

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX060118\  
 Data File : VX002230.D  
 Acq On : 01 Jun 2018 23:30  
 Operator : JC/MD  
 Sample : J3151-09  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jun 02 03:24:02 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X052418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu May 24 13:09:03 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 225934   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 324911   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 289707   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 155060   | 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   | 200457   | 49.64 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.28% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 144934   | 44.61 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.22% |          |
| 50) Toluene-d8              | 8.72  | 98   | 577474   | 49.09 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.18% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 193762   | 42.10 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 84.20% |          |

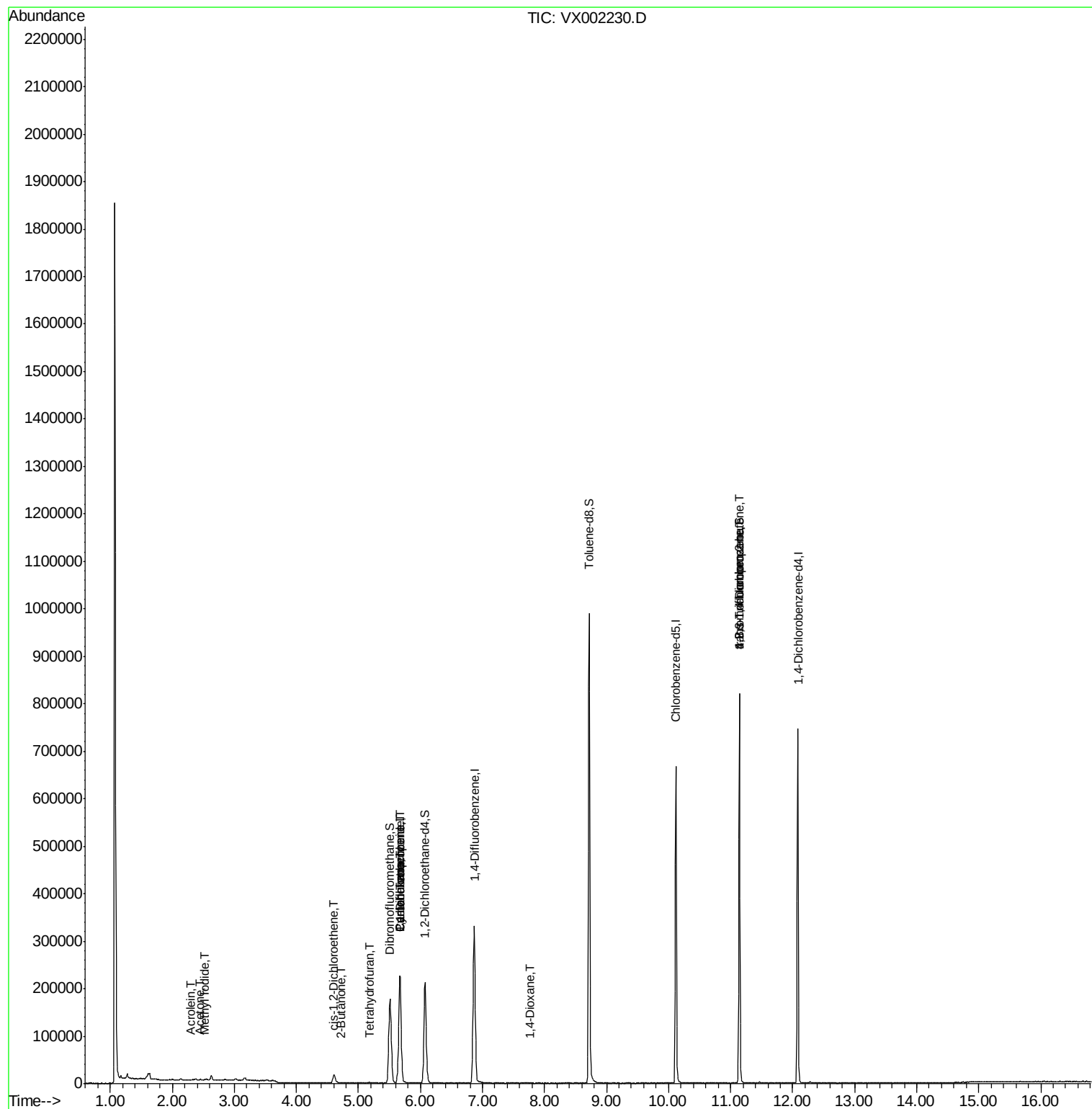
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|--------------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.20  | 85   | 54       | Below Cal | #     | 41     |
| 10) Methyl Iodide              | 2.52  | 142  | 1271     | 0.33      | ug/l  | 95     |
| 13) Acrolein                   | 2.30  | 56   | 225      | 0.66      | ug/l  | 47     |
| 16) Acetone                    | 2.45  | 43   | 1150     | 0.74      | ug/l  | 77     |
| 18) Methyl Acetate             | 2.78  | 43   | 292      | Below Cal | #     | 55     |
| 20) Methylene Chloride         | 2.86  | 84   | 603      | Below Cal | #     | 83     |
| 21) trans-1,2-Dichloroethene   | 3.17  | 96   | 2392     | Below Cal |       | 82     |
| 25) 2-Butanone                 | 4.71  | 43   | 867      | 0.30      | ug/l  | 99     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 8635     | 2.51      | ug/l  | 47     |
| 28) Bromochloromethane         | 4.82  | 49   | 23       | Below Cal | #     | 14     |
| 29) Tetrahydrofuran            | 5.17  | 42   | 2379     | 1.28      | ug/l  | 81     |
| 31) Cyclohexane                | 5.67  | 56   | 5134     | 0.92      | ug/l  | 17     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 15840    | 3.50      | ug/l  | 52     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 21413    | 4.06      | ug/l  | 15     |
| 41) Methacrylonitrile          | 5.08  | 41   | 87       | Below Cal | #     | 25     |
| 49) 1,4-Dioxane                | 7.76  | 88   | 26       | 0.30      | ug/l  | 1      |
| 74) N-amyl acetate             | 6.49  | 43   | 217      | Below Cal | #     | 60     |
| 75) 1,1,2,2-Tetrachloroethane  | 11.35 | 83   | 41       | Below Cal | #     | 25     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 103880   | 27.89     | ug/l  | 33     |
| 79) 2-Chlorotoluene            | 11.43 | 91   | 72       | Below Cal | #     | 40     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 103880   | 67.03     | ug/l  | 10     |

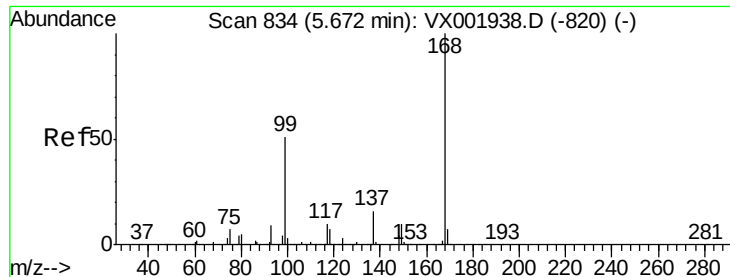
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: Jun 02 03:24:02 2018  
Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X052418W.M  
Quant Title : SW846 8260  
QLast Update : Thu May 24 13:09:03 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.01 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

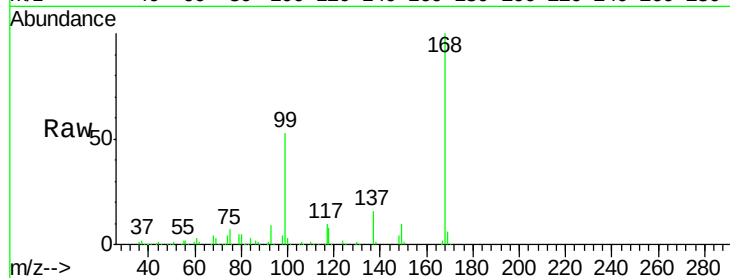
ClientSampled :

Tot Ion:168 Resp: 225934

Ion Ratio Lower Upper

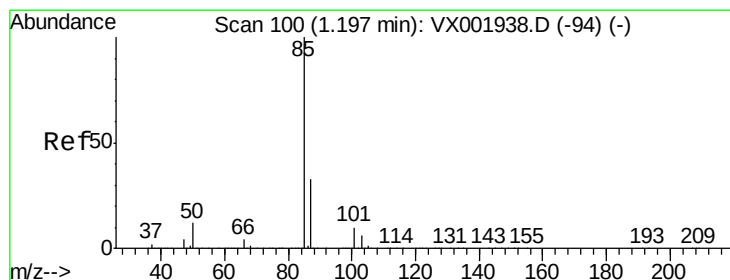
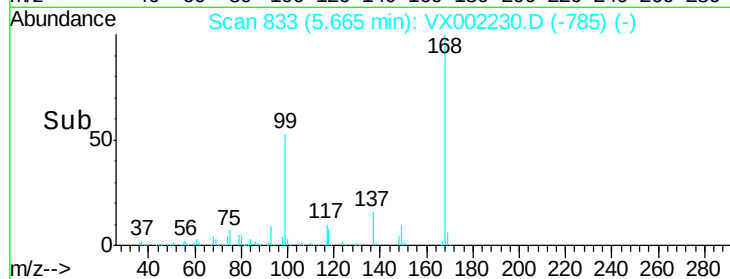
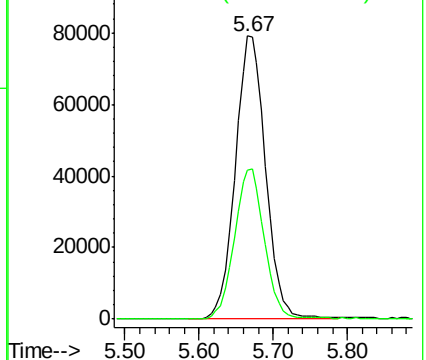
168 100

99 52.6 41.0 61.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.20 min Scan# 100

Delta R.T. 0.00 min

Lab File: VX002230.D

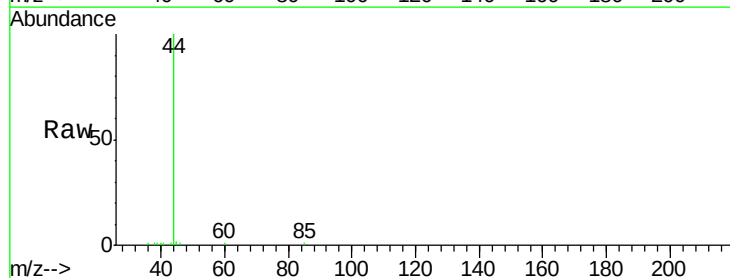
Acq: 01 Jun 2018 23:30

Tgt Ion: 85 Resp: 54

Ion Ratio Lower Upper

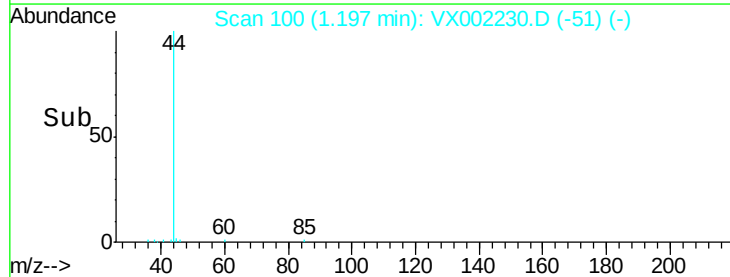
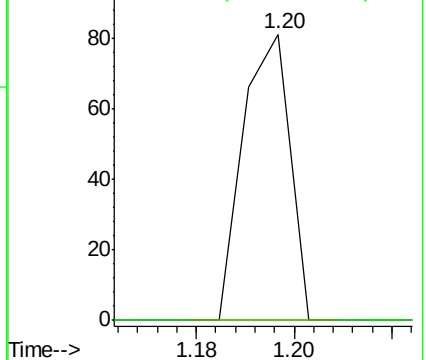
85 100

