

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062718\  
 Data File : VX002969.D  
 Acq On : 28 Jun 2018 06:38  
 Operator : JC/MD  
 Sample : J3718-10  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 45 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jun 28 07:51:57 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  | 274858   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 386228   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 361159   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 211591   | 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   | 184060   | 48.45 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.90% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 150117   | 49.08 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.16% |          |
| 50) Toluene-d8              | 8.72  | 98   | 543690   | 48.68 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.36% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 197804   | 45.92 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.84% |          |

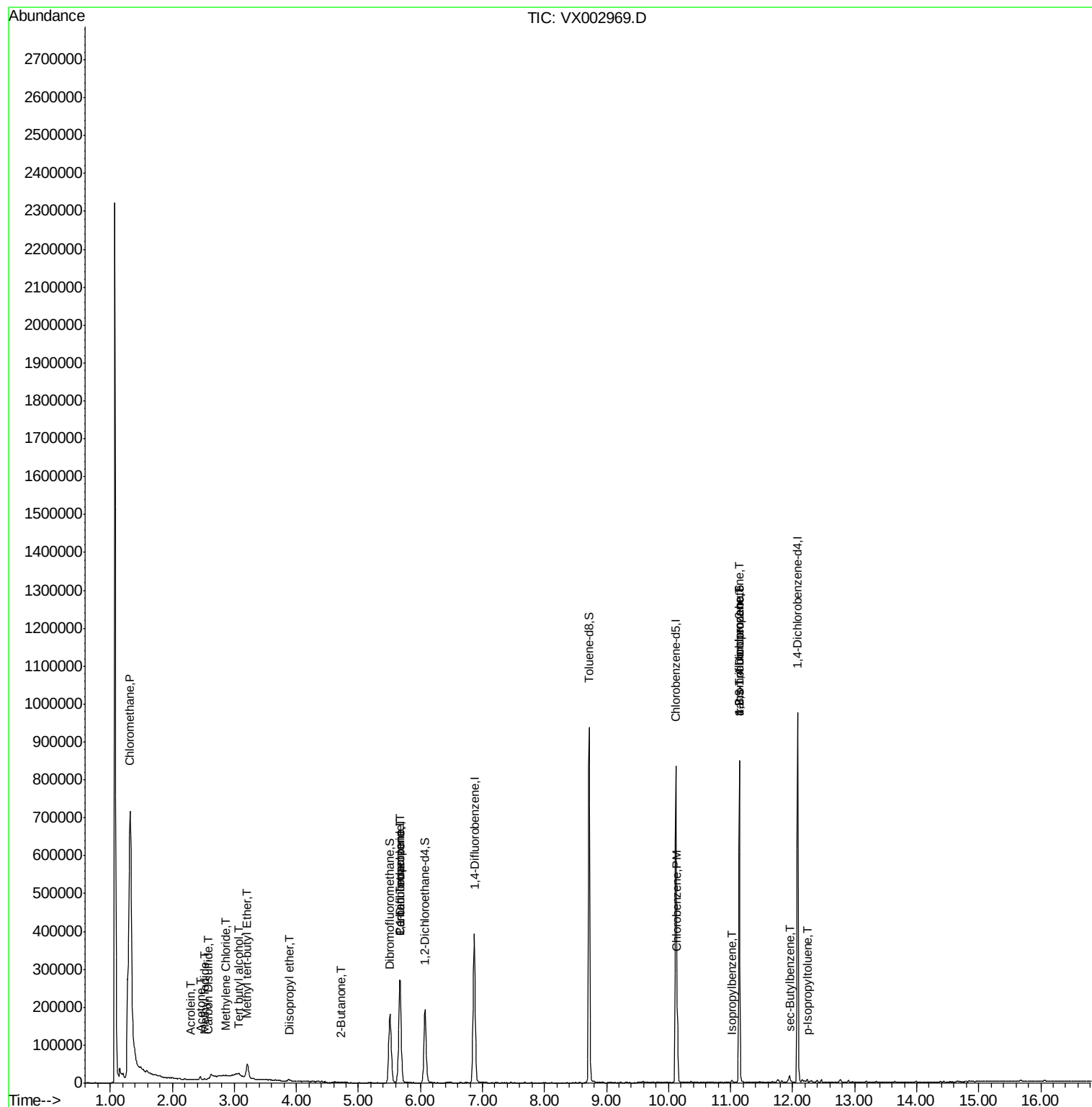
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|--------------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.21  | 85   | 236      | Below Cal | #     | 43     |
| 3) Chloromethane               | 1.32  | 50   | 45554    | 17.09     | ug/l  | 45     |
| 5) Bromomethane                | 1.66  | 94   | 1210     | Below Cal |       | 99     |
| 6) Chloroethane                | 1.95  | 64   | 1433     | Below Cal | #     | 43     |
| 10) Methyl Iodide              | 2.52  | 142  | 2843     | 7.03      | ug/l  | 98     |
| 11) Tert butyl alcohol         | 3.07  | 59   | 7854     | 10.38     | ug/l  | 97     |
| 13) Acrolein                   | 2.31  | 56   | 147      | 4.57      | ug/l  | # 14   |
| 16) Acetone                    | 2.45  | 43   | 7657     | 4.87      | ug/l  | 97     |
| 17) Carbon Disulfide           | 2.58  | 76   | 6766     | 0.94      | ug/l  | # 92   |
| 19) Methyl tert-butyl Ether    | 3.21  | 73   | 40850    | 4.19      | ug/l  | 95     |
| 20) Methylene Chloride         | 2.85  | 84   | 1028     | 0.34      | ug/l  | 88     |
| 22) Diisopropyl ether          | 3.88  | 45   | 4698     | 0.46      | ug/l  | # 77   |
| 25) 2-Butanone                 | 4.72  | 43   | 537      | 0.23      | ug/l  | # 1    |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 18945    | 4.47      | ug/l  | # 51   |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 24961    | 5.37      | ug/l  | # 16   |
| 65) Chlorobenzene              | 10.14 | 112  | 72776    | 7.93      | ug/l  | 96     |
| 73) Isopropylbenzene           | 11.02 | 105  | 3411     | 0.24      | ug/l  | 97     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 103667   | 27.05     | ug/l  | # 33   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 103667   | 76.56     | ug/l  | # 7    |
| 85) sec-Butylbenzene           | 11.95 | 105  | 4679     | 0.33      | ug/l  | # 58   |
| 86) p-Isopropyltoluene         | 12.24 | 119  | 2671     | 0.21      | ug/l  | 89     |

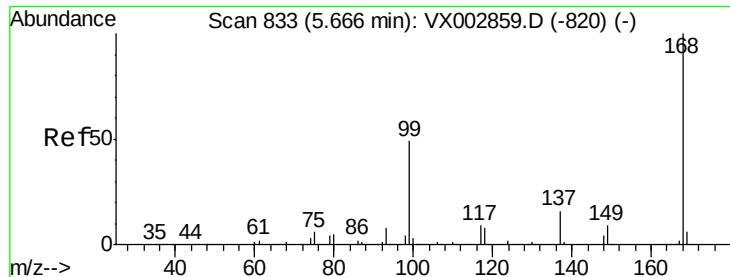
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX062718\  
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Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: Jun 28 07:51:57 2018  
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: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

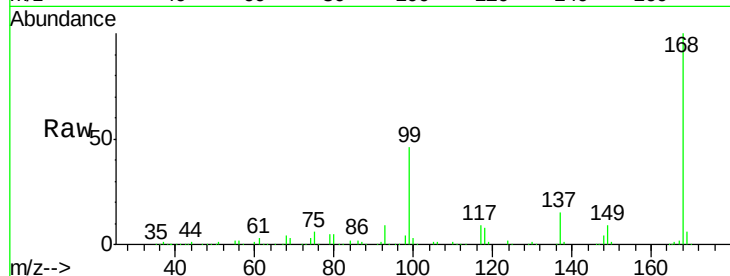
ClientSampleId :

Tot Ion:168 Resp: 274858

Ion Ratio Lower Upper

168 100

99 46.2 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

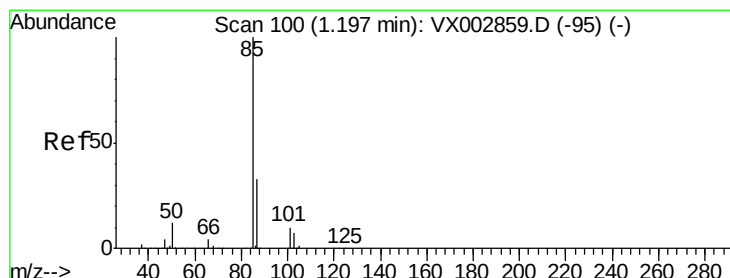
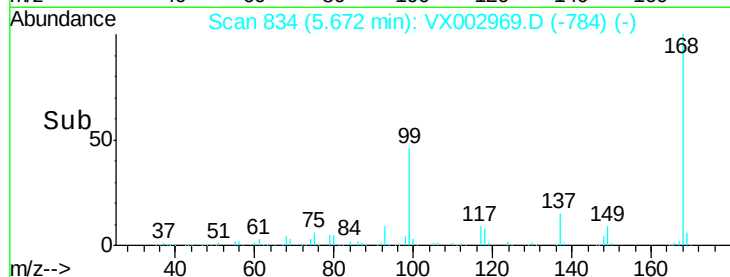
40000

