

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062118\  
 Data File : VX002790.D  
 Acq On : 21 Jun 2018 16:03  
 Operator : JC/MD  
 Sample : J3570-10  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 20180373-AMENDED-COMPOSITE-

Quant Time: Jun 22 01:10:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061518W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jun 16 01:37:33 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 236925   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 333489   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 313201   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 175992   | 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   | 161212   | 44.78 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.56% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 70668    | 26.55 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 53.10% |          |
| 50) Toluene-d8              | 8.72  | 98   | 481364   | 47.63 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.26% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 165406   | 43.19 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 86.38% |          |

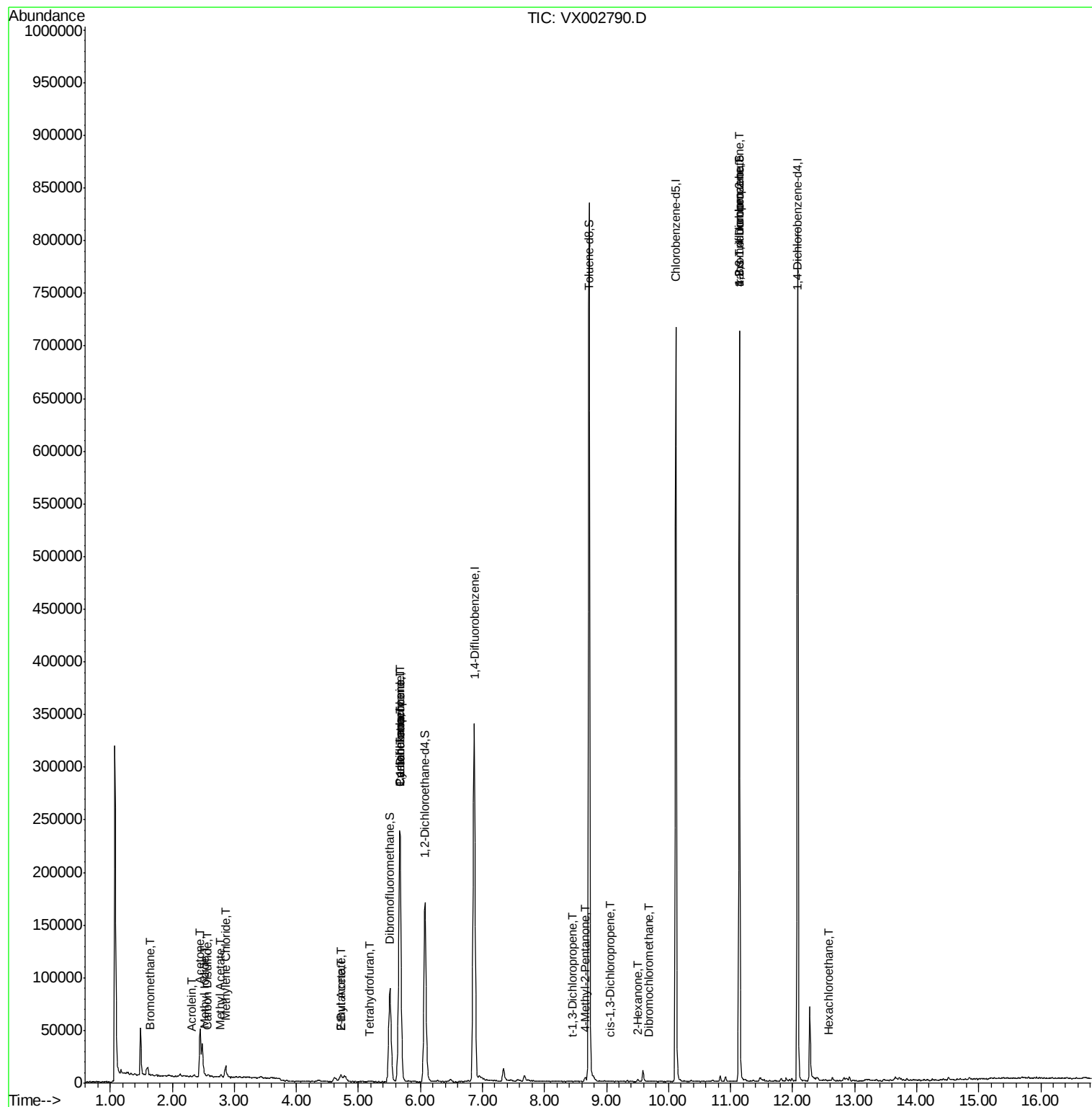
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 5) Bromomethane                | 1.65  | 94   | 376      | 0.20  | ug/l   | 85     |
| 10) Methyl Iodide              | 2.52  | 142  | 932      | 5.40  | ug/l # | 83     |
| 13) Acrolein                   | 2.31  | 56   | 860      | 9.26  | ug/l # | 67     |
| 16) Acetone                    | 2.45  | 43   | 50253    | 31.64 | ug/l   | 99     |
| 17) Carbon Disulfide           | 2.57  | 76   | 2090     | 0.33  | ug/l # | 90     |
| 18) Methyl Acetate             | 2.78  | 43   | 3092     | 0.73  | ug/l   | 93     |
| 20) Methylene Chloride         | 2.86  | 84   | 4886     | 1.50  | ug/l   | 98     |
| 25) 2-Butanone                 | 4.71  | 43   | 10694    | 5.13  | ug/l   | 94     |
| 29) Tetrahydrofuran            | 5.18  | 42   | 684      | 0.50  | ug/l # | 90     |
| 31) Cyclohexane                | 5.66  | 56   | 4850     | 1.14  | ug/l # | 35     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 16538    | 4.67  | ug/l # | 50     |
| 37) Ethyl Acetate              | 4.71  | 43   | 10694    | 2.67  | ug/l # | 70     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 21397    | 6.07  | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone       | 8.66  | 43   | 2484     | 0.58  | ug/l   | 91     |
| 53) t-1,3-Dichloropropene      | 8.45  | 75   | 26       | 2.40  | ug/l # | 43     |
| 54) cis-1,3-Dichloropropene    | 9.06  | 75   | 26       | 3.22  | ug/l # | 32     |
| 59) 2-Hexanone                 | 9.50  | 43   | 1262     | 0.39  | ug/l   | 86     |
| 60) Dibromochloromethane       | 9.68  | 129  | 19       | 3.77  | ug/l # | 11     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 89404    | 26.92 | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 89404    | 83.12 | ug/l # | 7      |
| 90) Hexachloroethane           | 12.58 | 117  | 22       | 2.64  | ug/l # | 1      |

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

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Quant Title : SW846 8260  
QLast Update : Sat Jun 16 01:37:33 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

