

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121418\  
 Data File : VX006518.D  
 Acq On : 14 Dec 2018 15:12  
 Operator : JC/MD  
 Sample : J6396-01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Dec 15 04:36:16 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X112918W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 30 03:55:33 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 729054   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 1131992  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 1027021  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 494099   | 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   | 374904   | 50.37 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.74% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 340477   | 46.45 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.90%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 1334186  | 50.05 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.10% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 485759   | 48.35 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.70%  |          |

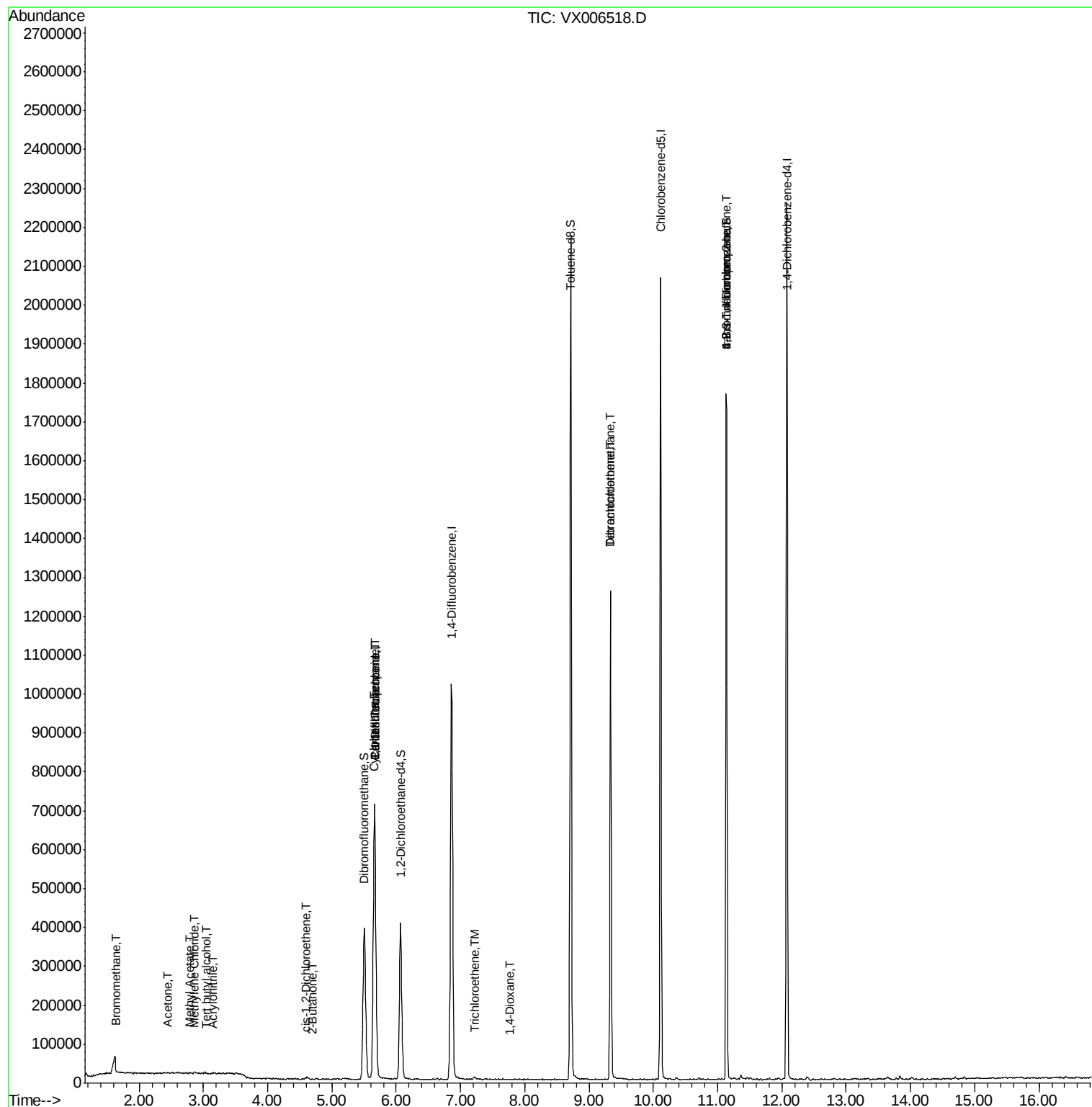
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 1372     | 0.251  | ug/l # | 37     |
| 11) Tert butyl alcohol         | 3.05  | 59   | 615      | 0.302  | ug/l # | 1      |
| 15) Acrylonitrile              | 3.14  | 53   | 1142     | 0.269  | ug/l # | 68     |
| 16) Acetone                    | 2.45  | 43   | 1761     | 0.504  | ug/l # | 73     |
| 18) Methyl Acetate             | 2.78  | 43   | 2543     | 0.218  | ug/l # | 46     |
| 20) Methylene Chloride         | 2.86  | 84   | 1563     | 0.210  | ug/l # | 73     |
| 25) 2-Butanone                 | 4.70  | 43   | 1189     | 0.239  | ug/l # | 47     |
| 27) cis-1,2-Dichloroethene     | 4.59  | 96   | 2517     | 0.321  | ug/l   | 86     |
| 31) Cyclohexane                | 5.65  | 56   | 11268    | 1.048  | ug/l # | 22     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 45376    | 4.760  | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 68448    | 6.104  | ug/l # | 16     |
| 44) Trichloroethene            | 7.22  | 130  | 2976     | 0.344  | ug/l   | 96     |
| 49) 1,4-Dioxane                | 7.77  | 88   | 110      | 0.515  | ug/l # | 1      |
| 60) Dibromochloromethane       | 9.34  | 129  | 228812   | 24.317 | ug/l # | 11     |
| 64) Tetrachloroethene          | 9.34  | 164  | 249327   | 32.236 | ug/l   | 97     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 223351   | 23.420 | ug/l # | 38     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 223351   | 54.959 | ug/l # | 15     |

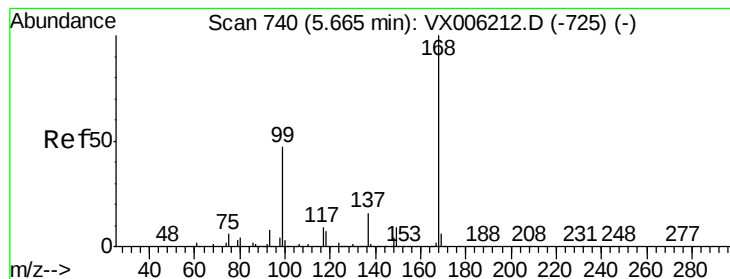
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX121418\  
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ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: Dec 15 04:36:16 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X112918W.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 30 03:55:33 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

Instrument :

MSVOA\_X

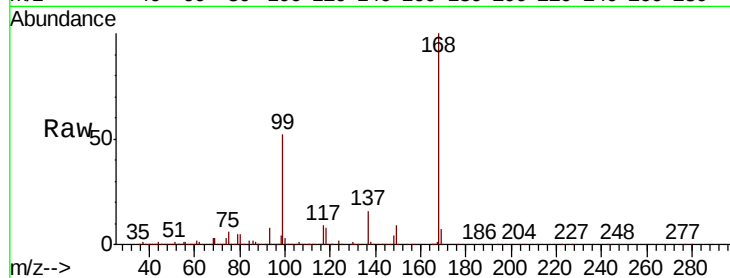
ClientSampleId :

Tot Ion:168 Resp: 729054

Ion Ratio Lower Upper

168 100

99 52.0 37.8 56.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

300000

250000

200000

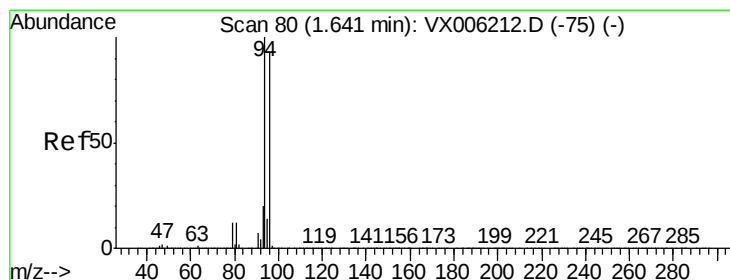
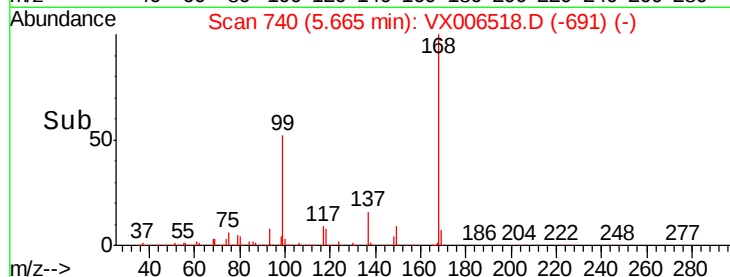
150000

