

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX070318\  
 Data File : VX003160.D  
 Acq On : 03 Jul 2018 20:20  
 Operator : JC/MD  
 Sample : J3814-03  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jul 04 03:19:22 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X062518W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jun 25 14:38:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 262814   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 361003   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 338905   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 193197   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 169764   | 46.73 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.46% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 141281   | 49.42 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.84% |          |
| 50) Toluene-d8              | 8.72  | 98   | 513026   | 49.14 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.28% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 179293   | 44.53 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.06% |          |

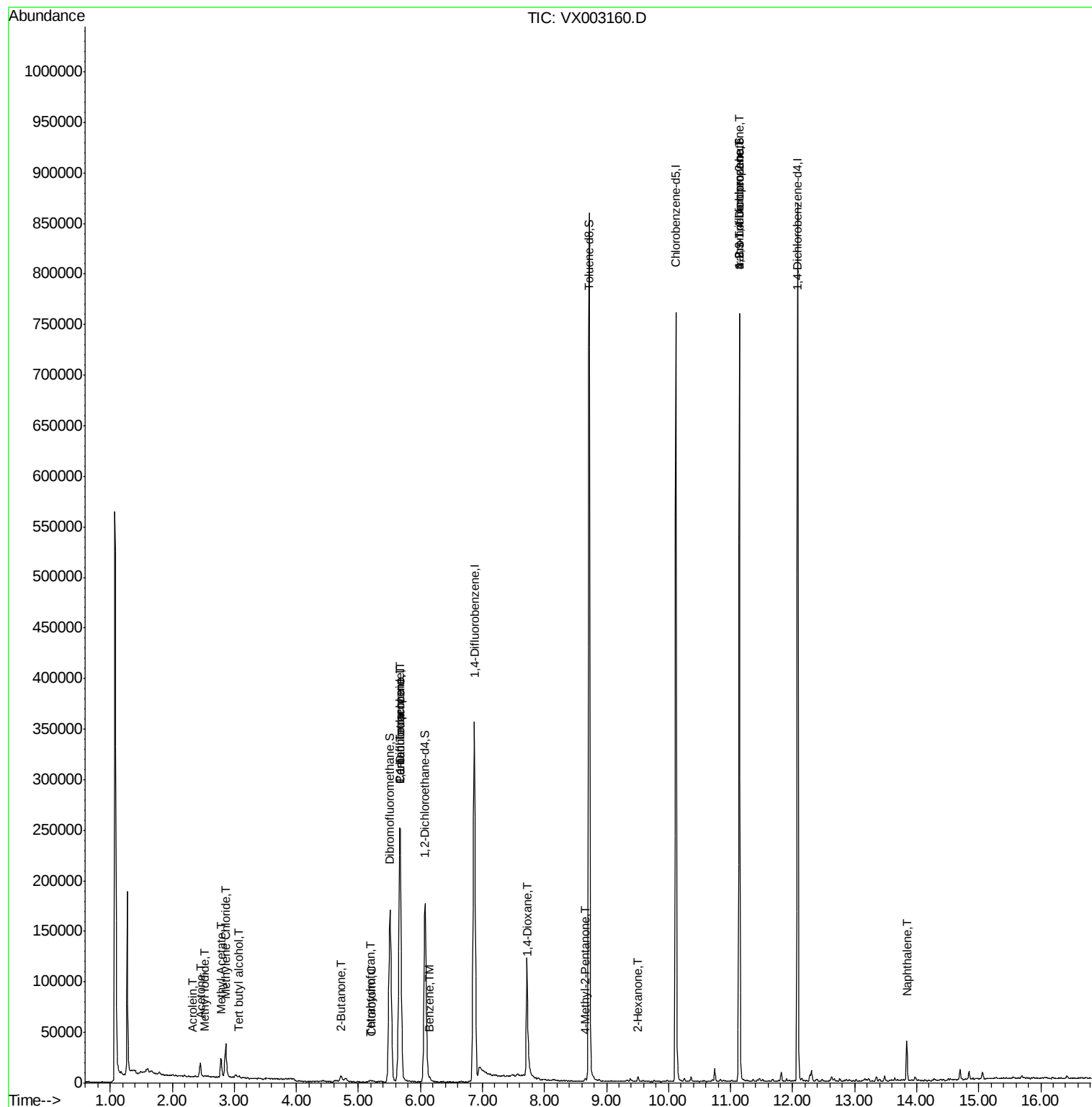
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|--------------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.20  | 85   | 68       | Below Cal | #     | 43     |
| 3) Chloromethane               | 1.32  | 50   | 731      | Below Cal | #     | 85     |
| 5) Bromomethane                | 1.66  | 94   | 2109     | Below Cal |       | 98     |
| 6) Chloroethane                | 1.75  | 64   | 311      | Below Cal | #     | 43     |
| 10) Methyl Iodide              | 2.52  | 142  | 1625     | 6.71      | ug/l  | # 90   |
| 11) Tert butyl alcohol         | 3.08  | 59   | 1712     | 2.37      | ug/l  | # 91   |
| 13) Acrolein                   | 2.32  | 56   | 301      | 4.97      | ug/l  | # 14   |
| 16) Acetone                    | 2.45  | 43   | 14712    | 9.78      | ug/l  | 100    |
| 18) Methyl Acetate             | 2.78  | 43   | 23510    | 5.59      | ug/l  | 95     |
| 20) Methylene Chloride         | 2.86  | 84   | 15753    | 5.38      | ug/l  | 93     |
| 25) 2-Butanone                 | 4.71  | 43   | 9600     | 4.30      | ug/l  | 93     |
| 29) Tetrahydrofuran            | 5.18  | 42   | 816      | 0.57      | ug/l  | # 87   |
| 30) Chloroform                 | 5.22  | 83   | 1097     | 0.20      | ug/l  | 98     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 16865    | 4.26      | ug/l  | # 45   |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 23430    | 5.39      | ug/l  | # 16   |
| 40) Benzene                    | 6.15  | 78   | 3926     | 0.34      | ug/l  | 97     |
| 49) 1,4-Dioxane                | 7.73  | 88   | 20       | 0.28      | ug/l  | # 1    |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 1309     | 0.29      | ug/l  | # 74   |
| 59) 2-Hexanone                 | 9.51  | 43   | 2507     | 0.74      | ug/l  | 88     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 91470    | 26.14     | ug/l  | # 33   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 91470    | 74.10     | ug/l  | # 7    |
| 95) Naphthalene                | 13.84 | 128  | 25464    | 1.93      | ug/l  | 99     |

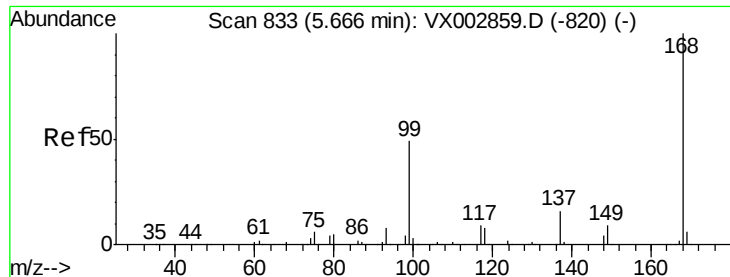
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X062518W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jun 25 14:38:05 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.01 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

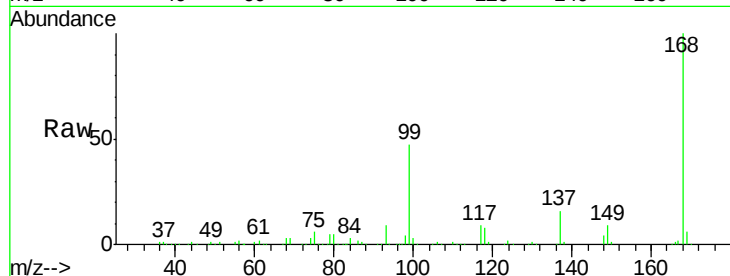
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion:168 Resp: 262814

Ion Ratio Lower Upper

168 100

99 46.6 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

100000

80000

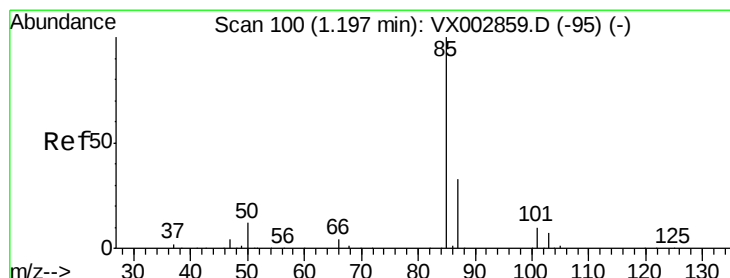
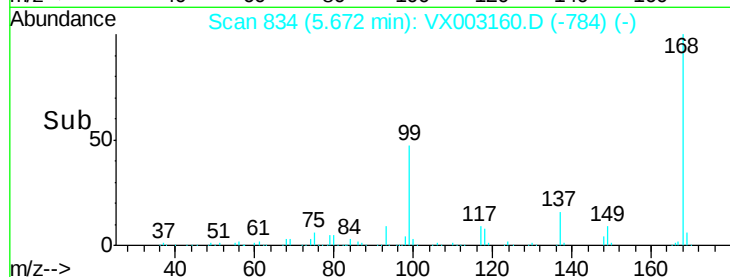
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80 5.90



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.20 min Scan# 101

Delta R.T. 0.01 min

Lab File: VX003160.D

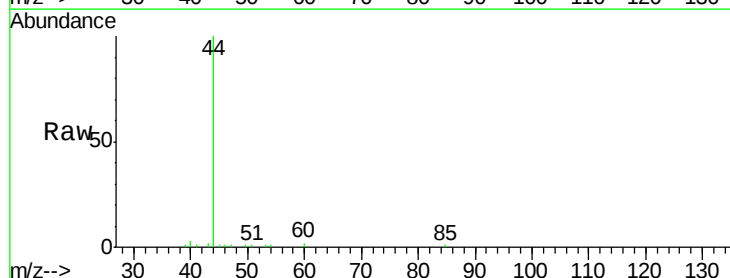
Acq: 03 Jul 2018 20:20

Tgt Ion: 85 Resp: 68

Ion Ratio Lower Upper

85 100

87 0.0 16.0 47.9#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.20

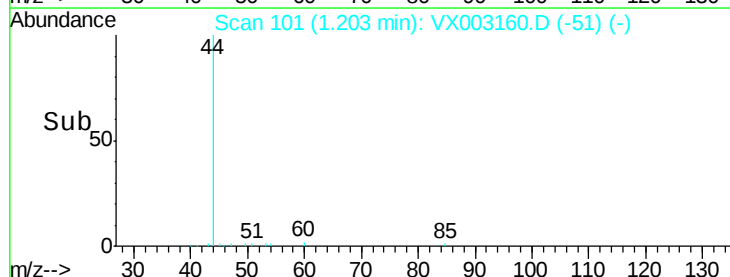
60

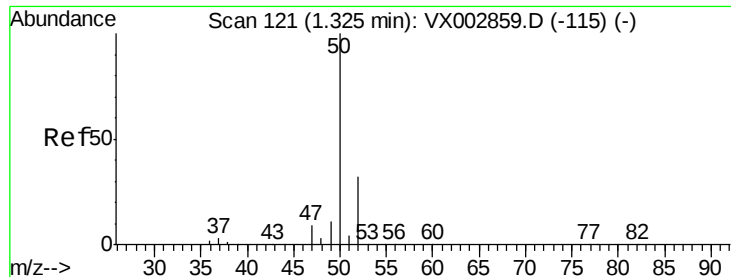
40

20

0

Time--> 1.18 1.20 1.22





#3

Chloromethane

Concen: Below Cal

RT: 1.32 min Scan# 121

Delta R.T. 0.00 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

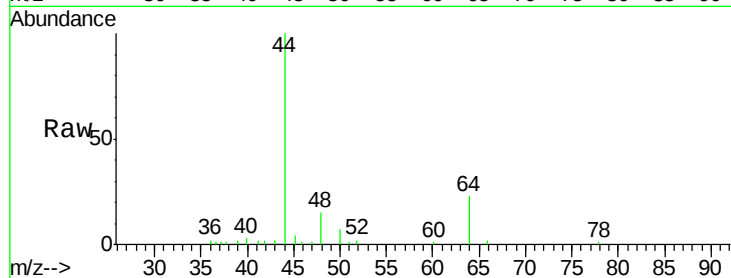
ClientSampleId :