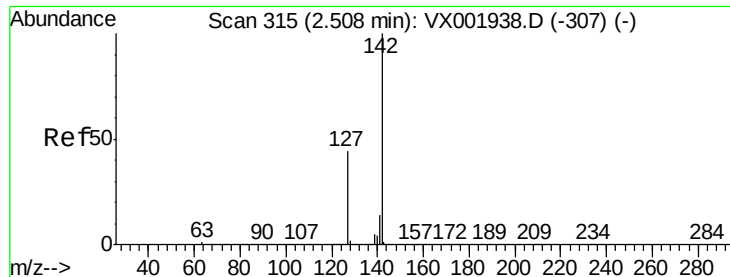
87 0.0 16.7 50.0#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

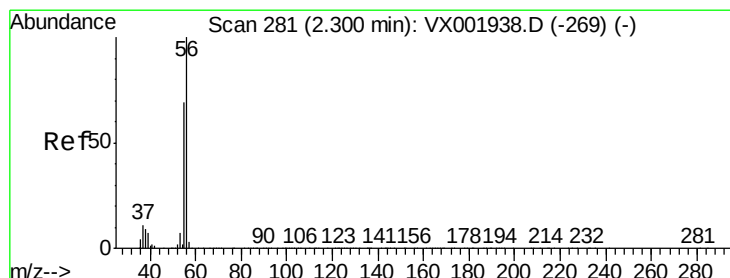
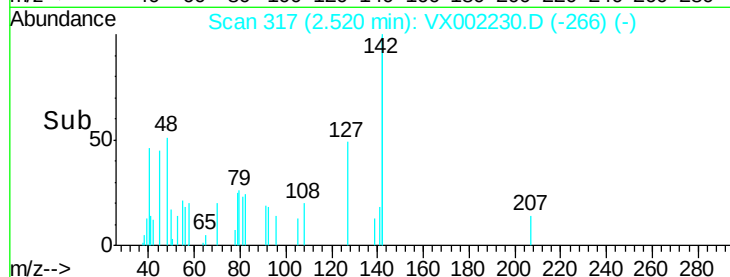
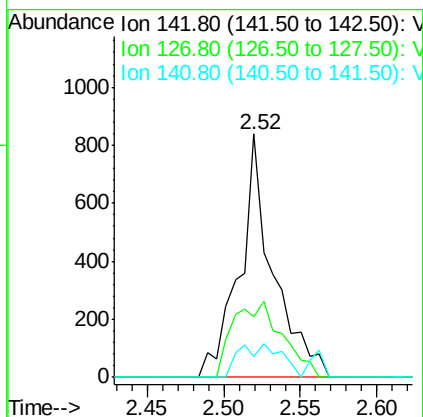
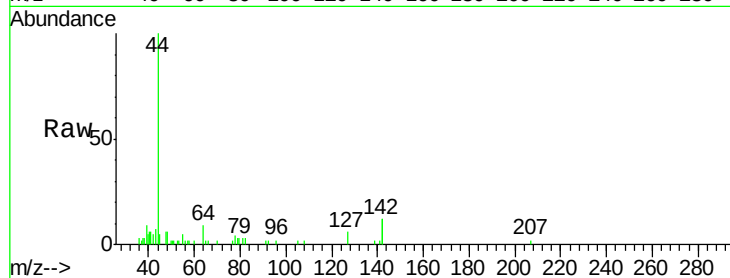




#10  
Methvl Iodide  
Concen: 0.33 ug/l  
RT: 2.52 min Scan# 317  
Delta R.T. 0.01 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

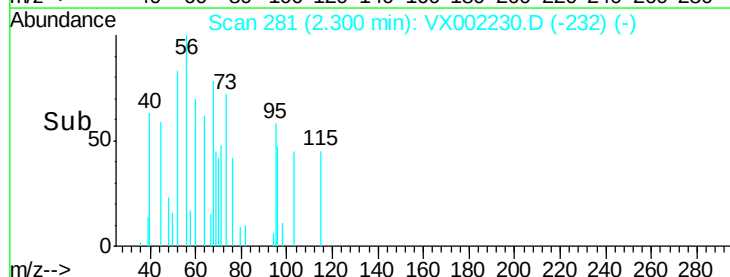
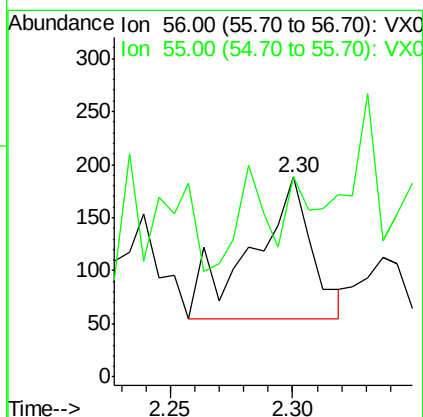
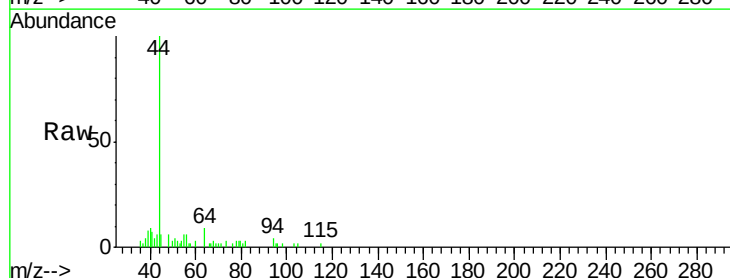
Instrument :  
MSVOA\_X  
ClientSampled :

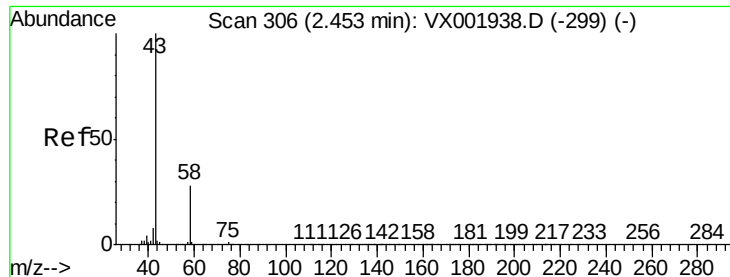
Tot Ion:142 Resp: 1271  
Ion Ratio Lower Upper  
142 100  
127 45.8 35.5 53.3  
141 7.8 11.3 16.9#



#13  
Acrolein  
Concen: 0.66 ug/l  
RT: 2.30 min Scan# 281  
Delta R.T. -0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

Tgt Ion: 56 Resp: 225  
Ion Ratio Lower Upper  
56 100  
55 27.6 56.8 85.2#

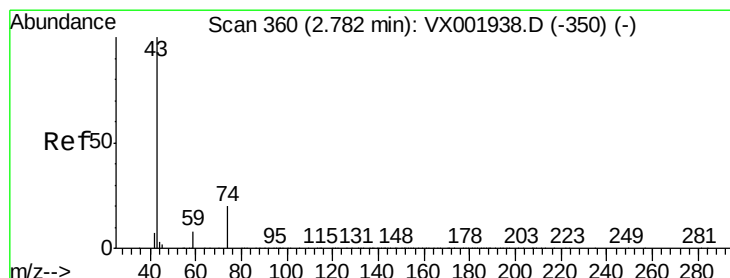
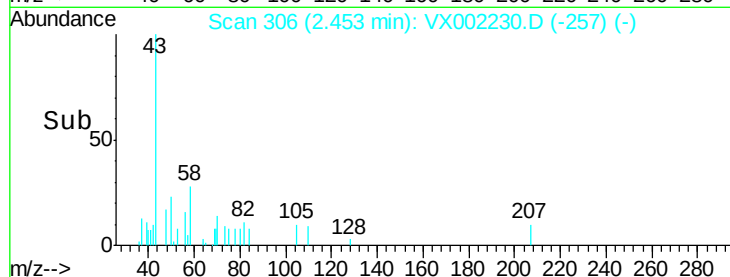
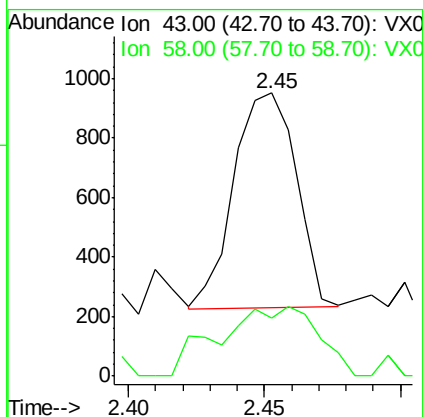
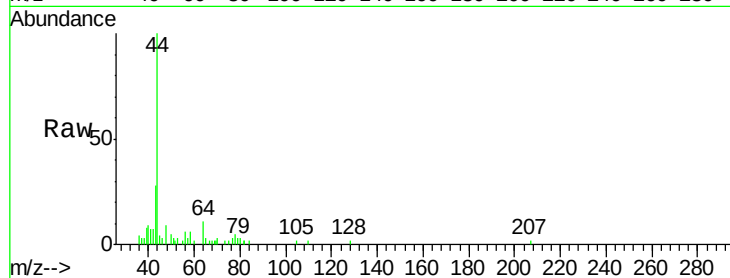




#16  
Acetone  
Concen: 0.74 ug/l  
RT: 2.45 min Scan# 306  
Delta R.T. -0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

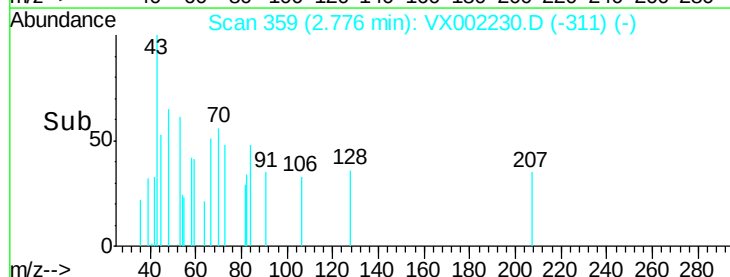
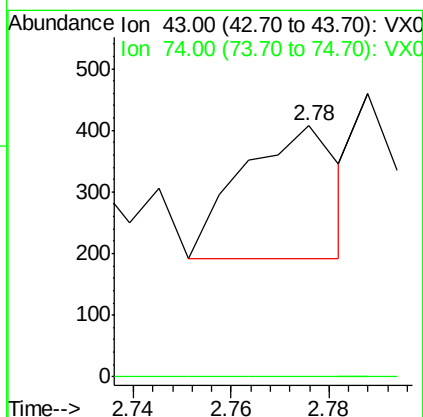
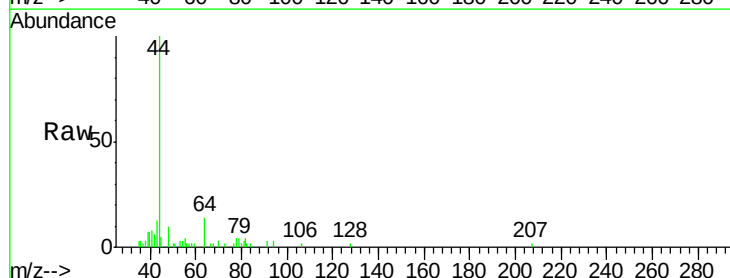
Instrument :  
MSVOA\_X  
ClientSampleId :