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.251 ug/l

RT: 1.64 min Scan# 80

Delta R.T. 0.00 min

Lab File: VX006518.D

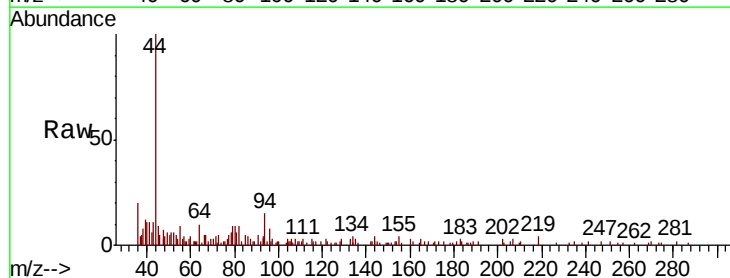
Acq: 14 Dec 2018 15:12

Tgt Ion: 94 Resp: 1372

Ion Ratio Lower Upper

94 100

96 32.4 74.5 111.7#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

800

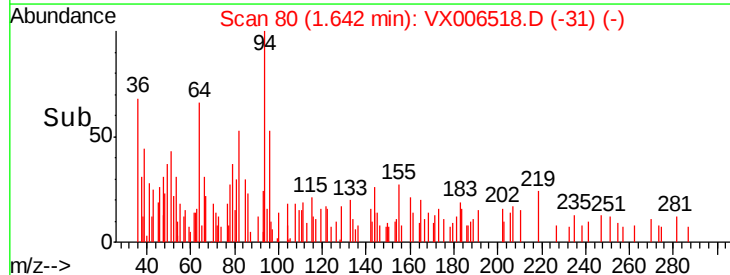
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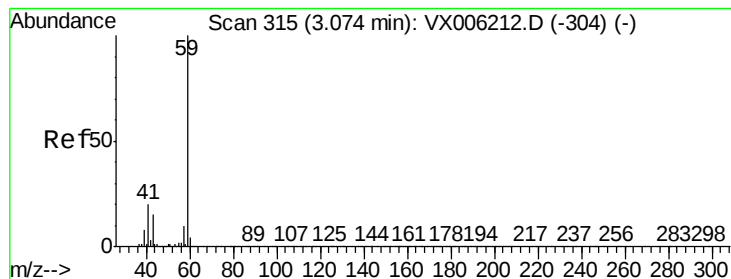
400

200

0

Time-->



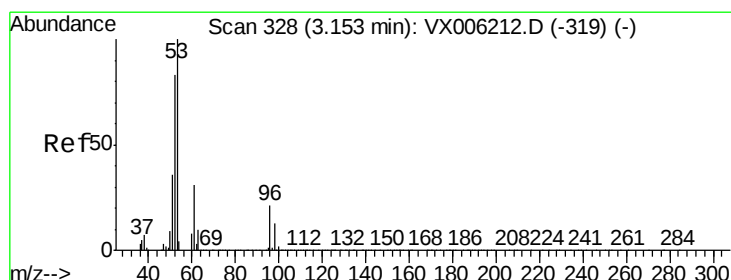
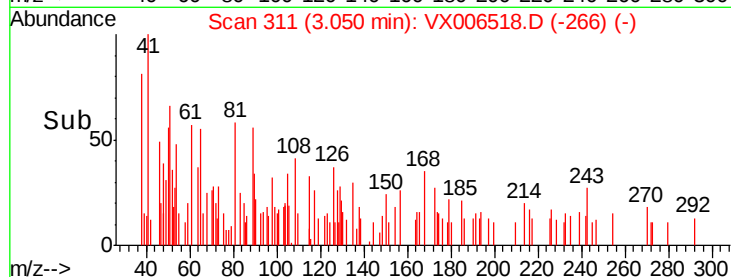
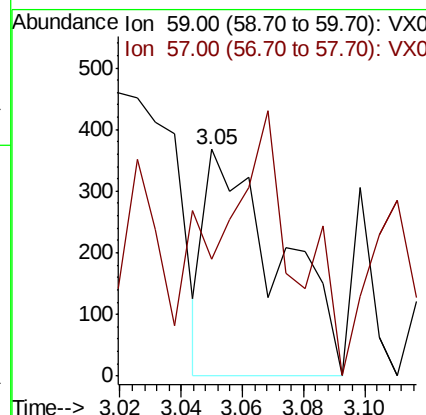
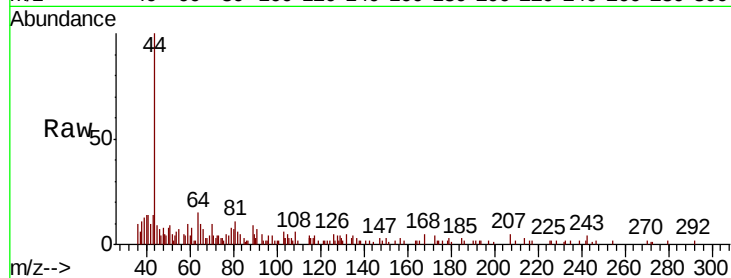


#11

Tert butyl alcohol  
Concen: 0.302 ug/l  
RT: 3.05 min Scan# 311  
Delta R.T. -0.02 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Instrument :  
MSVOA\_X  
ClientSampled :

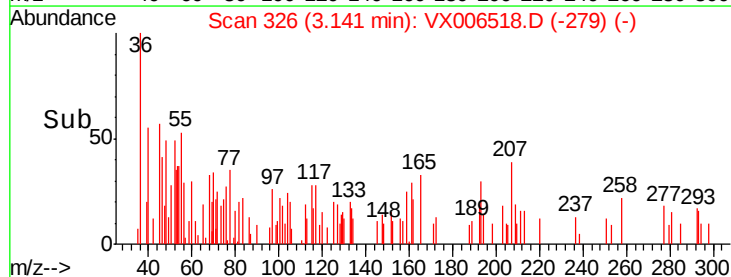
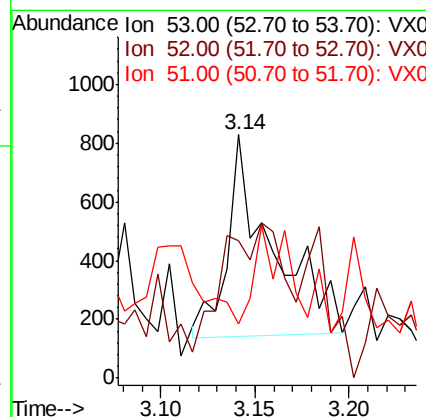
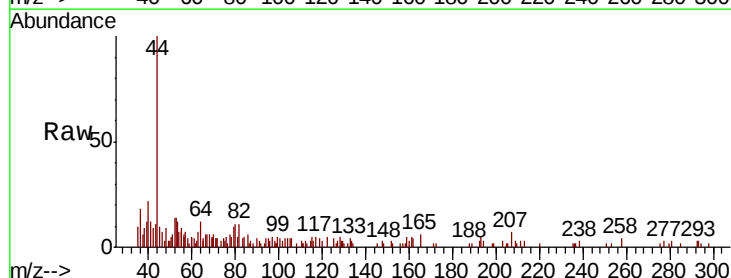
Tot Ion: 59 Resp: 615  
Ion Ratio Lower Upper  
59 100  
57 119.0 8.2 12.2#

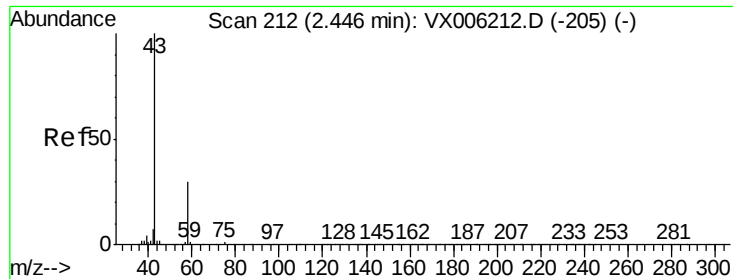


#15

Acrylonitrile  
Concen: 0.269 ug/l  
RT: 3.14 min Scan# 326  
Delta R.T. -0.01 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Tgt Ion: 53 Resp: 1142  
Ion Ratio Lower Upper  
53 100  
52 44.2 66.2 99.4#  
51 39.8 28.7 43.1

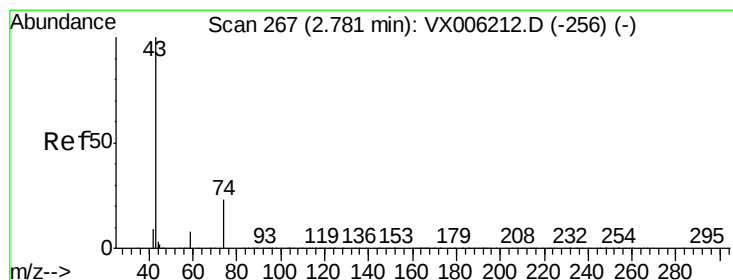
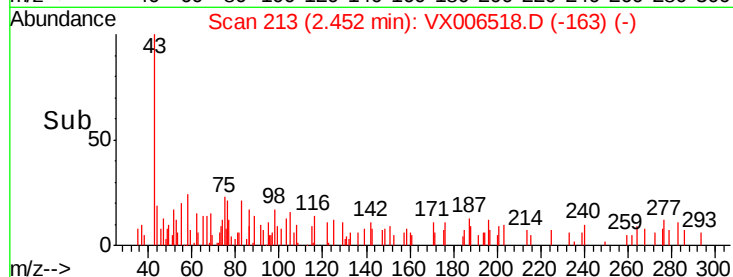
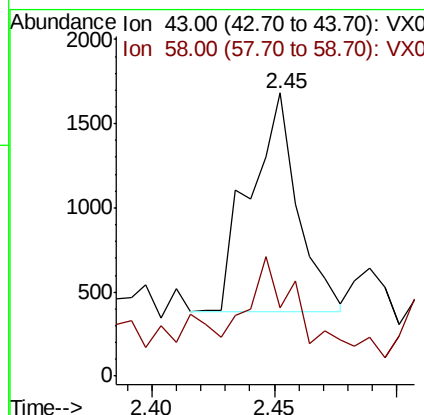
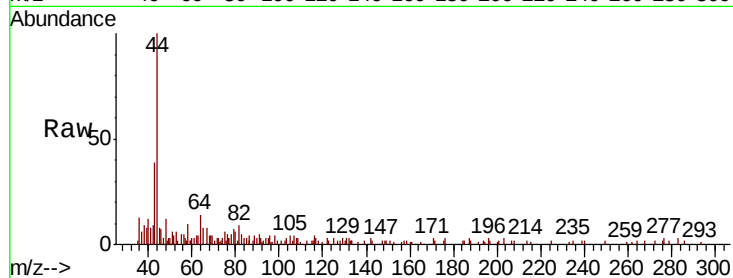