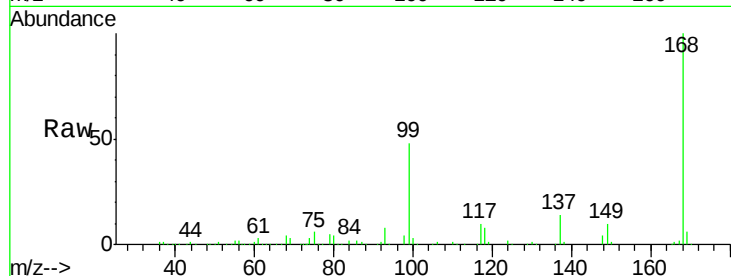
20180373-AMENDED-COMPOSITE-

Tot Ion:168 Resp: 236925

Ion Ratio Lower Upper

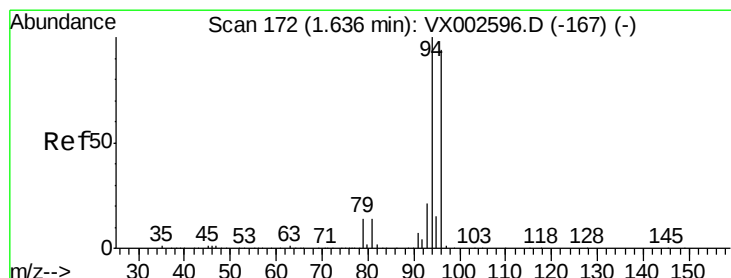
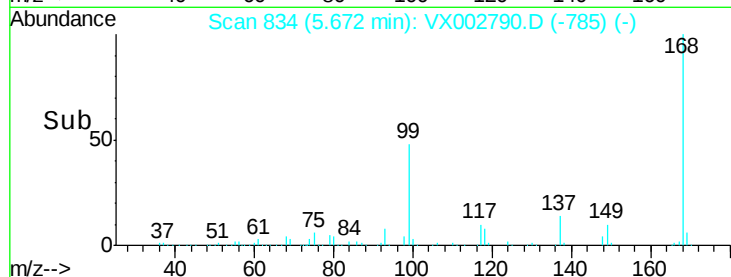
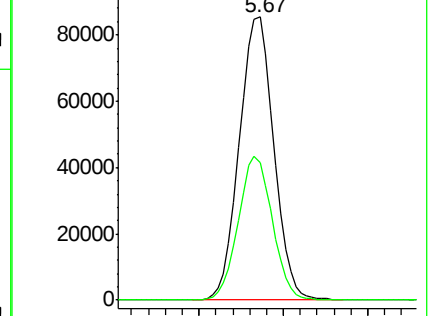
168 100

99 48.4 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#5

Bromomethane

Concen: 0.20 ug/l

RT: 1.65 min Scan# 174

Delta R.T. 0.01 min

Lab File: VX002790.D

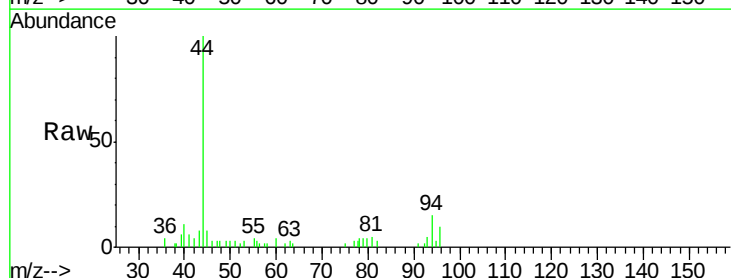
Acq: 21 Jun 2018 16:03

Tgt Ion: 94 Resp: 376

Ion Ratio Lower Upper

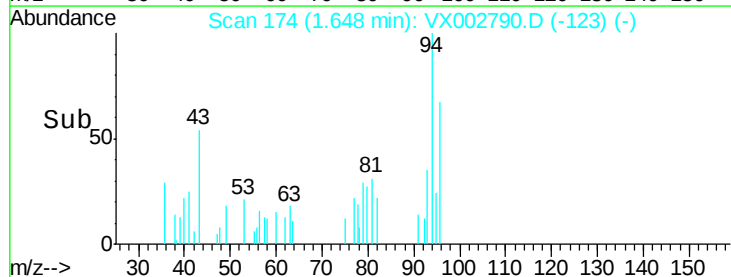
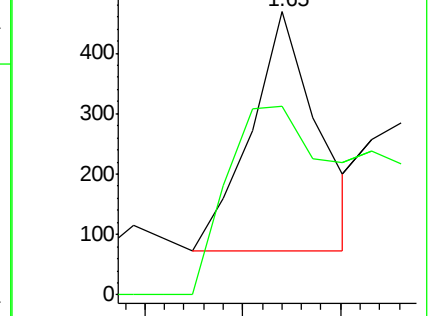
94 100

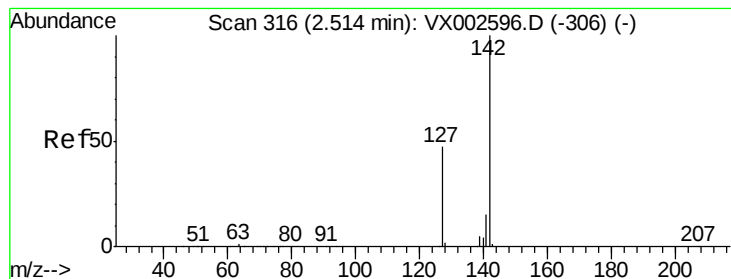
96 79.2 74.9 112.3



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#10

Methvl Iodide

Concen: 5.40 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

20180373-AMENDED-COMPOSITE-

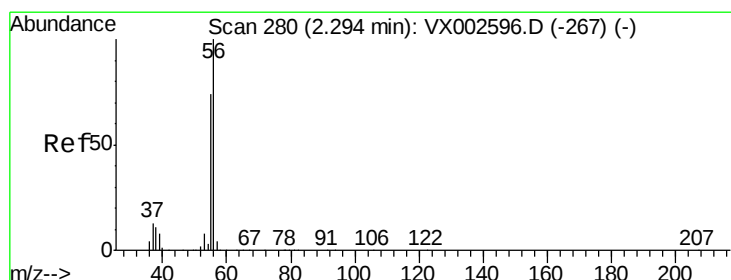
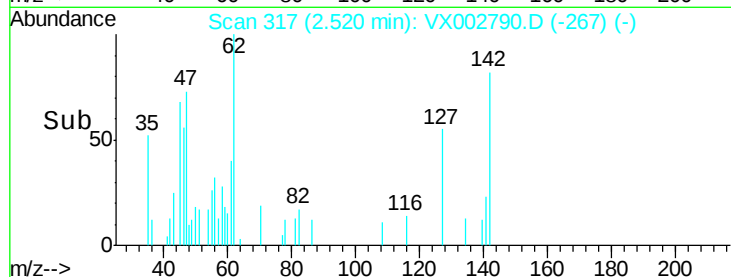
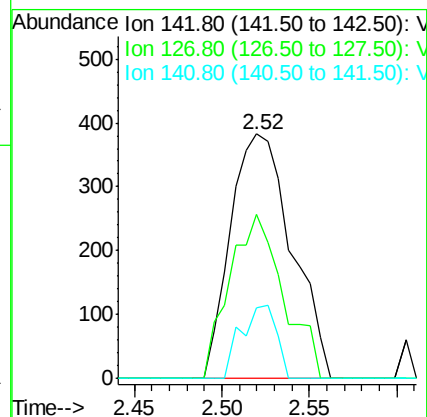
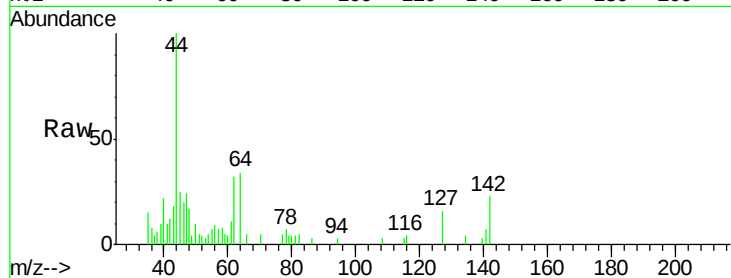
Tot Ion:142 Resp: 932