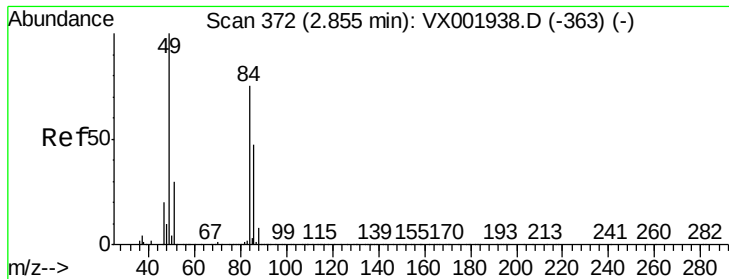
Tot Ion: 43 Resp: 1150  
Ion Ratio Lower Upper  
43 100  
58 15.9 22.3 33.5#



#18  
Methyl Acetate  
Concen: Below Cal  
RT: 2.78 min Scan# 359  
Delta R.T. -0.01 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

Tgt Ion: 43 Resp: 292  
Ion Ratio Lower Upper  
43 100  
74 0.0 16.8 25.2#

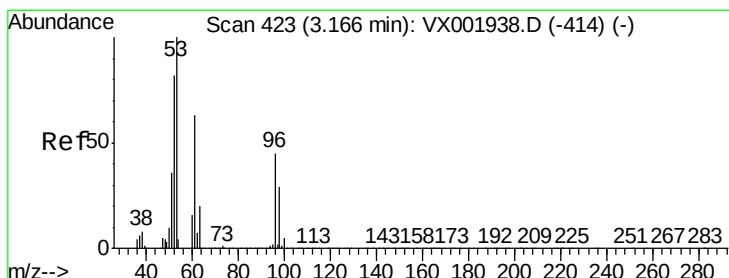
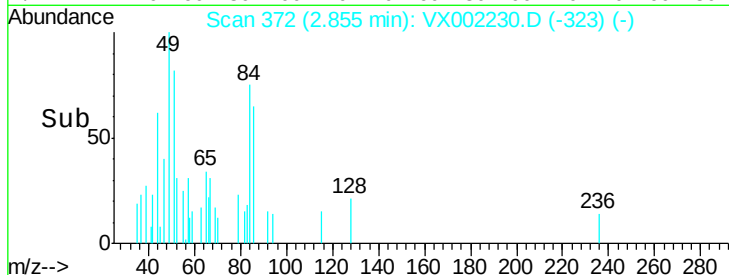
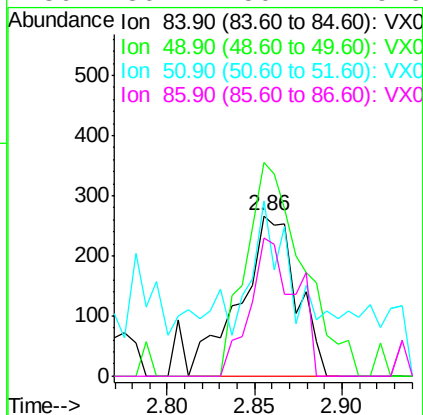
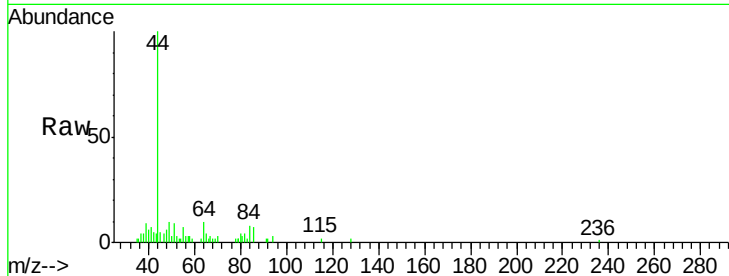




#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.86 min Scan# 372  
Delta R.T. 0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

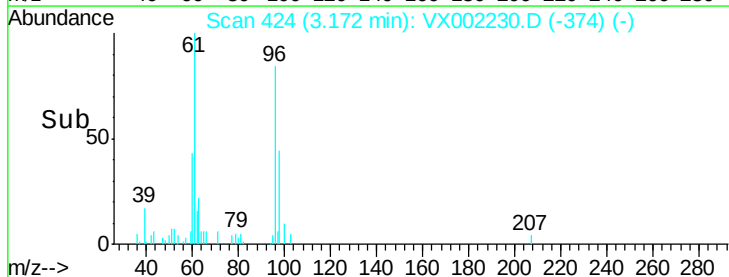
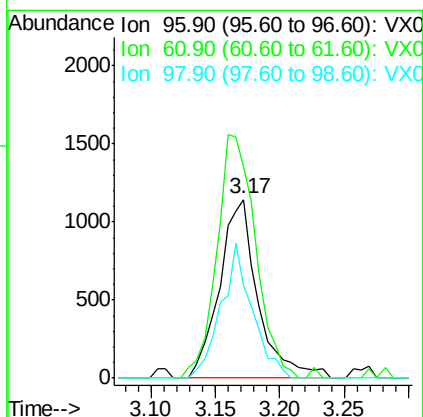
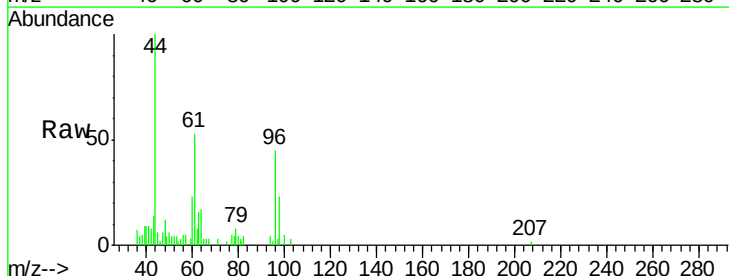
Instrument :  
MSVOA\_X  
ClientSampled :

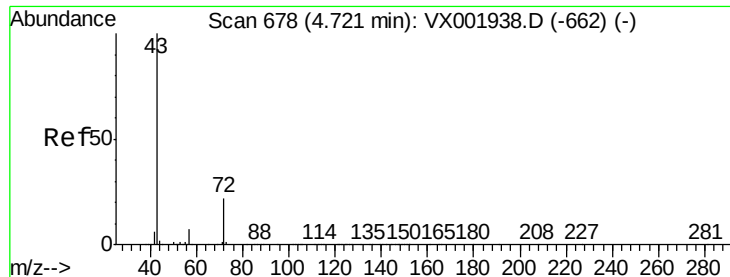
Tot Ion: 84 Resp: 603  
Ion Ratio Lower Upper  
84 100  
49 133.5 107.2 160.8  
51 73.7 32.4 48.6#  
86 86.1 50.4 75.6#



#21  
trans-1,2-Dichloroethene  
Concen: Below Cal  
RT: 3.17 min Scan# 424  
Delta R.T. 0.01 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

Tgt Ion: 96 Resp: 2392  
Ion Ratio Lower Upper  
96 100  
61 118.5 113.3 169.9  
98 52.1 51.7 77.5





#25

2-Butanone

Concen: 0.30 ug/l

RT: 4.71 min Scan# 677

Delta R.T. -0.01 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

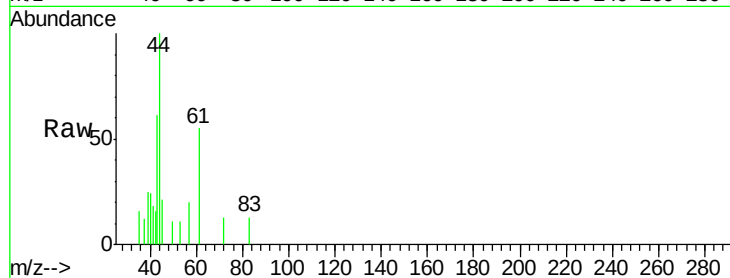
ClientSampled :

Tot Ion: 43 Resp: 867

Ion Ratio Lower Upper

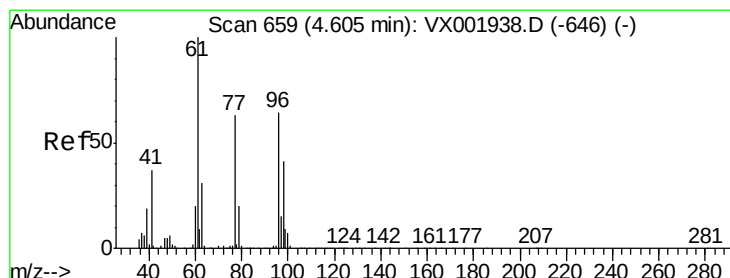
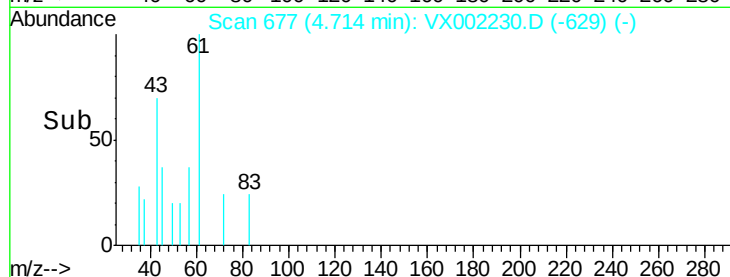
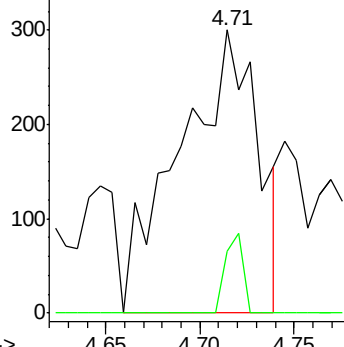
43 100