20000

0

Time-->

5.50 5.60 5.70 5.80 5.90



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.21 min Scan# 102

Delta R.T. 0.01 min

Lab File: VX002969.D

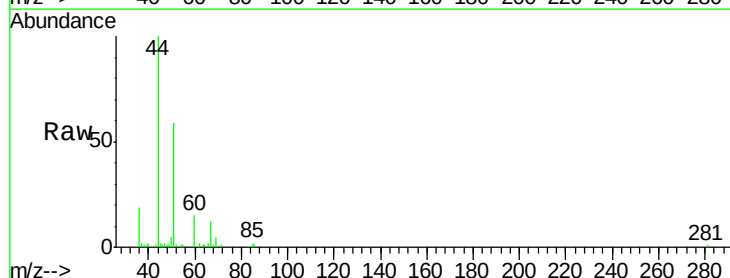
Acq: 28 Jun 2018 06:38

Tgt Ion: 85 Resp: 236

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

1.21

200

150

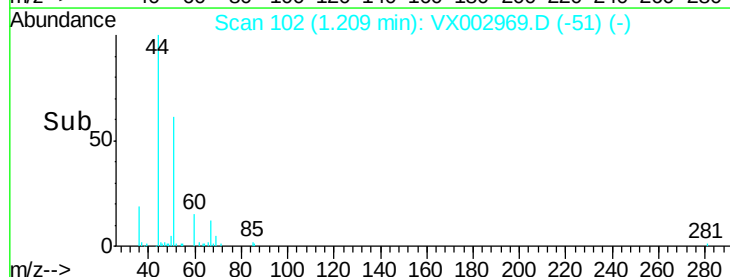
100

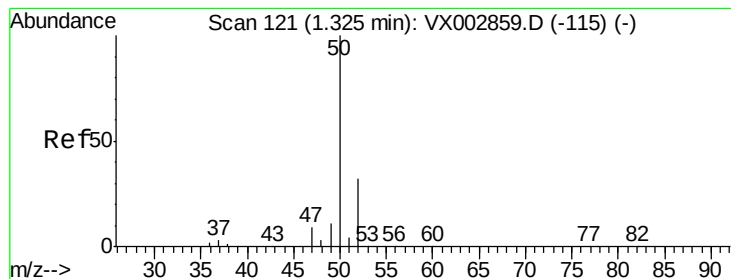
50

0

Time-->

1.18 1.20 1.22 1.24





#3

Chloromethane

Concen: 17.09 ug/l

RT: 1.32 min Scan# 120

Delta R.T. -0.01 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

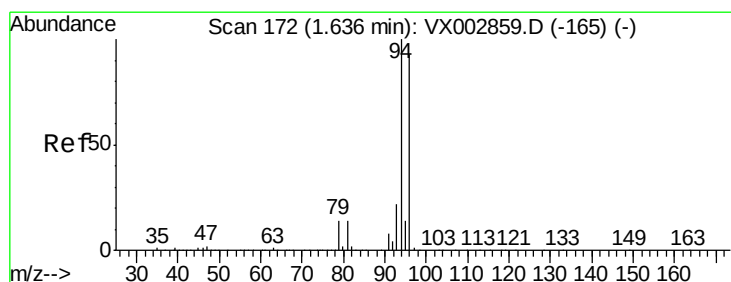
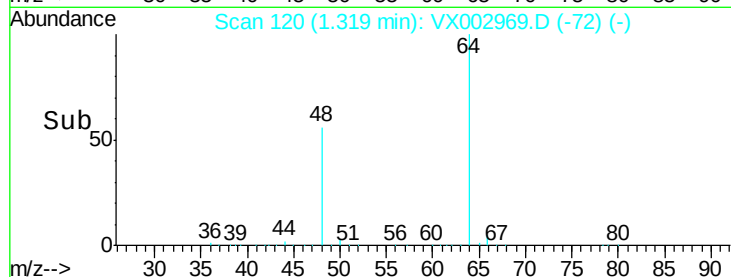
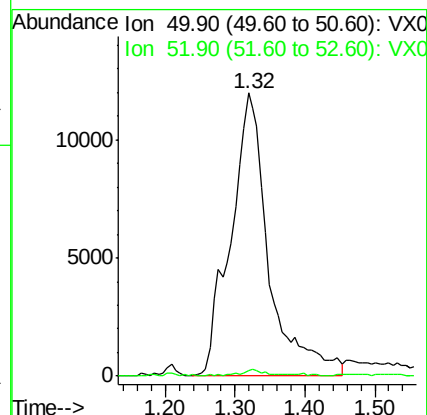
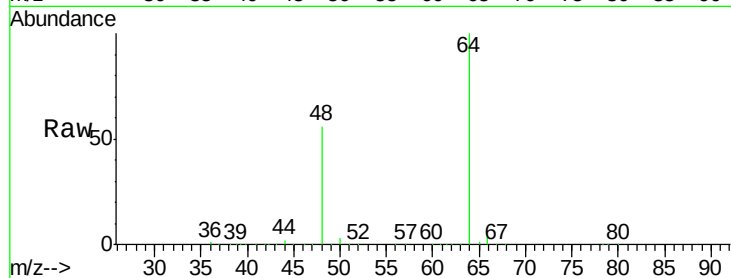
ClientSampleId :

Tot Ion: 50 Resp: 45554

Ion Ratio Lower Upper

50 100

52 1.4 25.7 38.5#



#5

Bromomethane

Concen: Below Cal

RT: 1.66 min Scan# 176

Delta R.T. 0.03 min

Lab File: VX002969.D

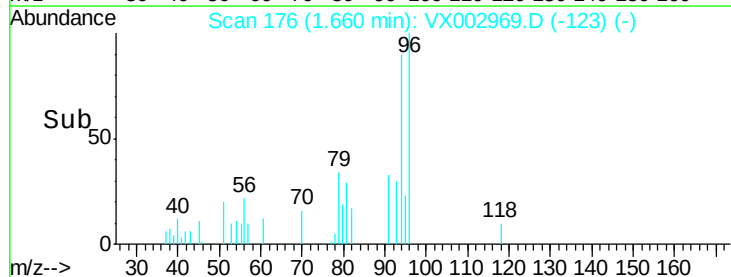
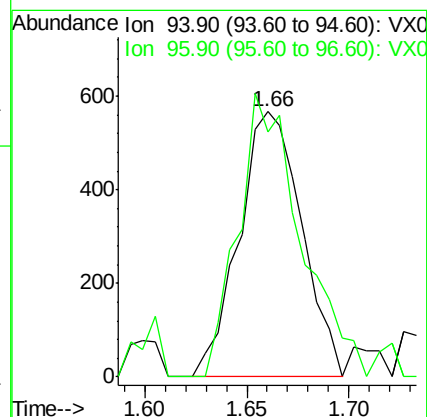
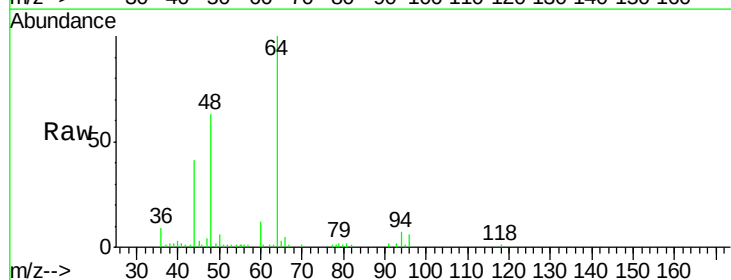
Acq: 28 Jun 2018 06:38

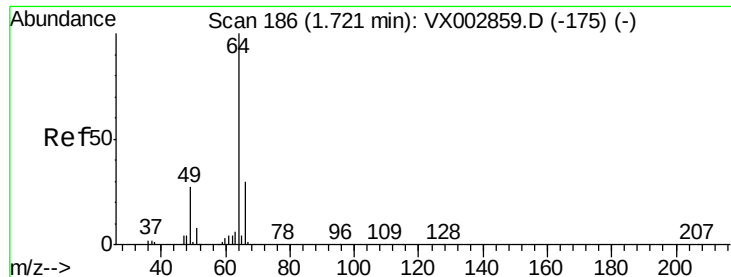
Tgt Ion: 94 Resp: 1210

Ion Ratio Lower Upper

94 100

96 92.6 74.9 112.3





#6

Chloroethane

Concen: Below Cal

RT: 1.95 min Scan# 223

Delta R.T. 0.23 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

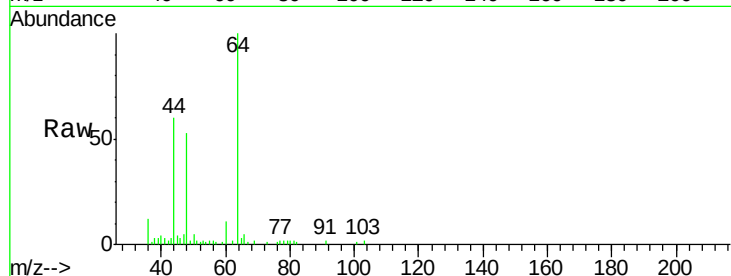
ClientSampled :

Tot Ion: 64 Resp: 1433

Ion Ratio Lower Upper

64 100

66 0.0 25.5 38.3#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.95

4000

3000

2000

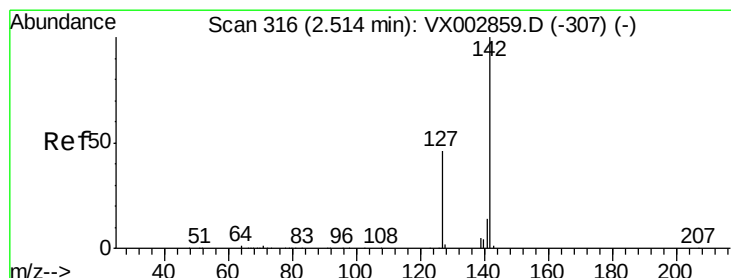
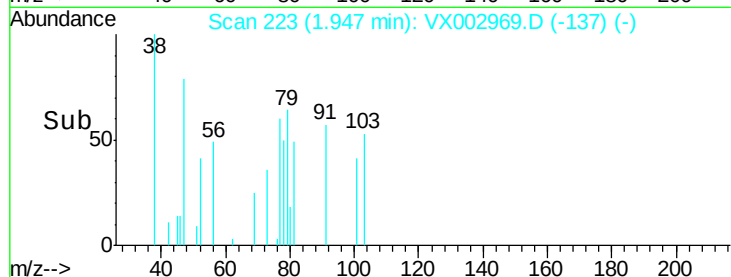
1000