Ion Ratio Lower Upper

142 100

127 58.8 36.6 55.0#

141 17.0 11.3 16.9#



#13

Acrolein

Concen: 9.26 ug/l

RT: 2.31 min Scan# 282

Delta R.T. 0.01 min

Lab File: VX002790.D

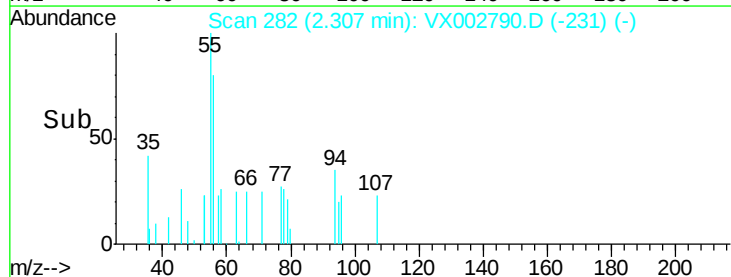
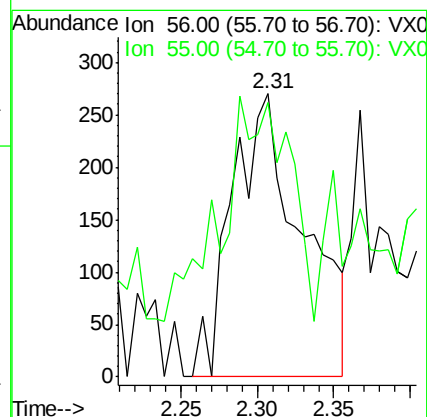
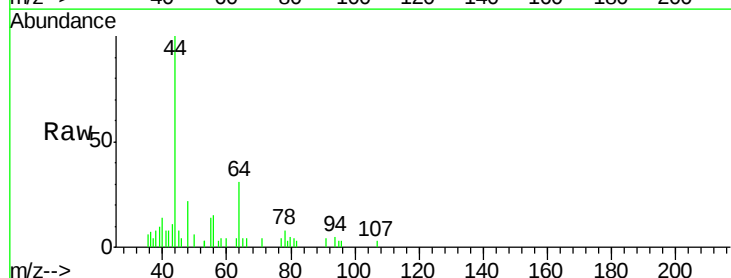
Acq: 21 Jun 2018 16:03

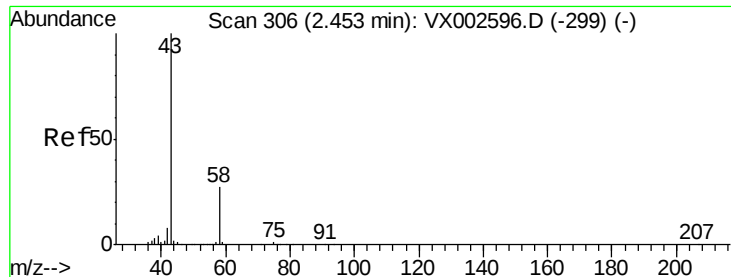
Tgt Ion: 56 Resp: 860

Ion Ratio Lower Upper

56 100

55 43.7 57.0 85.4#





#16

Acetone

Concen: 31.64 ug/l

RT: 2.45 min Scan# 305

Delta R.T. -0.01 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

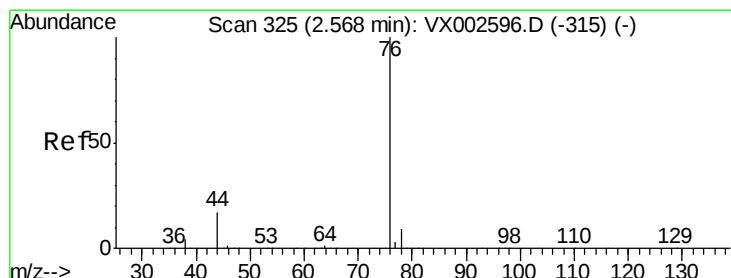
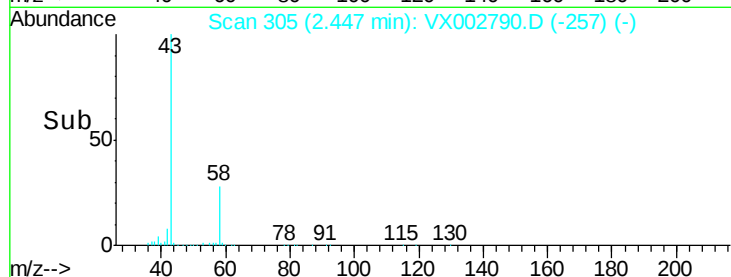
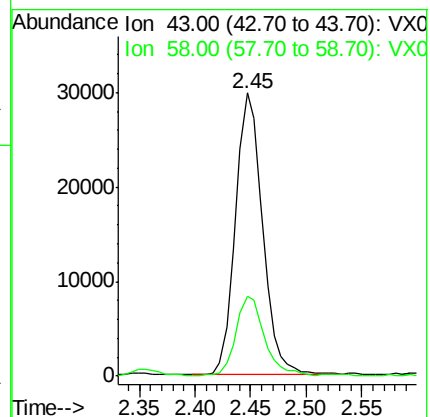
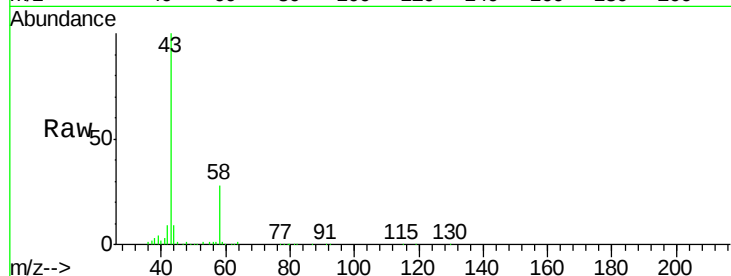
20180373-AMENDED-COMPOSITE-

Tot Ion: 43 Resp: 50253

Ion Ratio Lower Upper

43 100

58 28.1 22.1 33.1



#17

Carbon Disulfide

Concen: 0.33 ug/l

RT: 2.57 min Scan# 325

Delta R.T. 0.00 min

Lab File: VX002790.D

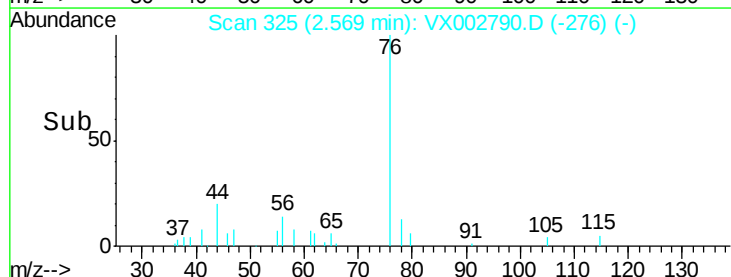
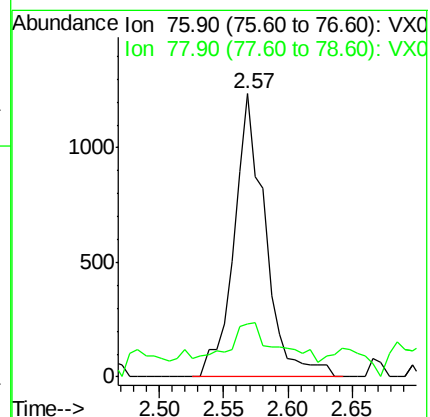
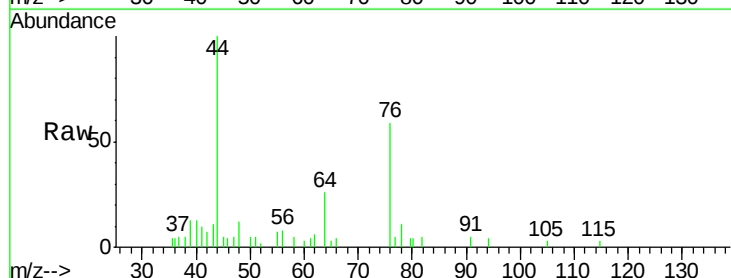
Acq: 21 Jun 2018 16:03