72 22.0 17.9 26.9



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0



#27

cis-1,2-Dichloroethene

Concen: 2.51 ug/l

RT: 4.60 min Scan# 659

Delta R.T. -0.00 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

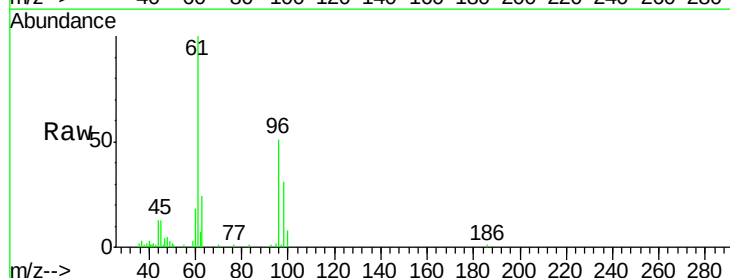
Tgt Ion: 96 Resp: 8635

Ion Ratio Lower Upper

96 100

61 274.1 0.0 348.4

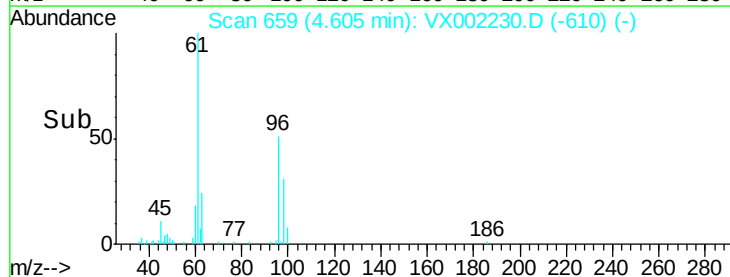
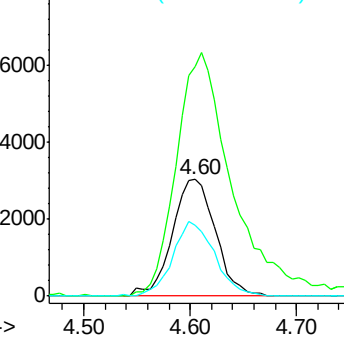
98 62.0 0.0 128.6

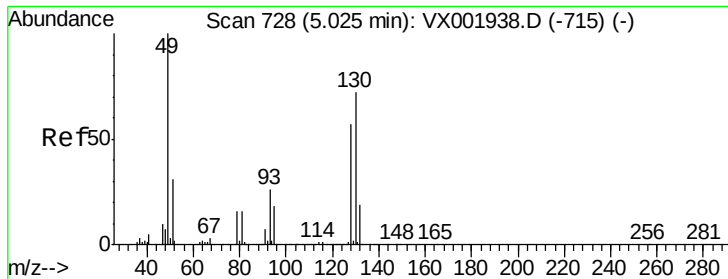


Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0





#28

Bromochloromethane

Concen: Below Cal

RT: 4.82 min Scan# 695

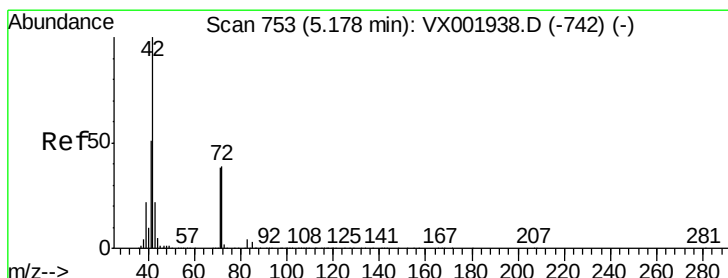
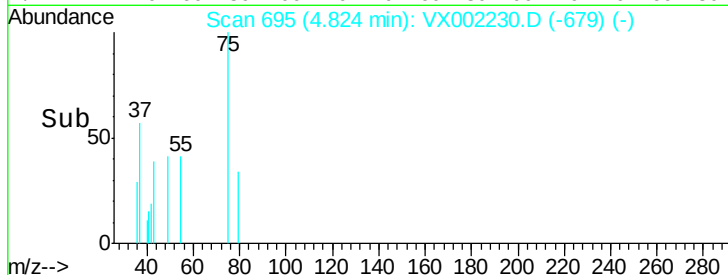
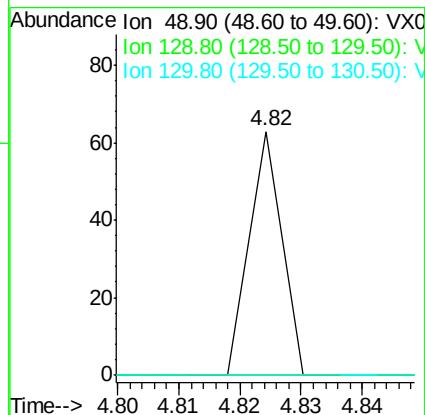
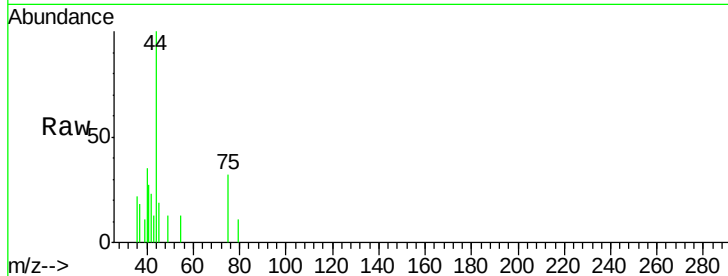
Delta R.T. -0.20 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

Instrument :  
MSVOA\_X  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 49    | Resp: | 23    |
| Ion      | Ratio | Lower | Upper |
| 49       | 100   |       |       |
| 129      | 0.0   | 0.0   | 3.8   |
| 130      | 0.0   | 59.4  | 89.2# |



#29

Tetrahydrofuran

Concen: 1.28 ug/l

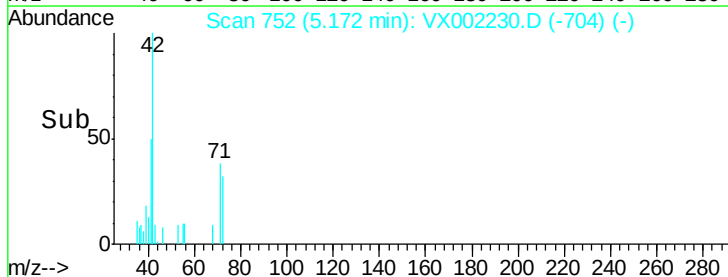
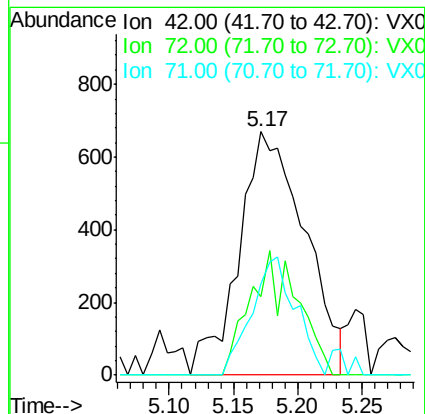
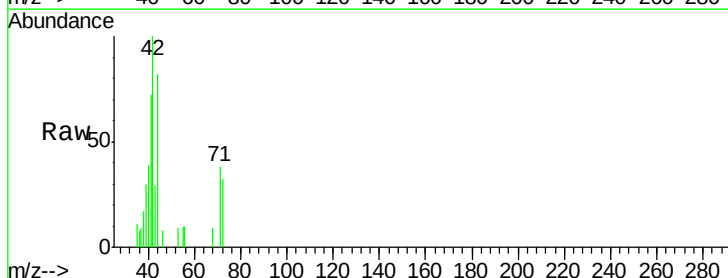
RT: 5.17 min Scan# 752

Delta R.T. -0.01 min

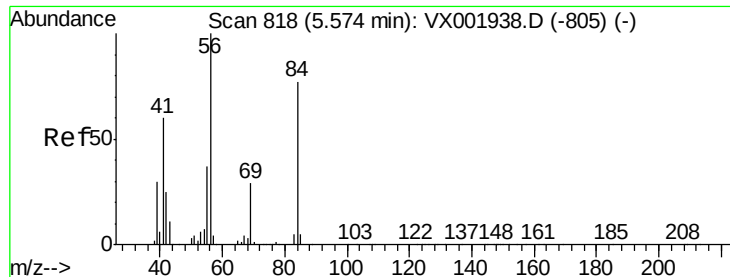
Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 2379  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 20.6  | 31.4  | 47.0# |
| 71       | 32.2  | 29.5  | 44.3  |



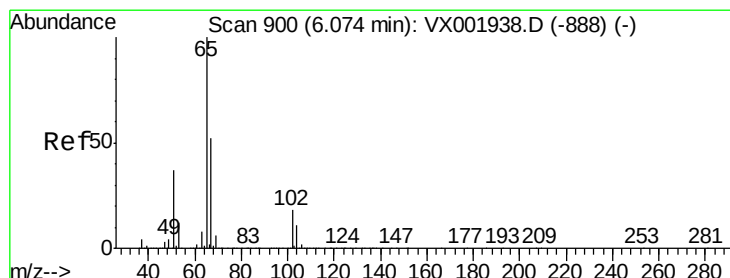
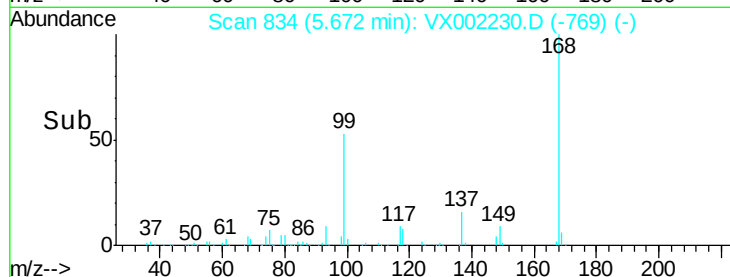
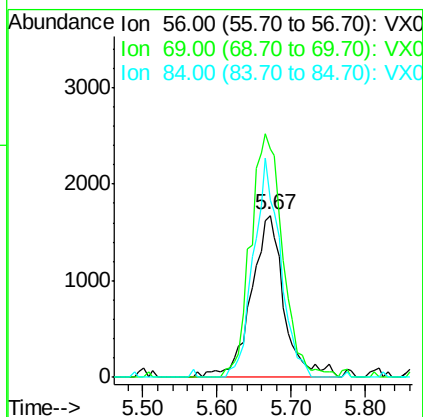
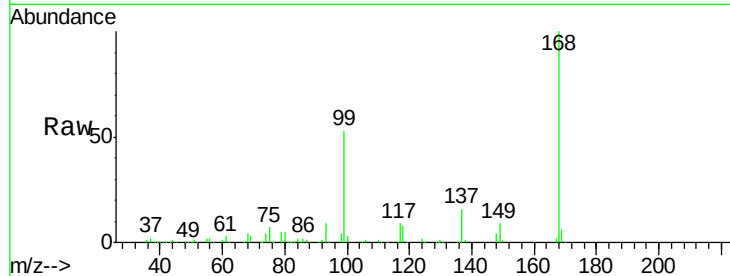




#31  
Cyclohexane  
Concen: 0.92 ug/l  
RT: 5.67 min Scan# 834  
Delta R.T. 0.10 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

