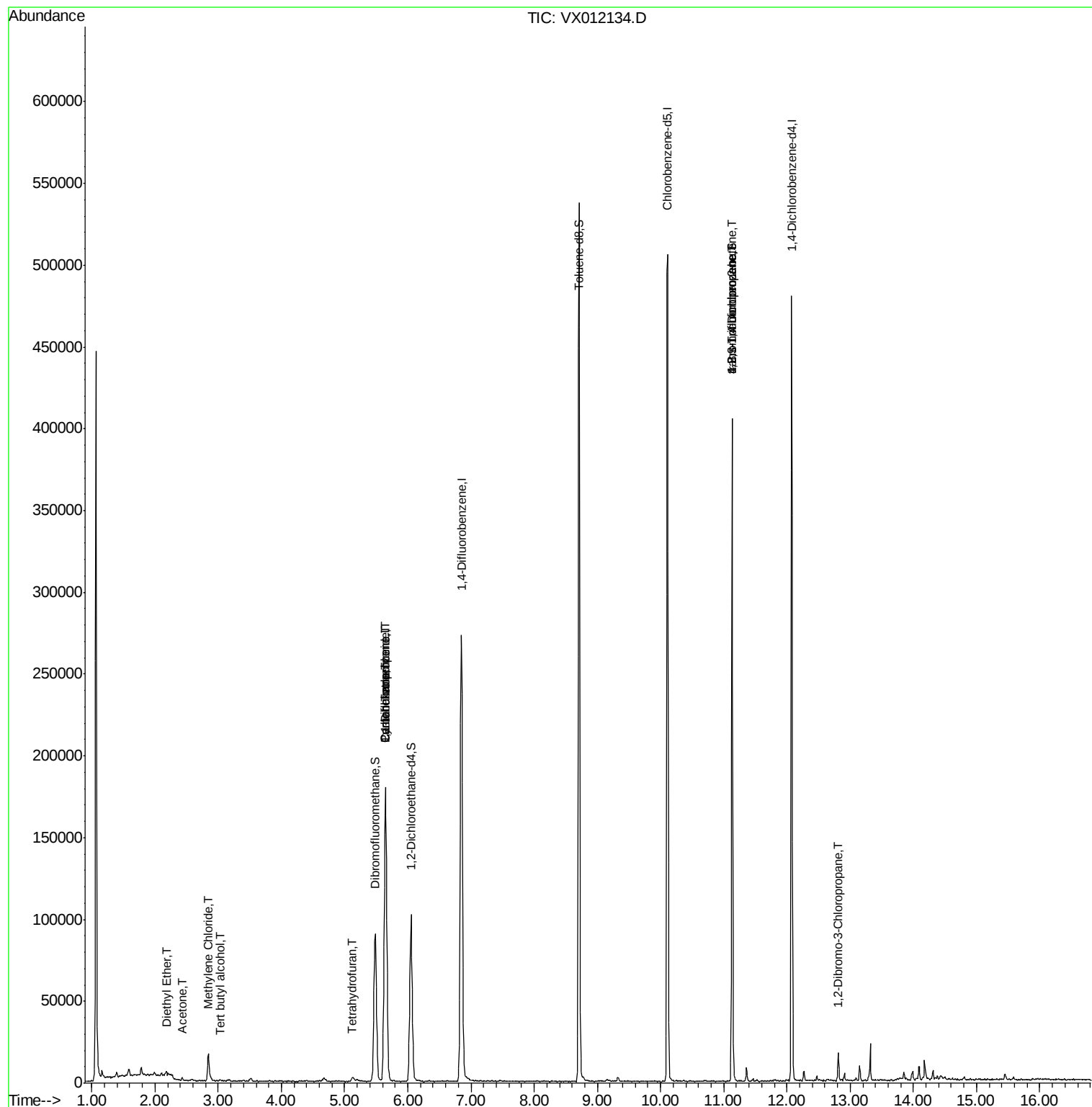
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 8) Diethyl Ether               | 2.17  | 74   | 782      | 1.107     | ug/l   | 82     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1154     | 5.879     | ug/l # | 84     |
| 13) Acrolein                   | 2.25  | 56   | 66       | Below Cal | #      | 1      |
| 16) Acetone                    | 2.43  | 43   | 1308     | 2.678     | ug/l   | 91     |
| 20) Methylene Chloride         | 2.84  | 84   | 7566     | 3.857     | ug/l   | 95     |
| 29) Tetrahydrofuran            | 5.12  | 42   | 2885     | 7.701     | ug/l   | 91     |
| 31) Cyclohexane                | 5.65  | 56   | 4469     | 1.784     | ug/l # | 8      |
| 36) 1,1-Dichloropropene        | 5.64  | 75   | 14161    | 6.120     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 5.64  | 117  | 17330    | 7.108     | ug/l # | 16     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 60658    | 57.188    | ug/l # | 32     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 60658    | 135.200   | ug/l # | 10     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.81 | 75   | 560      | 2.015     | ug/l # | 1      |

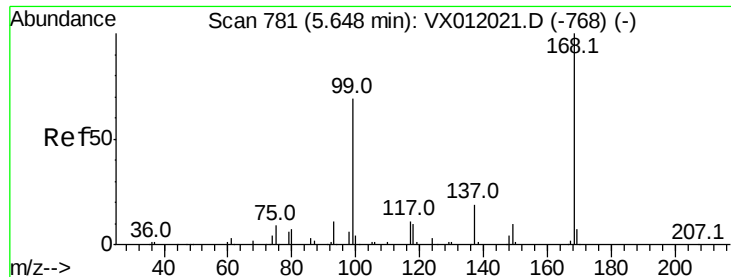
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX090519\  
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Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: Sep 06 11:31:29 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X090319S.M  
Quant Title : SW846 8260  
QLast Update : Tue Sep 03 15:26:48 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.00 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :

MSVOA\_X

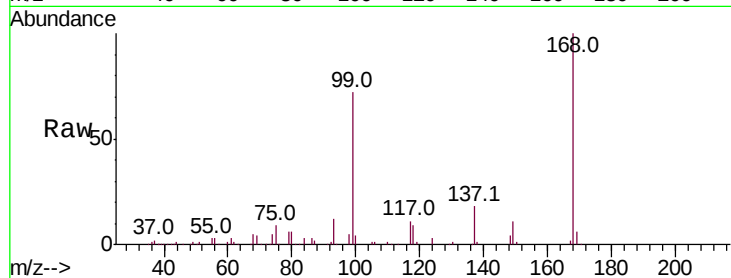
ClientSampleId :