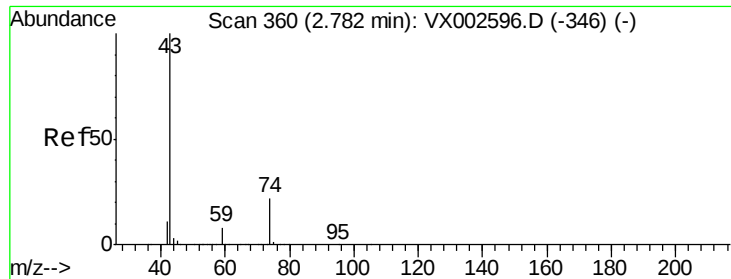
Tgt Ion: 76 Resp: 2090

Ion Ratio Lower Upper

76 100

78 12.3 6.9 10.3#





#18

Methyl Acetate

Concen: 0.73 ug/l

RT: 2.78 min Scan# 360

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

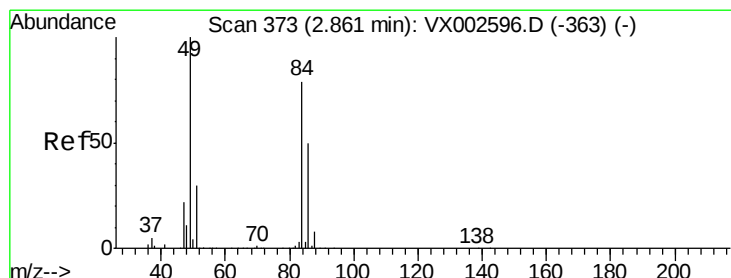
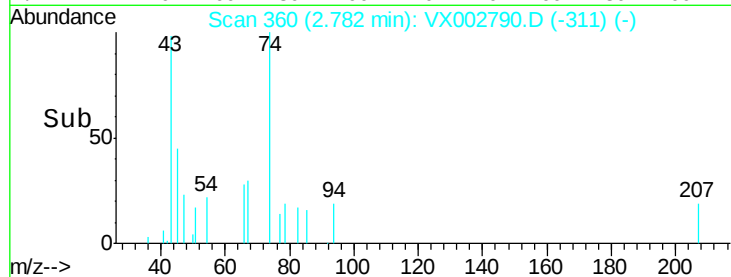
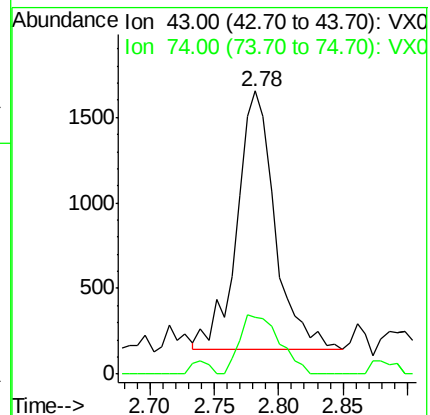
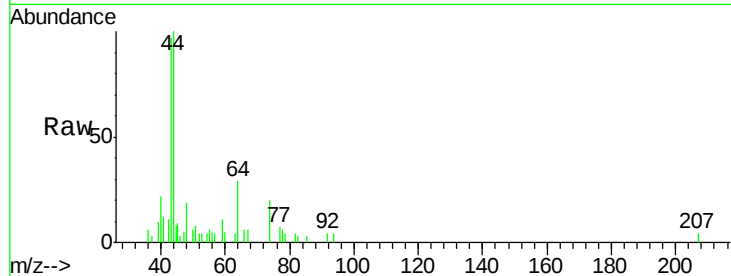
20180373-AMENDED-COMPOSITE-

Tot Ion: 43 Resp: 3092

Ion Ratio Lower Upper

43 100

74 24.0 16.7 25.1



#20

Methylene Chloride

Concen: 1.50 ug/l

RT: 2.86 min Scan# 373

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Tgt Ion: 84 Resp: 4886

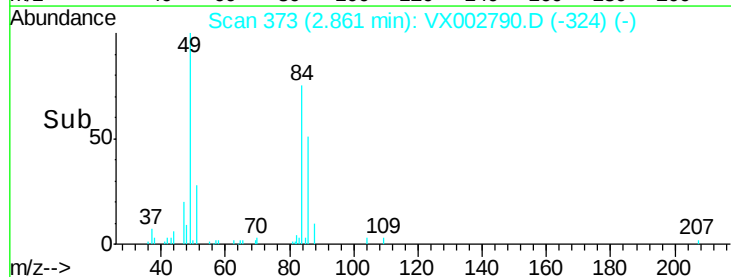
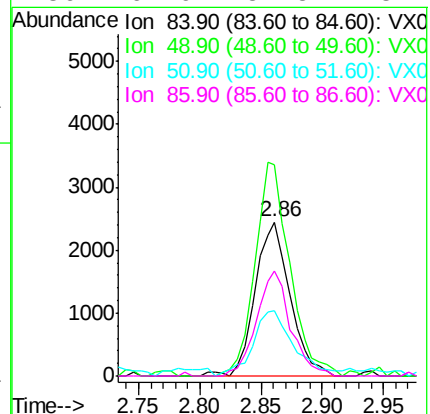
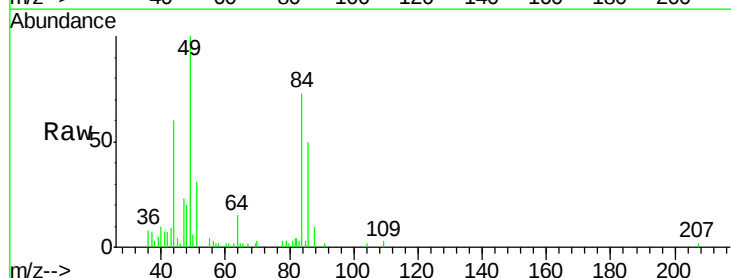
Ion Ratio Lower Upper