0

Time-->

1.95

2.00



#10

Methyl Iodide

Concen: 7.03 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

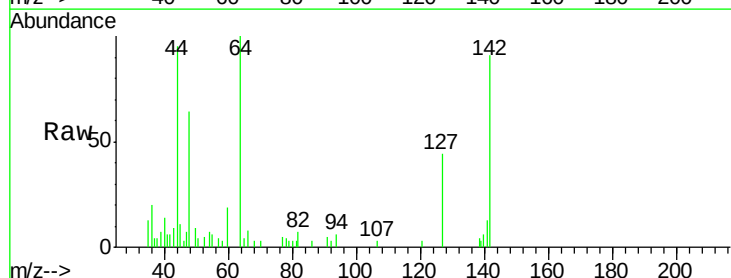
Tgt Ion: 142 Resp: 2843

Ion Ratio Lower Upper

142 100

127 46.4 36.6 55.0

141 15.8 11.3 16.9



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

2000

1500

1000

500

0

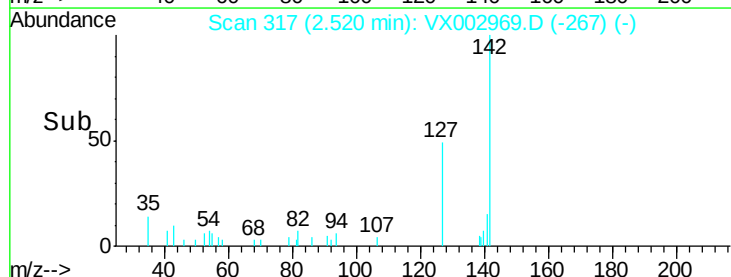
Time-->

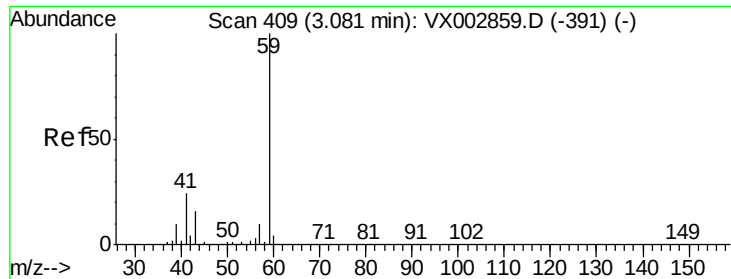
2.45

2.50

2.55

2.60



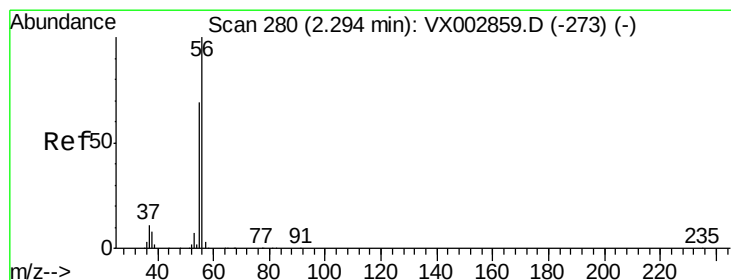
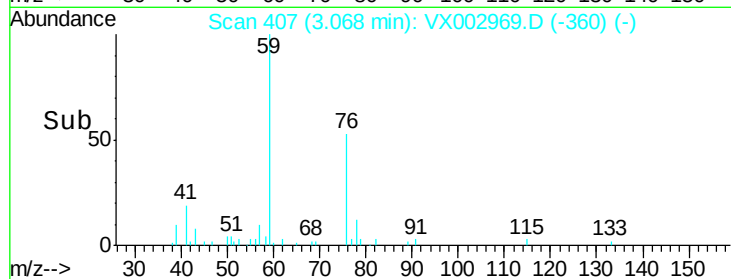
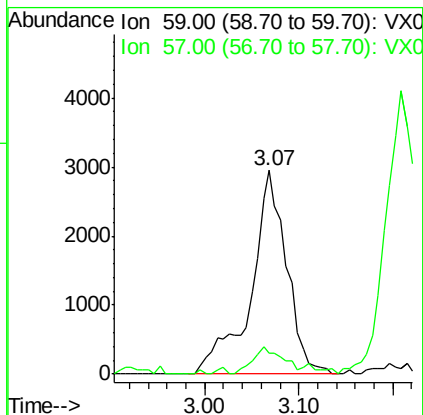
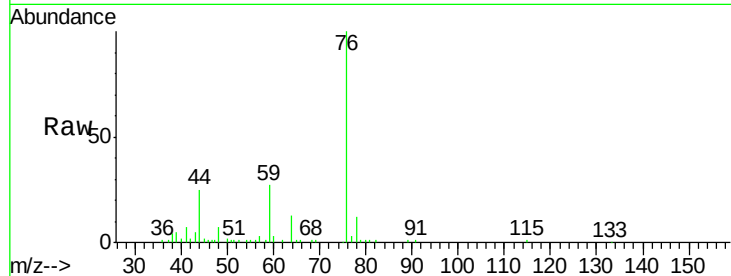


#11

Tert butyl alcohol  
Concen: 10.38 ug/l  
RT: 3.07 min Scan# 407  
Delta R.T. -0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

Instrument :  
MSVOA\_X  
ClientSampleId :

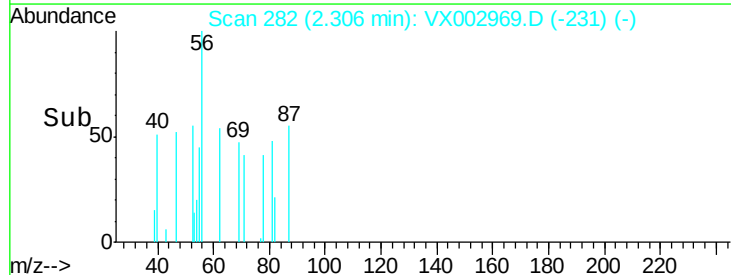
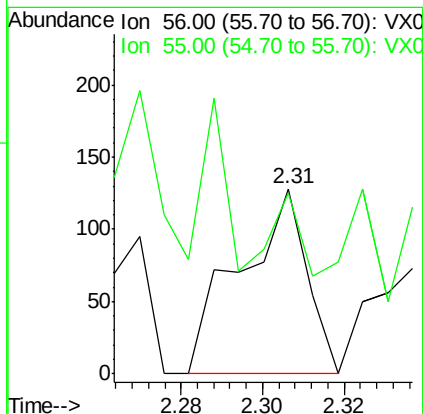
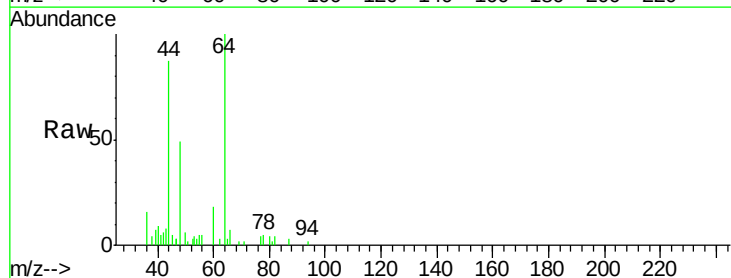
Tot Ion: 59 Resp: 7854  
Ion Ratio Lower Upper  
59 100  
57 11.5 8.2 12.2

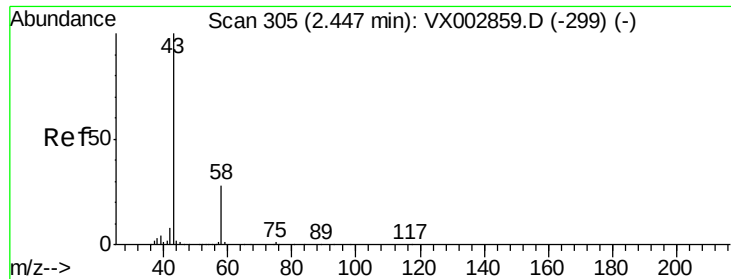


#13

Acrolein  
Concen: 4.57 ug/l  
RT: 2.31 min Scan# 282  
Delta R.T. 0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

Tgt Ion: 56 Resp: 147  
Ion Ratio Lower Upper  
56 100  
55 0.0 57.0 85.4#





#16

Acetone

Concen: 4.87 ug/l

RT: 2.45 min Scan# 305

Delta R.T. -0.00 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

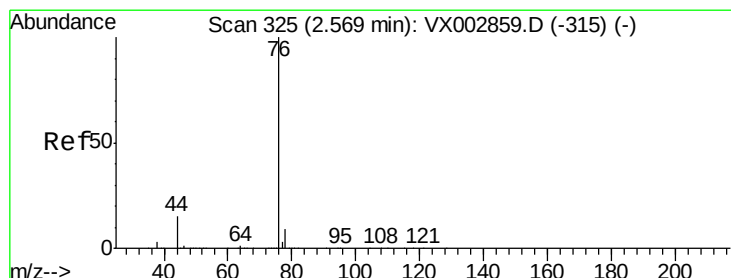
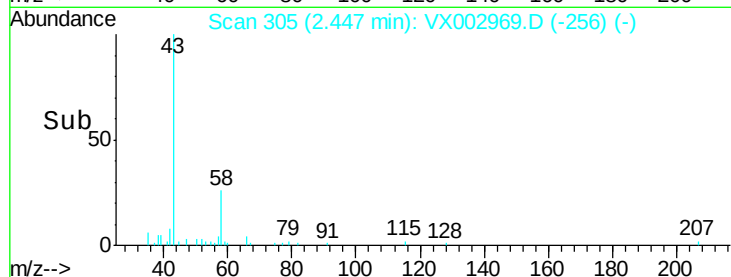
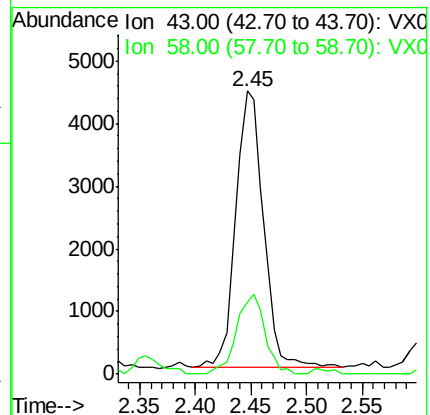
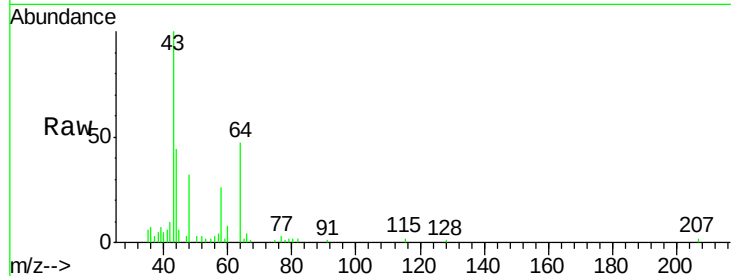
ClientSampleId :

Tot Ion: 43 Resp: 7657

Ion Ratio Lower Upper

43 100

58 26.1 22.1 33.1



#17

Carbon Disulfide

Concen: 0.94 ug/l

RT: 2.58 min Scan# 327

Delta R.T. 0.01 min

Lab File: VX002969.D

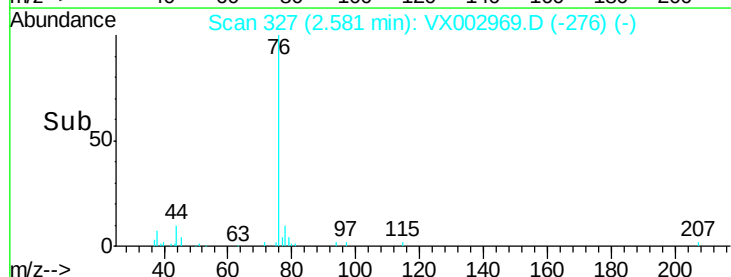
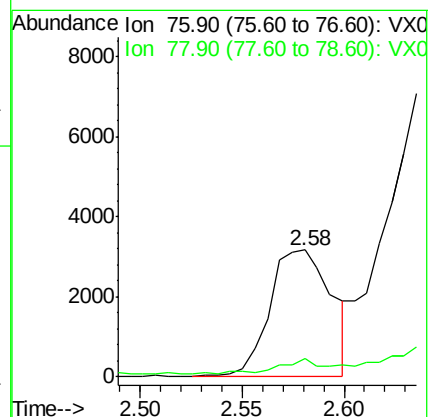
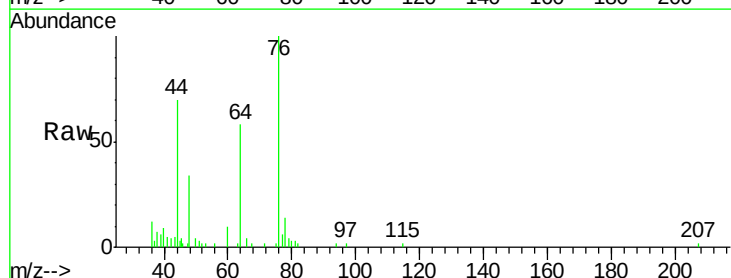
Acq: 28 Jun 2018 06:38