Tot Ion:168 Resp: 148106

Ion Ratio Lower Upper

168 100

99 71.6 37.6 56.4#



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

60000

50000

40000

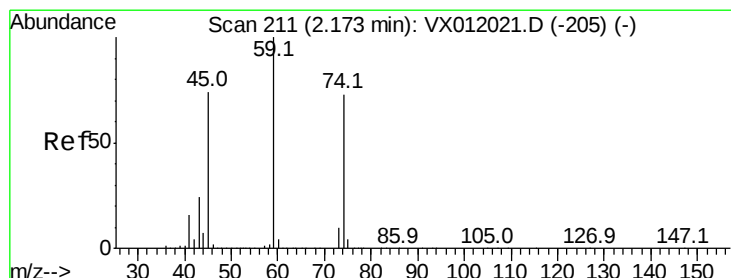
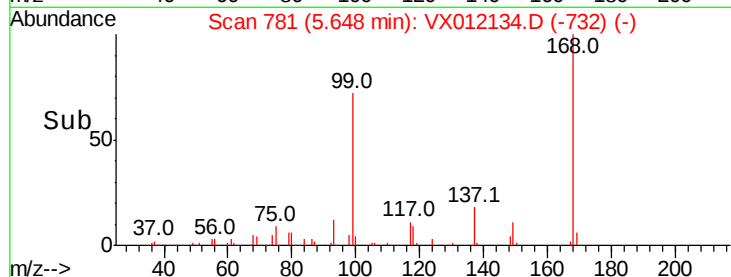
30000

20000

10000

0

Time--> 5.50 5.60 5.70 5.80



#8

Diethyl Ether

Concen: 1.107 ug/l

RT: 2.17 min Scan# 211

Delta R.T. -0.00 min

Lab File: VX012134.D

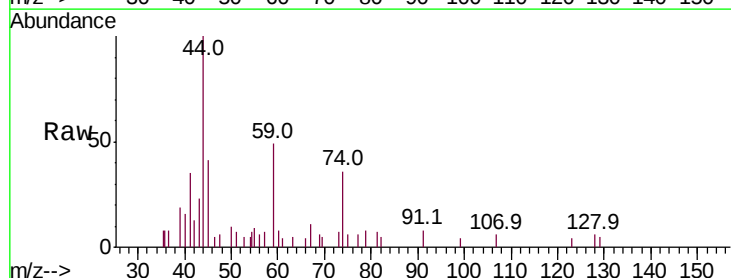
Acq: 06 Sep 2019 07:59

Tgt Ion: 74 Resp: 782

Ion Ratio Lower Upper

74 100

45 108.8 45.9 137.6



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0

2.17

600

500

400

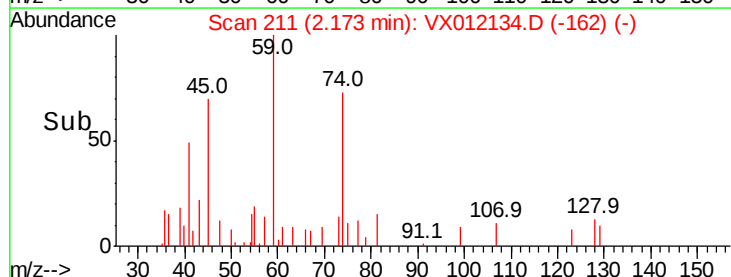
300

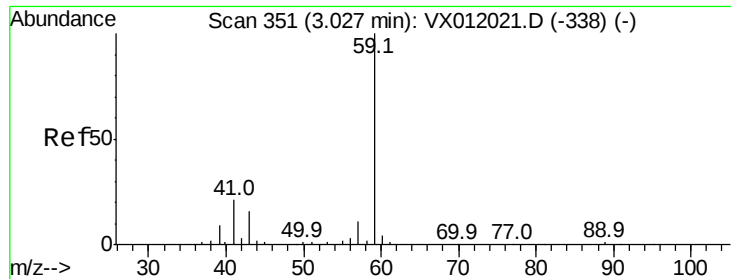
200

100

0

Time--> 2.10 2.15 2.20



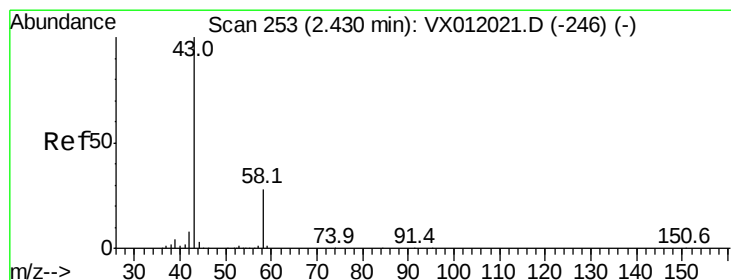
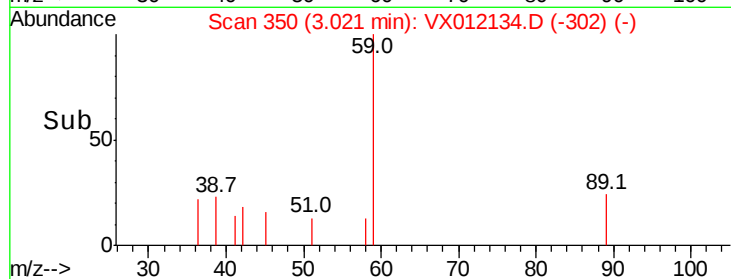
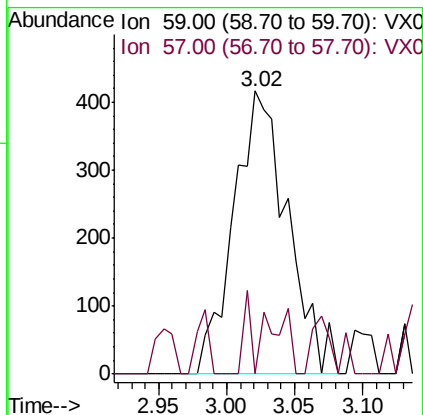
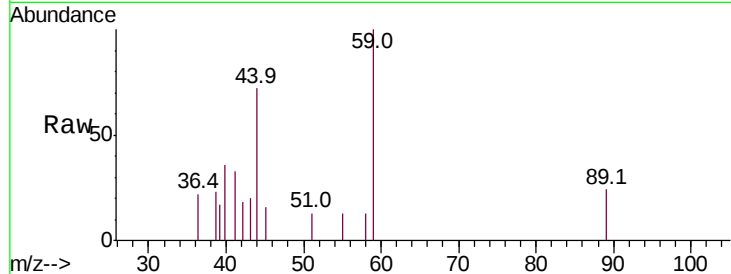


#11

Tert butyl alcohol  
 Concen: 5.879 ug/l  
 RT: 3.02 min Scan# 350  
 Delta R.T. -0.01 min  
 Lab File: VX012134.D  
 Acq: 06 Sep 2019 07:59

Instrument :  
 MSVOA\_X  
 ClientSampleId :