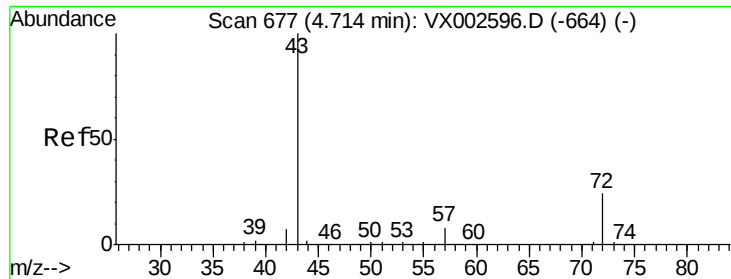
84 100

49 136.8 107.8 161.6

51 39.2 32.8 49.2

86 67.9 52.5 78.7





#25

2-Butanone

Concen: 5.13 ug/l

RT: 4.71 min Scan# 677

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

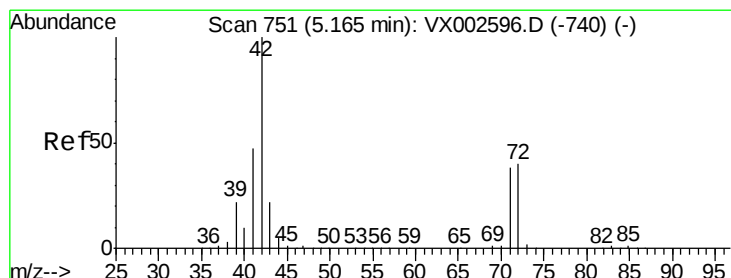
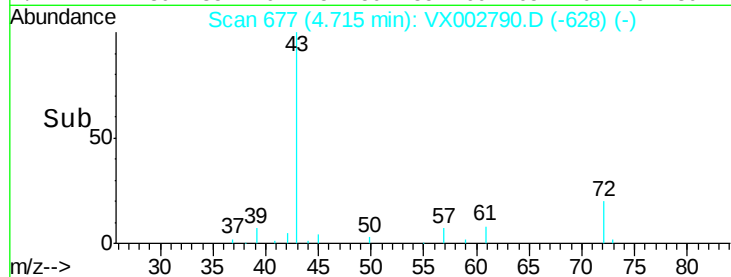
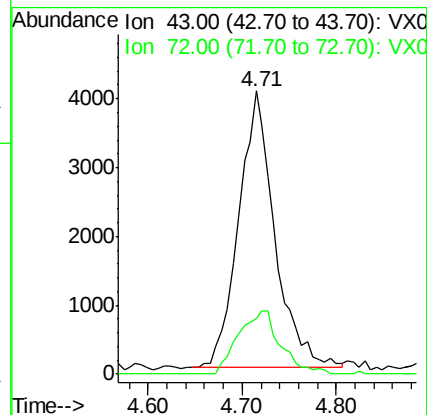
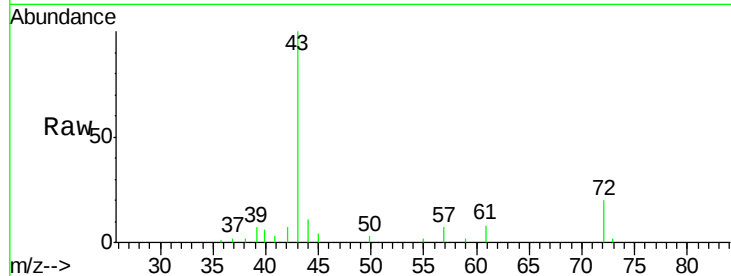
20180373-AMENDED-COMPOSITE-

Tot Ion: 43 Resp: 10694

Ion Ratio Lower Upper

43 100

72 20.1 18.5 27.7



#29

Tetrahydrofuran

Concen: 0.50 ug/l

RT: 5.18 min Scan# 753

Delta R.T. 0.01 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

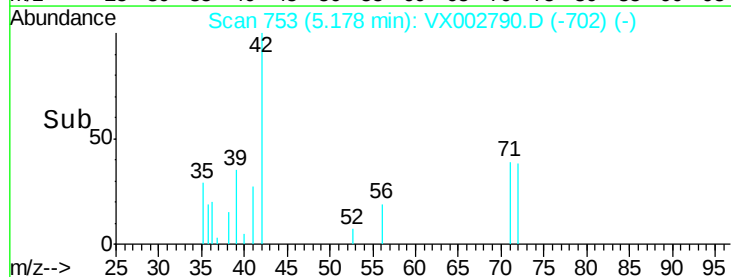
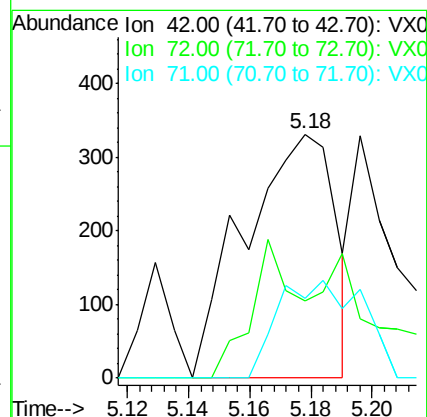
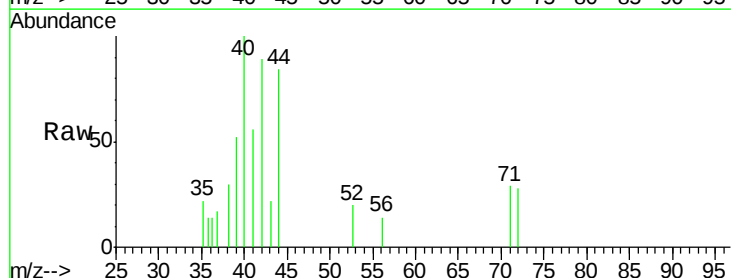
Tgt Ion: 42 Resp: 684

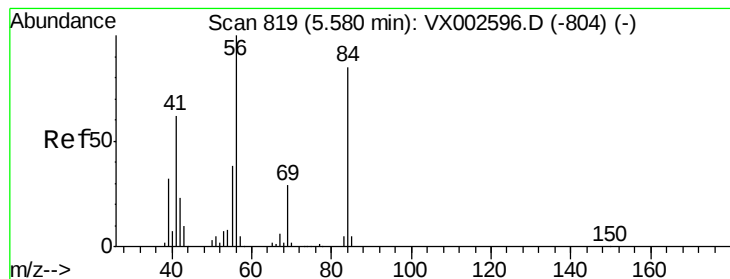
Ion Ratio Lower Upper

42 100

72 27.9 32.0 48.0#

71 37.6 30.1 45.1





#31

Cyclohexane

Concen: 1.14 ug/l

RT: 5.66 min Scan# 832

Delta R.T. 0.08 min

Lab File: VX002790.D

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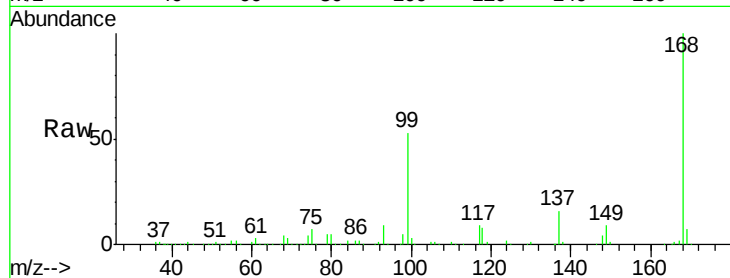
Tot Ion: 56 Resp: 4850