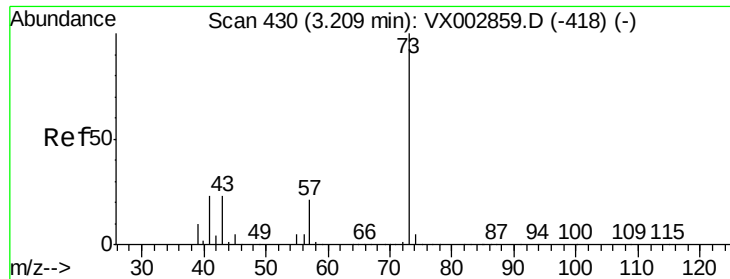
Tgt Ion: 76 Resp: 6766

Ion Ratio Lower Upper

76 100

78 11.4 6.9 10.3#

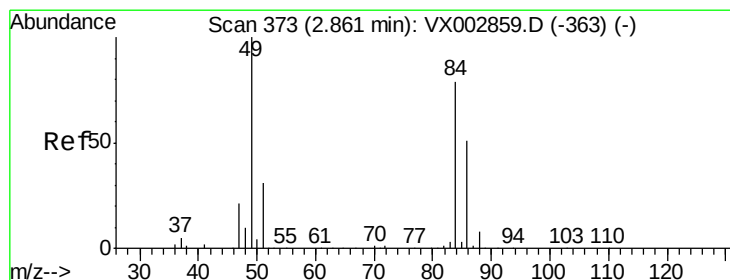
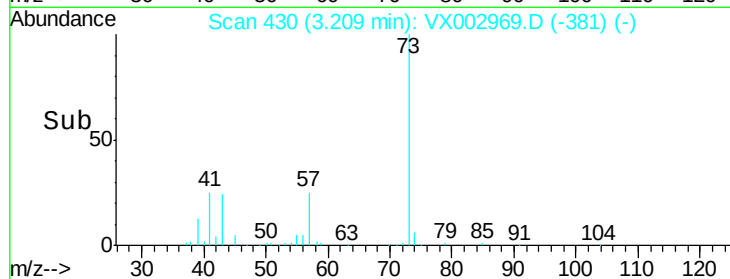
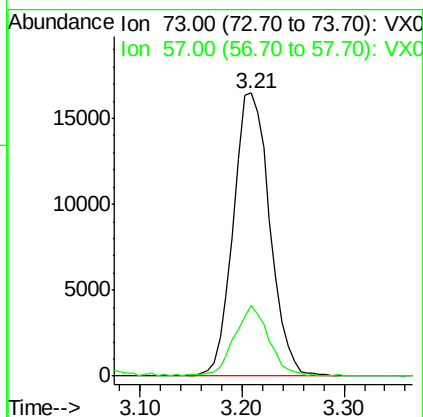
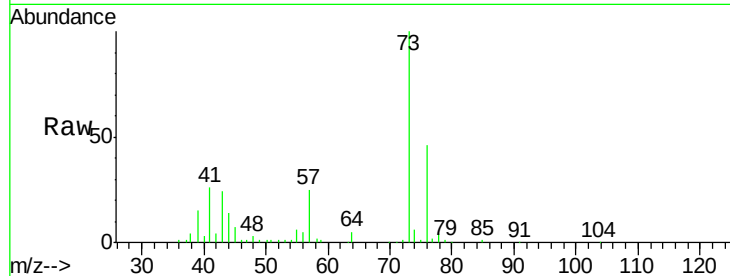




#19  
Methyl tert-butyl Ether  
Concen: 4.19 ug/l  
RT: 3.21 min Scan# 430  
Delta R.T. -0.00 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

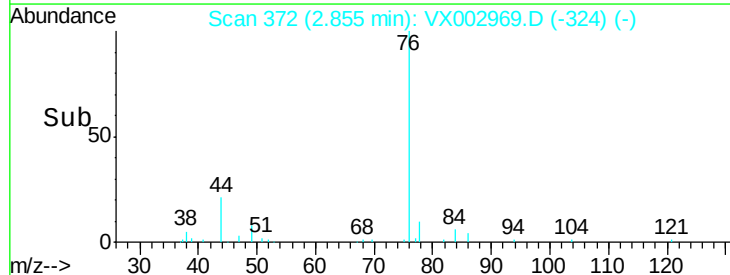
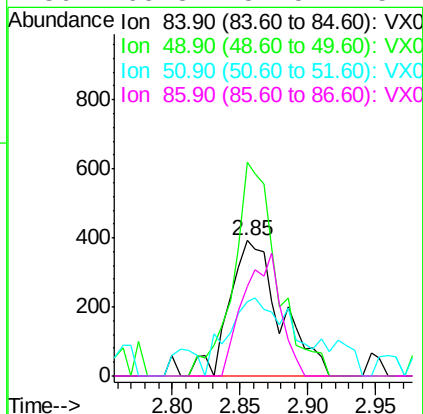
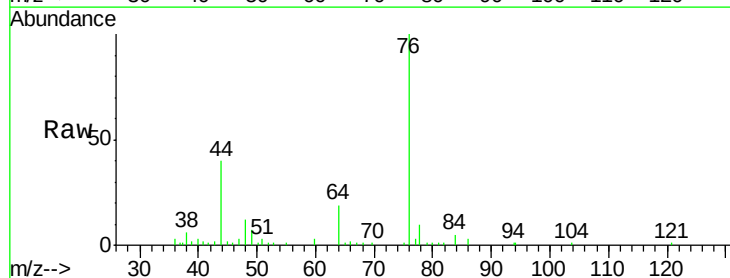
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 73 Resp: 40850  
Ion Ratio Lower Upper  
73 100  
57 24.5 17.7 26.5

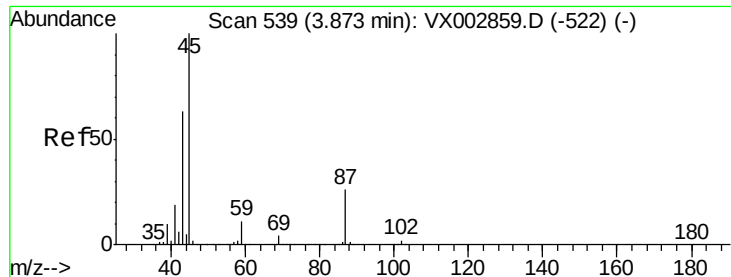


#20  
Methylene Chloride  
Concen: 0.34 ug/l  
RT: 2.85 min Scan# 372  
Delta R.T. -0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

Tgt Ion: 84 Resp: 1028  
Ion Ratio Lower Upper  
84 100  
49 157.9 107.8 161.6  
51 36.0 32.8 49.2  
86 65.8 52.5 78.7



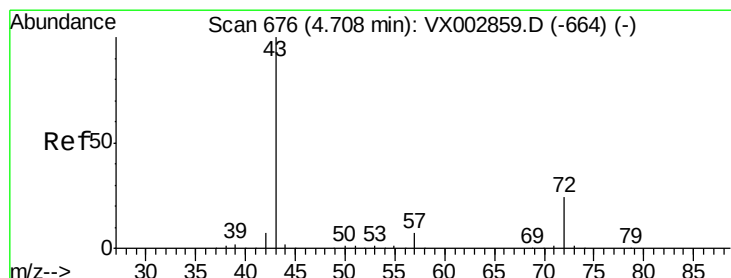
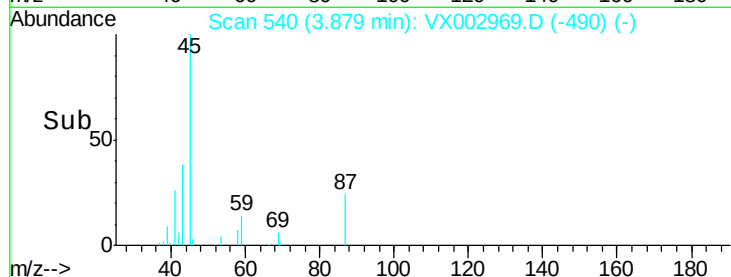
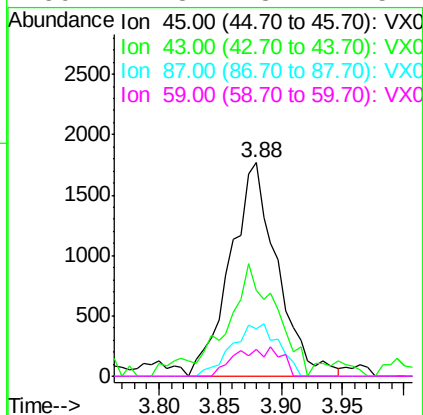
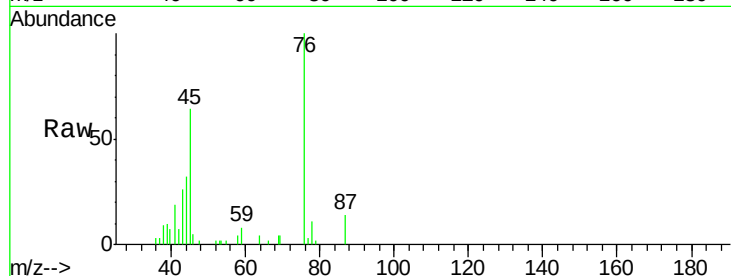




#22  
Diisopropyl ether  
Concen: 0.46 ug/l  
RT: 3.88 min Scan# 540  
Delta R.T. 0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