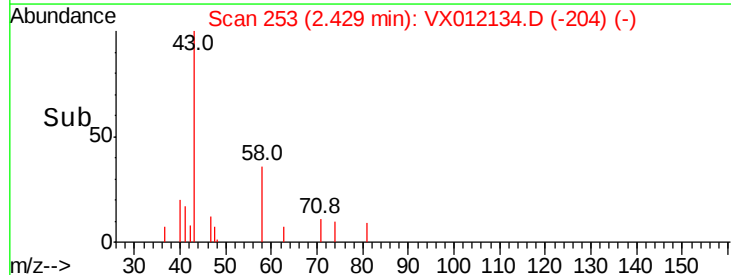
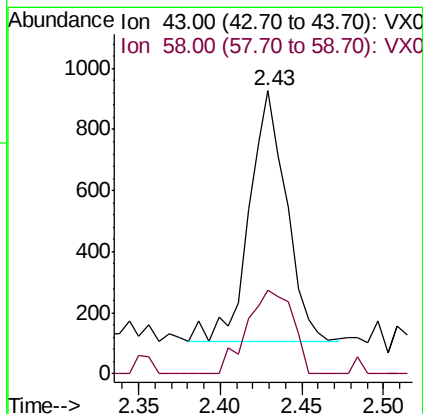
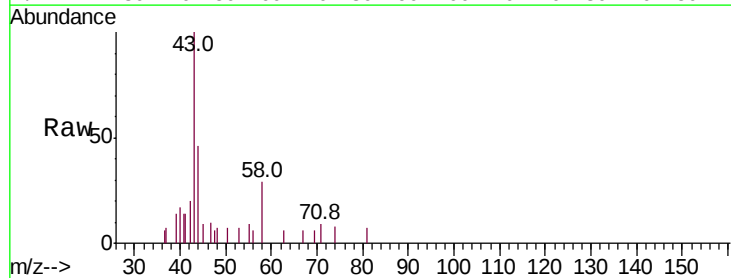
Tot Ion: 59 Resp: 1154  
 Ion Ratio Lower Upper  
 59 100  
 57 3.9 7.9 11.9#

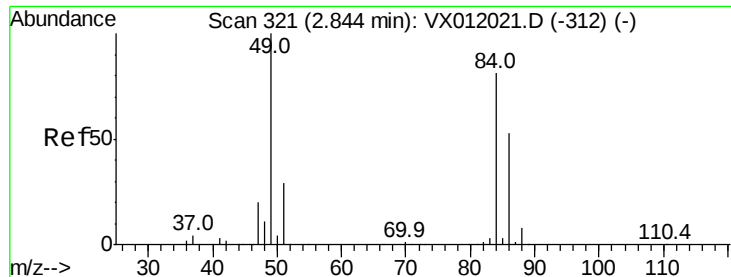


#16

Acetone  
 Concen: 2.678 ug/l  
 RT: 2.43 min Scan# 253  
 Delta R.T. -0.00 min  
 Lab File: VX012134.D  
 Acq: 06 Sep 2019 07:59

Tgt Ion: 43 Resp: 1308  
 Ion Ratio Lower Upper  
 43 100  
 58 33.1 22.8 34.2

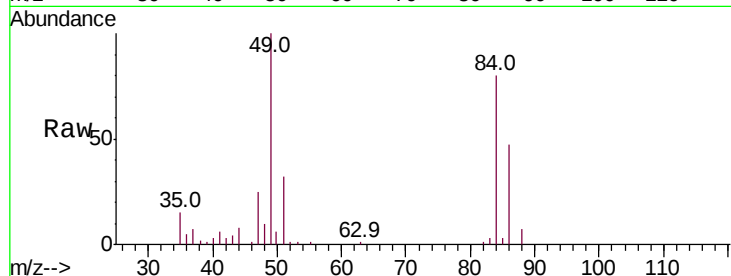




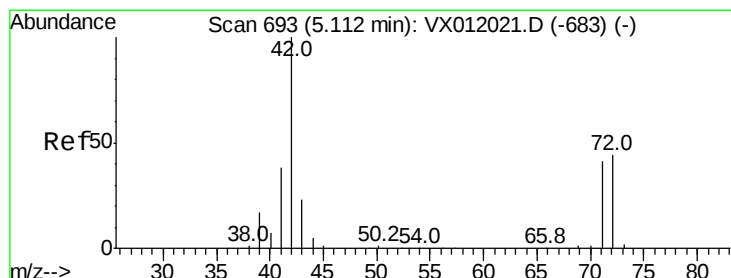
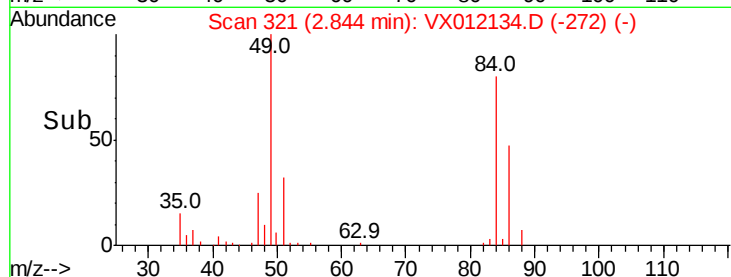
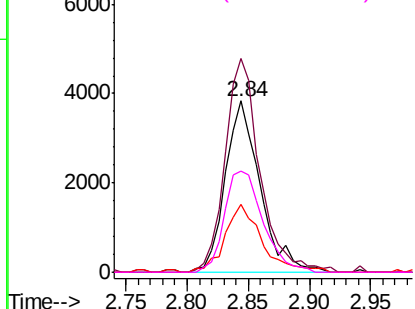
#20  
Methylene Chloride  
Concen: 3.857 ug/l  
RT: 2.84 min Scan# 321  
Delta R.T. -0.00 min  
Lab File: VX012134.D  
Acq: 06 Sep 2019 07:59

Instrument :  
MSVOA\_X  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 7566  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 124.6 | 95.8  | 143.8 |
| 51       | 39.5  | 28.6  | 43.0  |
| 86       | 59.0  | 50.9  | 76.3  |

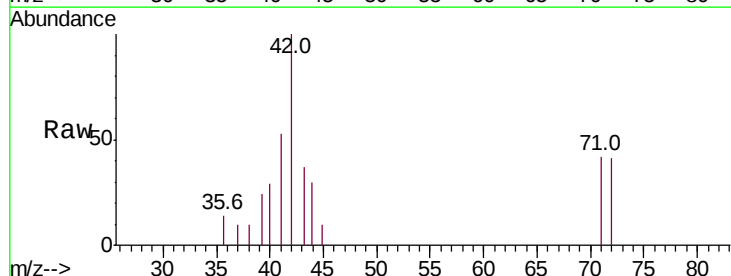


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

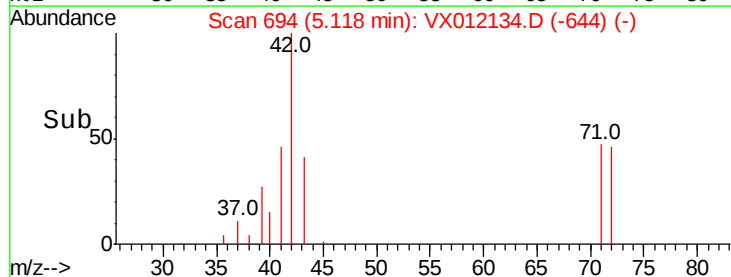
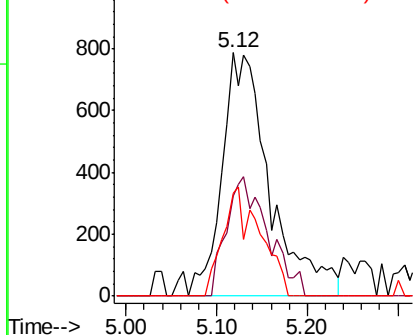