Tot Ion: 50 Resp: 731

Ion Ratio Lower Upper

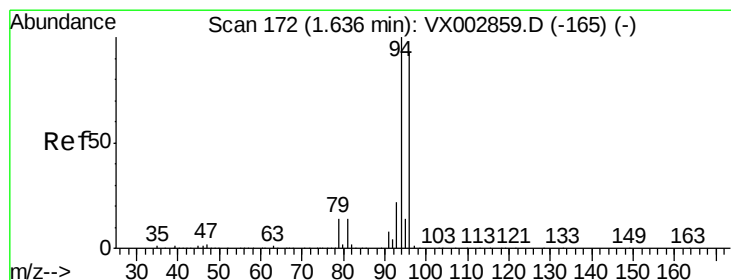
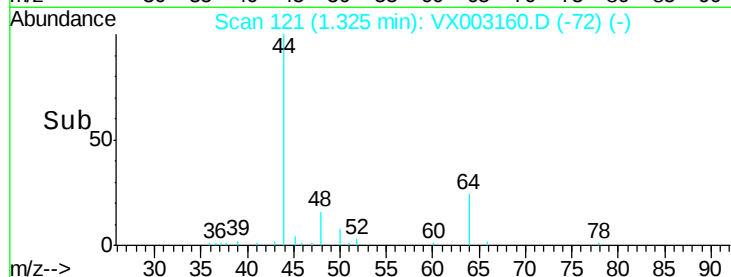
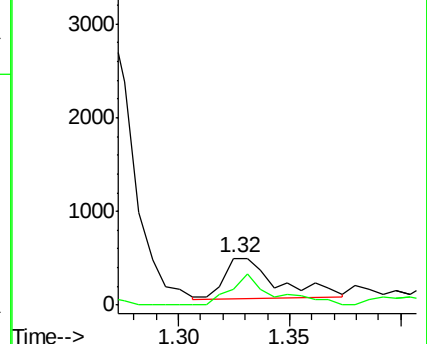
50 100

52 40.7 25.7 38.5#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0



#5

Bromomethane

Concen: Below Cal

RT: 1.66 min Scan# 176

Delta R.T. 0.03 min

Lab File: VX003160.D

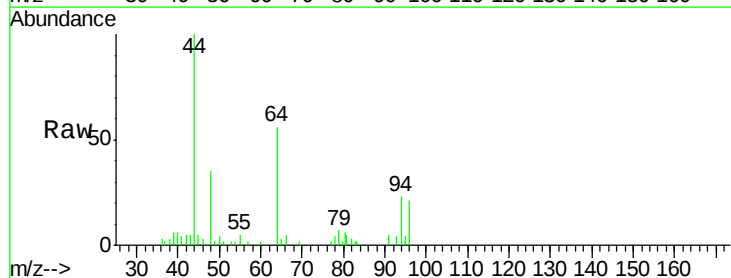
Acq: 03 Jul 2018 20:20

Tgt Ion: 94 Resp: 2109

Ion Ratio Lower Upper

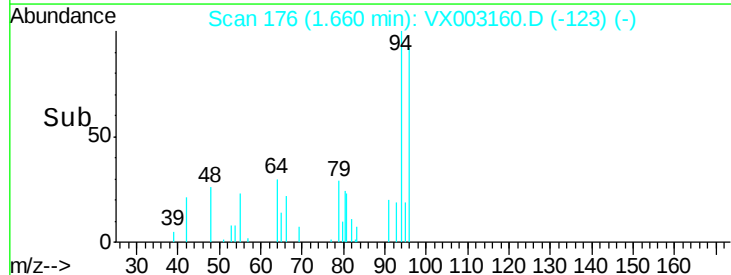
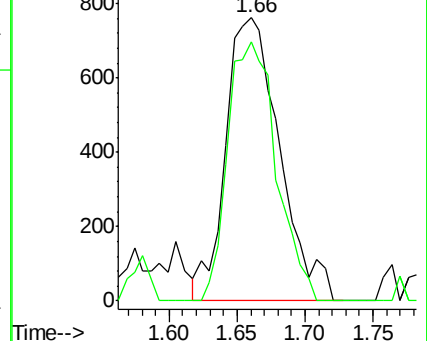
94 100

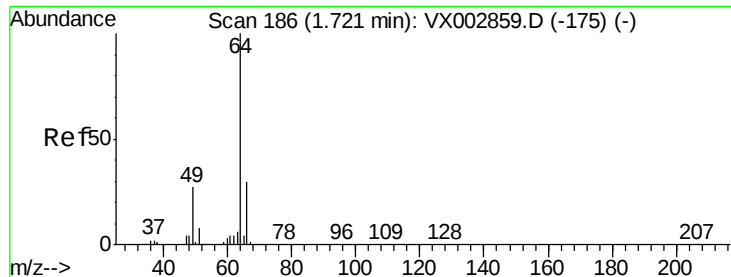
96 91.6 74.9 112.3



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#6

Chloroethane

Concen: Below Cal

RT: 1.75 min Scan# 190

Delta R.T. 0.02 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

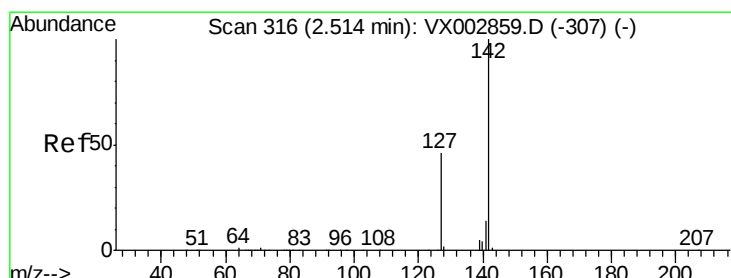
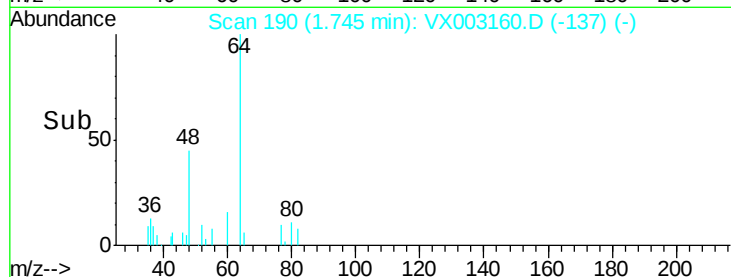
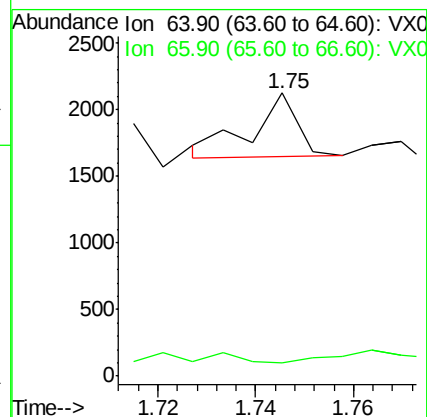
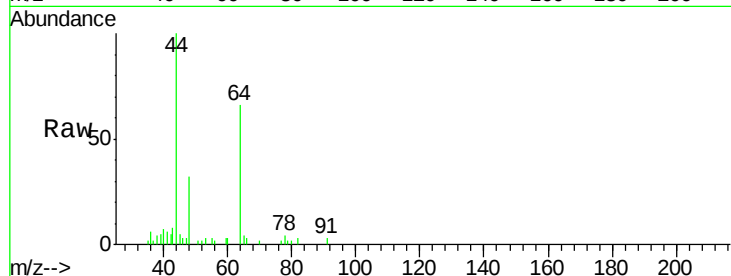
ClientSampleId :

Tot Ion: 64 Resp: 311

Ion Ratio Lower Upper

64 100

66 0.0 25.5 38.3#



#10

Methyl Iodide

Concen: 6.71 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

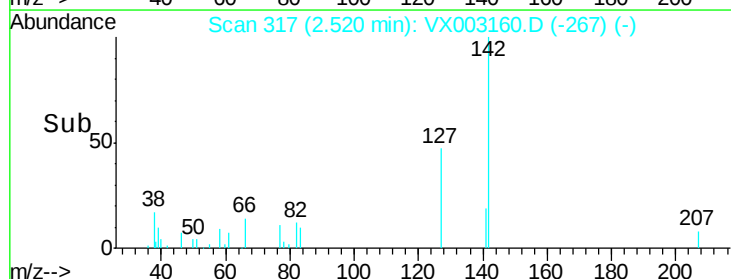
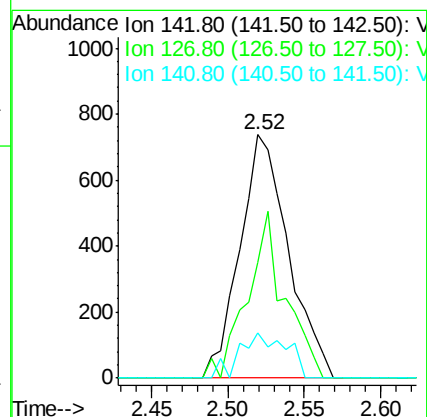
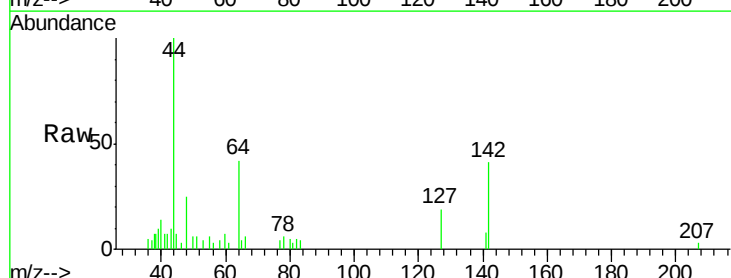
Tgt Ion: 142 Resp: 1625