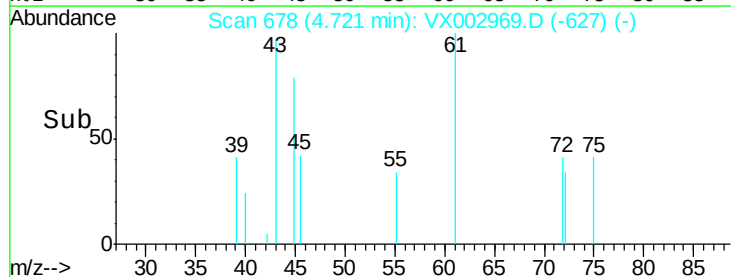
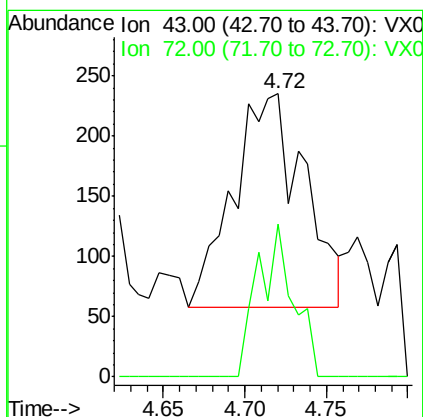
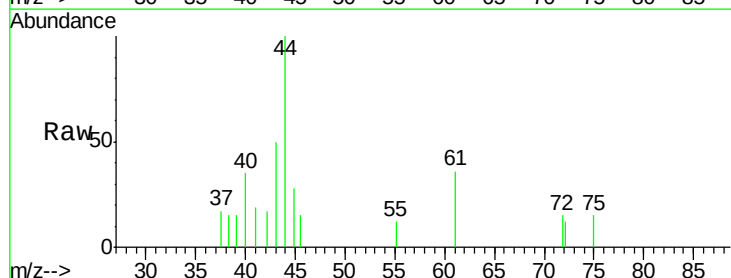
Instrument :  
MSVOA\_X  
ClientSampled :

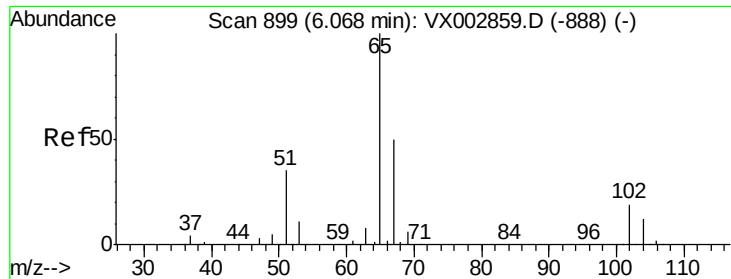
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 45    | Resp: | 4698  |
| Ion      | Ratio | Lower | Upper |
| 45       | 100   |       |       |
| 43       | 33.0  | 46.8  | 70.2# |
| 87       | 22.1  | 20.2  | 30.4  |
| 59       | 12.8  | 8.7   | 13.1  |



#25  
2-Butanone  
Concen: 0.23 ug/l  
RT: 4.72 min Scan# 678  
Delta R.T. 0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 537   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 71.8  | 18.5  | 27.7# |

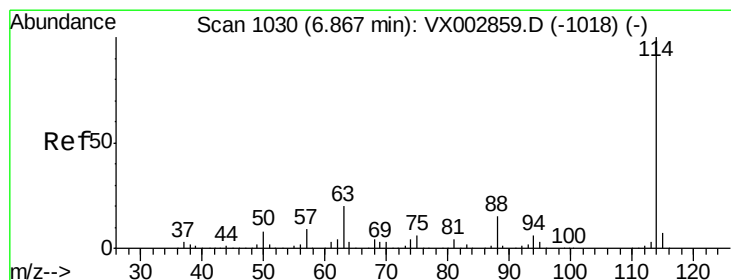
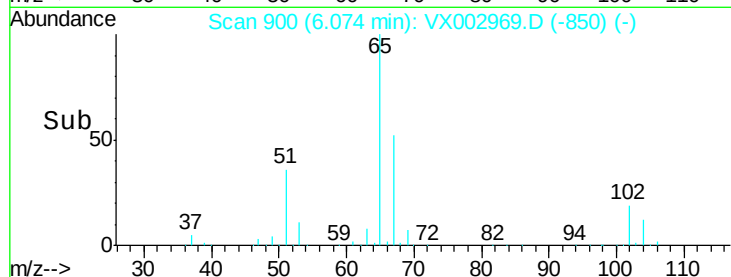
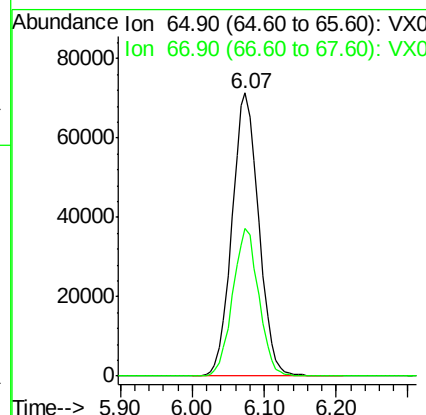
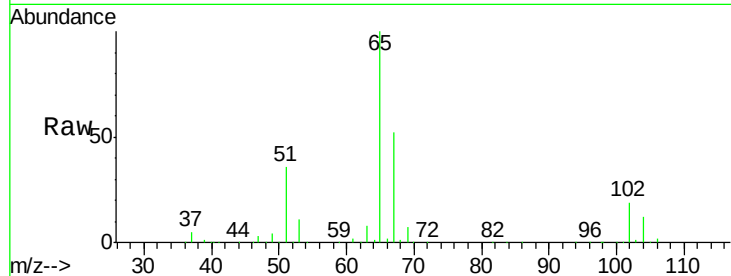




#33  
 1,2-Dichloroethane-d4  
 Concen: 48.45 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.01 min  
 Lab File: VX002969.D  
 Acq: 28 Jun 2018 06:38

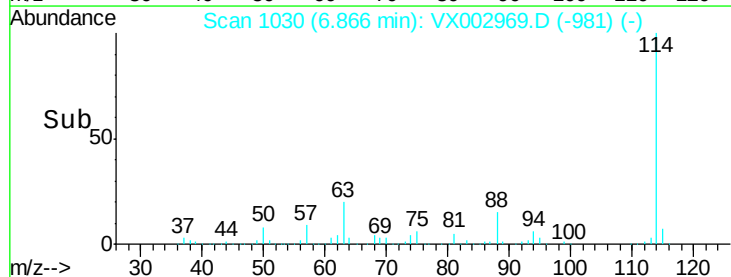
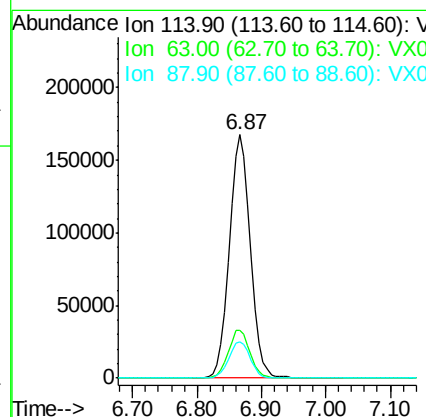
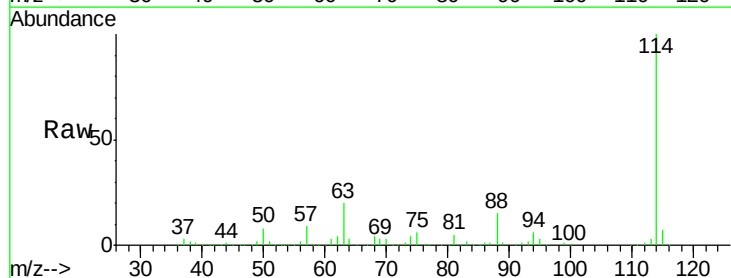
Instrument :  
 MSVOA\_X  
 ClientSampleId :

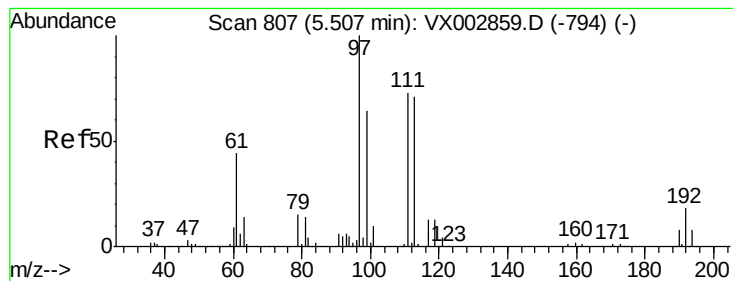
Tot Ion: 65 Resp: 184060  
 Ion Ratio Lower Upper  
 65 100  
 67 51.2 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. -0.00 min  
 Lab File: VX002969.D  
 Acq: 28 Jun 2018 06:38

Tgt Ion: 114 Resp: 386228  
 Ion Ratio Lower Upper  
 114 100  
 63 19.6 0.0 41.4  
 88 15.1 0.0 30.0





#35

Dibromofluoromethane

Concen: 49.08 ug/l

RT: 5.51 min Scan# 807

Delta R.T. -0.00 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

ClientSampleId :

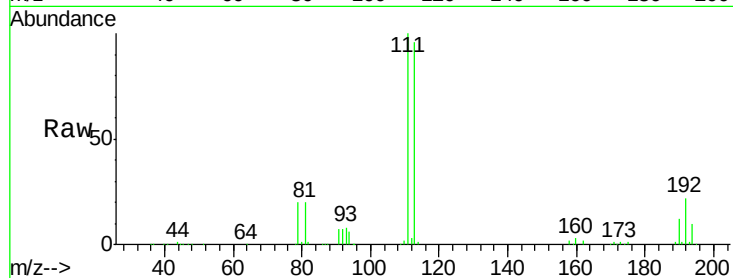
Tot Ion:113 Resp: 150117

Ion Ratio Lower Upper

113 100

111 102.1 81.4 122.0

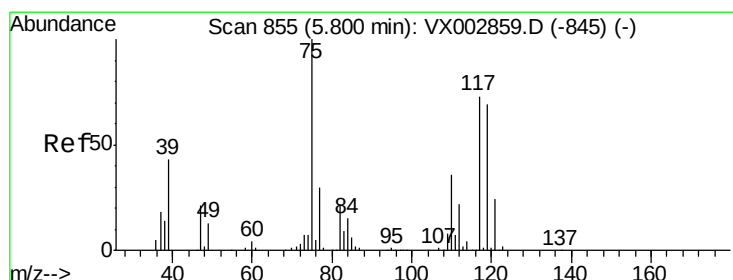
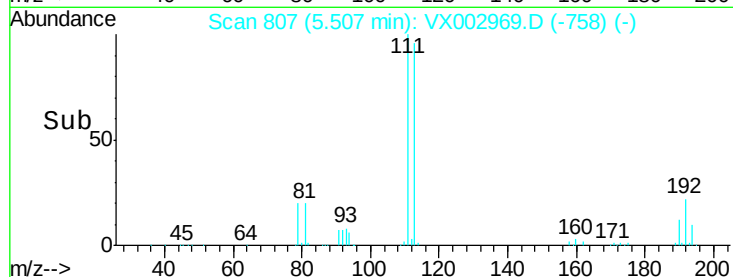
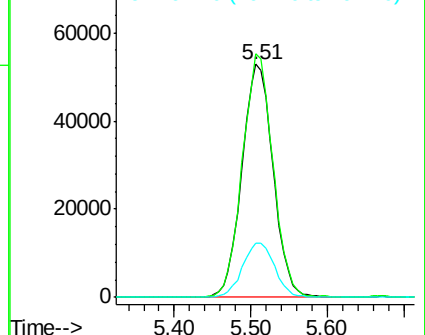
192 24.1 19.1 28.7