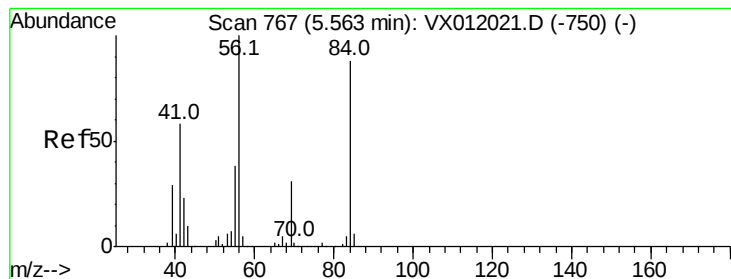
#29  
Tetrahydrofuran  
Concen: 7.701 ug/l  
RT: 5.12 min Scan# 694  
Delta R.T. 0.01 min  
Lab File: VX012134.D  
Acq: 06 Sep 2019 07:59

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 2885  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 42.4  | 37.0  | 55.4  |
| 71       | 34.6  | 33.8  | 50.8  |



Abundance Ion 42.00 (41.70 to 42.70): VX0  
Ion 72.00 (71.70 to 72.70): VX0  
Ion 71.00 (70.70 to 71.70): VX0





#31

Cyclohexane

Concen: 1.784 ug/l

RT: 5.65 min Scan# 781

Delta R.T. 0.09 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :  
MSVOA\_X  
ClientSampled :

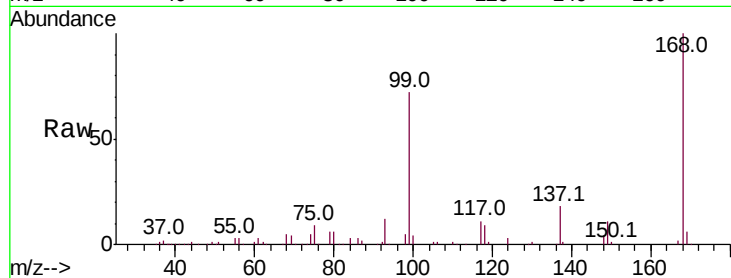
Tot Ion: 56 Resp: 4469

Ion Ratio Lower Upper

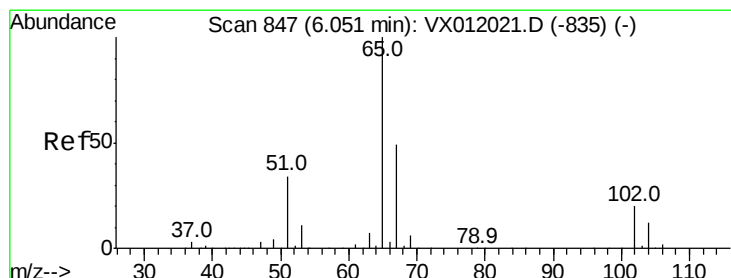
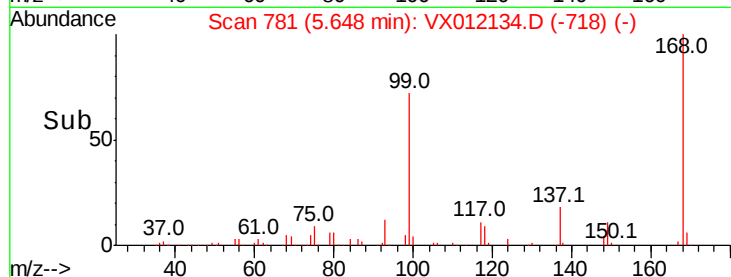
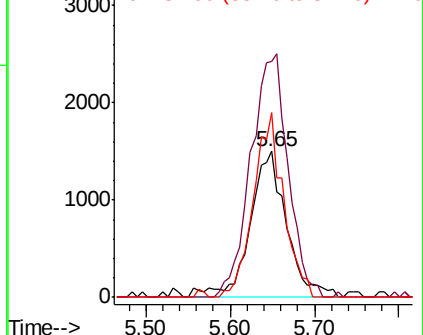
56 100

69 161.3 25.7 38.5#

84 126.5 70.3 105.5#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0



#33

1,2-Dichloroethane-d4

Concen: 50.489 ug/l

RT: 6.05 min Scan# 847

Delta R.T. -0.00 min

Lab File: VX012134.D

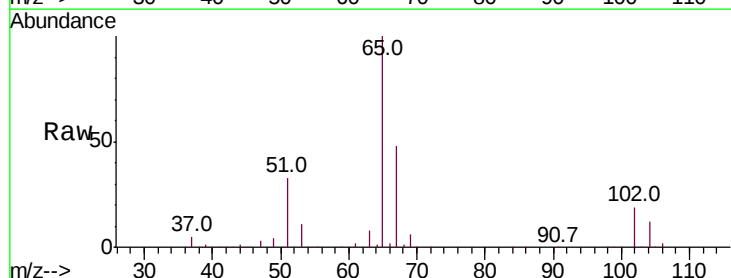
Acq: 06 Sep 2019 07:59

Tgt Ion: 65 Resp: 103177

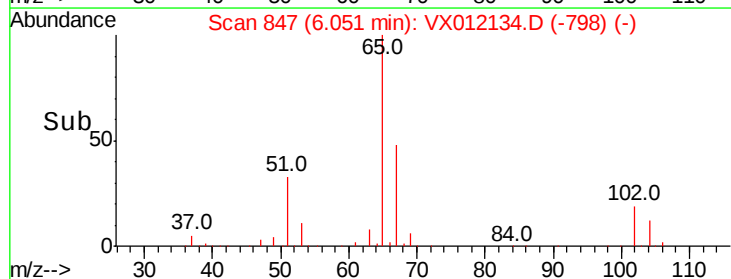
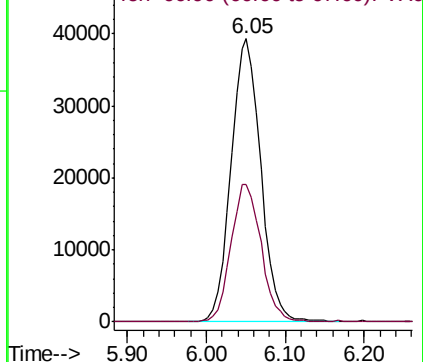
Ion Ratio Lower Upper