#16  
Acetone  
Concen: 0.504 ug/l  
RT: 2.45 min Scan# 213  
Delta R.T. 0.01 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

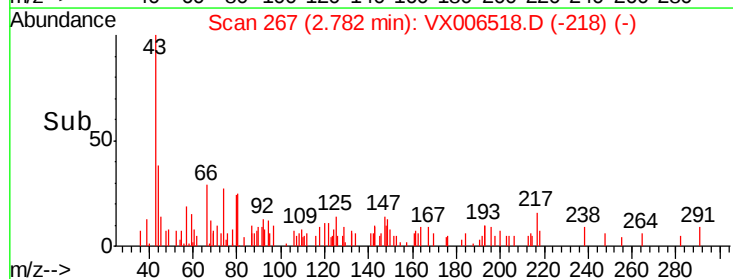
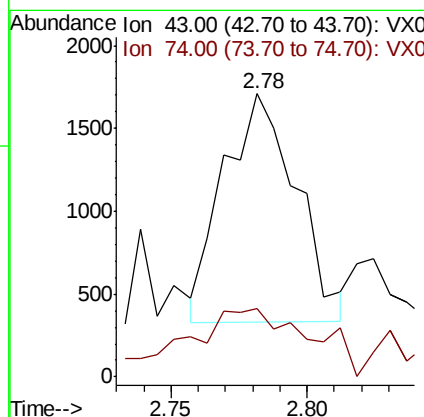
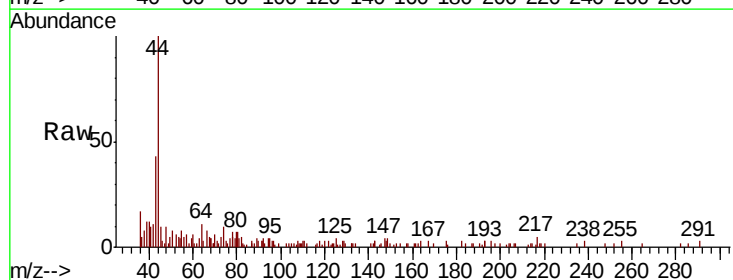
Instrument :  
MSVOA\_X  
ClientSampleId :

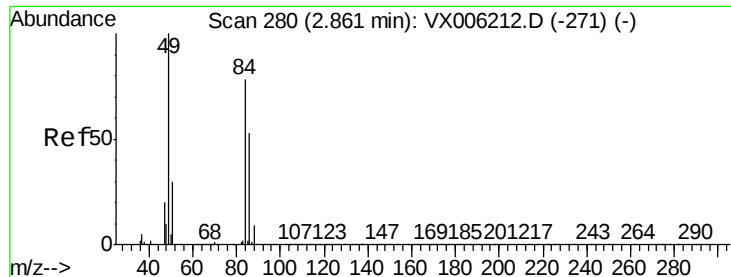
Tot Ion: 43 Resp: 1761  
Ion Ratio Lower Upper  
43 100  
58 15.1 24.0 36.0#



#18  
Methyl Acetate  
Concen: 0.218 ug/l  
RT: 2.78 min Scan# 267  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Tgt Ion: 43 Resp: 2543  
Ion Ratio Lower Upper  
43 100  
74 48.3 17.9 26.9#

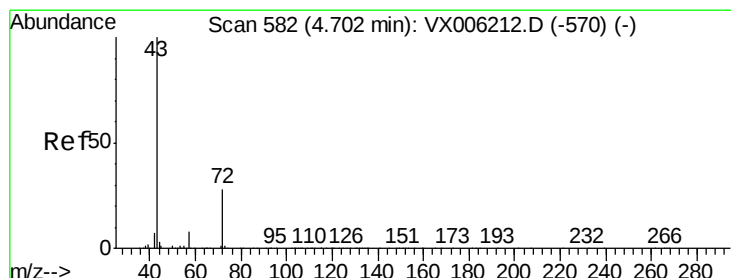
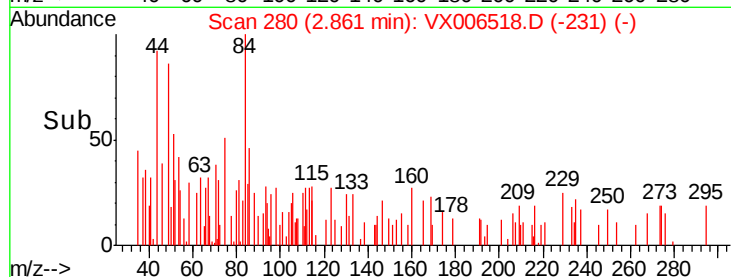
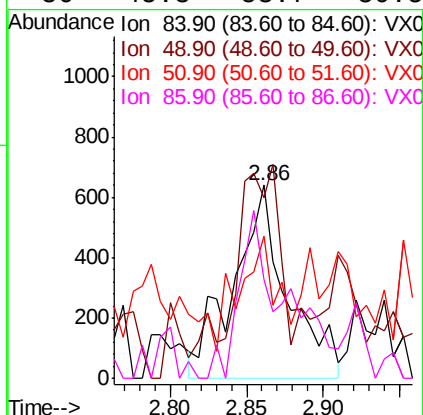
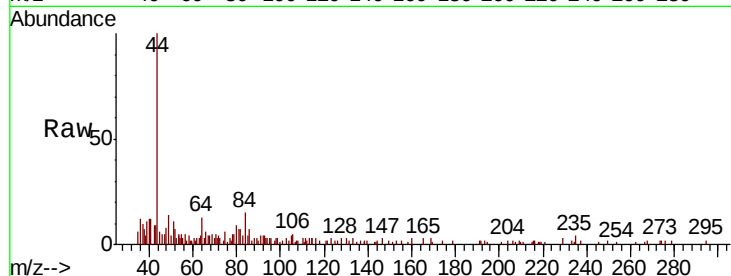




#20  
Methvlene Chloride  
Concen: 0.210 ug/l  
RT: 2.86 min Scan# 280  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

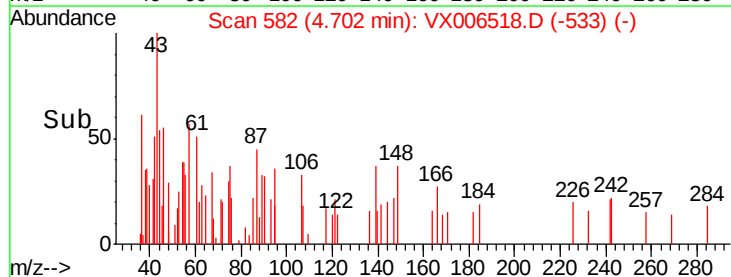
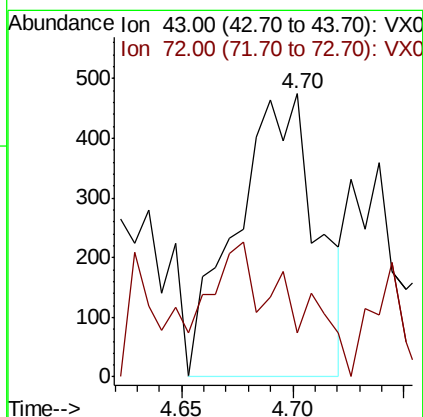
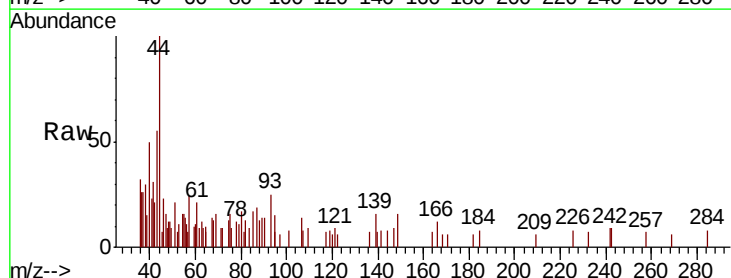
Instrument :  
MSVOA\_X  
ClientSampleId :