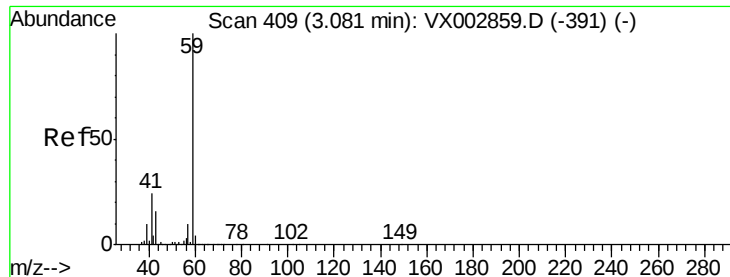
Ion Ratio Lower Upper

142 100

127 52.8 36.6 55.0

141 17.8 11.3 16.9#



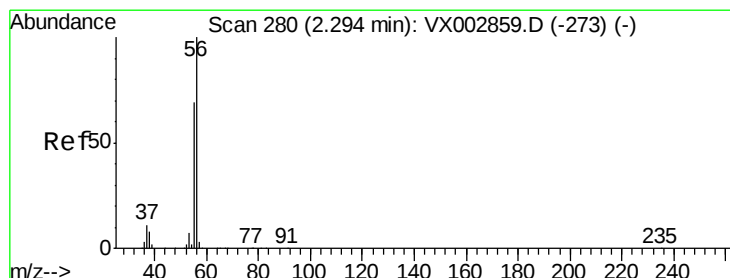
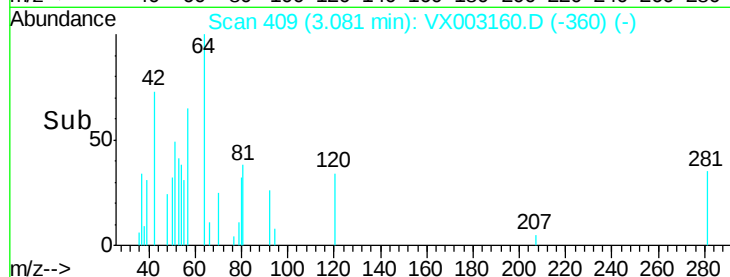
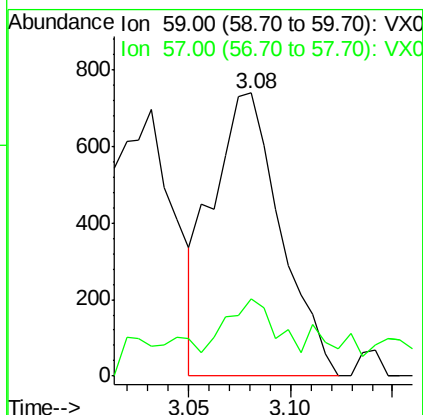
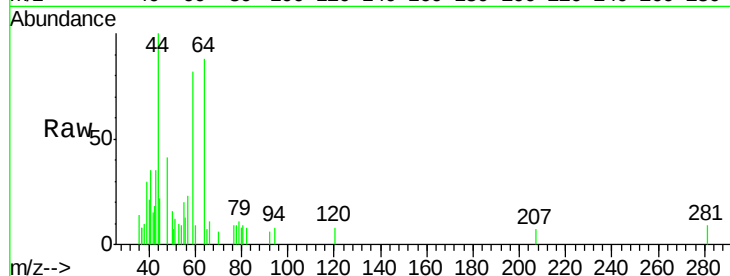


#11

Tert butyl alcohol  
 Concen: 2.37 ug/l  
 RT: 3.08 min Scan# 409  
 Delta R.T. -0.00 min  
 Lab File: VX003160.D  
 Acq: 03 Jul 2018 20:20

Instrument :  
 MSVOA\_X  
 ClientSampled :

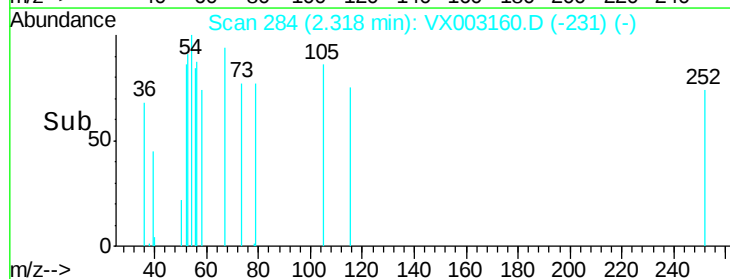
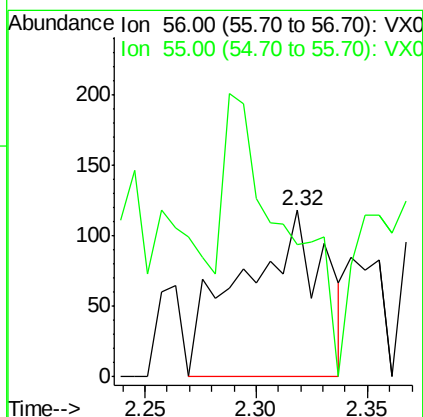
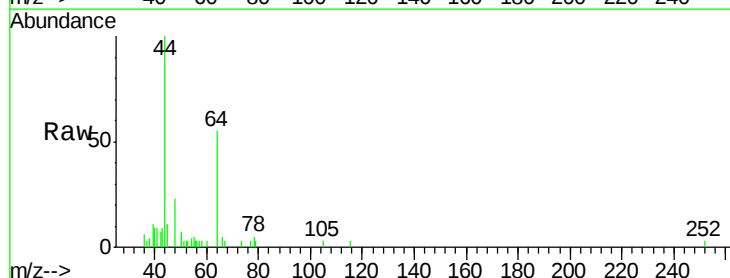
Tot Ion: 59 Resp: 1712  
 Ion Ratio Lower Upper  
 59 100  
 57 13.4 8.2 12.2#

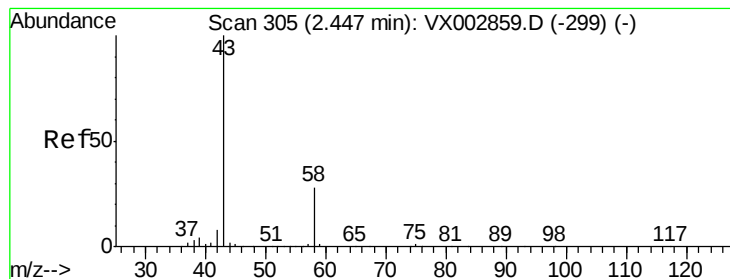


#13

Acrolein  
 Concen: 4.97 ug/l  
 RT: 2.32 min Scan# 284  
 Delta R.T. 0.02 min  
 Lab File: VX003160.D  
 Acq: 03 Jul 2018 20:20

Tgt Ion: 56 Resp: 301  
 Ion Ratio Lower Upper  
 56 100  
 55 0.0 57.0 85.4#





#16

Acetone

Concen: 9.78 ug/l

RT: 2.45 min Scan# 306

Delta R.T. 0.01 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

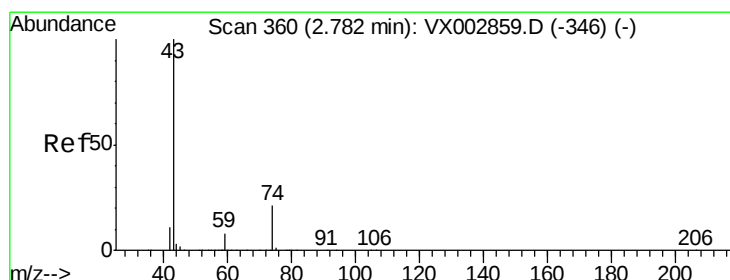
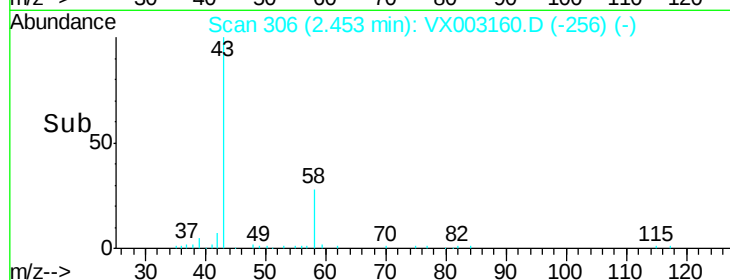
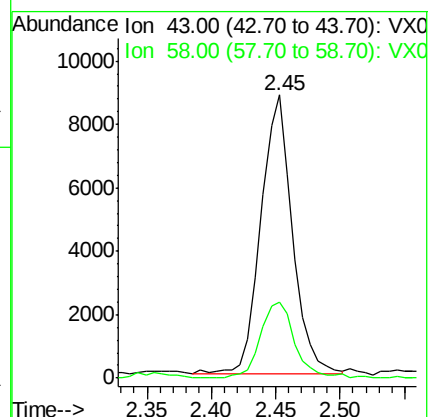
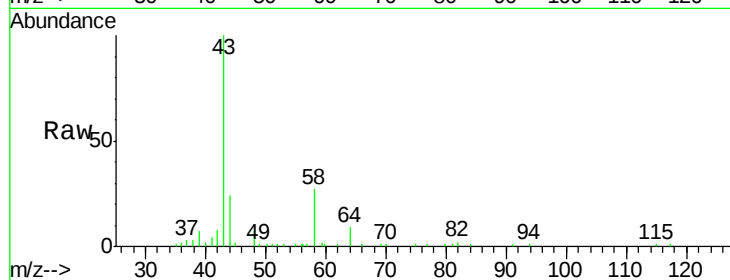
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 43 Resp: 14712

Ion Ratio Lower Upper

43 100

58 27.4 22.1 33.1



#18

Methyl Acetate

Concen: 5.59 ug/l

RT: 2.78 min Scan# 360

Delta R.T. -0.00 min

Lab File: VX003160.D

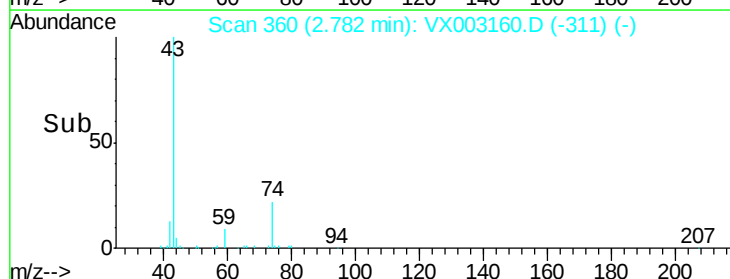
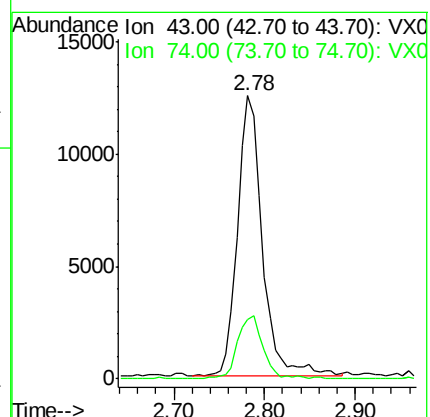
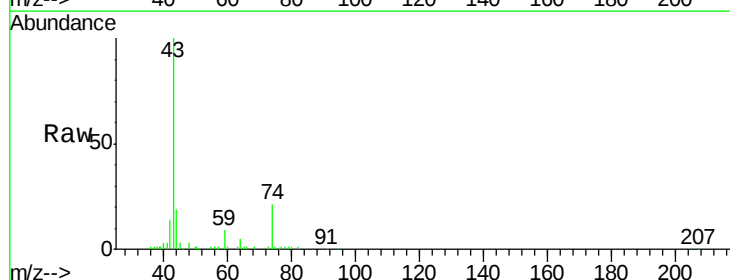
Acq: 03 Jul 2018 20:20