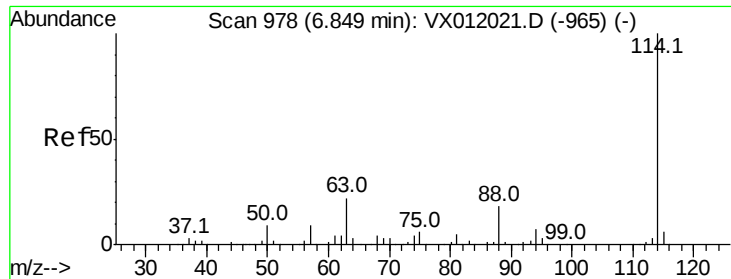
65 100

67 49.3 0.0 102.0



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

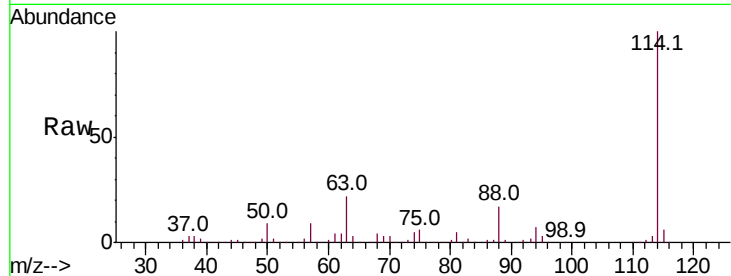




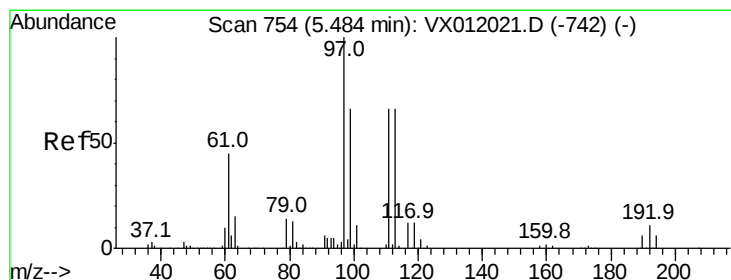
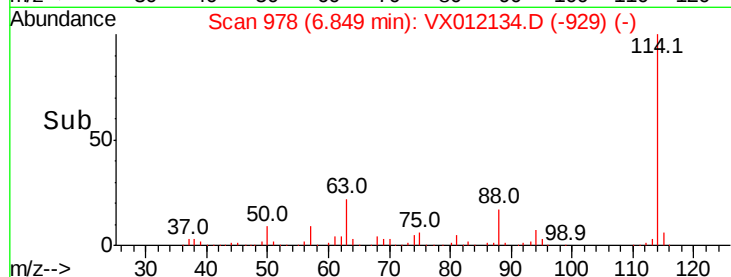
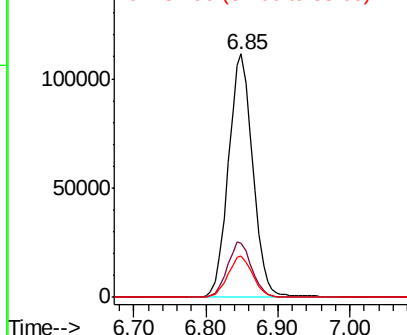
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.85 min Scan# 978  
 Delta R.T. -0.00 min  
 Lab File: VX012134.D  
 Acq: 06 Sep 2019 07:59

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion:114 Resp: 262704  
 Ion Ratio Lower Upper  
 114 100  
 63 22.1 0.0 37.4  
 88 17.0 0.0 29.6

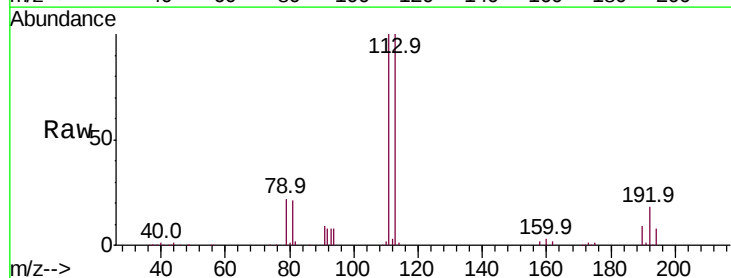


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VX0  
 Ion 87.90 (87.60 to 88.60): VX0

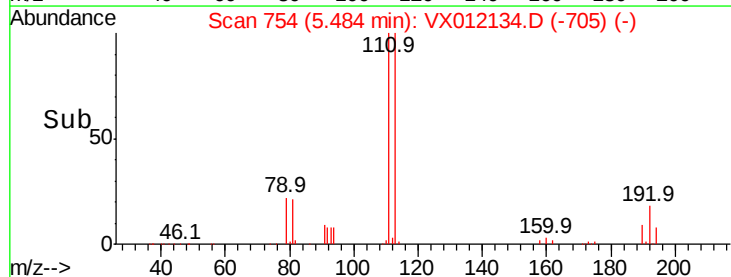
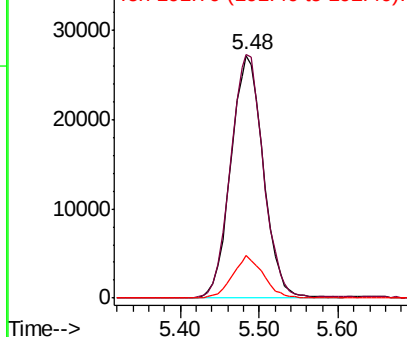


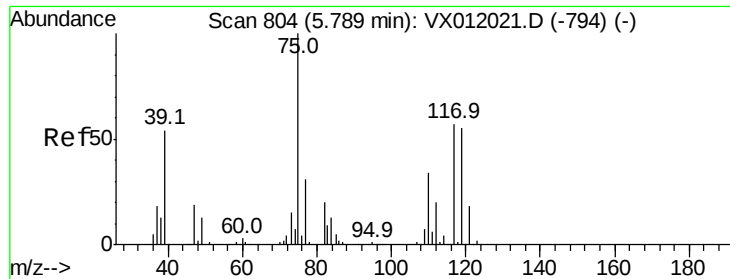
#35  
 Dibromofluoromethane  
 Concen: 48.073 ug/l  
 RT: 5.48 min Scan# 754  
 Delta R.T. -0.00 min  
 Lab File: VX012134.D  
 Acq: 06 Sep 2019 07:59

Tgt Ion:113 Resp: 77664  
 Ion Ratio Lower Upper  
 113 100  
 111 101.4 81.7 122.5  
 192 16.7 22.5 33.7#



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: 6.120 ug/l

RT: 5.64 min Scan# 780

Delta R.T. -0.15 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :  
MSVOA\_X  
ClientSampleId :