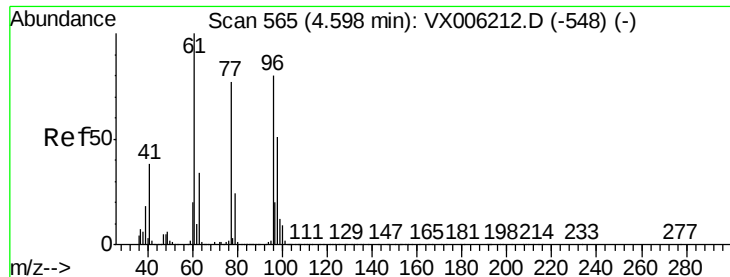
Tot Ion: 84 Resp: 1563  
Ion Ratio Lower Upper  
84 100  
49 90.3 102.2 153.4#  
51 44.5 31.1 46.7  
86 45.8 53.7 80.5#



#25  
2-Butanone  
Concen: 0.239 ug/l  
RT: 4.70 min Scan# 582  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Tgt Ion: 43 Resp: 1189  
Ion Ratio Lower Upper  
43 100  
72 0.0 22.6 33.8#



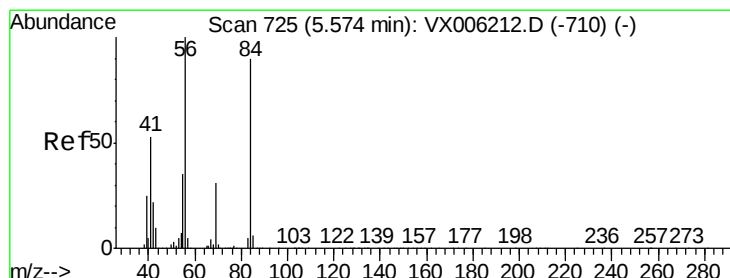
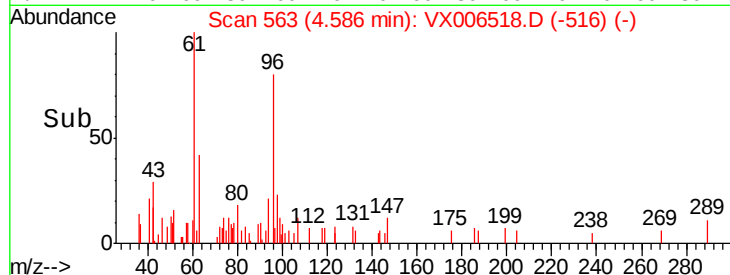
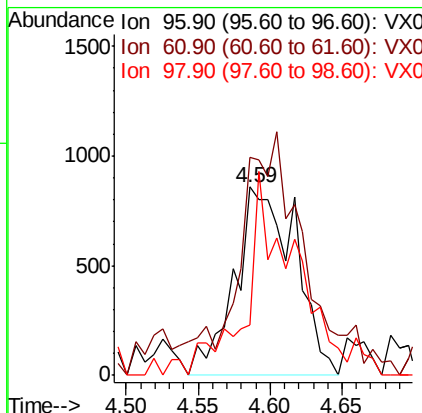
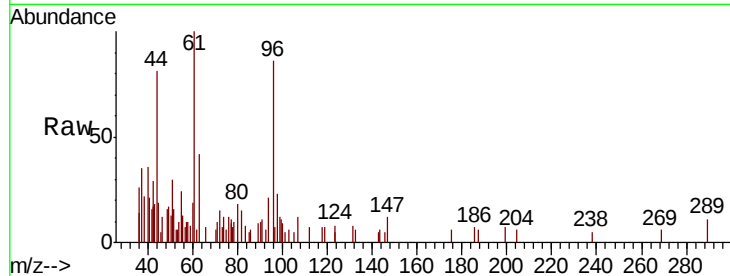


#27

cis-1,2-Dichloroethene  
 Concen: 0.321 ug/l  
 RT: 4.59 min Scan# 563  
 Delta R.T. -0.01 min  
 Lab File: VX006518.D  
 Acq: 14 Dec 2018 15:12

Instrument :  
 MSVOA\_X  
 ClientSampled :

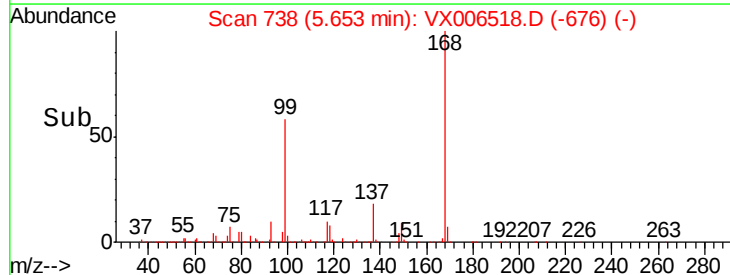
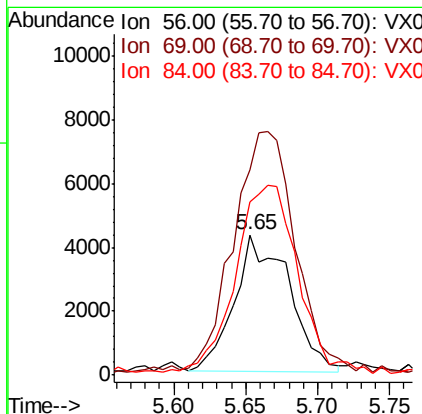
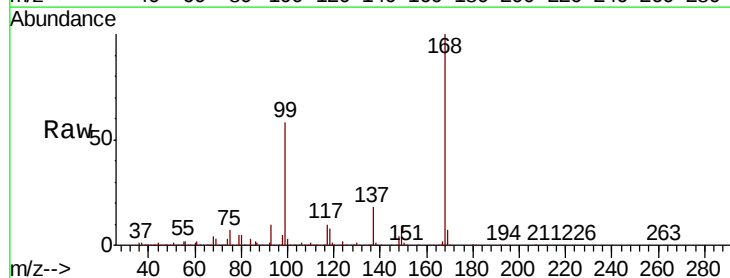
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 139.9 | 0.0   | 265.0 |
| 98      | 88.8  | 0.0   | 130.2 |

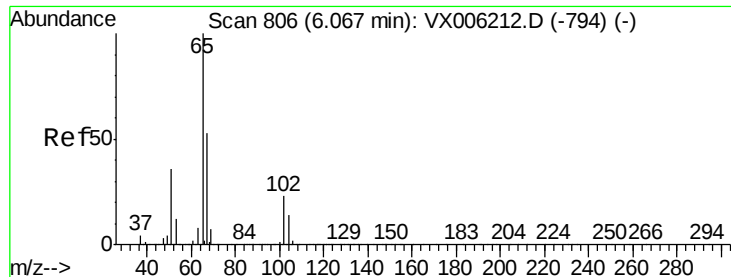


#31

Cyclohexane  
 Concen: 1.048 ug/l  
 RT: 5.65 min Scan# 738  
 Delta R.T. 0.08 min  
 Lab File: VX006518.D  
 Acq: 14 Dec 2018 15:12

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 56      | 100   |       |        |
| 69      | 145.7 | 24.5  | 36.7#  |
| 84      | 121.0 | 71.8  | 107.6# |





#33

1,2-Dichloroethane-d4

Concen: 50.374 ug/l

RT: 6.07 min Scan# 806

Delta R.T. 0.00 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

Instrument :

MSVOA\_X

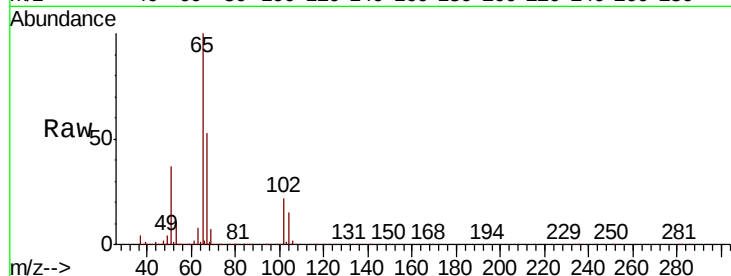
ClientSampleId :

Tot Ion: 65 Resp: 374904

Ion Ratio Lower Upper

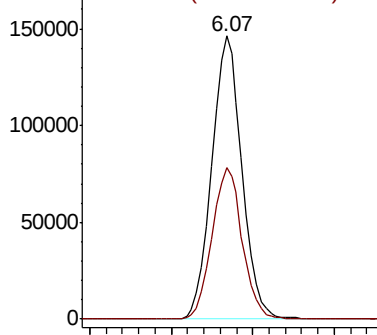
65 100

67 53.6 0.0 107.2

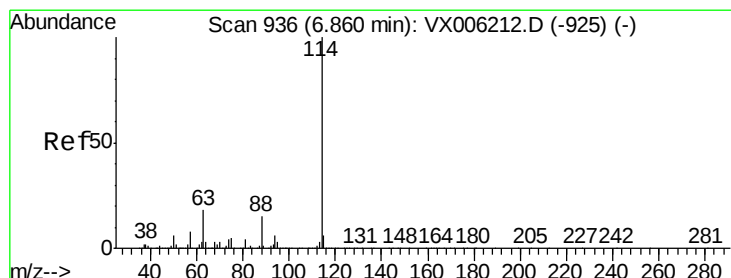
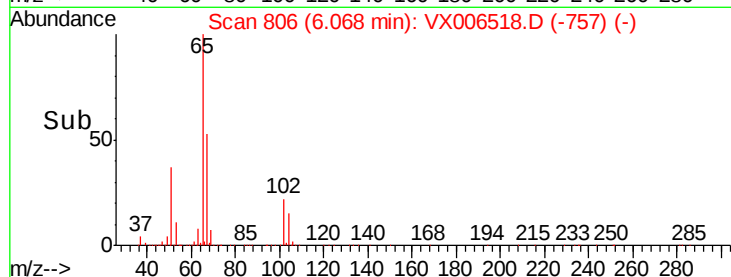


Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

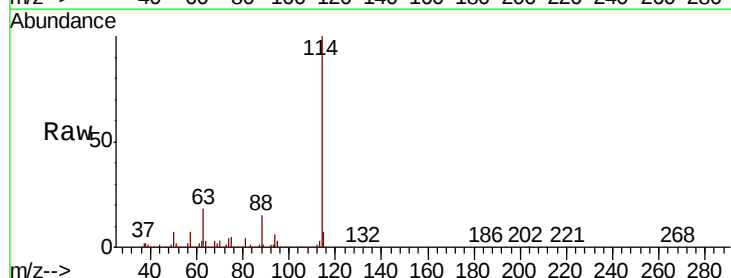
Tgt Ion: 114 Resp: 1131992

Ion Ratio Lower Upper

114 100

63 18.1 0.0 36.6

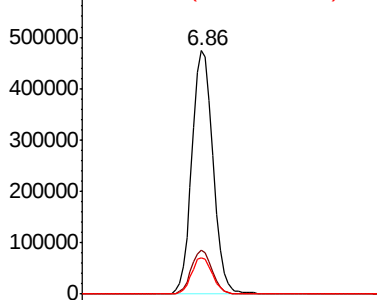
88 14.9 0.0 29.0



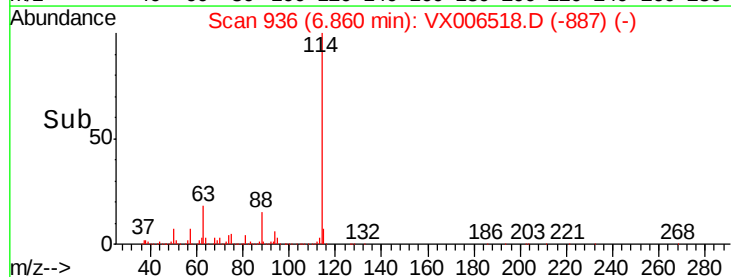
Abundance Ion 113.90 (113.60 to 114.60): V

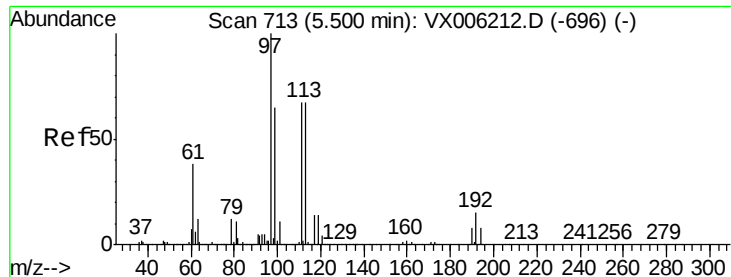
Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



Time-->





#35

Dibromofluoromethane

Concen: 46.455 ug/l

RT: 5.51 min Scan# 714

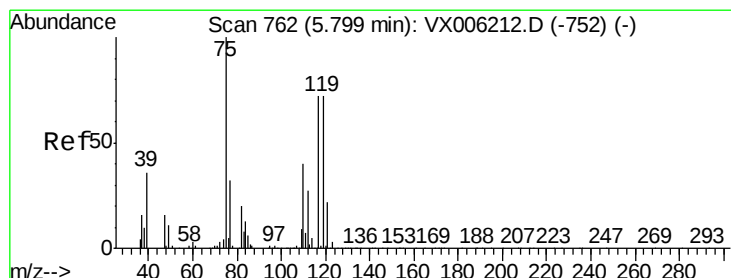
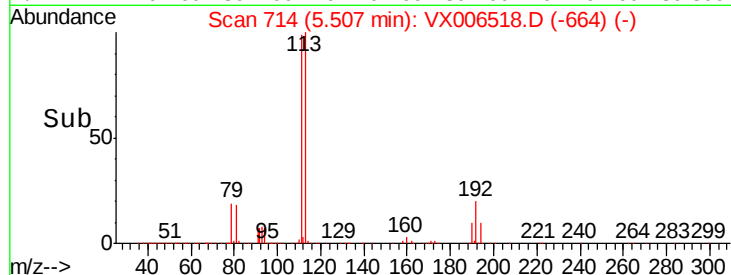
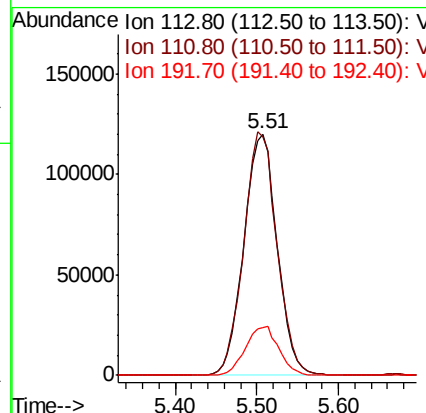
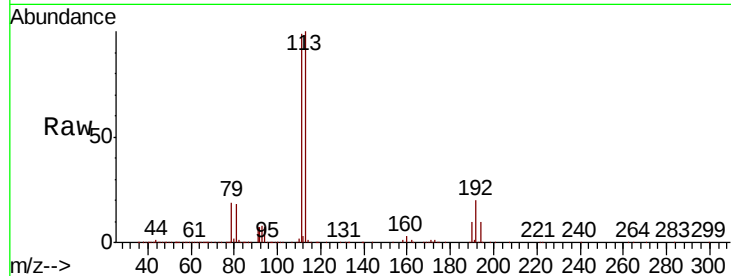
Delta R.T. 0.01 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

Instrument :  
MSVOA\_X  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 113   | Resp: | 340477 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 100.5 | 81.1  | 121.7  |
| 192      | 20.3  | 18.2  | 27.2   |



#36

1,1-Dichloropropene

Concen: 4.760 ug/l

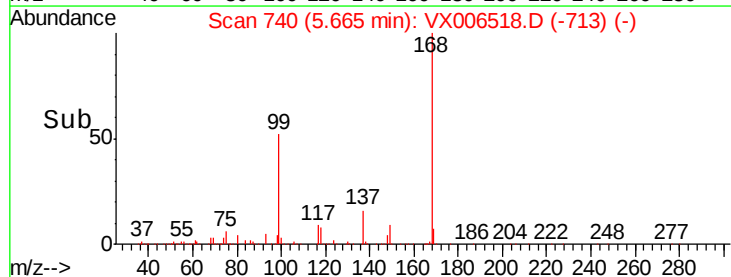
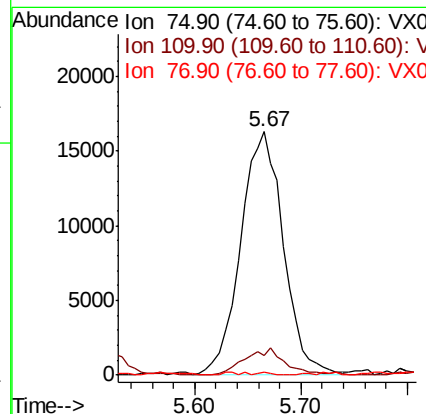
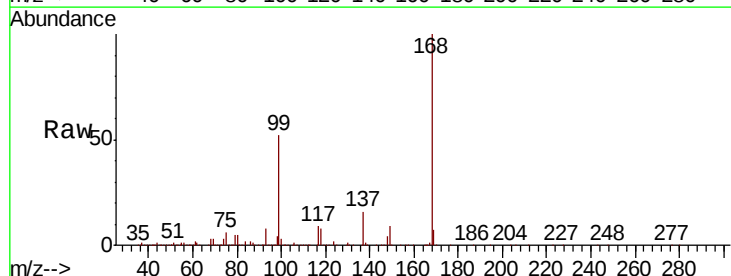
RT: 5.67 min Scan# 740

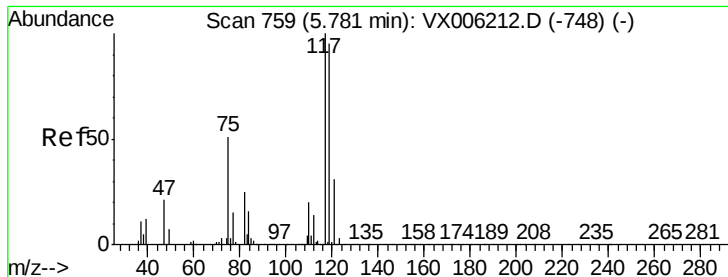
Delta R.T. -0.13 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 45376 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 11.0  | 20.4  | 61.3# |
| 77       | 0.4   | 24.9  | 37.3# |





#38

Carbon Tetrachloride

Concen: 6.104 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

Instrument :

MSVOA\_X

ClientSampleId :