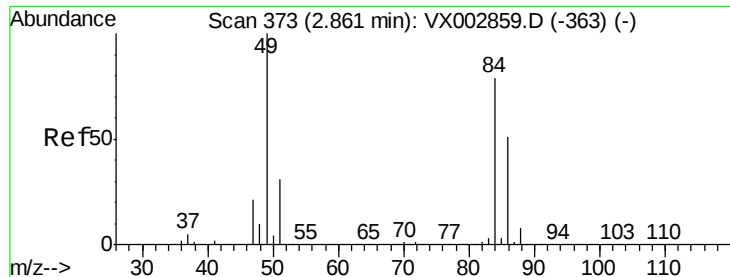
Tgt Ion: 43 Resp: 23510

Ion Ratio Lower Upper

43 100

74 23.2 16.7 25.1

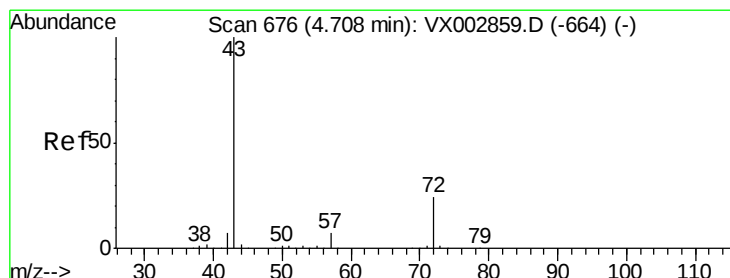
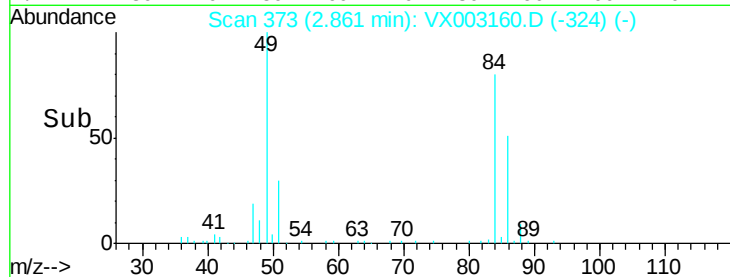
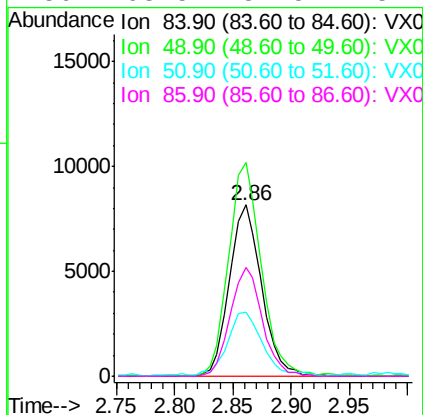
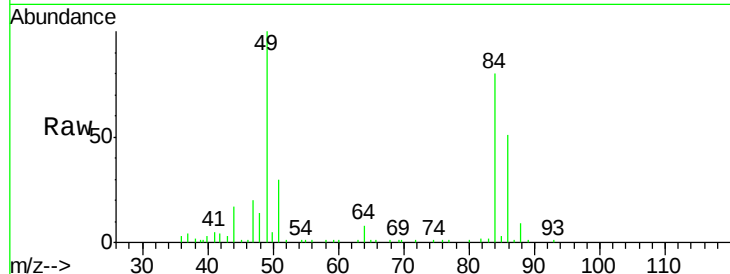




#20  
Methylene Chloride  
Concen: 5.38 ug/l  
RT: 2.86 min Scan# 373  
Delta R.T. -0.00 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

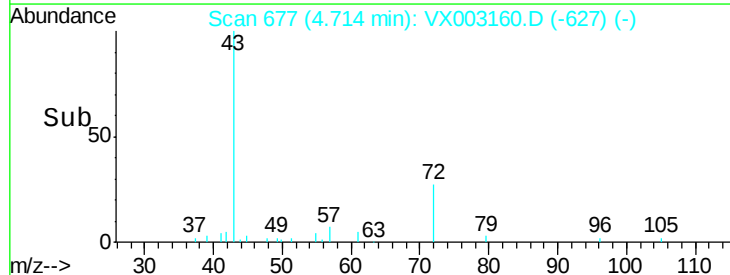
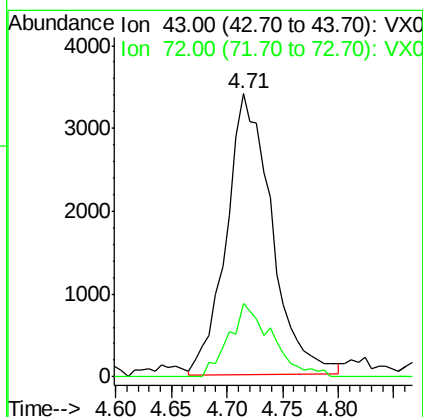
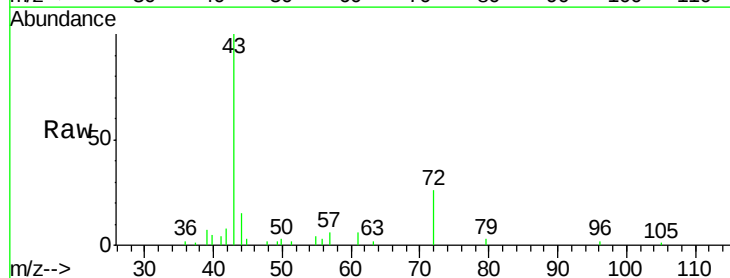
Instrument :  
MSVOA\_X  
ClientSampleId :

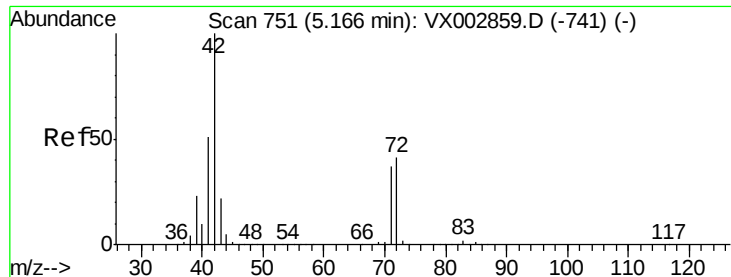
Tot Ion: 84 Resp: 15753  
Ion Ratio Lower Upper  
84 100  
49 124.7 107.8 161.6  
51 36.9 32.8 49.2  
86 63.5 52.5 78.7



#25  
2-Butanone  
Concen: 4.30 ug/l  
RT: 4.71 min Scan# 677  
Delta R.T. 0.01 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

Tgt Ion: 43 Resp: 9600  
Ion Ratio Lower Upper  
43 100  
72 26.4 18.5 27.7





#29

Tetrahydrofuran

Concen: 0.57 ug/l

RT: 5.18 min Scan# 754

Delta R.T. 0.02 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

ClientSampled :

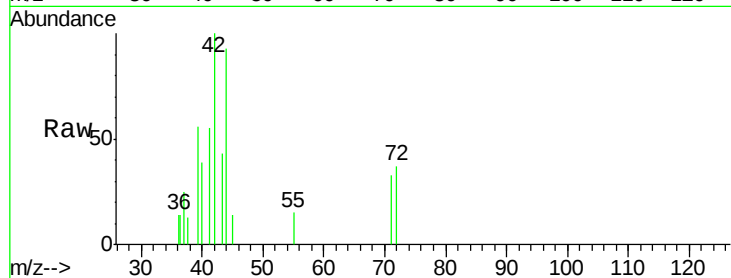
Tot Ion: 42 Resp: 816

Ion Ratio Lower Upper

42 100

72 48.3 32.0 48.0#

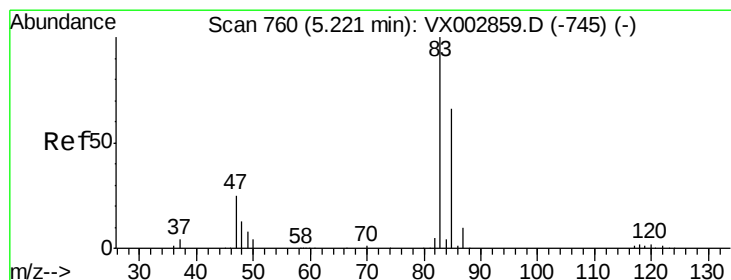
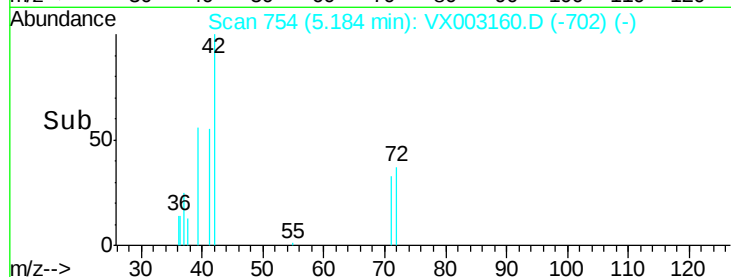
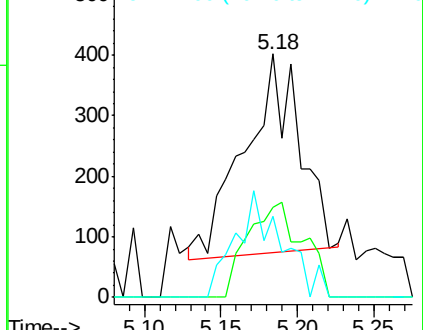
71 45.1 30.1 45.1



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



#30

Chloroform

Concen: 0.20 ug/l

RT: 5.22 min Scan# 760

Delta R.T. -0.00 min

Lab File: VX003160.D

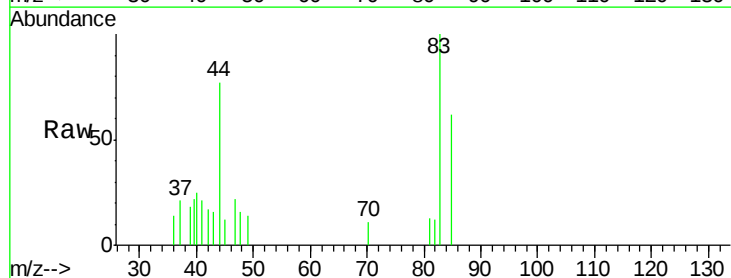
Acq: 03 Jul 2018 20:20

Tgt Ion: 83 Resp: 1097

Ion Ratio Lower Upper

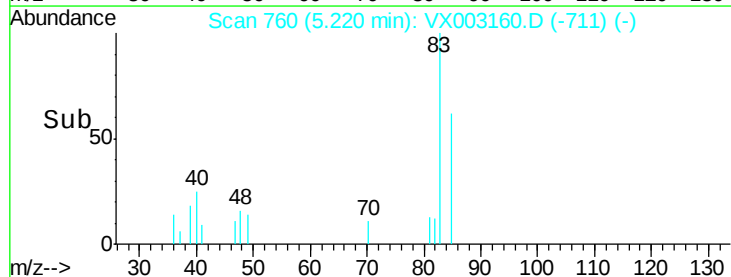
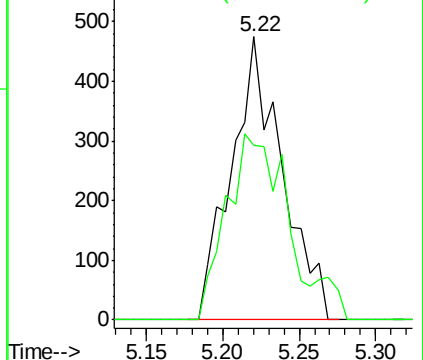
83 100