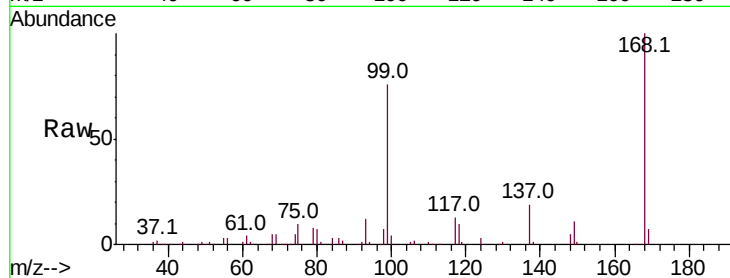
Tot Ion: 75 Resp: 14161

Ion Ratio Lower Upper

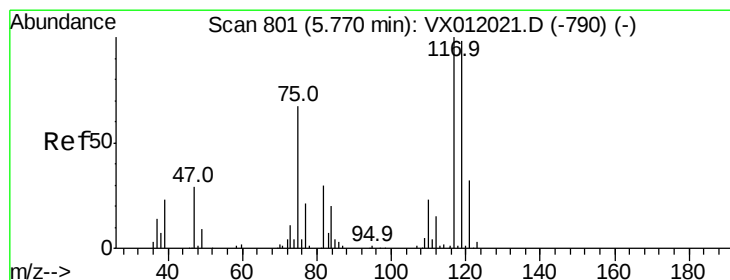
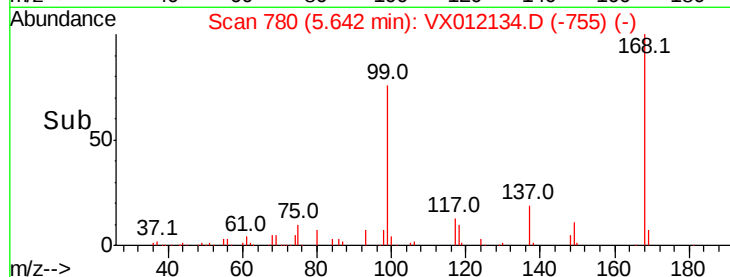
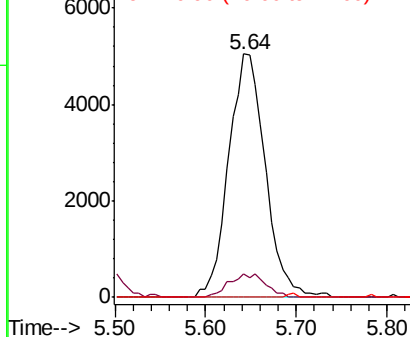
75 100

110 9.7 19.5 58.5#

77 0.0 24.6 37.0#



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: 7.108 ug/l

RT: 5.64 min Scan# 780

Delta R.T. -0.13 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

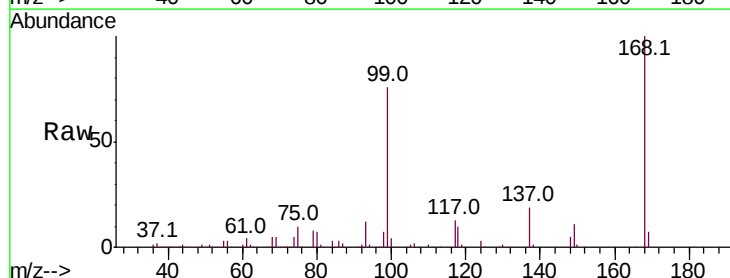
Tgt Ion: 117 Resp: 17330

Ion Ratio Lower Upper

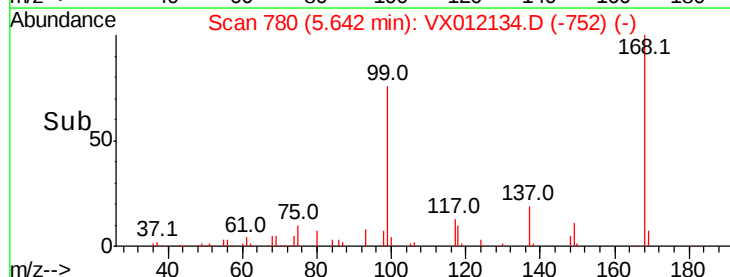
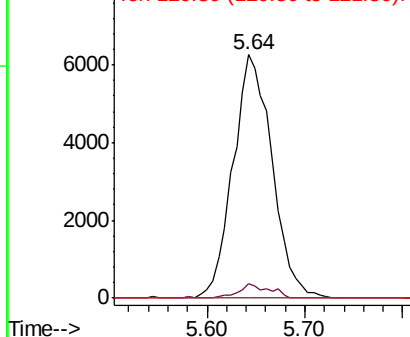
117 100

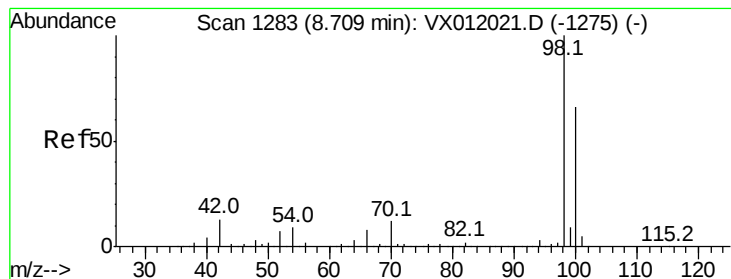
119 6.1 78.3 117.5#

121 0.0 24.2 36.2#



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





#50

Toluene-d8

Concen: 51.716 ug/l

RT: 8.71 min Scan# 1283

Delta R.T. -0.00 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :

MSVOA\_X

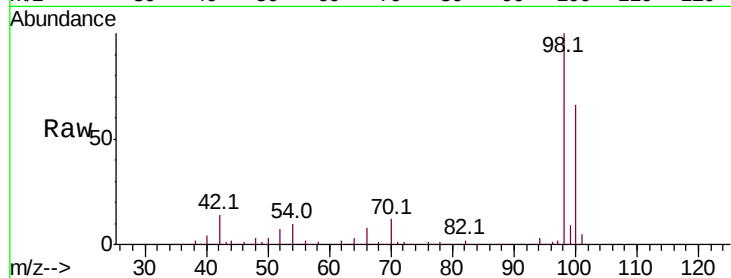
ClientSampleId :

Tot Ion: 98 Resp: 306592

Ion Ratio Lower Upper

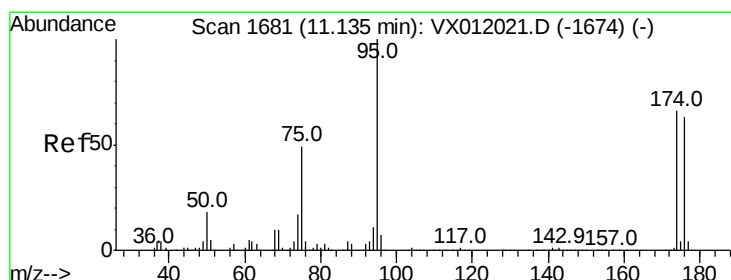
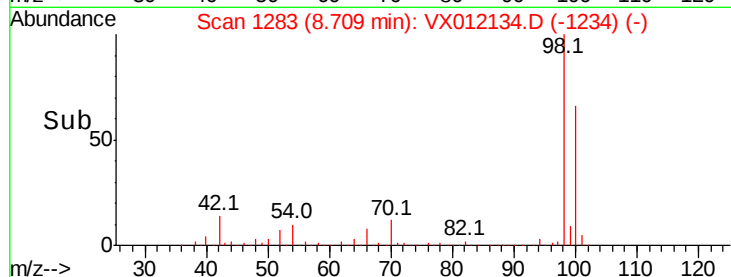
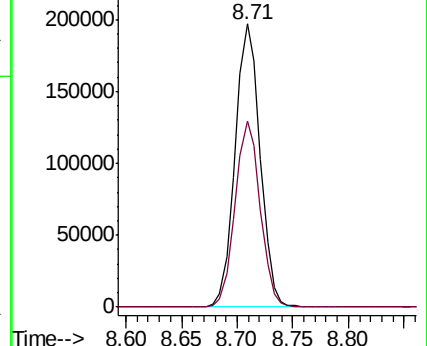
98 100