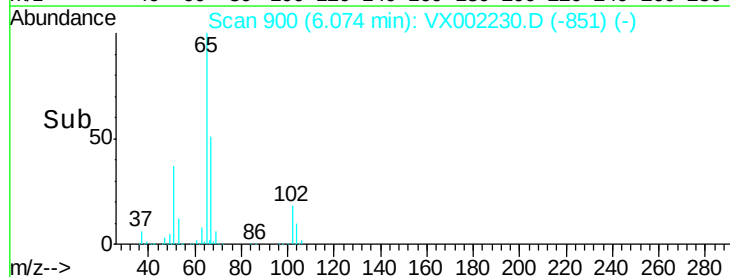
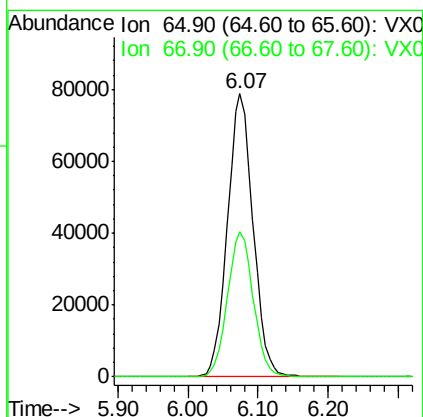
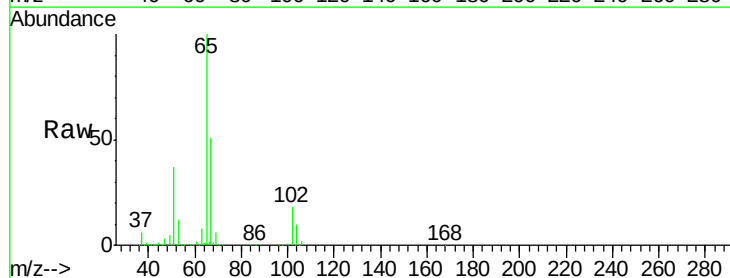
Instrument :  
MSVOA\_X  
ClientSampleId :

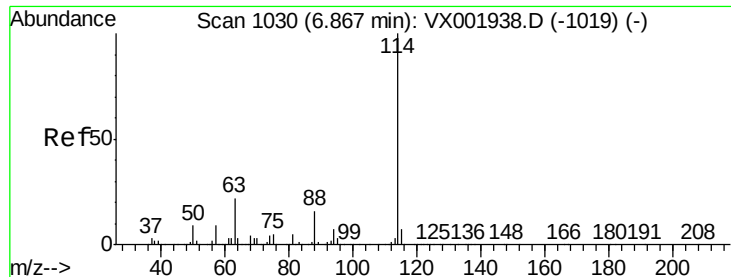
Tot Ion: 56 Resp: 5134  
Ion Ratio Lower Upper  
56 100  
69 141.0 23.1 34.7#  
84 108.7 62.0 93.0#



#33  
1,2-Dichloroethane-d4  
Concen: 49.64 ug/l  
RT: 6.07 min Scan# 900  
Delta R.T. -0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

Tgt Ion: 65 Resp: 200457  
Ion Ratio Lower Upper  
65 100  
67 51.5 0.0 104.0





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 6.87 min Scan# 1030

Delta R.T. -0.00 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

ClientSampleId :

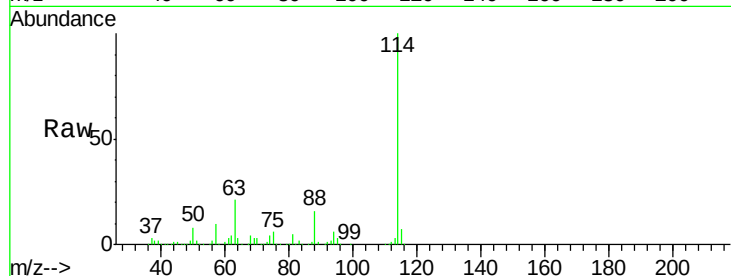
Tot Ion:114 Resp: 324911

Ion Ratio Lower Upper

114 100

63 21.4 0.0 43.2

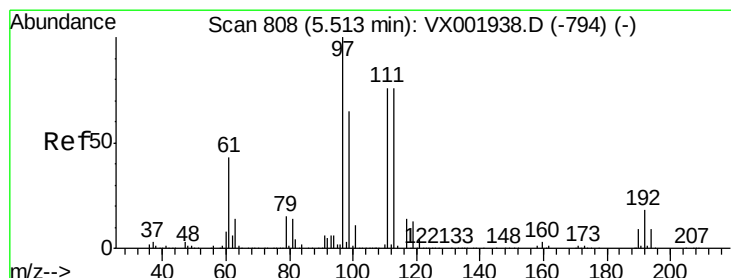
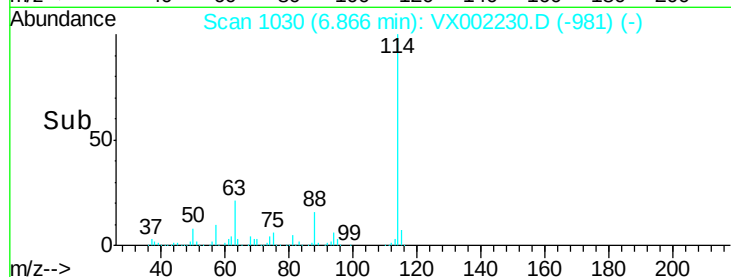
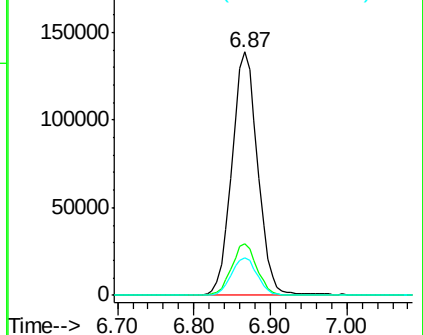
88 15.5 0.0 31.6



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: 44.61 ug/l

RT: 5.51 min Scan# 807

Delta R.T. -0.01 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

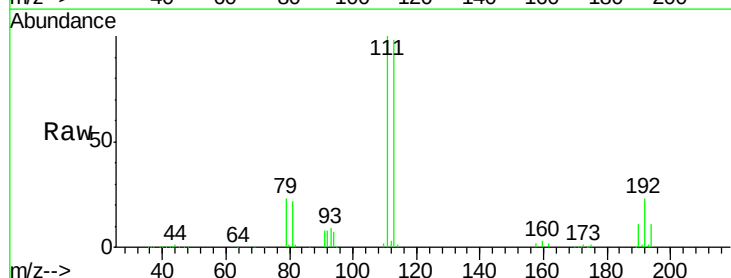
Tgt Ion:113 Resp: 144934

Ion Ratio Lower Upper

113 100

111 101.9 82.0 123.0

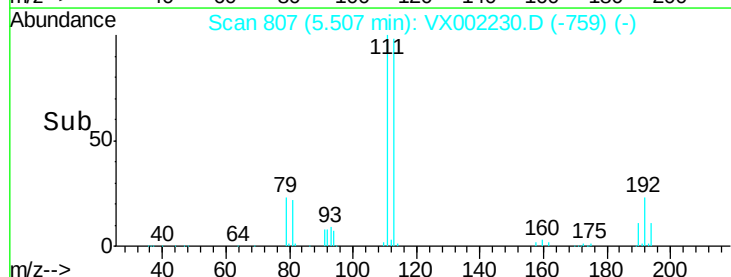
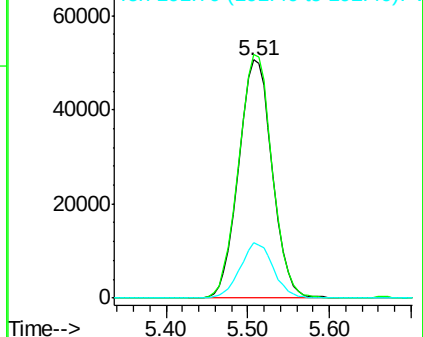
192 22.8 18.9 28.3

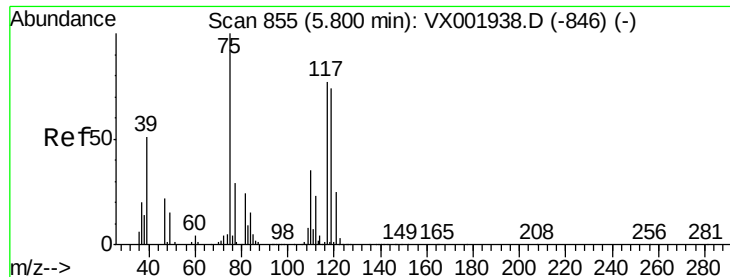


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

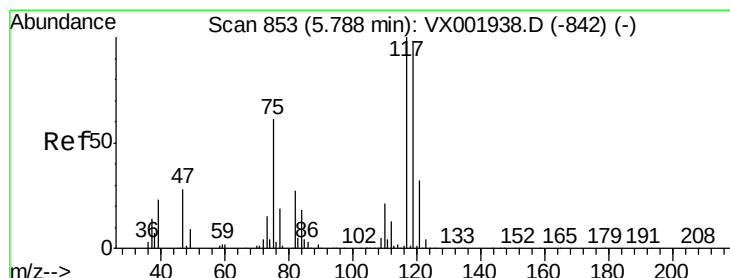
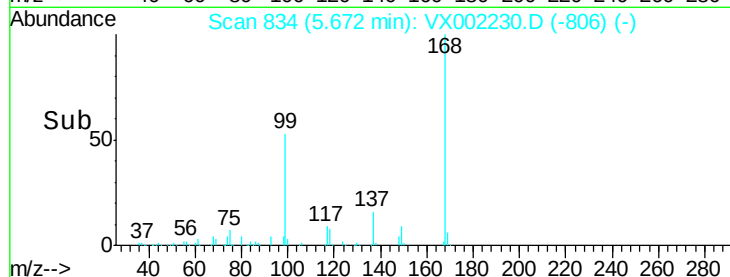
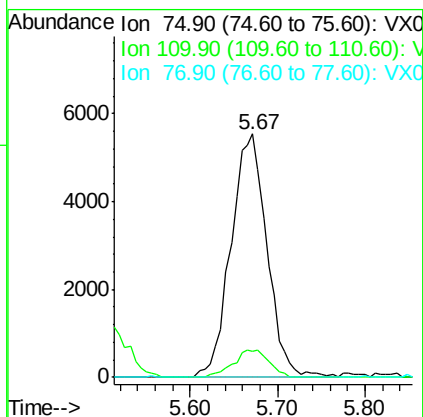
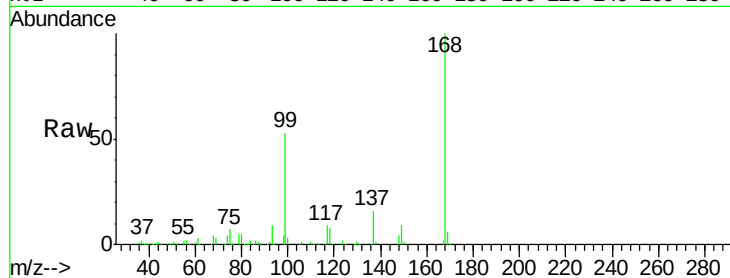




#36  
 1,1-Dichloropropene  
 Concen: 3.50 ug/l  
 RT: 5.67 min Scan# 834  
 Delta R.T. -0.13 min  
 Lab File: VX002230.D  
 Acq: 01 Jun 2018 23:30