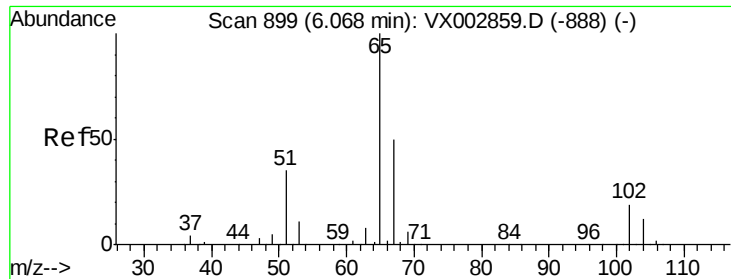
85 61.8 50.4 75.6



Abundance Ion 82.90 (82.60 to 83.60): VX0

Ion 84.90 (84.60 to 85.60): VX0

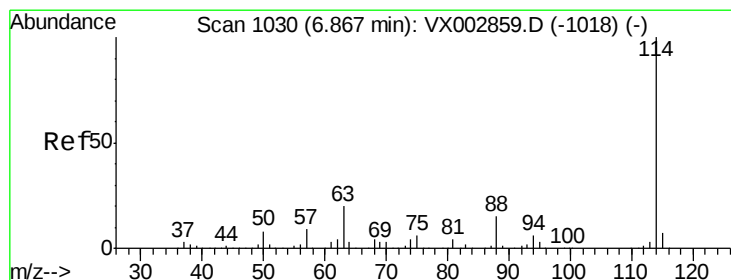
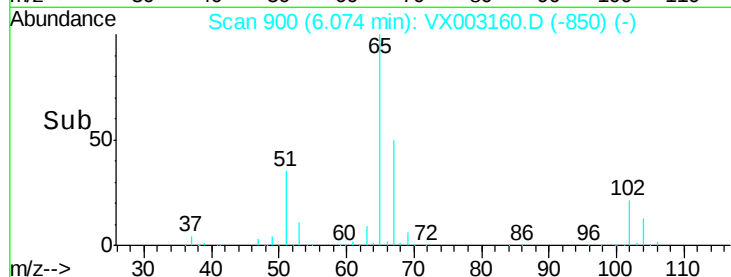
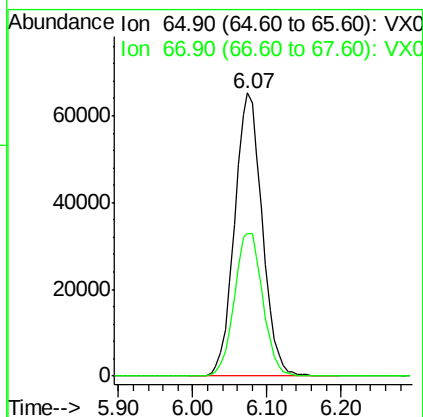
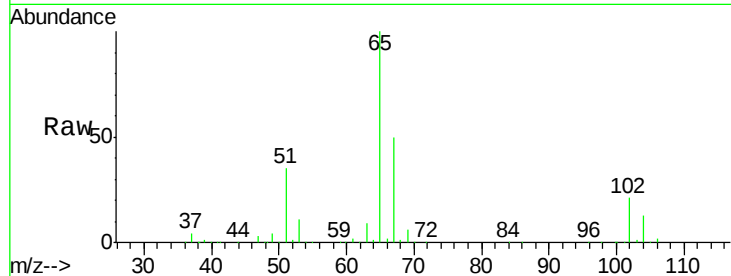




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.73 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.01 min  
 Lab File: VX003160.D  
 Acq: 03 Jul 2018 20:20

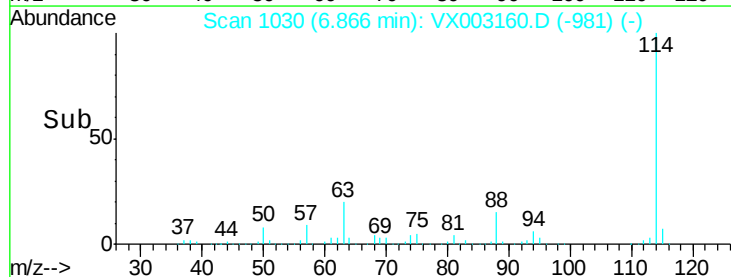
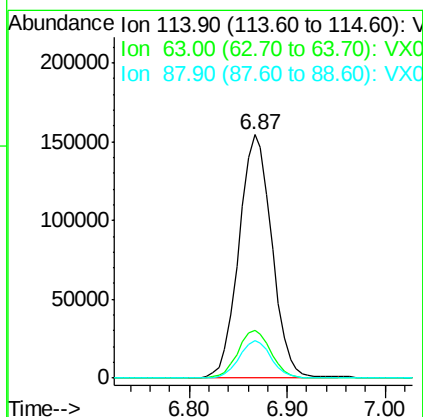
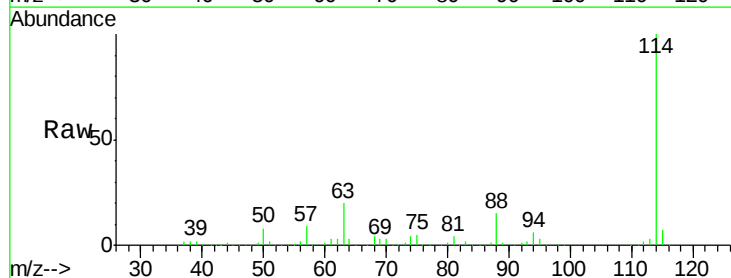
Instrument :  
 MSVOA\_X  
 ClientSampleId :

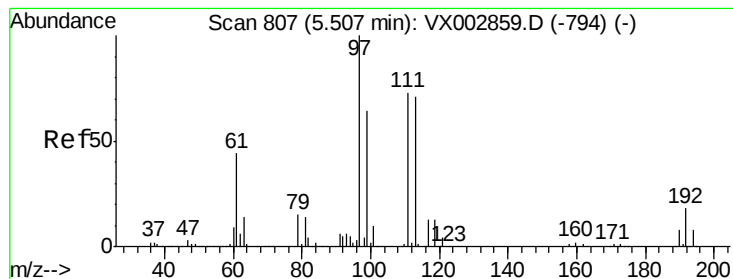
Tot Ion: 65 Resp: 169764  
 Ion Ratio Lower Upper  
 65 100  
 67 52.0 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. -0.00 min  
 Lab File: VX003160.D  
 Acq: 03 Jul 2018 20:20

Tgt Ion: 114 Resp: 361003  
 Ion Ratio Lower Upper  
 114 100  
 63 19.7 0.0 41.4  
 88 15.3 0.0 30.0





#35

Dibromofluoromethane

Concen: 49.42 ug/l

RT: 5.51 min Scan# 808

Delta R.T. 0.01 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

ClientSampleId :

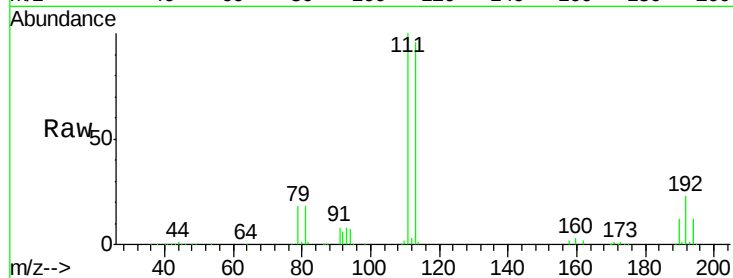
Tot Ion:113 Resp: 141281

Ion Ratio Lower Upper

113 100

111 103.2 81.4 122.0

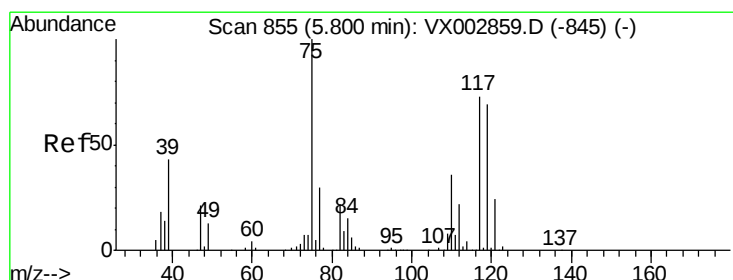
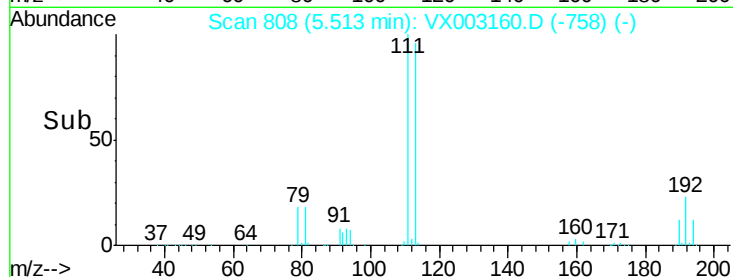
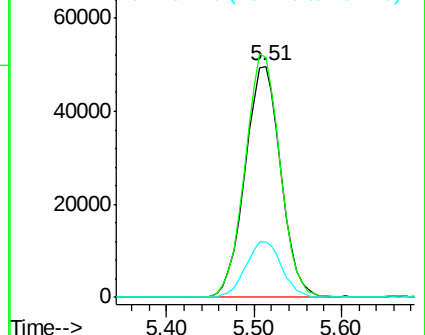
192 24.6 19.1 28.7



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: 4.26 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.13 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

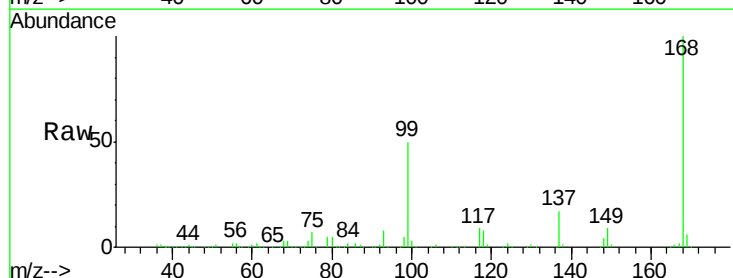
Tgt Ion: 75 Resp: 16865

Ion Ratio Lower Upper

75 100

110 3.8 18.1 54.4#

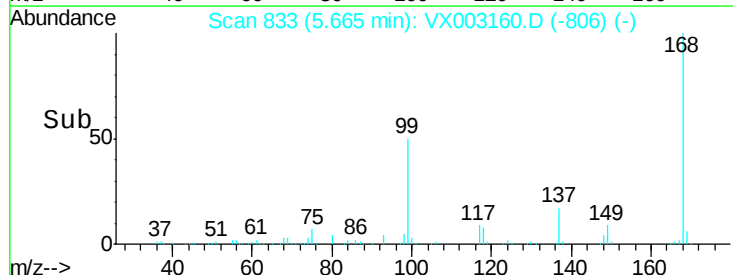
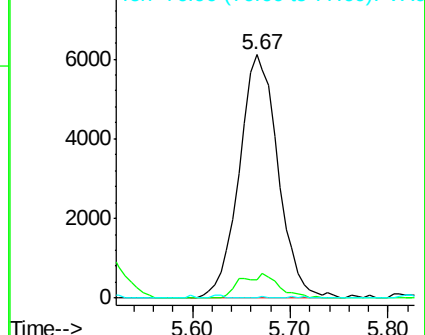
77 0.1 24.3 36.5#