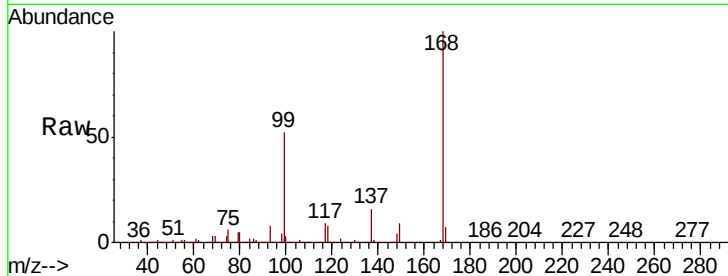
Tot Ion:117 Resp: 68448

Ion Ratio Lower Upper

117 100

119 4.6 75.8 113.8#

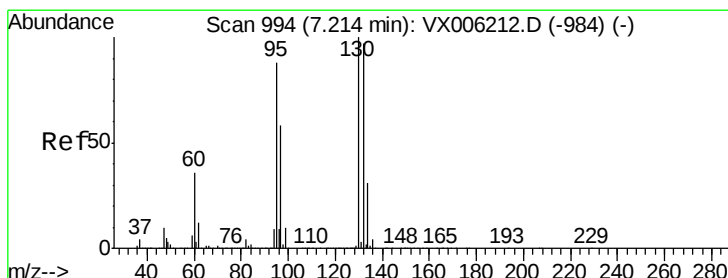
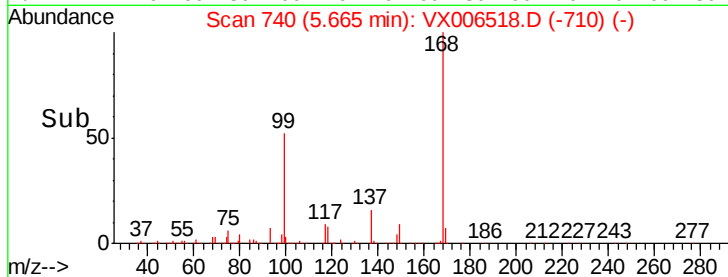
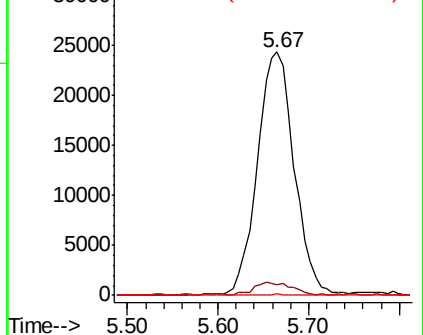
121 0.0 24.6 37.0#



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



#44

Trichloroethene

Concen: 0.344 ug/l

RT: 7.22 min Scan# 995

Delta R.T. 0.01 min

Lab File: VX006518.D

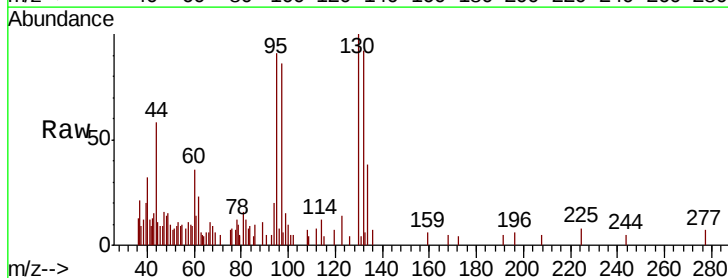
Acq: 14 Dec 2018 15:12

Tgt Ion:130 Resp: 2976

Ion Ratio Lower Upper

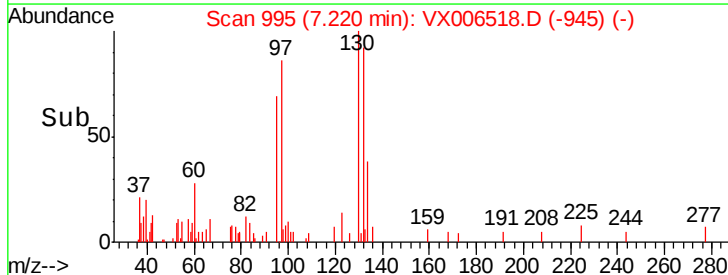
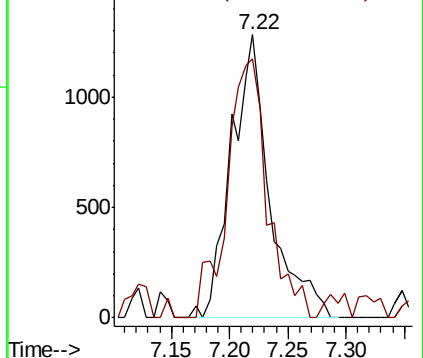
130 100

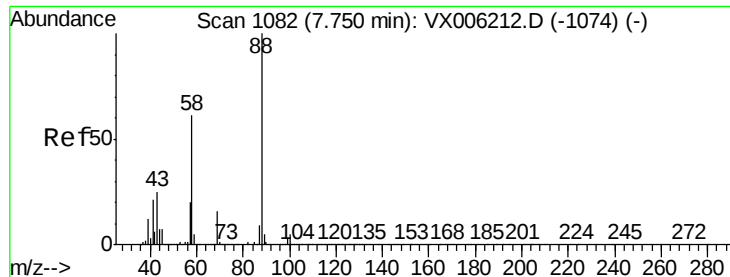
95 91.4 0.0 175.8



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0





#49

1,4-Dioxane

Concen: 0.515 ug/l

RT: 7.77 min Scan# 1085

Delta R.T. 0.02 min

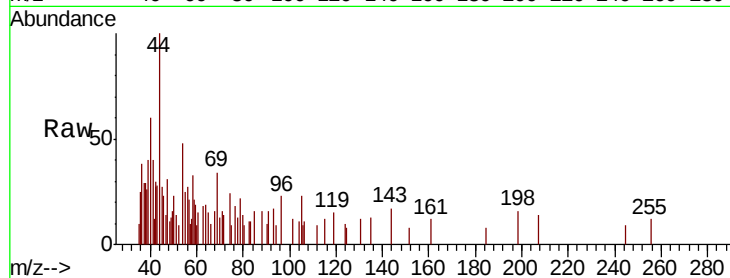
Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

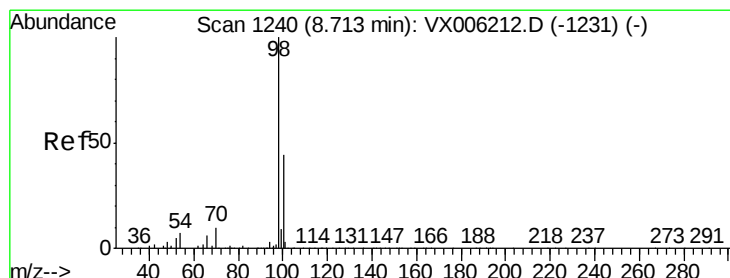
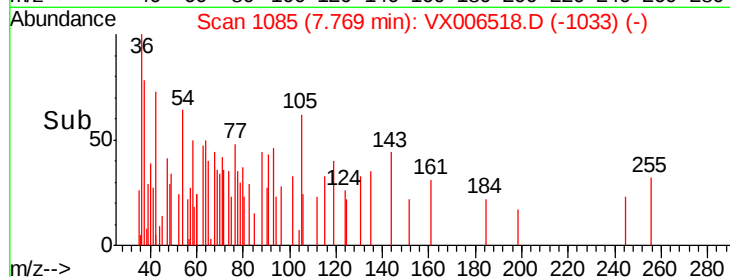
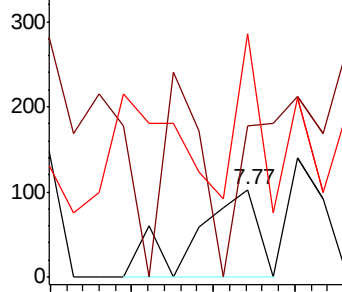
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 88 Resp: 110

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 88  | 100   |       |       |
| 43  | 0.0   | 23.2  | 34.8# |
| 58  | 172.7 | 51.4  | 77.0# |



Abundance Ion 88.00 (87.70 to 88.70): VX0  
Ion 43.00 (42.70 to 43.70): VX0  
Ion 58.00 (57.70 to 58.70): VX0



#50

Toluene-d8

Concen: 50.046 ug/l

RT: 8.71 min Scan# 1240

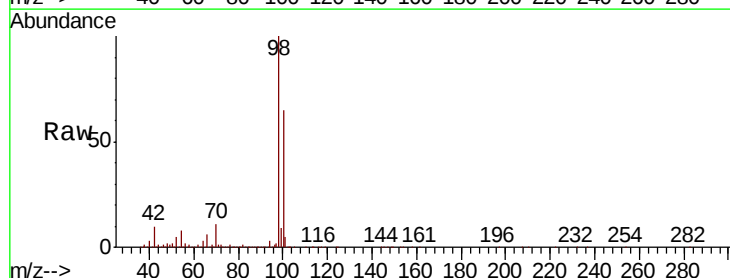
Delta R.T. 0.00 min

Lab File: VX006518.D

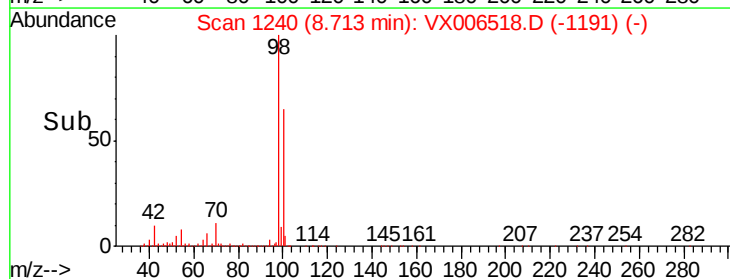
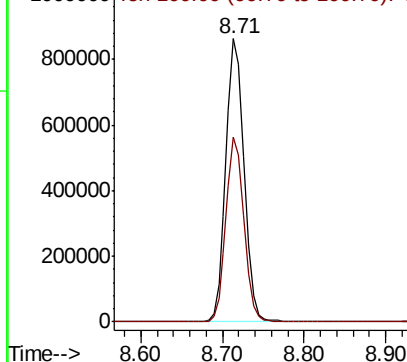
Acq: 14 Dec 2018 15:12