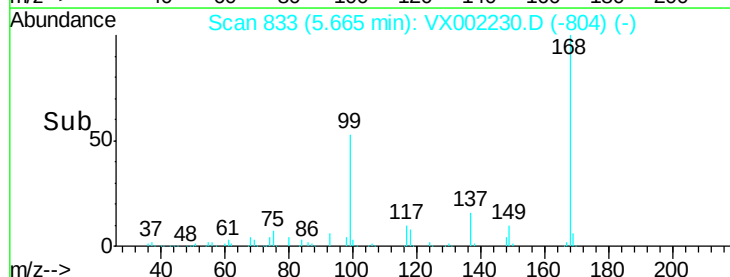
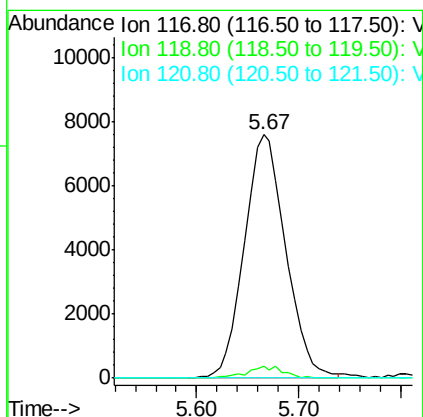
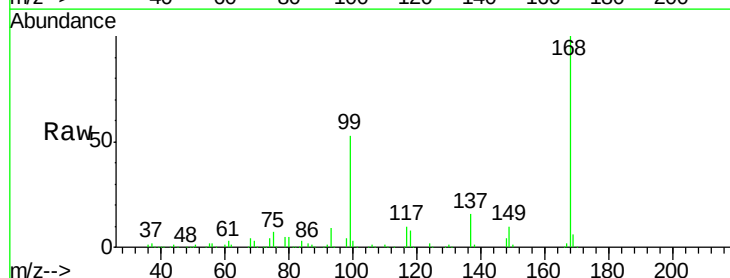
Instrument :  
 MSVOA\_X  
 ClientSampleId :

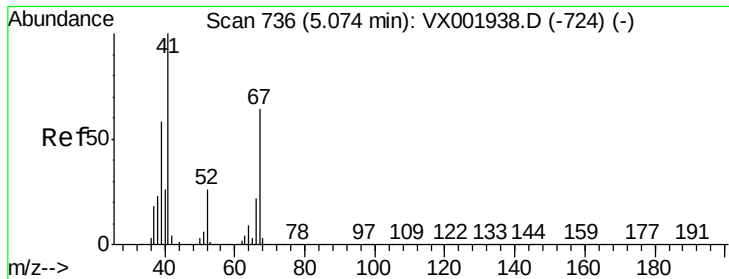
| Tot Ion   | 75    | Resp  | 15840 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 110       | 11.1  | 17.4  | 52.2# |
| 77        | 0.0   | 24.4  | 36.6# |



#38  
 Carbon Tetrachloride  
 Concen: 4.06 ug/l  
 RT: 5.67 min Scan# 833  
 Delta R.T. -0.12 min  
 Lab File: VX002230.D  
 Acq: 01 Jun 2018 23:30

| Tgt Ion   | 117   | Resp  | 21413  |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 4.9   | 78.5  | 117.7# |
| 121       | 0.0   | 25.5  | 38.3#  |





#41

Methacrylonitrile

Concen: Below Cal

RT: 5.08 min Scan# 737

Delta R.T. 0.01 min

Lab File: VX002230.D

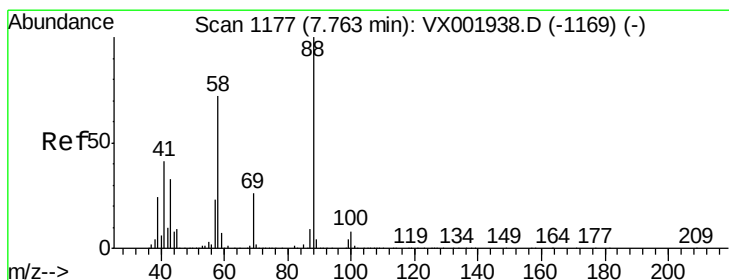
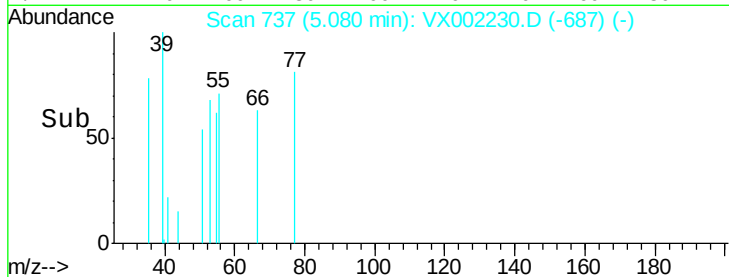
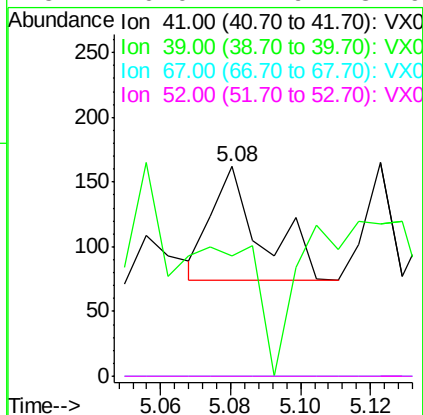
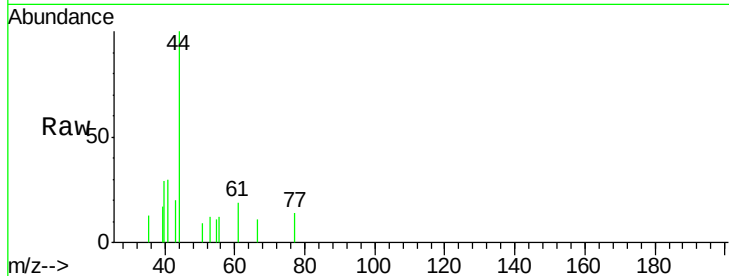
Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 87    |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 0.0   | 46.0  | 69.0# |
| 67       | 0.0   | 50.6  | 75.8# |
| 52       | 0.0   | 21.9  | 32.9# |



#49

1,4-Dioxane

Concen: 0.30 ug/l

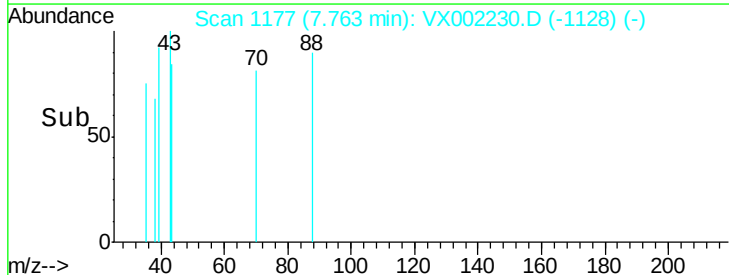
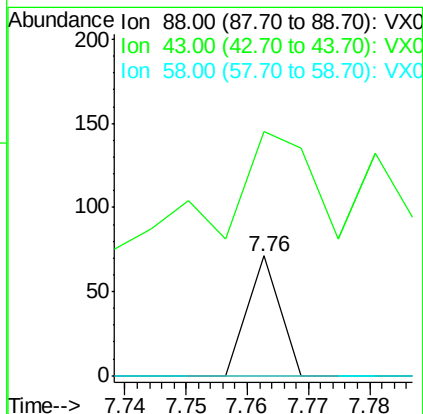
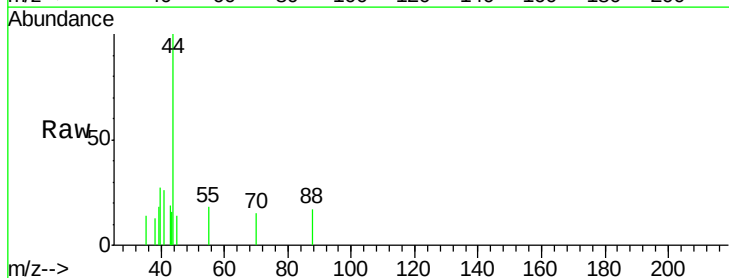
RT: 7.76 min Scan# 1177

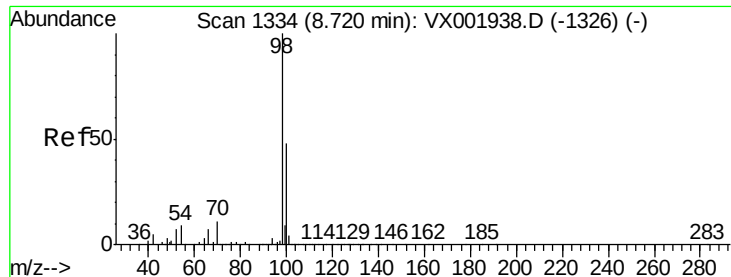
Delta R.T. -0.00 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 26    |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 280.8 | 29.8  | 44.8# |
| 58       | 0.0   | 58.7  | 88.1# |

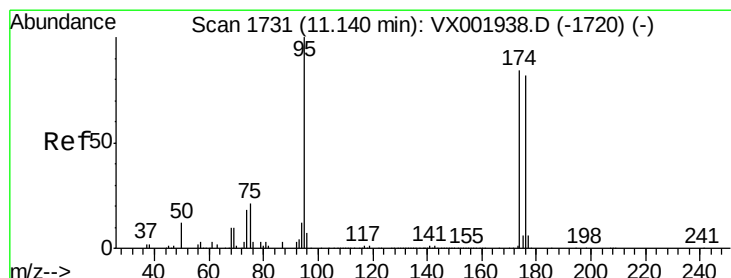
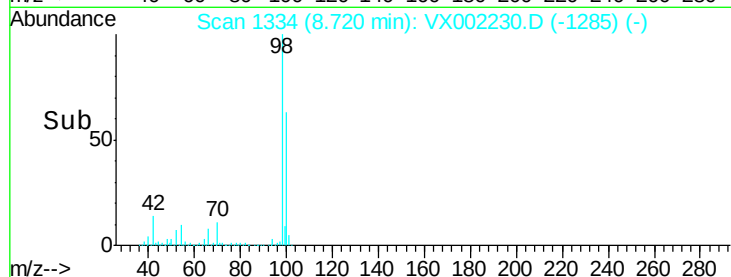
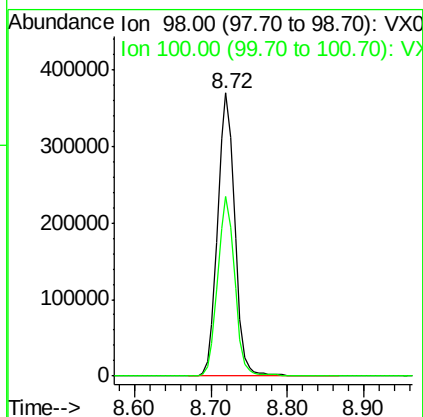
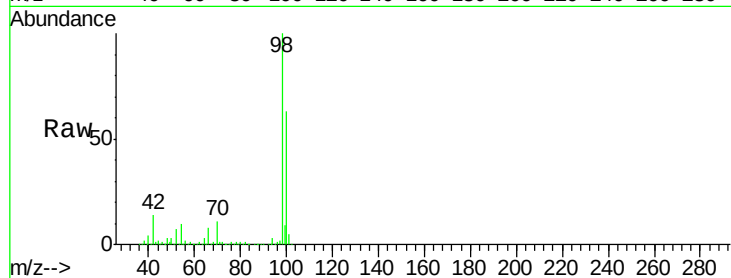