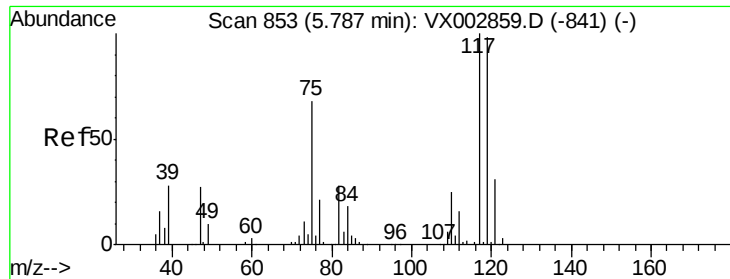


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 5.39 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.12 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

ClientSampled :

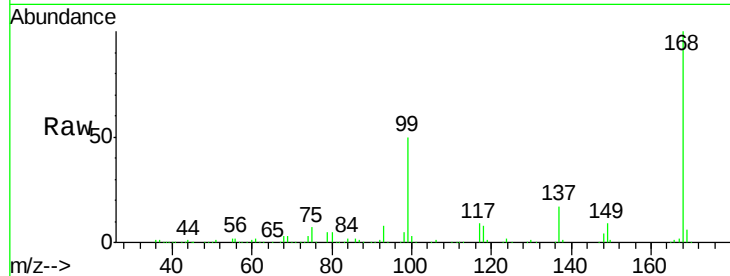
Tot Ion:117 Resp: 23430

Ion Ratio Lower Upper

117 100

119 6.0 77.4 116.0#

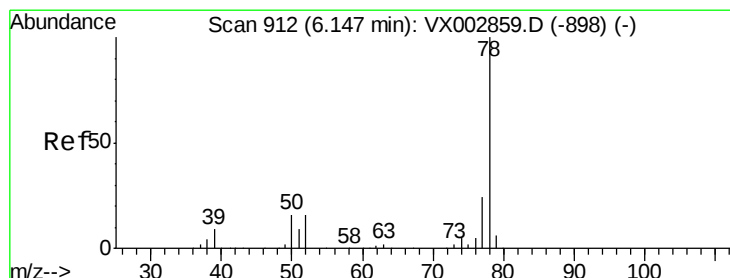
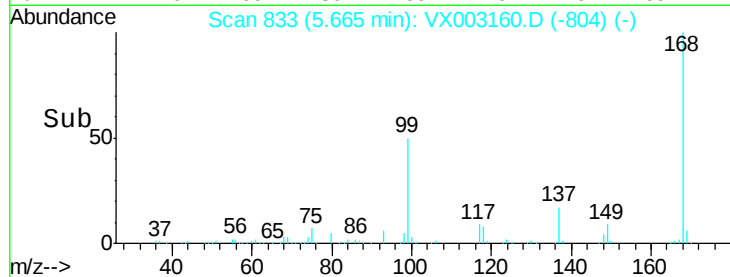
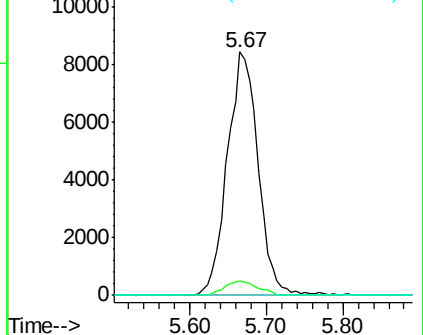
121 0.0 24.4 36.6#



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



#40

Benzene

Concen: 0.34 ug/l

RT: 6.15 min Scan# 913

Delta R.T. 0.01 min

Lab File: VX003160.D

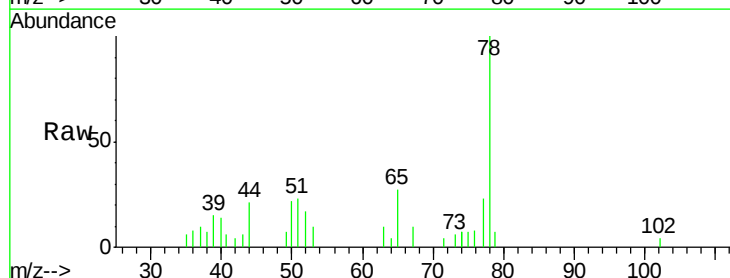
Acq: 03 Jul 2018 20:20

Tgt Ion: 78 Resp: 3926

Ion Ratio Lower Upper

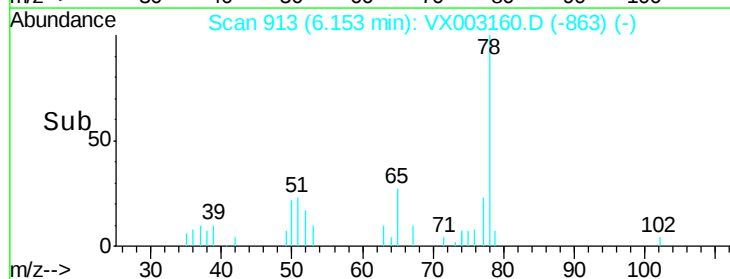
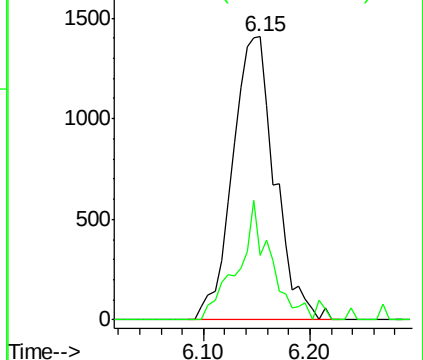
78 100

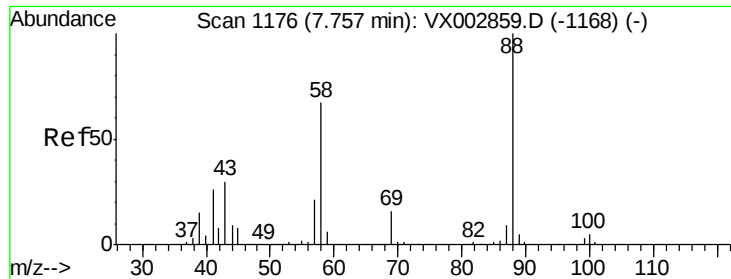
77 22.6 19.1 28.7



Abundance Ion 78.00 (77.70 to 78.70): VX0

Ion 77.00 (76.70 to 77.70): VX0

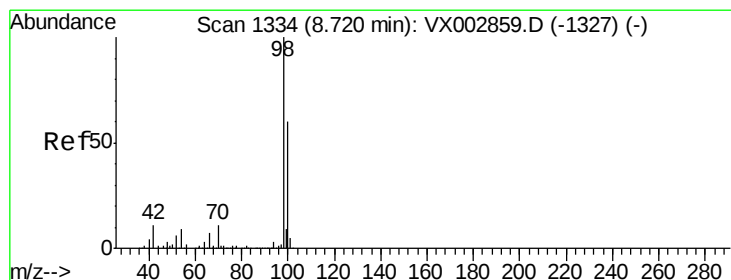
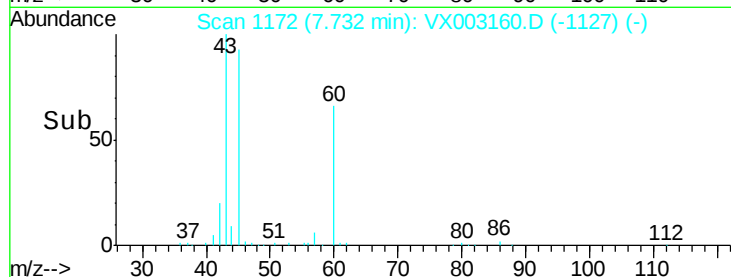
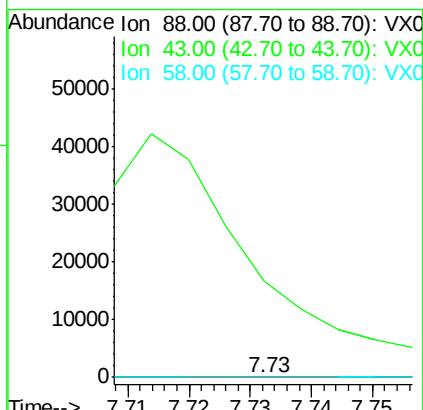
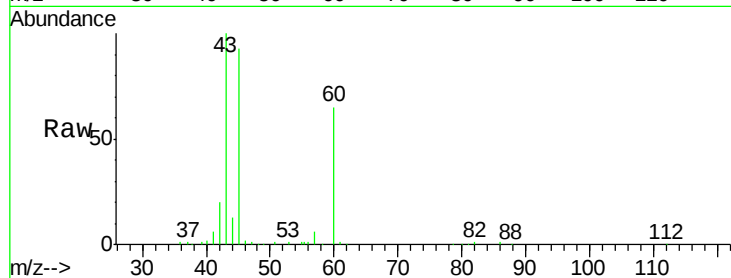




#49  
1,4-Dioxane  
Concen: 0.28 ug/l  
RT: 7.73 min Scan# 1172  
Delta R.T. -0.02 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

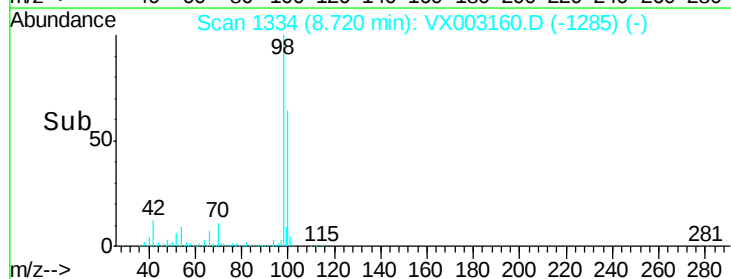
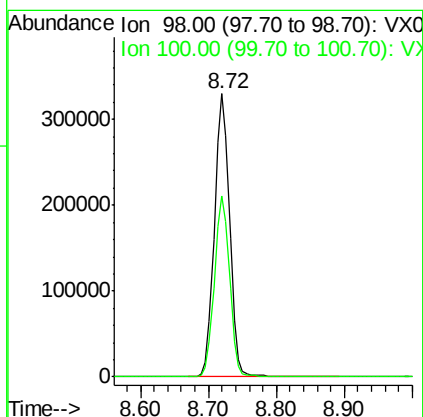
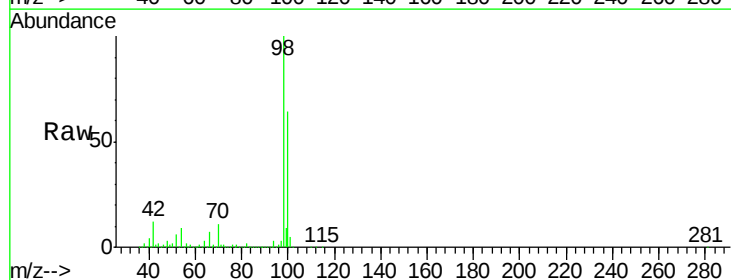
Instrument :  
MSVOA\_X  
ClientSampleId :