Ion Ratio Lower Upper

56 100

69 122.1 23.7 35.5#

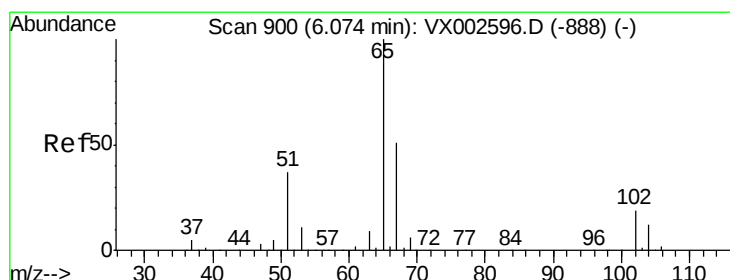
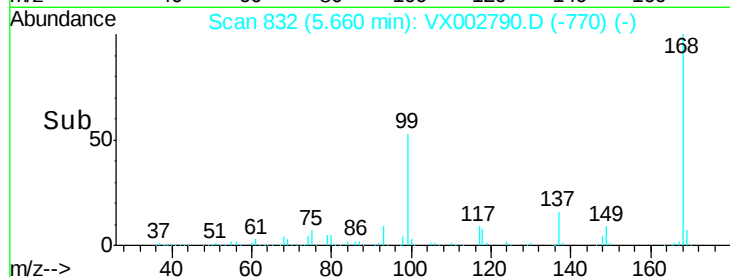
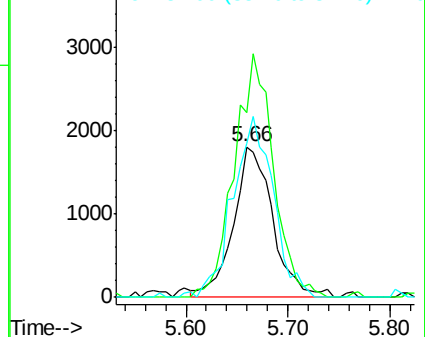
84 102.1 64.1 96.1#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0



#33

1,2-Dichloroethane-d4

Concen: 44.78 ug/l

RT: 6.07 min Scan# 900

Delta R.T. 0.00 min

Lab File: VX002790.D

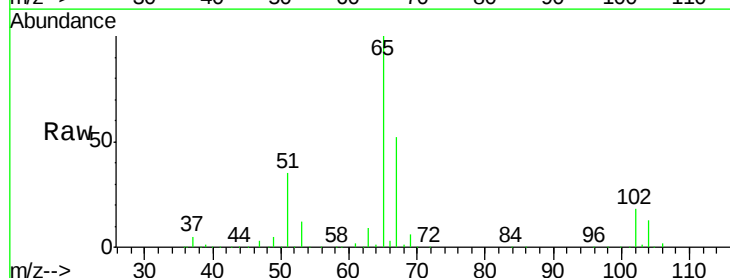
Acq: 21 Jun 2018 16:03

Tgt Ion: 65 Resp: 161212

Ion Ratio Lower Upper

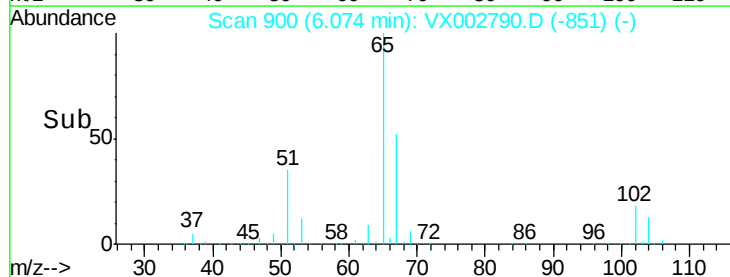
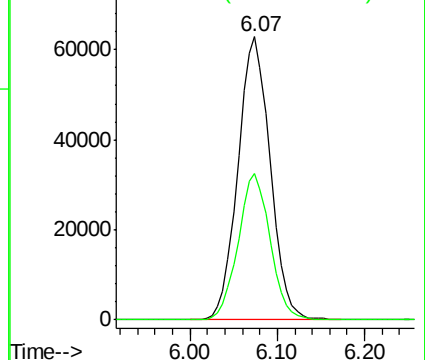
65 100

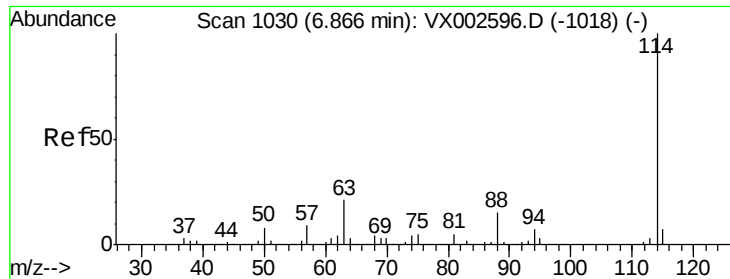
67 51.3 0.0 102.6



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 6.87 min Scan# 1030

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

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ClientSampleId :

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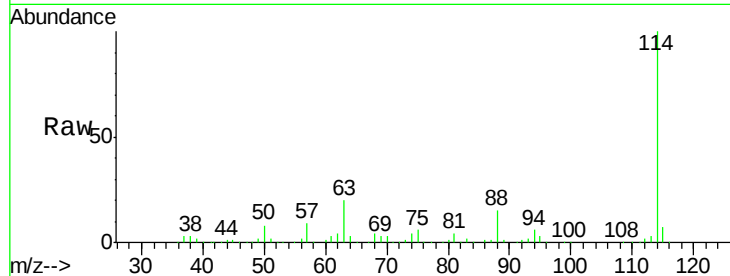
Tot Ion:114 Resp: 333489

Ion Ratio Lower Upper

114 100

63 20.4 0.0 41.4

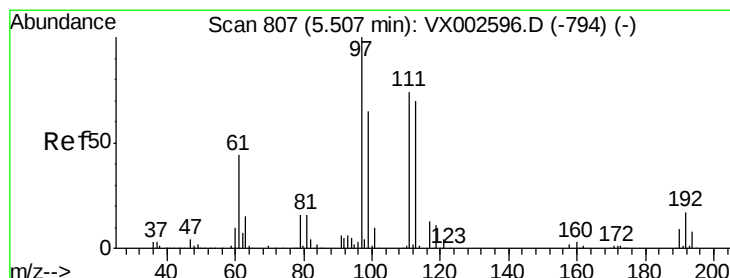
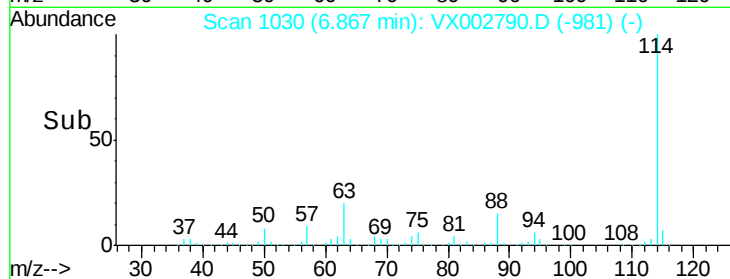
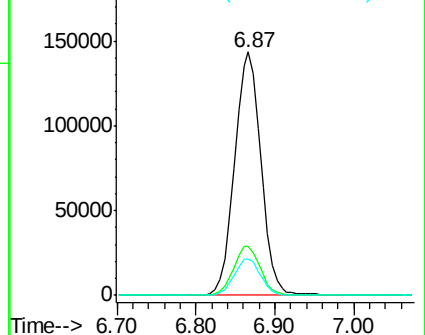
88 14.9 0.0 30.0