#50  
Toluene-d8  
Concen: 49.09 ug/l  
RT: 8.72 min Scan# 1334  
Delta R.T. 0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

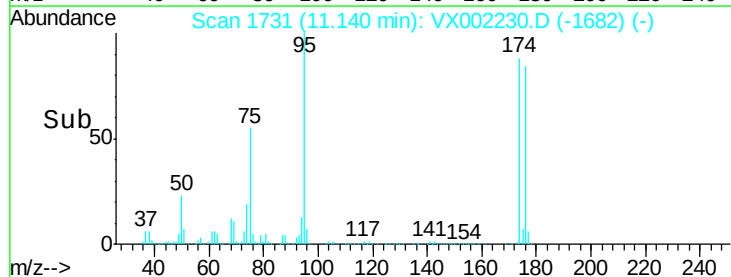
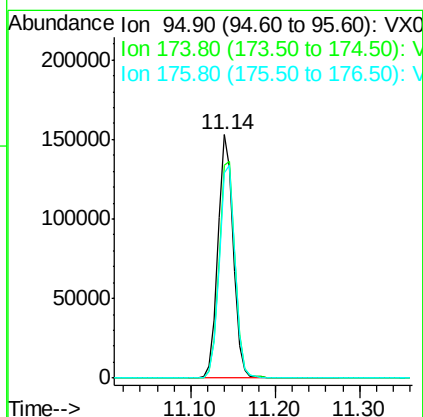
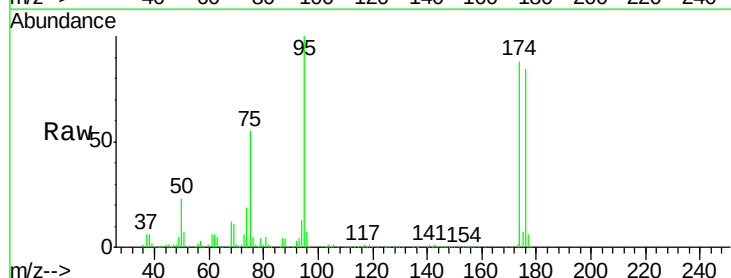
Instrument :  
MSVOA\_X  
ClientSampleId :

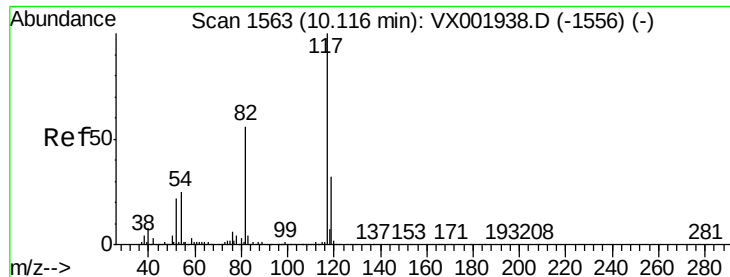
Tot Ion: 98 Resp: 577474  
Ion Ratio Lower Upper  
98 100  
100 63.1 51.5 77.3



#62  
4-Bromofluorobenzene  
Concen: 42.10 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

Tgt Ion: 95 Resp: 193762  
Ion Ratio Lower Upper  
95 100  
174 92.7 0.0 178.8  
176 90.2 0.0 175.6

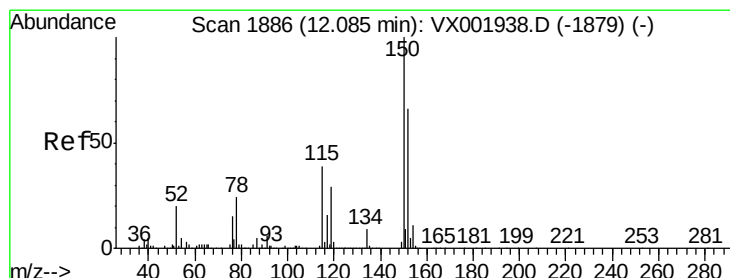
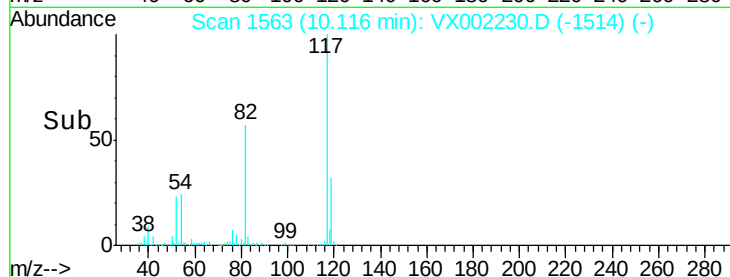
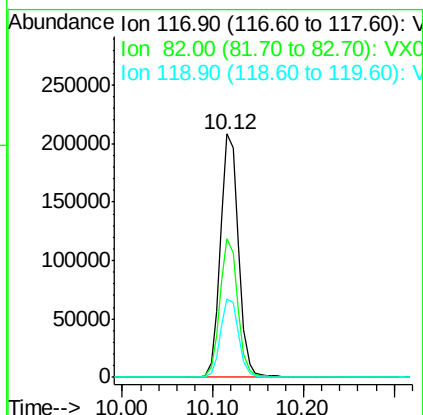
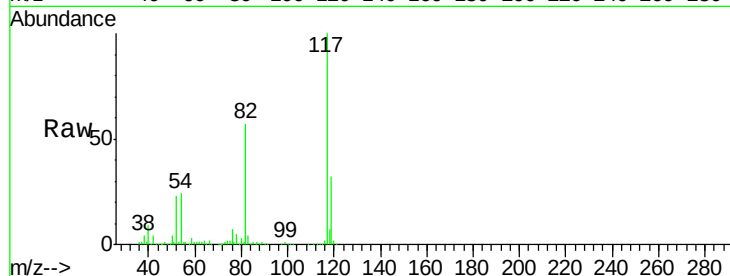




#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. -0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

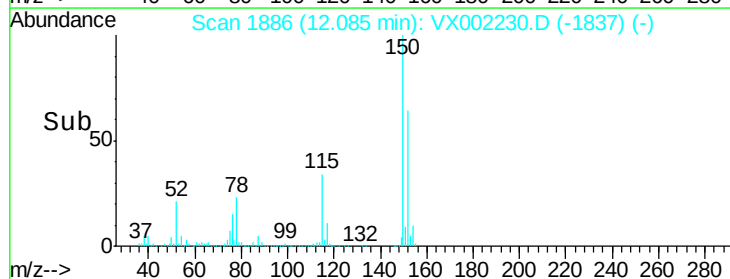
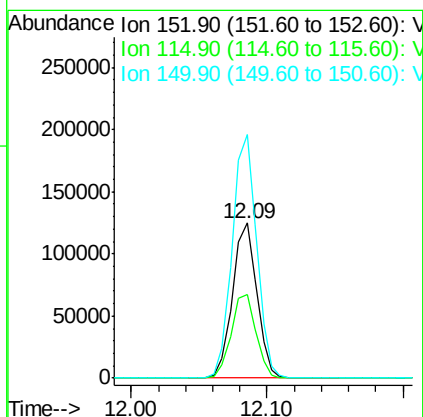
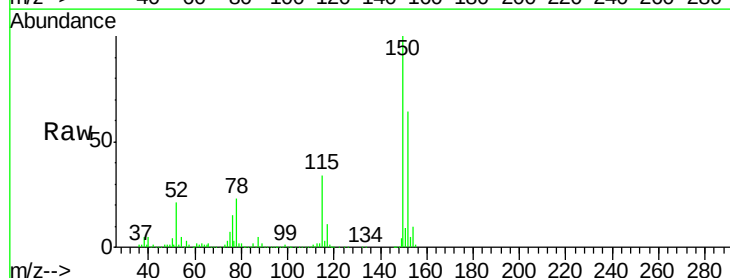
Instrument :  
MSVOA\_X  
ClientSampleId :

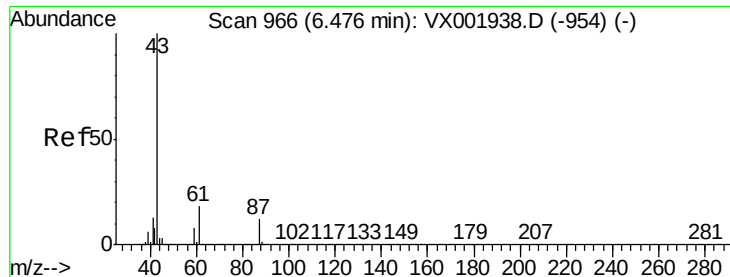
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 56.9  | 44.8  | 67.2  |
| 119     | 32.5  | 25.5  | 38.3  |



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 12.09 min Scan# 1886  
Delta R.T. -0.00 min  
Lab File: VX002230.D  
Acq: 01 Jun 2018 23:30

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 55.2  | 42.3  | 126.8 |
| 150     | 157.8 | 0.0   | 351.0 |





#74

N-amvl acetate

Concen: Below Cal

RT: 6.49 min Scan# 968

Delta R.T. 0.01 min

Lab File: VX002230.D

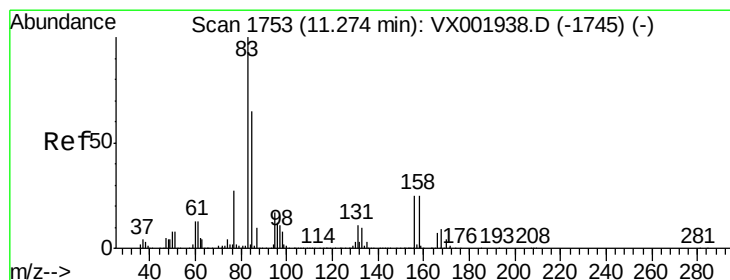
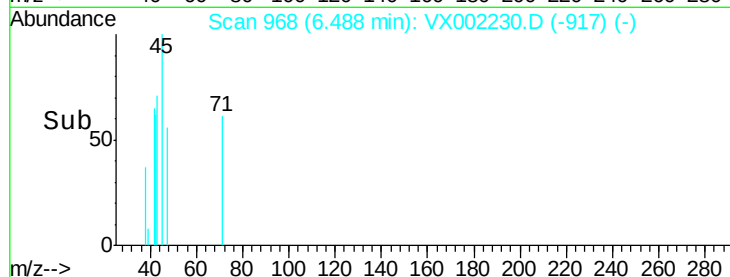
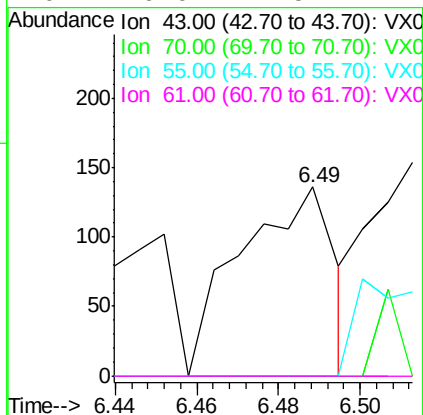
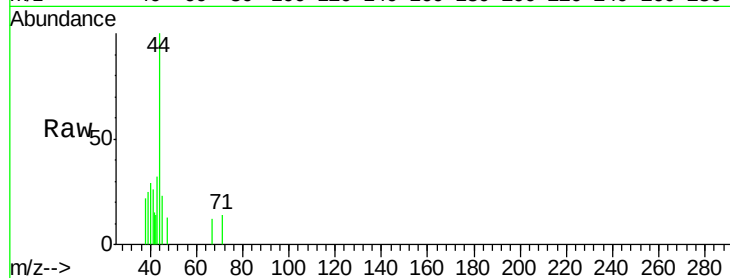
Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 217   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 70       | 0.0   | 0.1   | 0.1#  |
| 55       | 0.0   | 0.1   | 0.1#  |
| 61       | 0.0   | 14.5  | 21.7# |