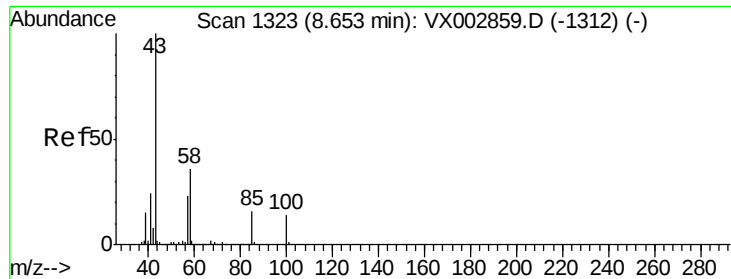
Tot Ion: 88 Resp: 20  
Ion Ratio Lower Upper  
88 100  
43 0.0 29.8 44.6#  
58 440.0 57.1 85.7#



#50  
Toluene-d8  
Concen: 49.14 ug/l  
RT: 8.72 min Scan# 1334  
Delta R.T. 0.00 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

Tgt Ion: 98 Resp: 513026  
Ion Ratio Lower Upper  
98 100  
100 63.7 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 0.29 ug/l

RT: 8.65 min Scan# 1323

Delta R.T. -0.00 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

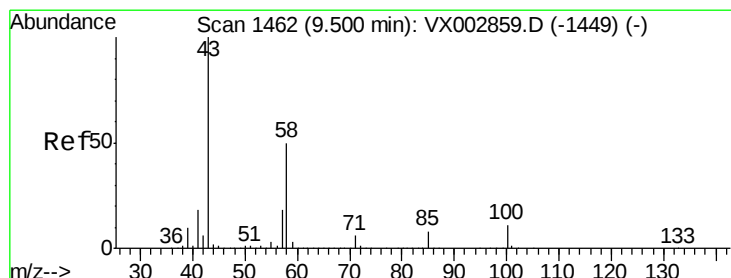
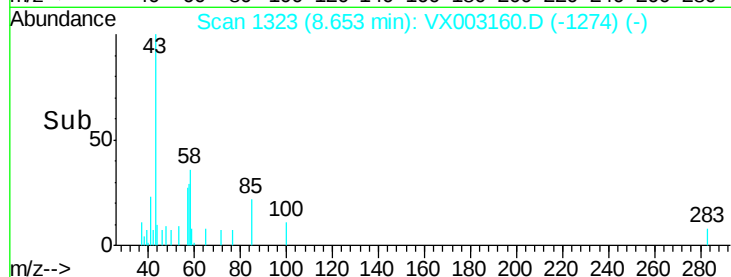
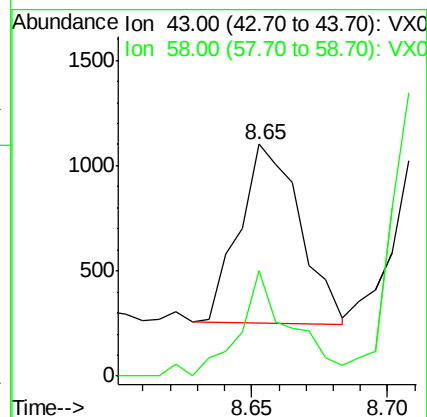
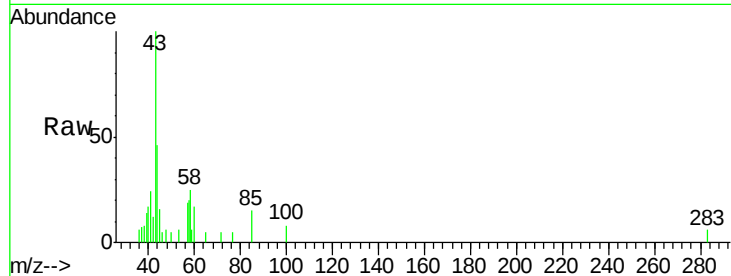
ClientSampled :

Tot Ion: 43 Resp: 1309

Ion Ratio Lower Upper

43 100

58 50.8 28.6 42.8#



#59

2-Hexanone

Concen: 0.74 ug/l

RT: 9.51 min Scan# 1463

Delta R.T. 0.01 min

Lab File: VX003160.D

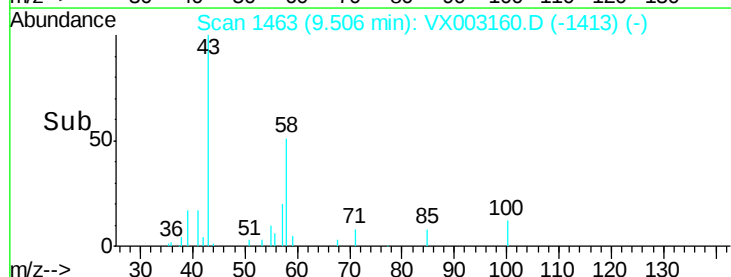
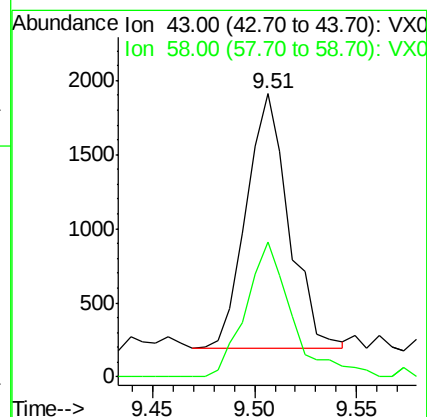
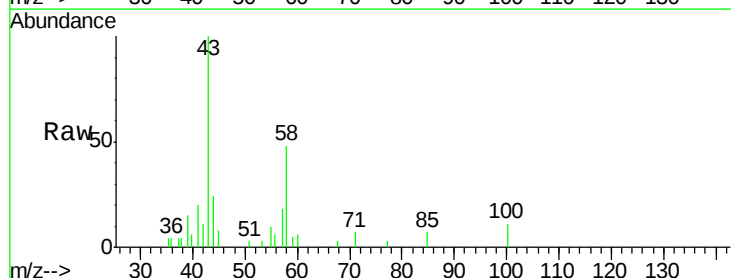
Acq: 03 Jul 2018 20:20

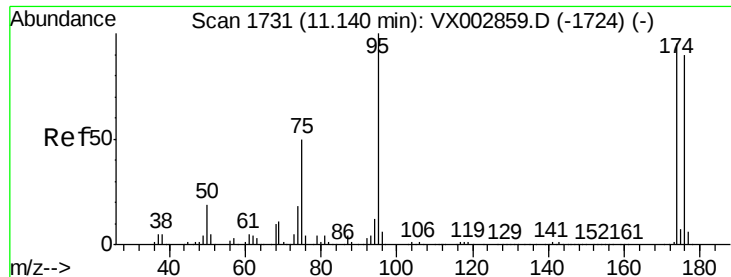
Tgt Ion: 43 Resp: 2507

Ion Ratio Lower Upper

43 100

58 57.2 24.6 73.6

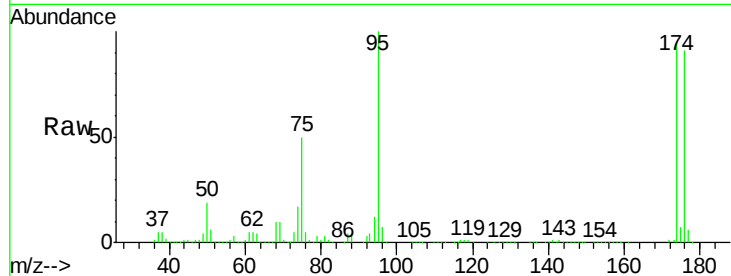




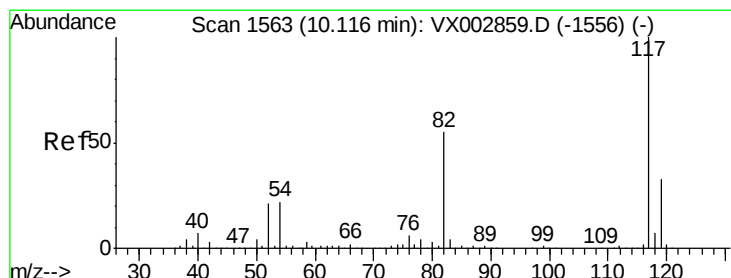
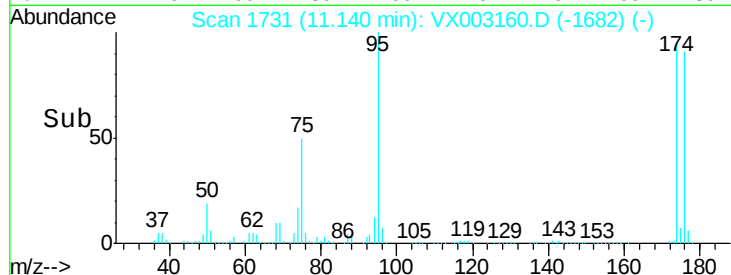
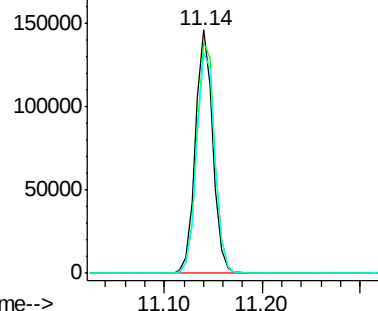
#62  
4-Bromofluorobenzene  
Concen: 44.53 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.00 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 95 Resp: 179293  
Ion Ratio Lower Upper  
95 100  
174 99.7 0.0 187.4  
176 95.4 0.0 181.0

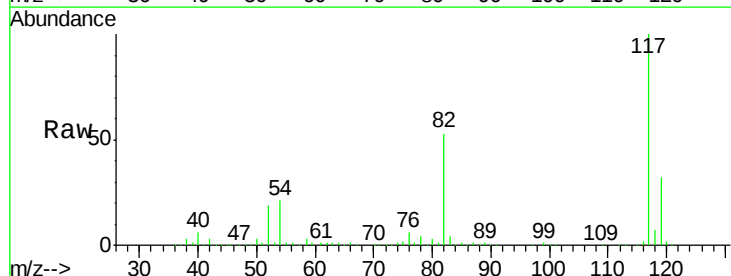


Abundance Ion 94.90 (94.60 to 95.60): VX0  
Ion 173.80 (173.50 to 174.50): V  
Ion 175.80 (175.50 to 176.50): V