100 66.0 53.3 79.9



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V



#62

4-Bromofluorobenzene

Concen: 41.645 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. -0.00 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

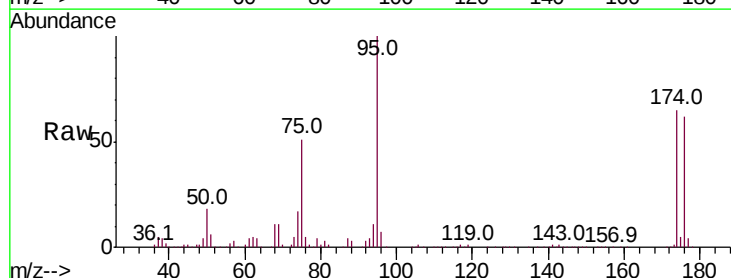
Tgt Ion: 95 Resp: 114816

Ion Ratio Lower Upper

95 100

174 62.7 0.0 205.4

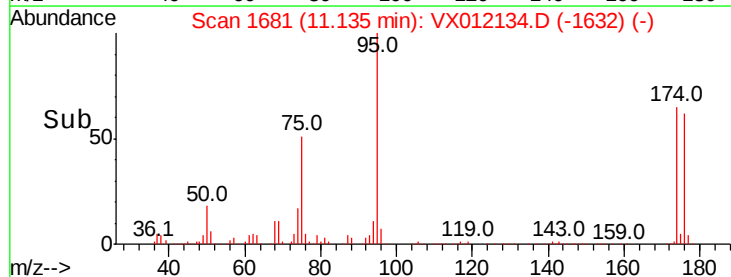
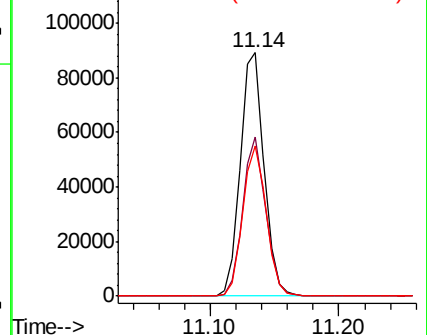
176 60.8 0.0 201.8

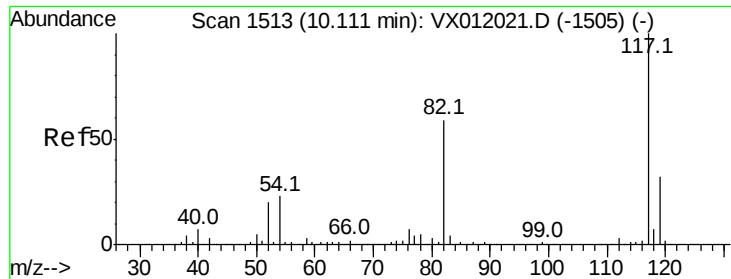


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

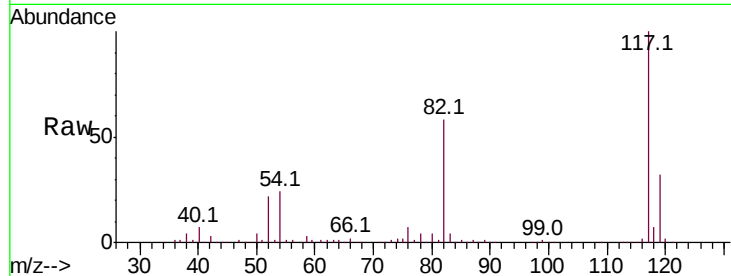




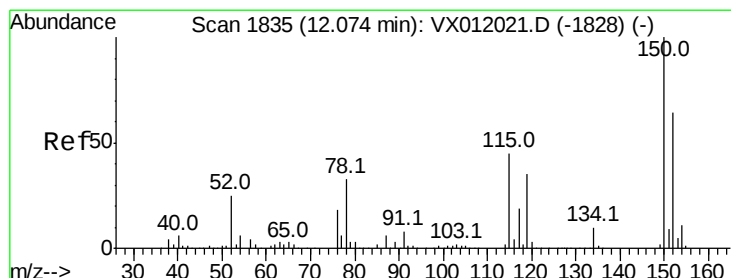
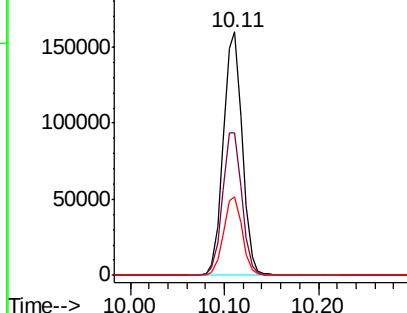
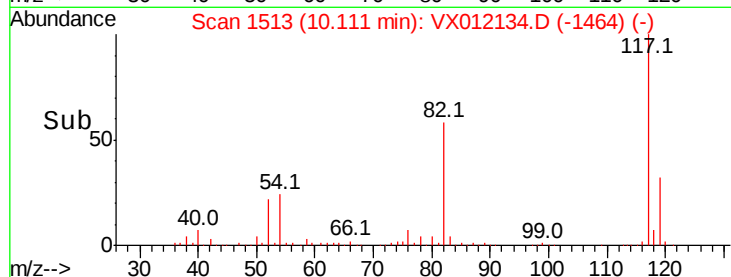
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. -0.00 min  
Lab File: VX012134.D  
Acq: 06 Sep 2019 07:59

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:117 Resp: 221798  
Ion Ratio Lower Upper  
117 100  
82 58.4 39.4 59.0  
119 32.3 26.1 39.1

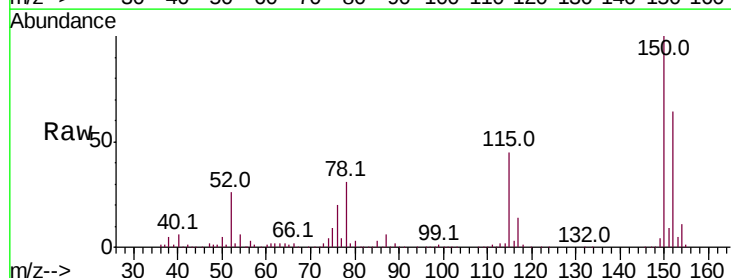


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

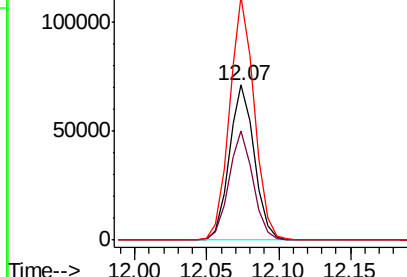
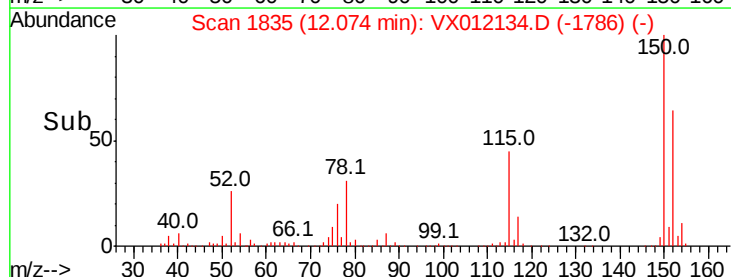