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: 4.47 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.13 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

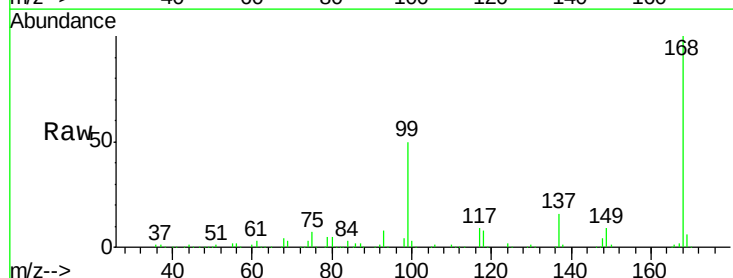
Tgt Ion: 75 Resp: 18945

Ion Ratio Lower Upper

75 100

110 10.5 18.1 54.4#

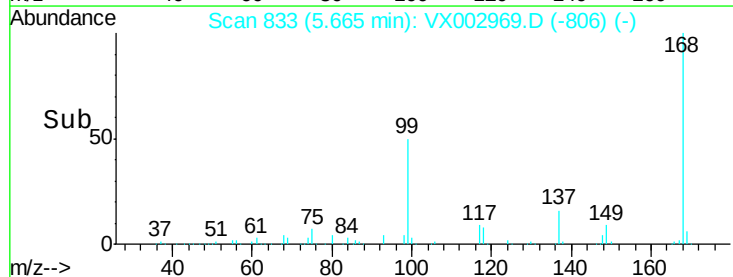
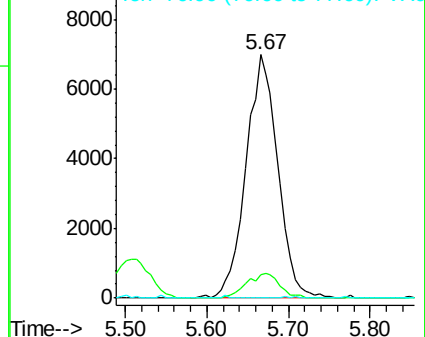
77 0.0 24.3 36.5#

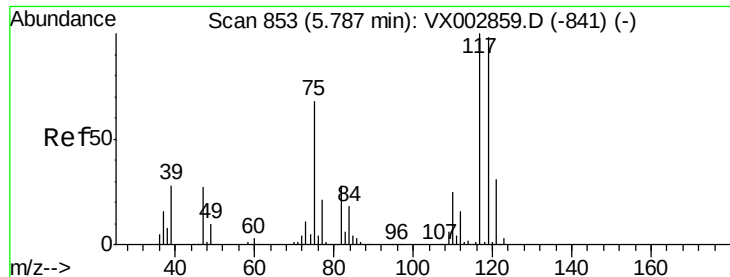


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 5.37 ug/l

RT: 5.67 min Scan# 834

Delta R.T. -0.12 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

ClientSampleId :

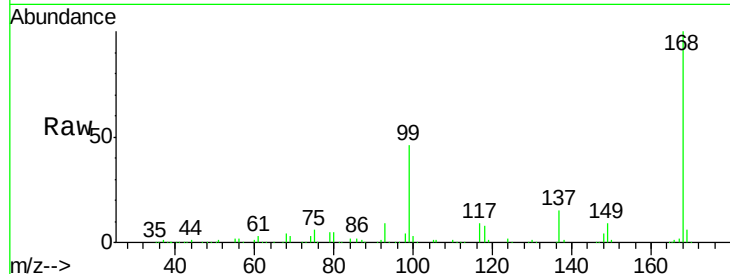
Tot Ion:117 Resp: 24961

Ion Ratio Lower Upper

117 100

119 5.6 77.4 116.0#

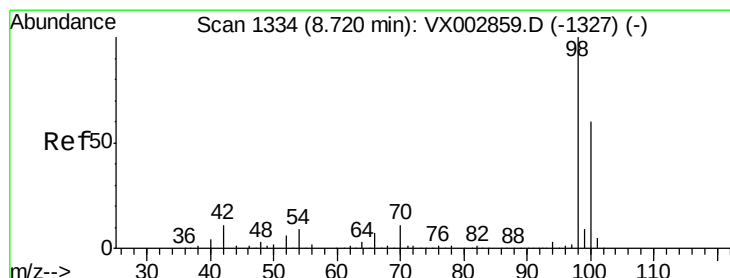
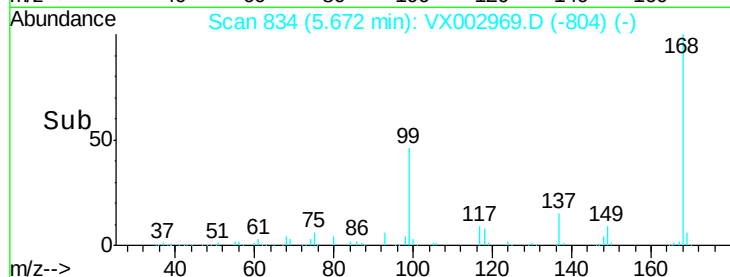
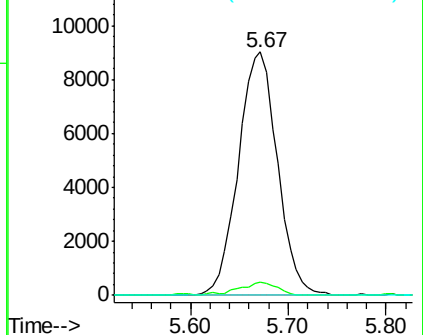
121 0.0 24.4 36.6#



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



#50

Toluene-d8

Concen: 48.68 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VX002969.D

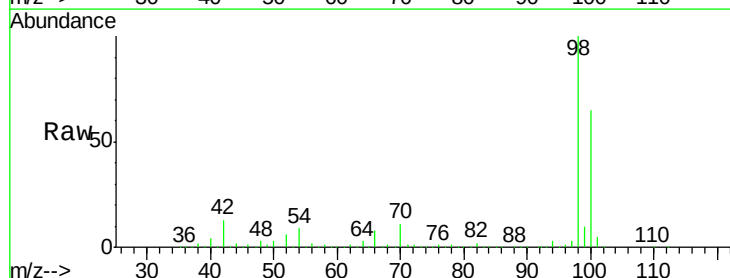
Acq: 28 Jun 2018 06:38

Tgt Ion: 98 Resp: 543690

Ion Ratio Lower Upper

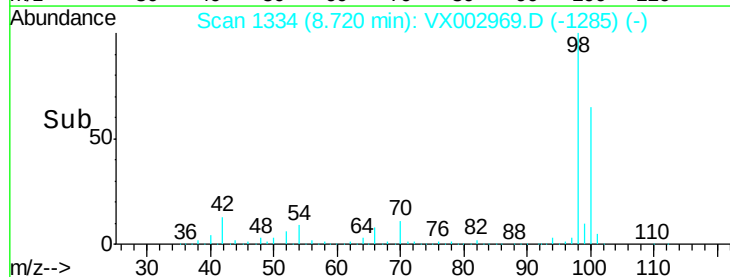
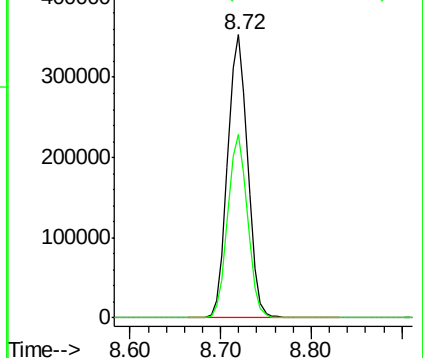
98 100

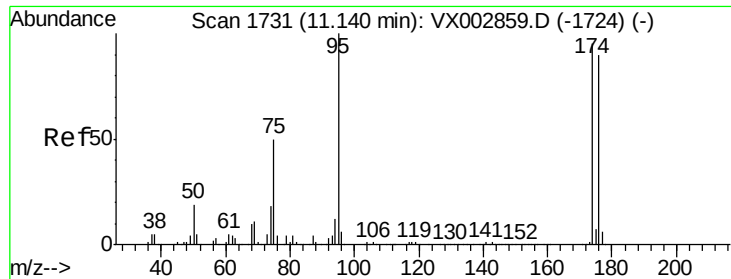
100 63.9 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0





#62

4-Bromofluorobenzene

Concen: 45.92 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

ClientSampleId :

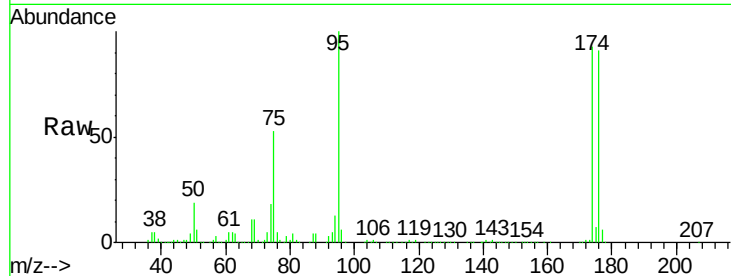
Tot Ion: 95 Resp: 197804

Ion Ratio Lower Upper

95 100

174 96.5 0.0 187.4

176 94.4 0.0 181.0

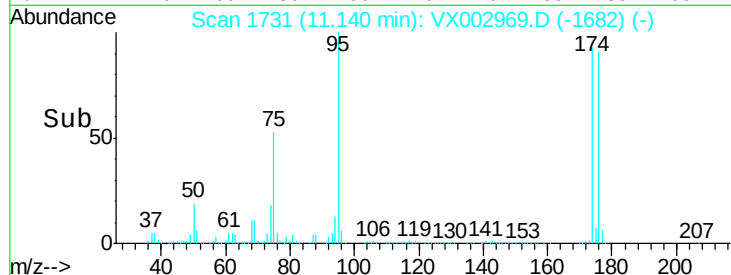


Abundance Ion 94.90 (94.60 to 95.60): VX002859.D (-1724) (-)