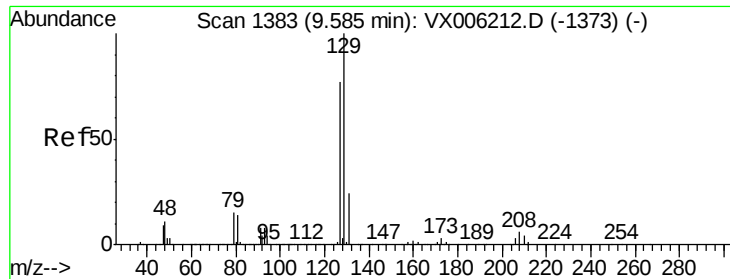
Tgt Ion: 98 Resp: 1334186

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 98  | 100   |       |       |
| 100 | 64.4  | 52.2  | 78.2  |



Abundance Ion 98.00 (97.70 to 98.70): VX0  
Ion 100.00 (99.70 to 100.70): V

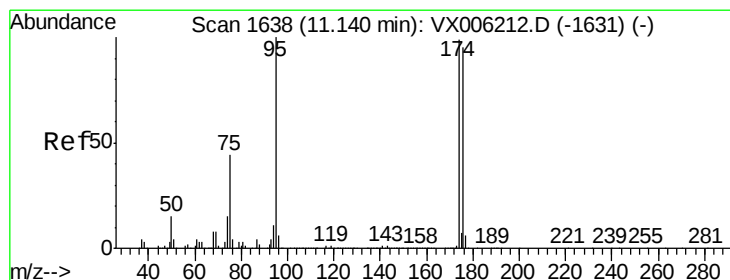
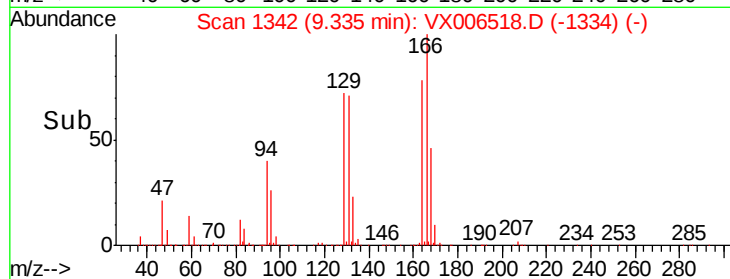
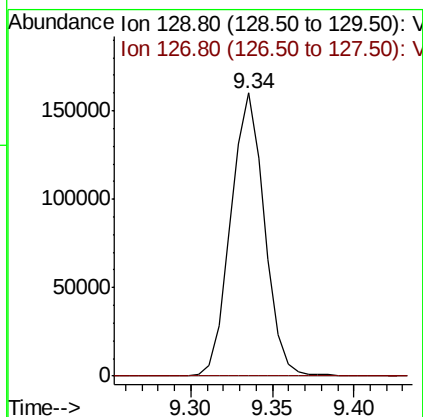
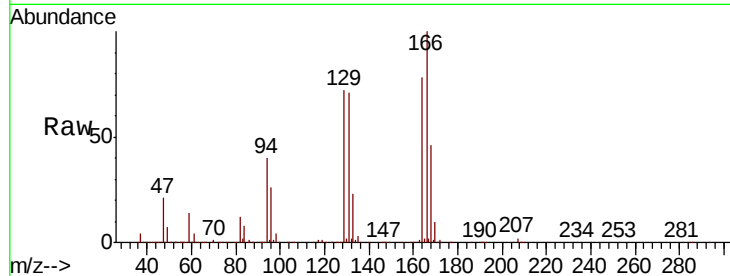




#60  
 Dibromochloromethane  
 Concen: 24.317 ug/l  
 RT: 9.34 min Scan# 1342  
 Delta R.T. -0.25 min  
 Lab File: VX006518.D  
 Acq: 14 Dec 2018 15:12

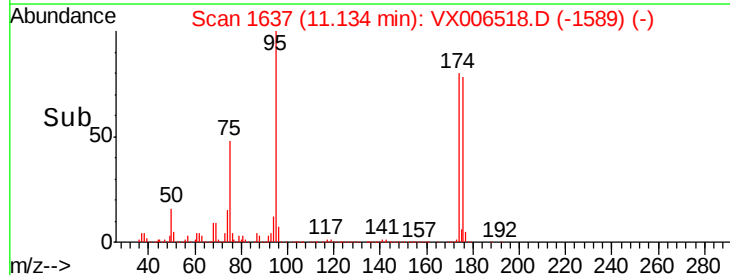
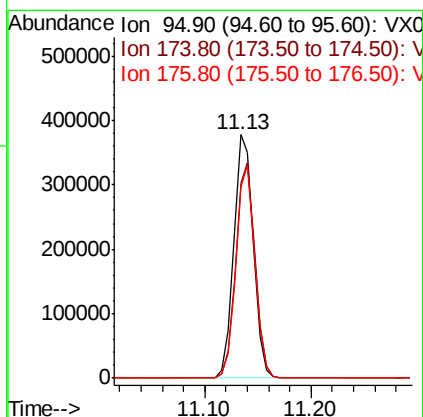
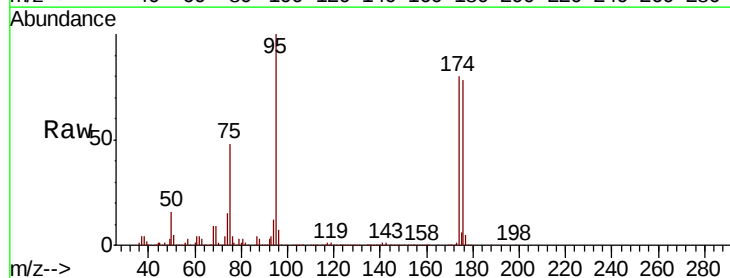
Instrument :  
 MSVOA\_X  
 ClientSampled :

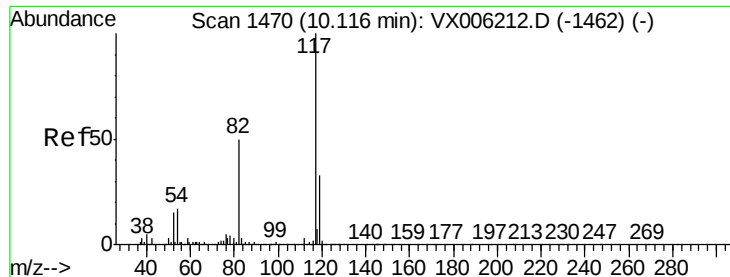
Tot Ion:129 Resp: 228812  
 Ion Ratio Lower Upper  
 129 100  
 127 0.1 38.6 115.8#



#62  
 4-Bromofluorobenzene  
 Concen: 48.353 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.01 min  
 Lab File: VX006518.D  
 Acq: 14 Dec 2018 15:12

Tgt Ion: 95 Resp: 485759  
 Ion Ratio Lower Upper  
 95 100  
 174 87.4 0.0 187.0  
 176 85.1 0.0 181.8

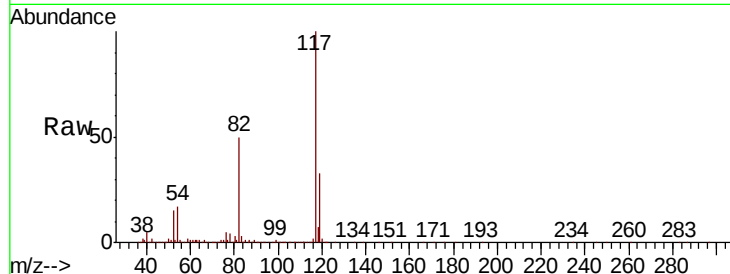




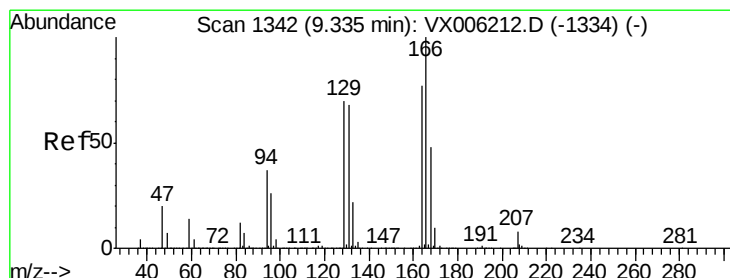
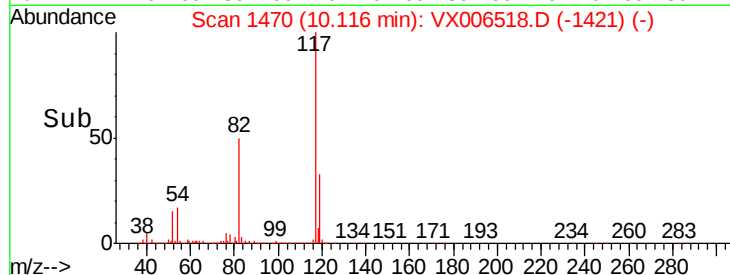
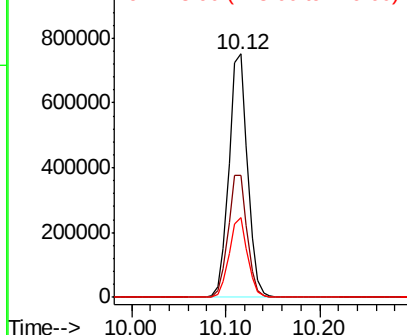
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.12 min Scan# 1470  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:117 Resp: 1027021  
Ion Ratio Lower Upper  
117 100  
82 49.8 39.6 59.4  
119 32.6 26.3 39.5