#75

1,1,2,2-Tetrachloroethane

Concen: Below Cal

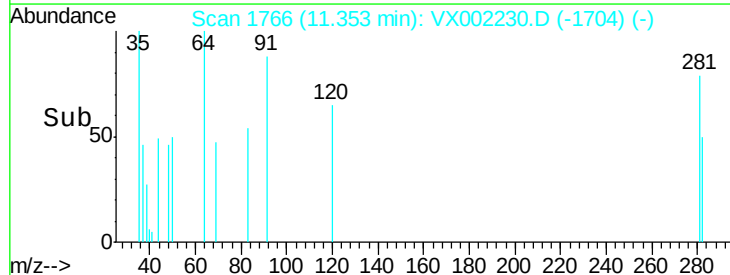
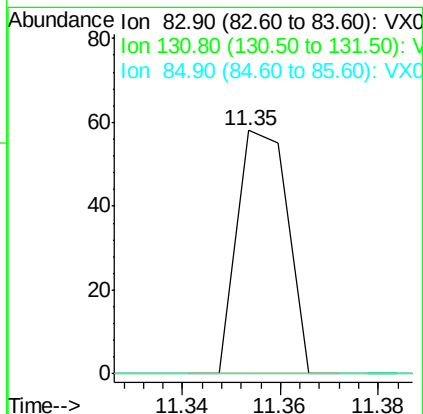
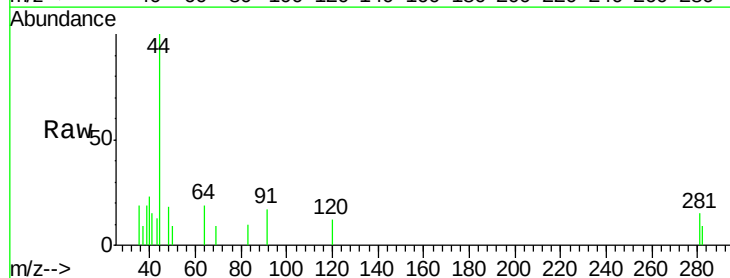
RT: 11.35 min Scan# 1766

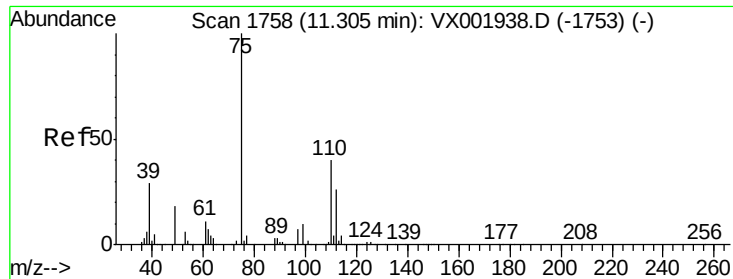
Delta R.T. 0.08 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 41    |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 0.0   | 5.7   | 17.0# |
| 85       | 0.0   | 32.6  | 97.7# |

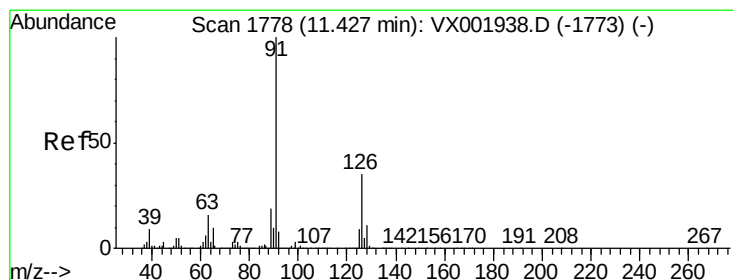
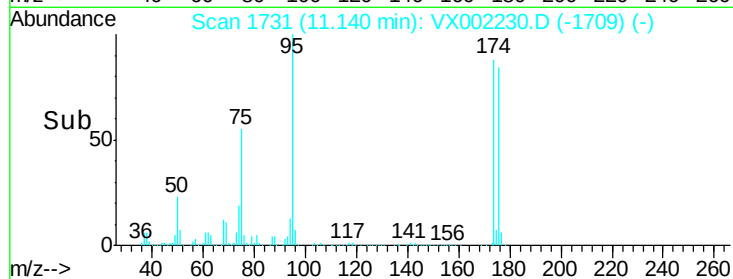
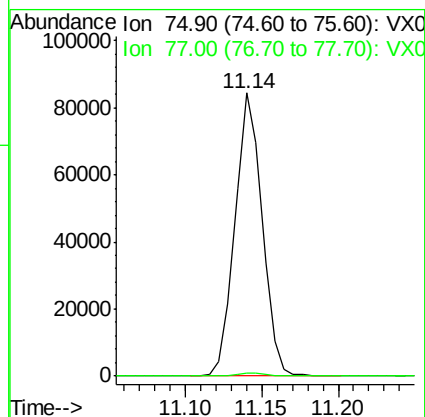
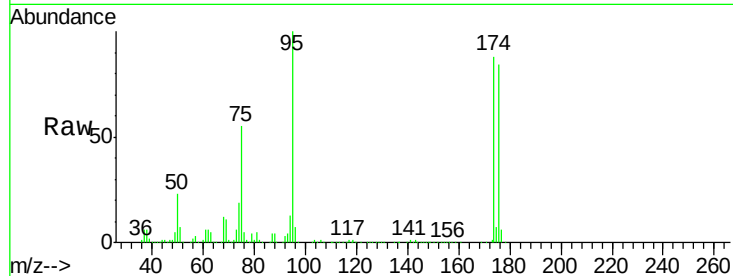




#76  
 1,2,3-Trichloropropane  
 Concen: 27.89 ug/l  
 RT: 11.14 min Scan# 1731  
 Delta R.T. -0.16 min  
 Lab File: VX002230.D  
 Acq: 01 Jun 2018 23:30

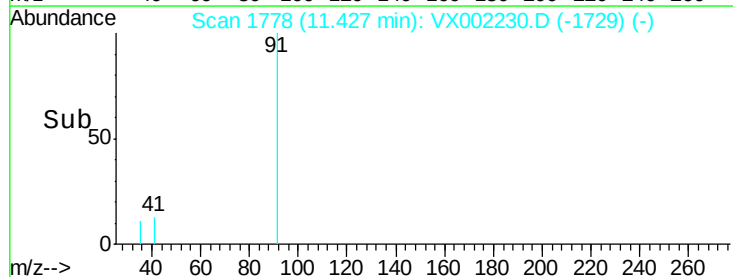
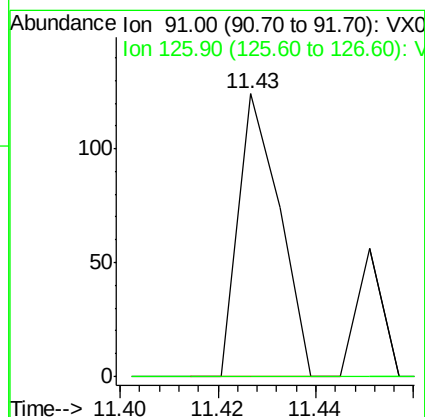
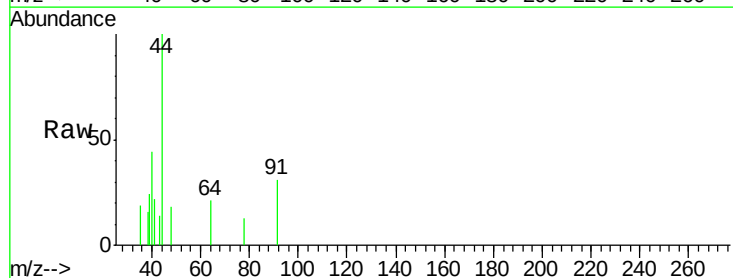
Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion: 75 Resp: 103880  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 22.8 68.3#

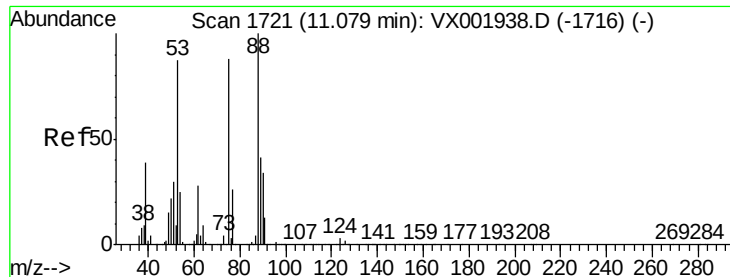


#79  
 2-Chlorotoluene  
 Concen: Below Cal  
 RT: 11.43 min Scan# 1778  
 Delta R.T. 0.00 min  
 Lab File: VX002230.D  
 Acq: 01 Jun 2018 23:30

Tgt Ion: 91 Resp: 72  
 Ion Ratio Lower Upper  
 91 100  
 126 0.0 17.4 52.2#







#81

trans-1,4-Dichloro-2-butene

Concen: 67.03 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX002230.D

Acq: 01 Jun 2018 23:30

Instrument :

MSVOA\_X

ClientSampleId :

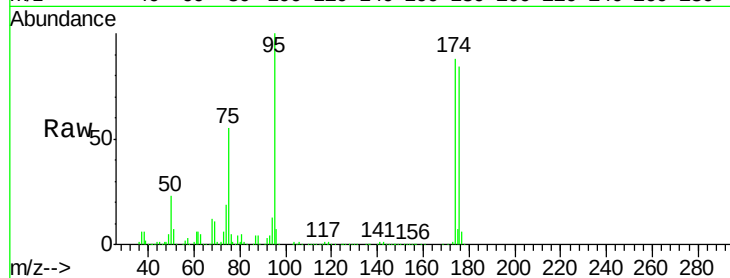
Tot Ion: 75 Resp: 103880

Ion Ratio Lower Upper

75 100

53 0.0 78.0 117.0#

89 0.0 39.4 59.2#



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