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



#35

Dibromofluoromethane

Concen: 26.55 ug/l

RT: 5.51 min Scan# 807

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

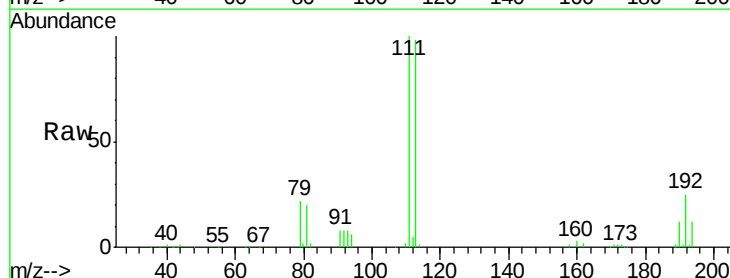
Tgt Ion:113 Resp: 70668

Ion Ratio Lower Upper

113 100

111 102.4 81.4 122.0

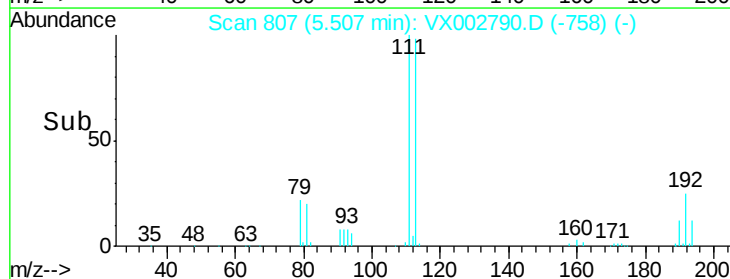
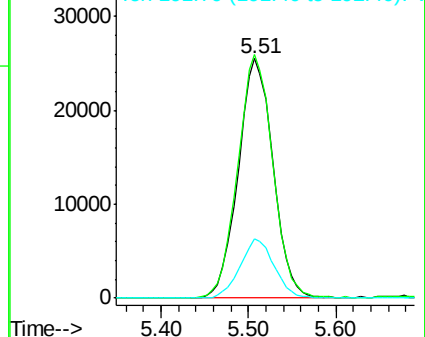
192 24.2 19.1 28.7

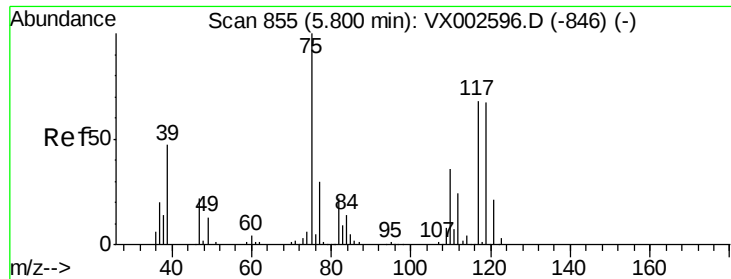


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.67 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.13 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

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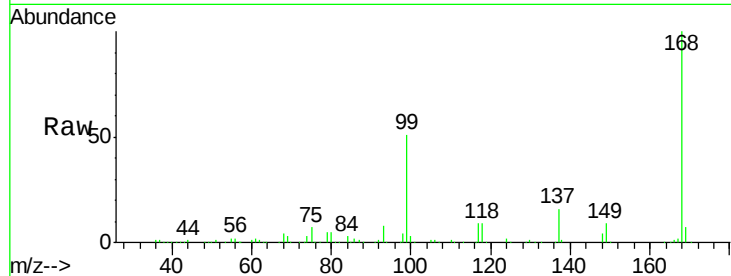
Tot Ion: 75 Resp: 16538

Ion Ratio Lower Upper

75 100

110 9.7 18.1 54.4#

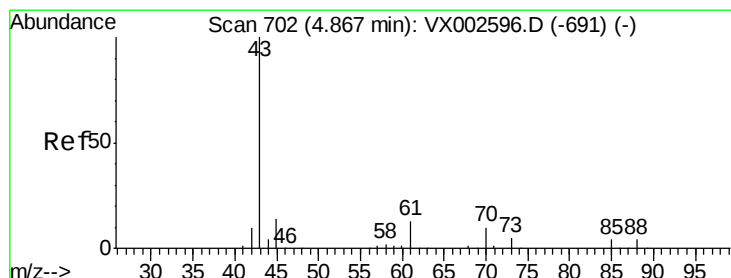
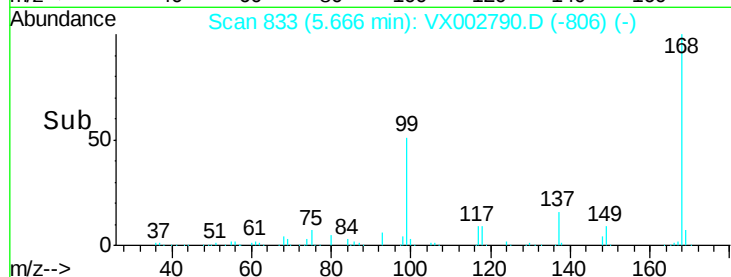
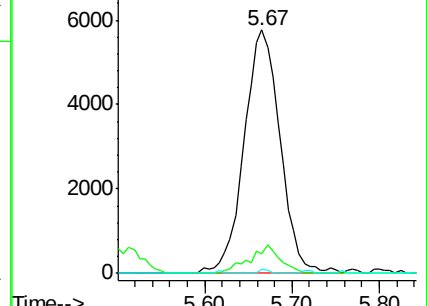
77 0.4 24.3 36.5#



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



#37

Ethyl Acetate

Concen: 2.67 ug/l

RT: 4.71 min Scan# 677

Delta R.T. -0.15 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

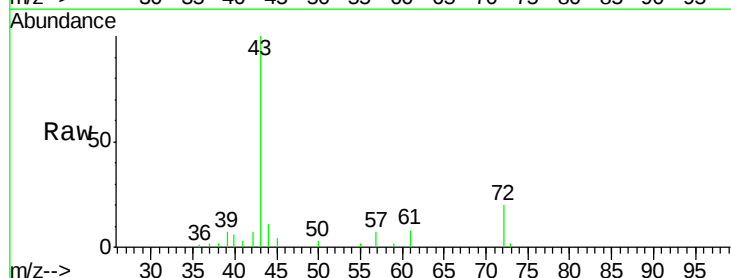
Tgt Ion: 43 Resp: 10694

Ion Ratio Lower Upper

43 100

61 0.0 10.4 15.6#

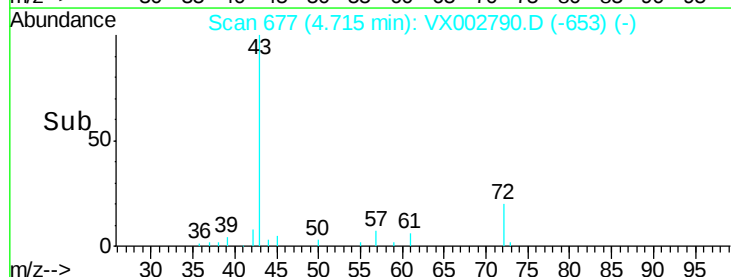
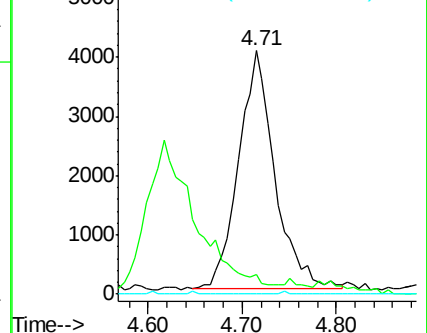
70 0.0 7.6 11.4#