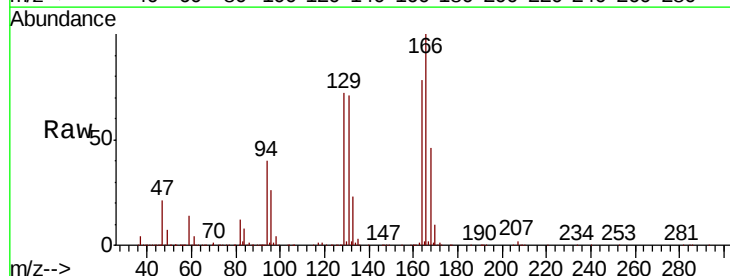


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

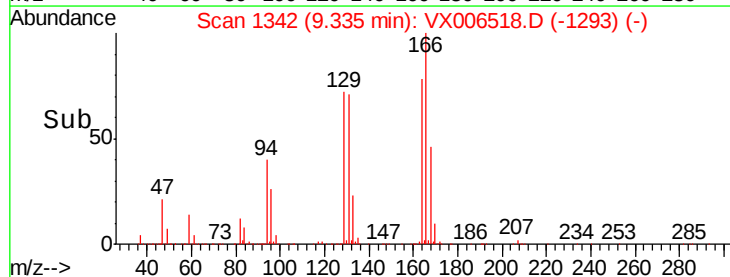
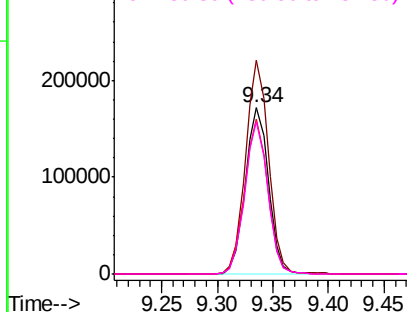


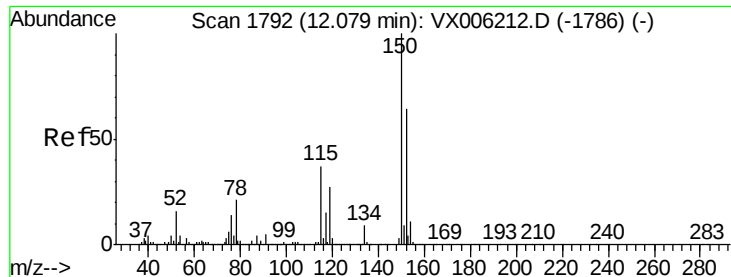
#64  
Tetrachloroethene  
Concen: 32.236 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Tgt Ion:164 Resp: 249327  
Ion Ratio Lower Upper  
164 100  
166 128.7 104.2 156.2  
129 93.3 72.6 108.8  
131 91.8 70.3 105.5



Abundance Ion 163.80 (163.50 to 164.50): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V



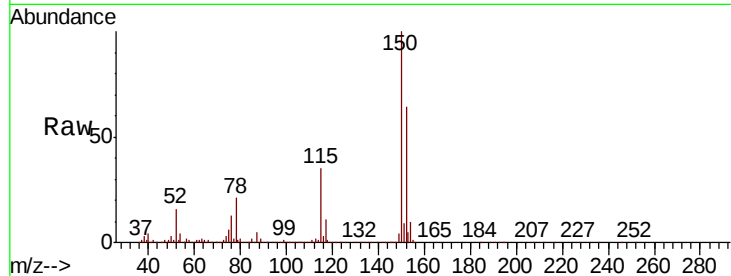


#72

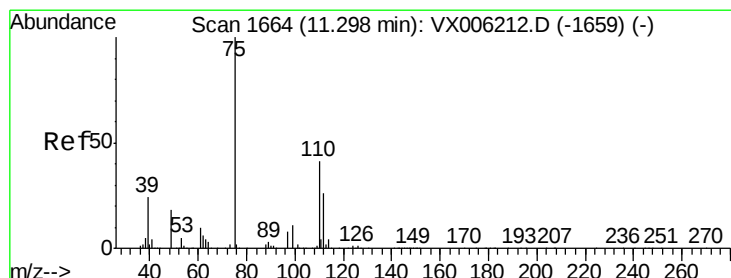
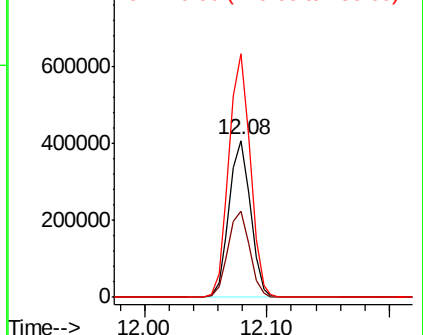
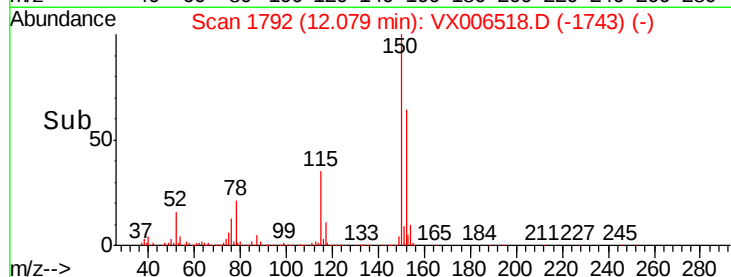
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. 0.00 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

Instrument :  
MSVOA\_X  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 55.7  | 39.0  | 116.9 |
| 150     | 155.2 | 0.0   | 345.8 |



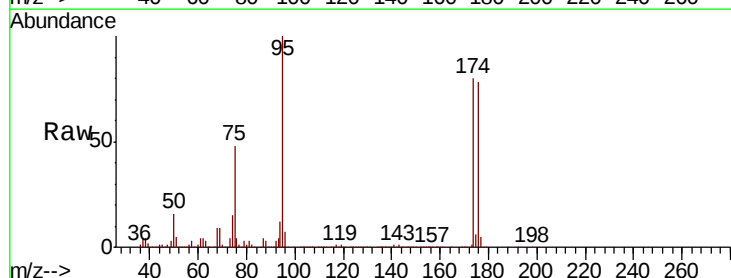
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



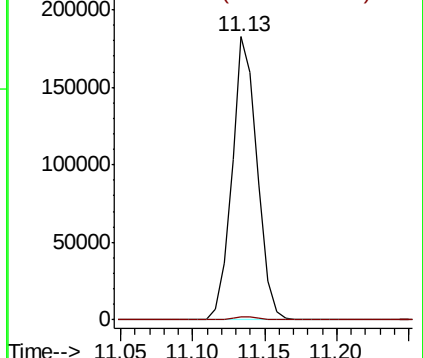
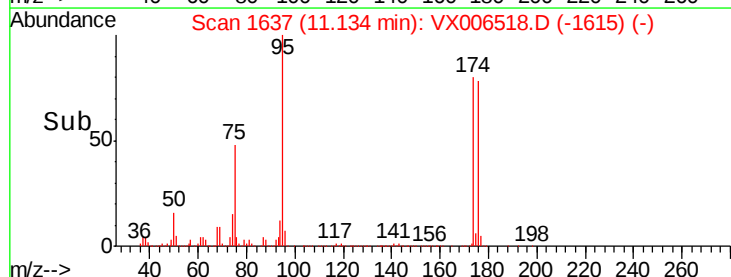
#76

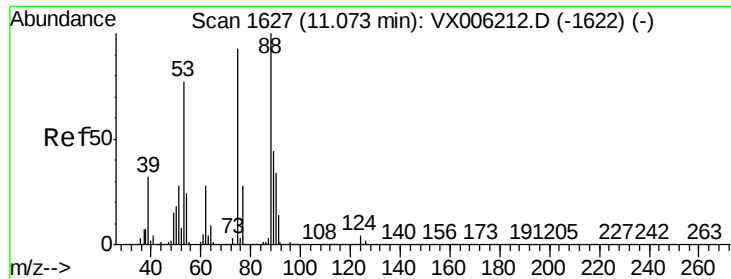
1,2,3-Trichloropropane  
Concen: 23.420 ug/l  
RT: 11.13 min Scan# 1637  
Delta R.T. -0.16 min  
Lab File: VX006518.D  
Acq: 14 Dec 2018 15:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.3   | 19.9  | 59.7# |



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: 54.959 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX006518.D

Acq: 14 Dec 2018 15:12

Instrument :

MSVOA\_X

ClientSampleId :

Tot Ion: 75 Resp: 223351

Ion Ratio Lower Upper

75 100

53 0.2 64.4 96.6#

89 0.0 44.2 66.4#