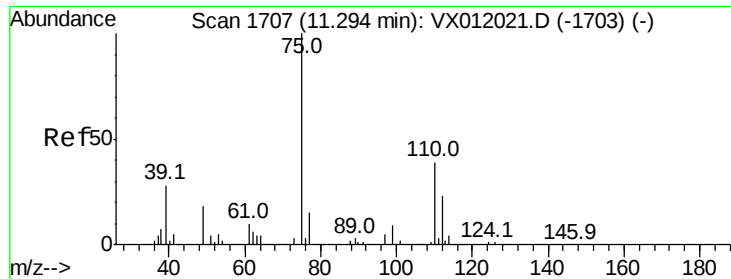
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.07 min Scan# 1835  
Delta R.T. -0.00 min  
Lab File: VX012134.D  
Acq: 06 Sep 2019 07:59

Tgt Ion:152 Resp: 86810  
Ion Ratio Lower Upper  
152 100  
115 68.6 36.4 109.3  
150 155.5 0.0 341.2



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





#76

1,2,3-Trichloropropane

Concen: 57.188 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :

MSVOA\_X

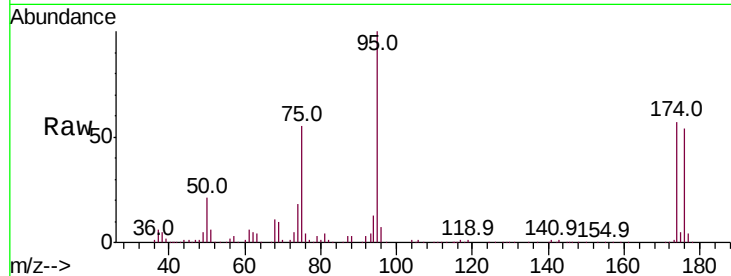
ClientSampleId :

Tot Ion: 75 Resp: 60658

Ion Ratio Lower Upper

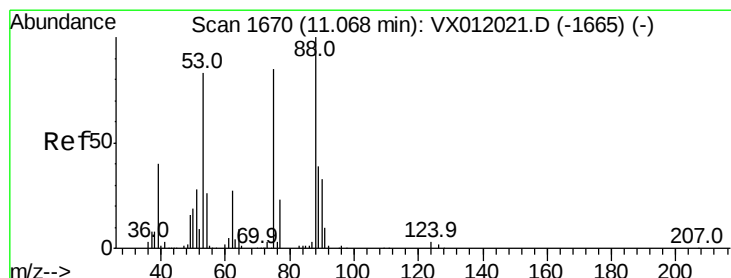
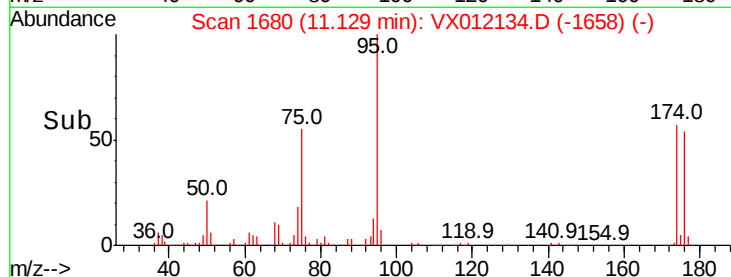
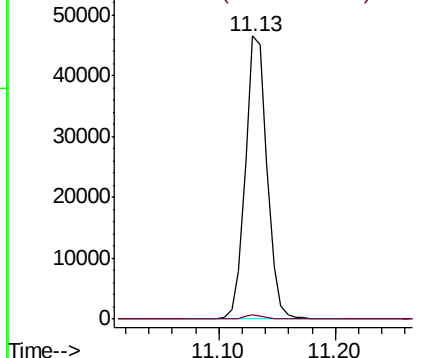
75 100

77 1.4 23.5 70.5#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0



#81

trans-1,4-Dichloro-2-butene

Concen: 135.200 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

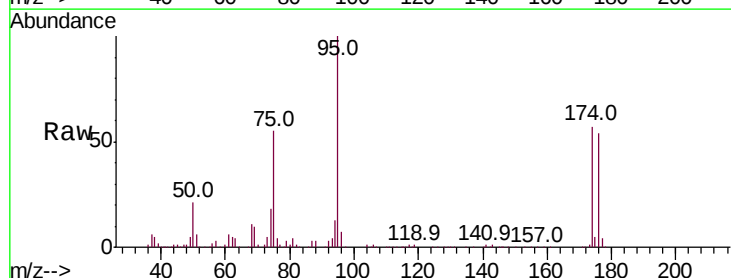
Tgt Ion: 75 Resp: 60658

Ion Ratio Lower Upper

75 100

53 0.1 78.6 117.8#

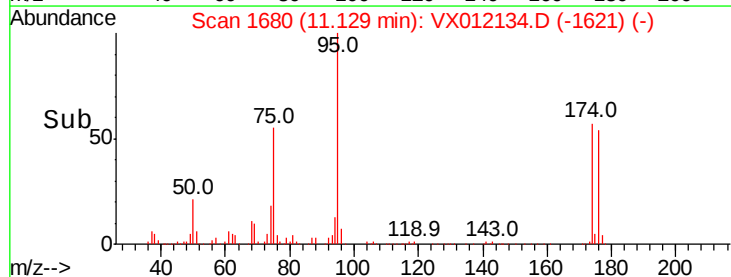
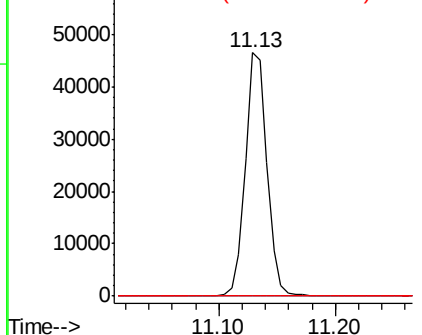
89 0.0 38.8 58.2#

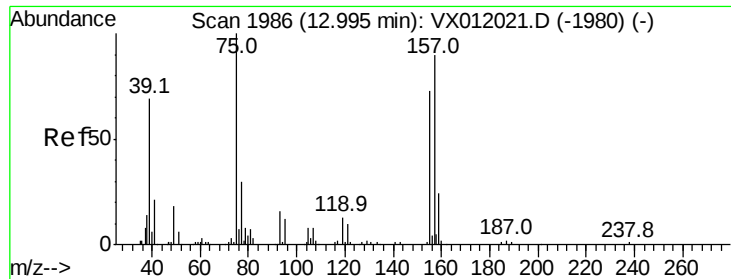


Abundance Ion 74.90 (74.60 to 75.60): VX0

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: 2.015 ug/l

RT: 12.81 min Scan# 1956

Delta R.T. -0.18 min

Lab File: VX012134.D

Acq: 06 Sep 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

Tot Ion: 75 Resp: 560

Ion Ratio Lower Upper

75 100

155 9.1 51.7 155.2#

157 0.0 66.9 200.7#