Ion 173.80 (173.50 to 174.50): VX002859.D (-1724) (-)

Ion 175.80 (175.50 to 176.50): VX002859.D (-1724) (-)

Time-->

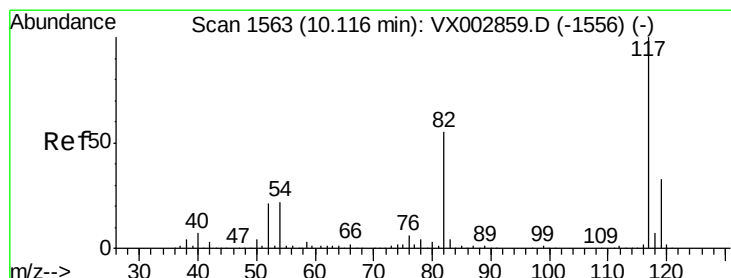


Abundance Ion 94.90 (94.60 to 95.60): VX002969.D (-1682) (-)

Ion 173.80 (173.50 to 174.50): VX002969.D (-1682) (-)

Ion 175.80 (175.50 to 176.50): VX002969.D (-1682) (-)

Time-->



#63

Chlorobenzene-d5

Concen: 50.00 ug/l

RT: 10.12 min Scan# 1563

Delta R.T. -0.00 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

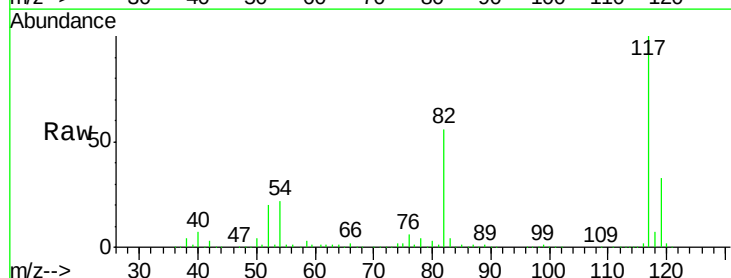
Tgt Ion: 117 Resp: 361159

Ion Ratio Lower Upper

117 100

82 56.0 45.0 67.4

119 32.5 25.8 38.6

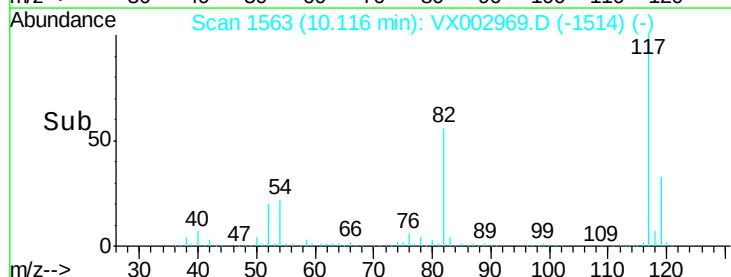


Abundance Ion 116.90 (116.60 to 117.60): VX002859.D (-1556) (-)

Ion 82.00 (81.70 to 82.70): VX002859.D (-1556) (-)

Ion 118.90 (118.60 to 119.60): VX002859.D (-1556) (-)

Time-->

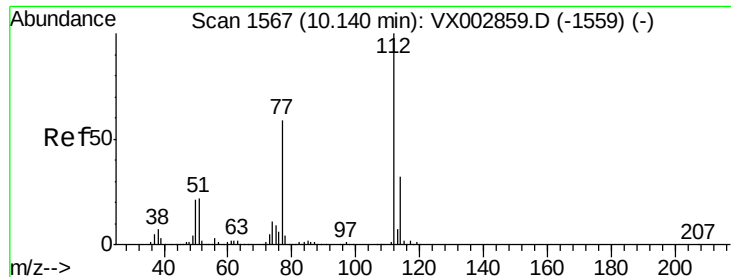


Abundance Ion 116.90 (116.60 to 117.60): VX002969.D (-1514) (-)

Ion 82.00 (81.70 to 82.70): VX002969.D (-1514) (-)

Ion 118.90 (118.60 to 119.60): VX002969.D (-1514) (-)

Time-->



#65

Chlorobenzene

Concen: 7.93 ug/l

RT: 10.14 min Scan# 1567

Delta R.T. -0.00 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

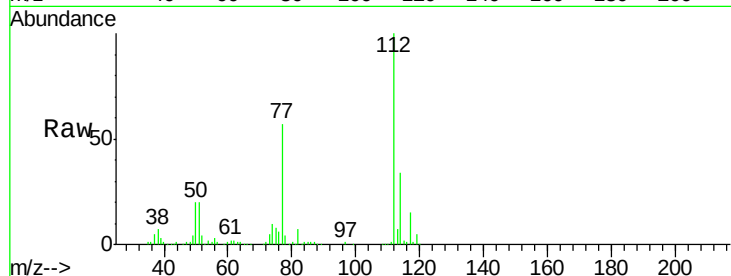
ClientSampled :

Tot Ion:112 Resp: 72776

Ion Ratio Lower Upper

112 100

114 33.7 25.3 37.9



Abundance Ion 111.90 (111.60 to 112.60): V

Ion 113.90 (113.60 to 114.60): V

10.14

60000

50000

40000

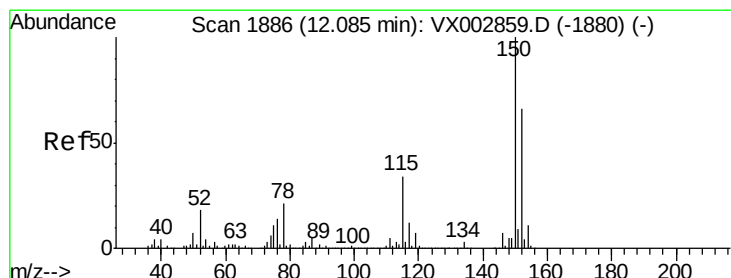
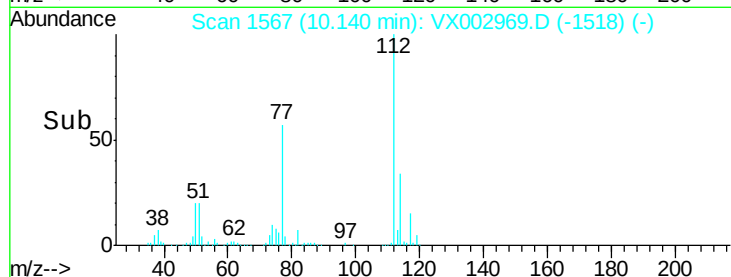
30000

20000

10000

0

Time-->



#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.08 min Scan# 1885

Delta R.T. -0.01 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

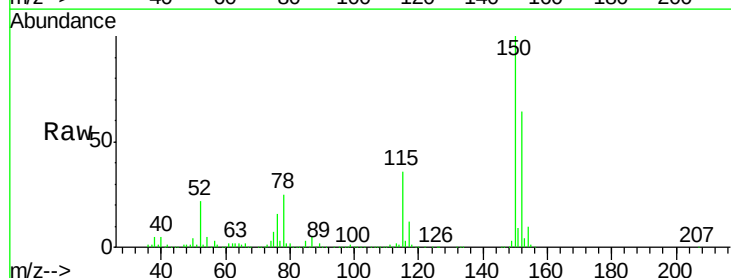
Tgt Ion:152 Resp: 211591

Ion Ratio Lower Upper

152 100

115 54.2 40.1 120.2

150 154.9 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

12.08

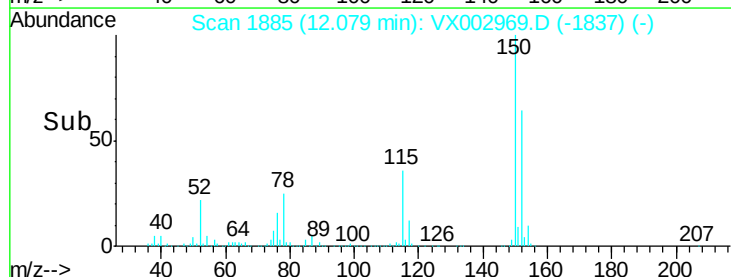
300000

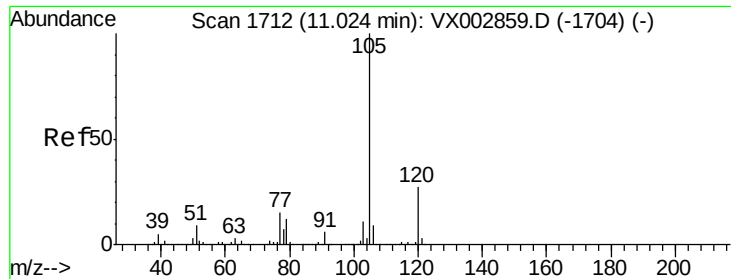
200000

100000

0

Time-->

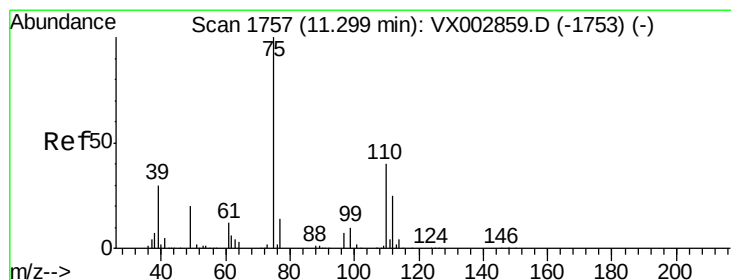
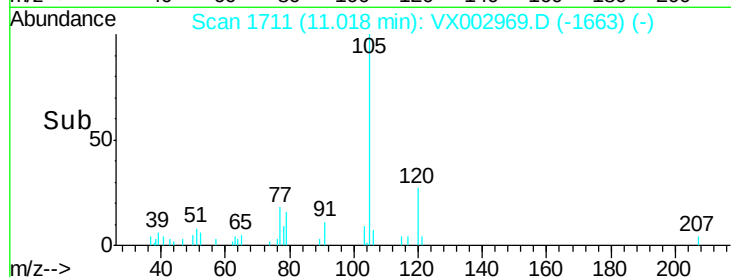
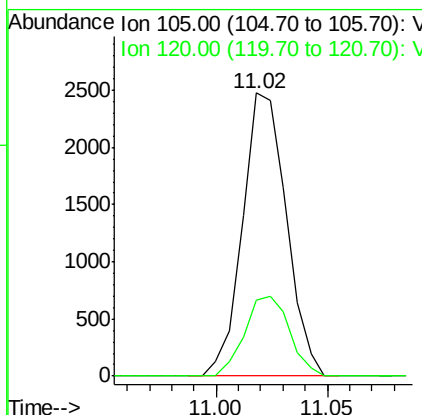
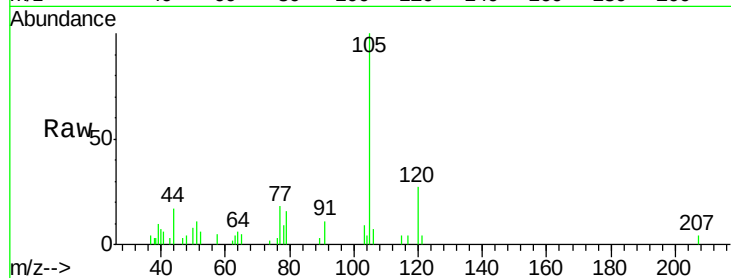