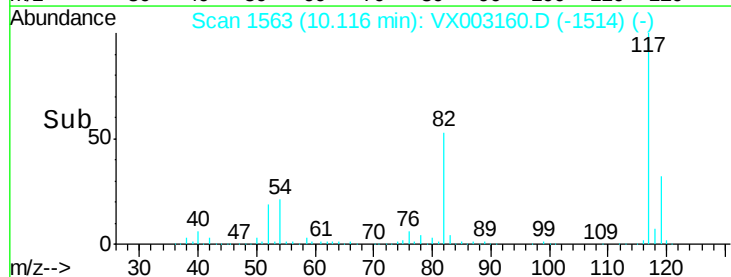
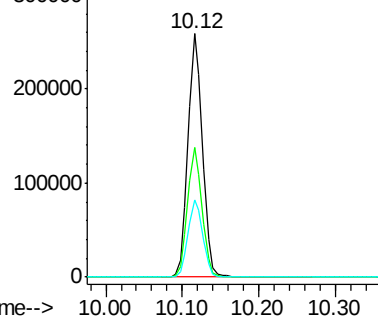


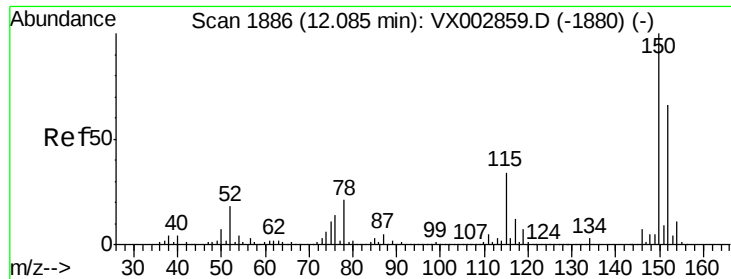
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. -0.00 min  
Lab File: VX003160.D  
Acq: 03 Jul 2018 20:20

Tgt Ion: 117 Resp: 338905  
Ion Ratio Lower Upper  
117 100  
82 53.1 45.0 67.4  
119 31.6 25.8 38.6



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: 50.00 ug/l

RT: 12.09 min Scan# 1886

Delta R.T. -0.00 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

ClientSampleId :

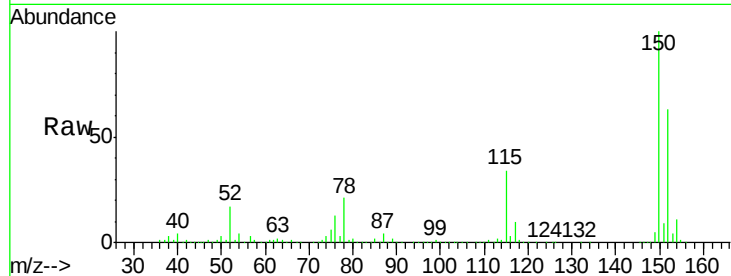
Tot Ion:152 Resp: 193197

Ion Ratio Lower Upper

152 100

115 54.3 40.1 120.2

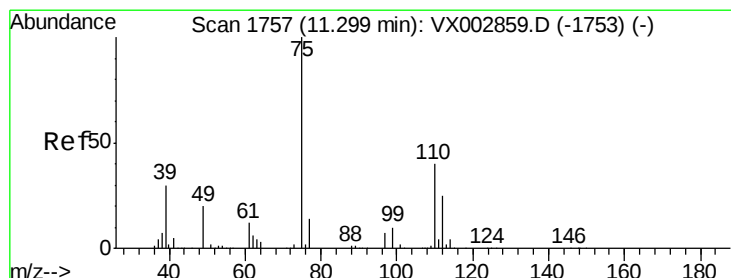
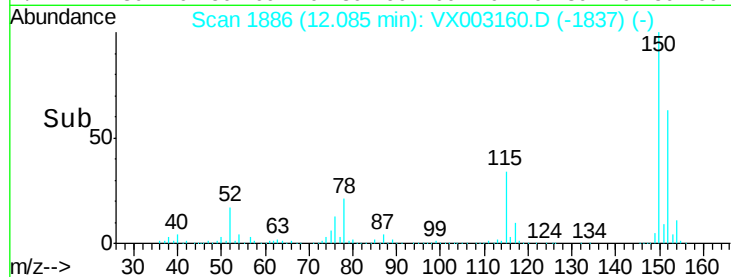
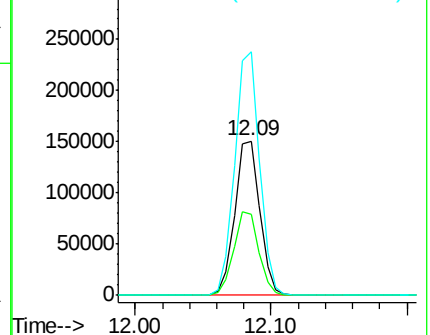
150 156.7 0.0 347.2



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: 26.14 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX003160.D

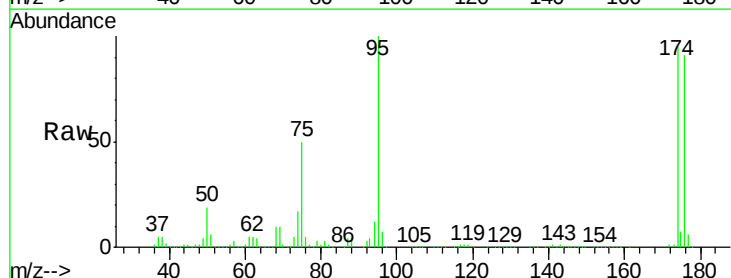
Acq: 03 Jul 2018 20:20

Tgt Ion: 75 Resp: 91470

Ion Ratio Lower Upper

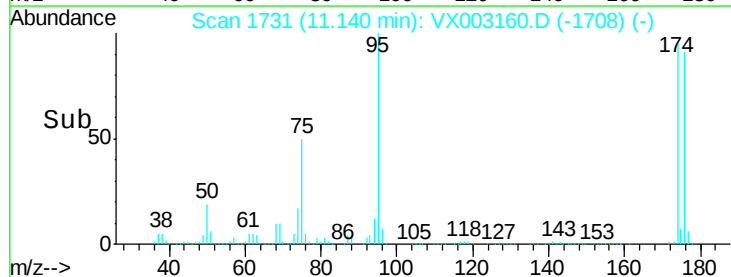
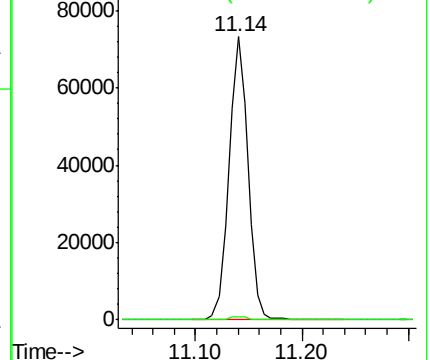
75 100

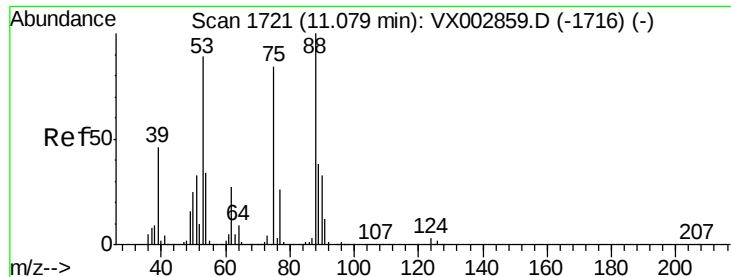
77 1.3 22.8 68.3#



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: 74.10 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

Instrument :

MSVOA\_X

ClientSampleId :

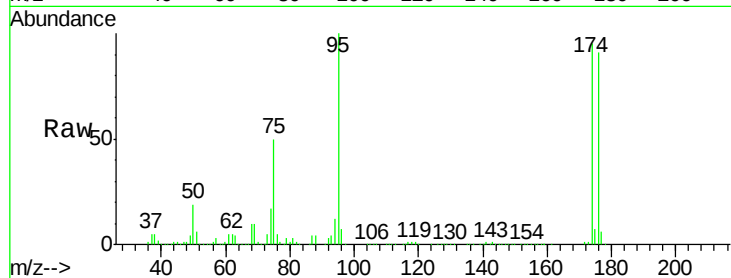
Tot Ion: 75 Resp: 91470

Ion Ratio Lower Upper

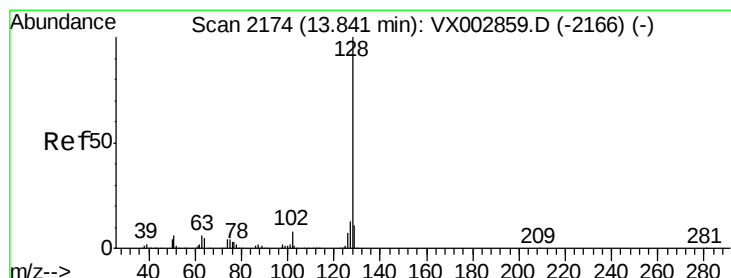
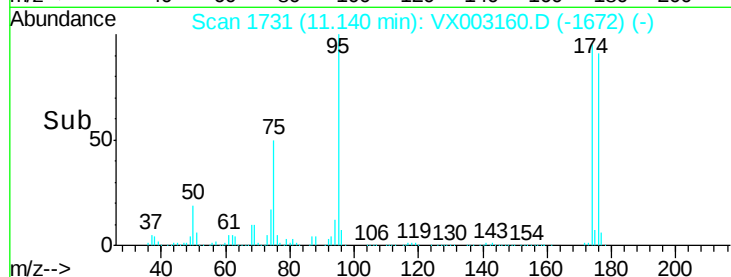
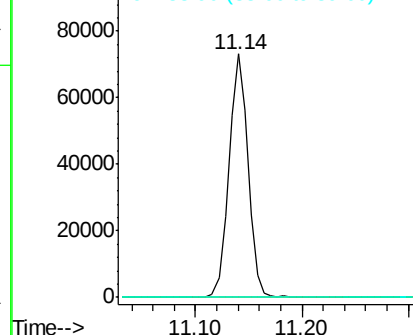
75 100

53 0.2 86.8 130.2#

89 0.0 38.2 57.2#



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



#95

Naphthalene

Concen: 1.93 ug/l

RT: 13.84 min Scan# 2174

Delta R.T. -0.00 min

Lab File: VX003160.D

Acq: 03 Jul 2018 20:20

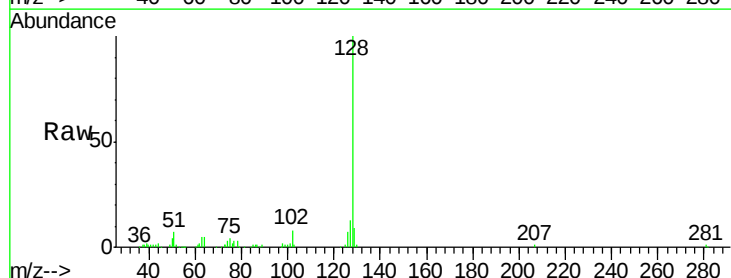
Tgt Ion: 128 Resp: 25464

Ion Ratio Lower Upper

128 100

127 13.3 10.4 15.6

129 10.8 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