#73  
Isopropylbenzene  
Concen: 0.24 ug/l  
RT: 11.02 min Scan# 1711  
Delta R.T. -0.01 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

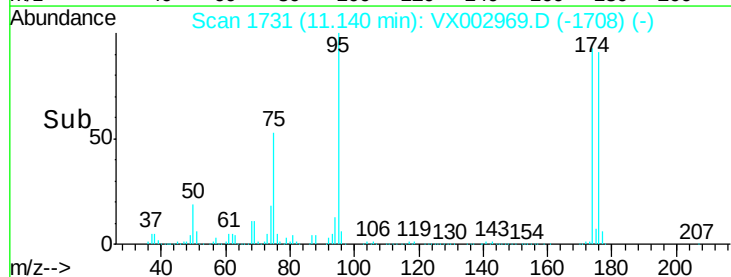
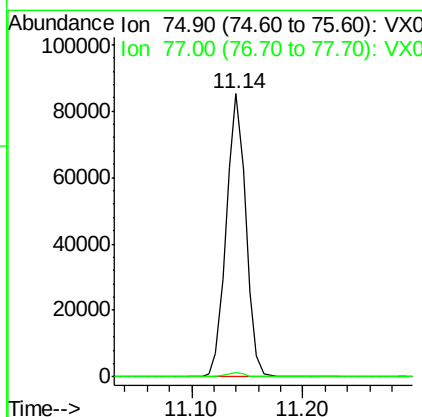
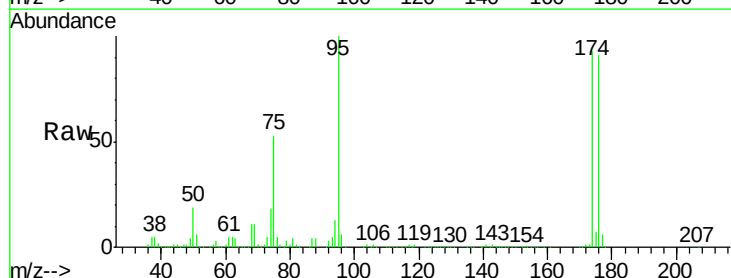
Instrument :  
MSVOA\_X  
ClientSampled :

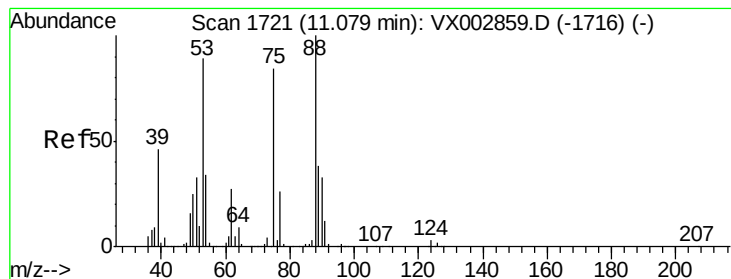
Tot Ion:105 Resp: 3411  
Ion Ratio Lower Upper  
105 100  
120 28.7 13.5 40.4



#76  
1,2,3-Trichloropropane  
Concen: 27.05 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. -0.16 min  
Lab File: VX002969.D  
Acq: 28 Jun 2018 06:38

Tgt Ion: 75 Resp: 103667  
Ion Ratio Lower Upper  
75 100  
77 1.5 22.8 68.3#





#81

trans-1,4-Dichloro-2-butene

Concen: 76.56 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX002969.D

Acq: 28 Jun 2018 06:38

Instrument :

MSVOA\_X

ClientSampled :

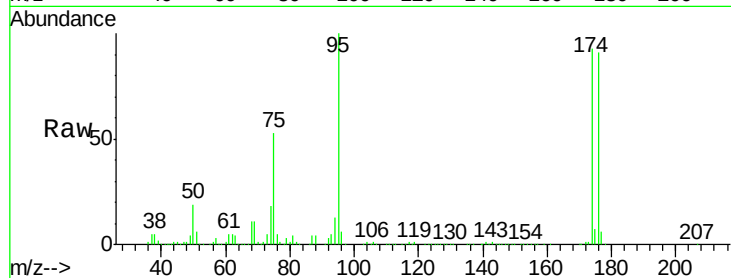
Tot Ion: 75 Resp: 103667

Ion Ratio Lower Upper

75 100

53 0.2 86.8 130.2#

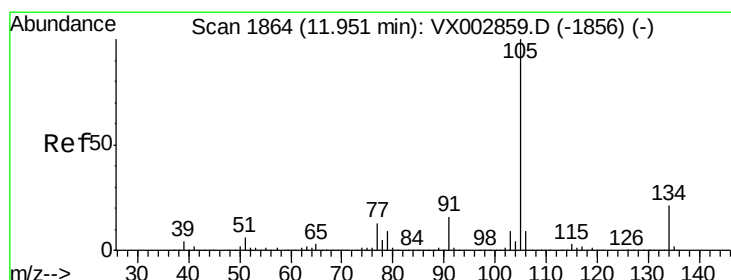
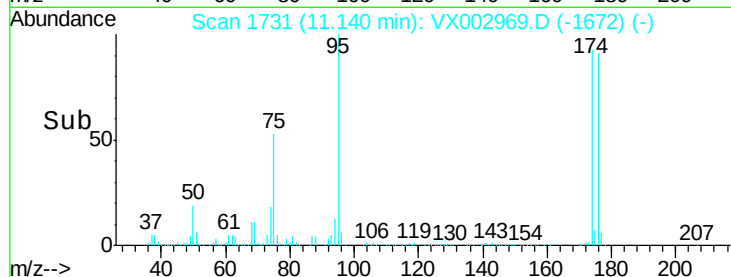
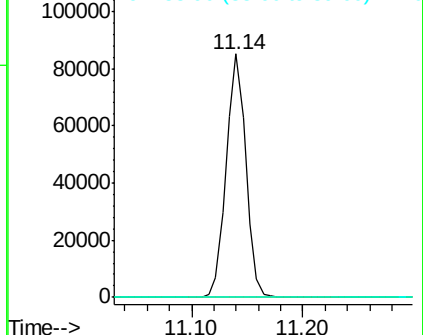
89 0.0 38.2 57.2#



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



#85

sec-Butylbenzene

Concen: 0.33 ug/l

RT: 11.95 min Scan# 1864

Delta R.T. -0.00 min

Lab File: VX002969.D

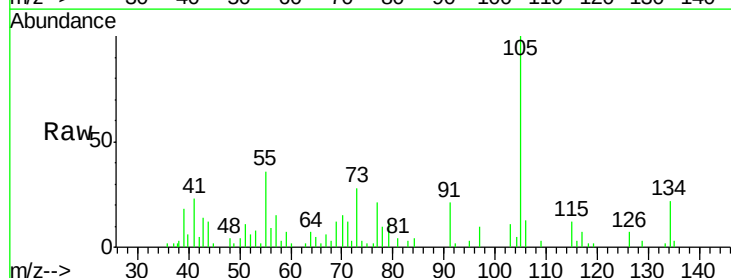
Acq: 28 Jun 2018 06:38

Tgt Ion: 105 Resp: 4679

Ion Ratio Lower Upper

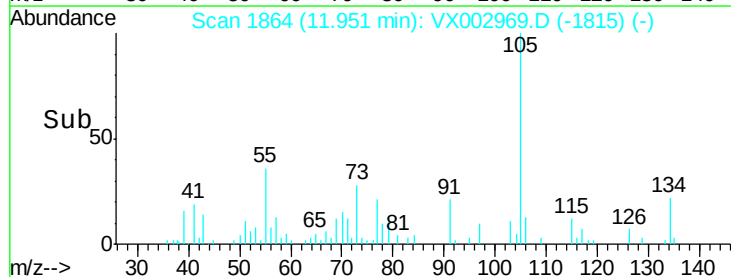
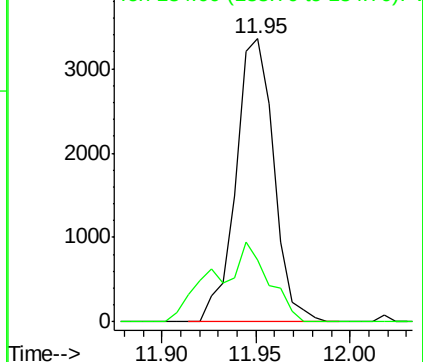
105 100

134 40.5 10.4 31.1#

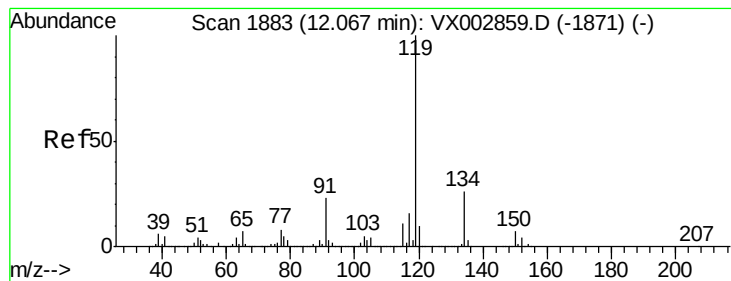


Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V







#86  
 p-Isopropyltoluene  
 Concen: 0.21 ug/l  
 RT: 12.24 min Scan# 1911  
 Delta R.T. 0.17 min  
 Lab File: VX002969.D  
 Acq: 28 Jun 2018 06:38

Instrument :  
 MSVOA\_X  
 ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 119   | Resp: | 2671  |
| Ion      | Ratio | Lower | Upper |
| 119      | 100   |       |       |
| 134      | 27.9  | 13.4  | 40.1  |
| 91       | 34.0  | 11.9  | 35.7  |