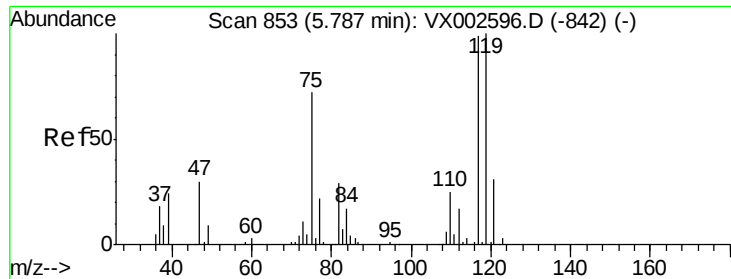


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 70.00 (69.70 to 70.70): VX0

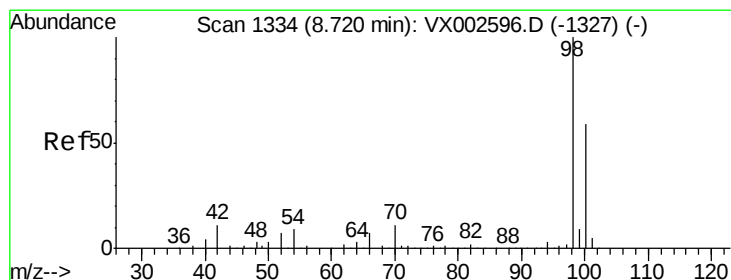
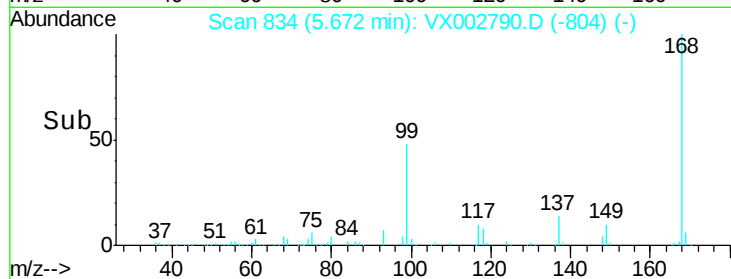
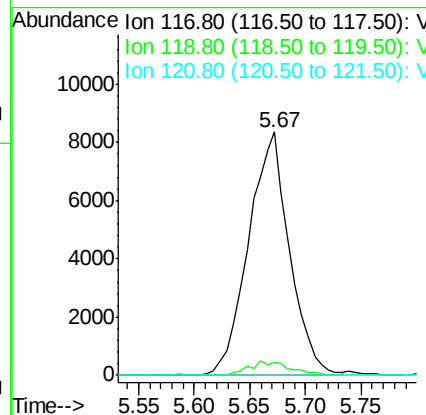
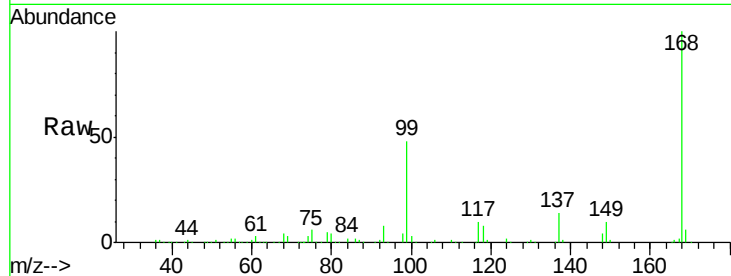




#38  
Carbon Tetrachloride  
Concen: 6.07 ug/l  
RT: 5.67 min Scan# 834  
Delta R.T. -0.12 min  
Lab File: VX002790.D  
Acq: 21 Jun 2018 16:03

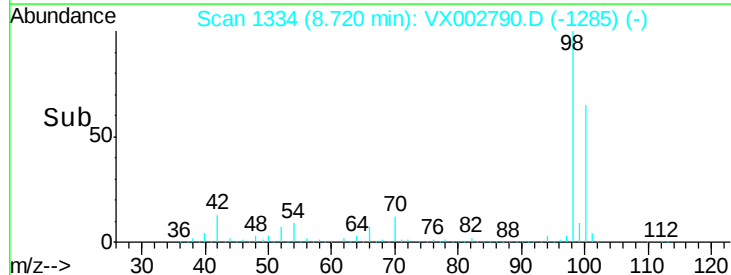
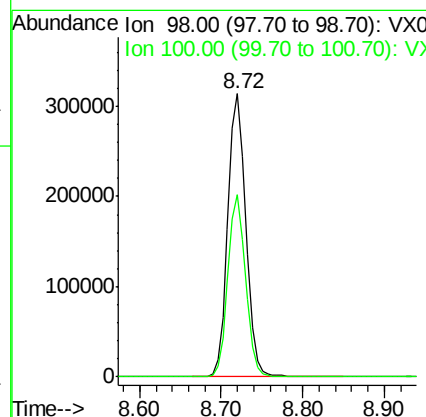
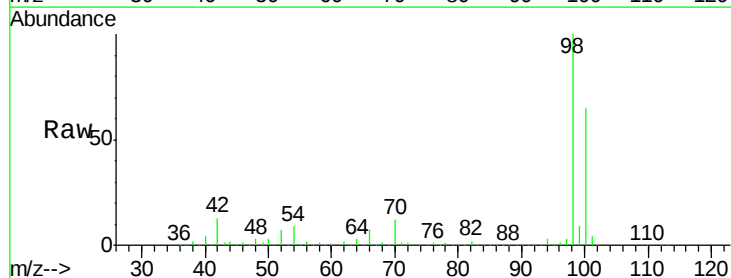
Instrument :  
MSVOA\_X  
ClientSampleId :  
20180373-AMENDED-COMPOSITE-

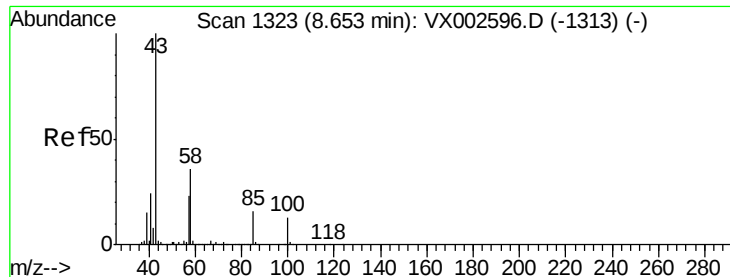
Tot Ion:117 Resp: 21397  
Ion Ratio Lower Upper  
117 100  
119 5.7 77.4 116.0#  
121 0.0 24.4 36.6#



#50  
Toluene-d8  
Concen: 47.63 ug/l  
RT: 8.72 min Scan# 1334  
Delta R.T. 0.00 min  
Lab File: VX002790.D  
Acq: 21 Jun 2018 16:03

Tgt Ion: 98 Resp: 481364  
Ion Ratio Lower Upper  
98 100  
100 63.2 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 0.58 ug/l

RT: 8.66 min Scan# 1324

Delta R.T. 0.01 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

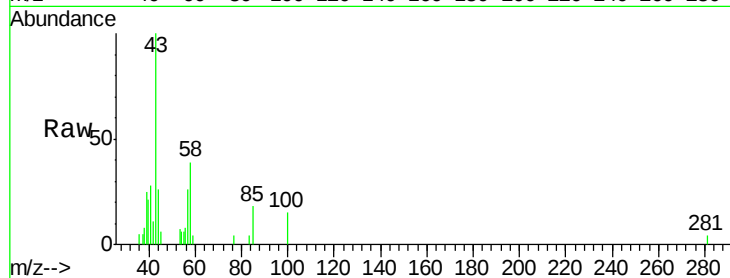
20180373-AMENDED-COMPOSITE-

Tot Ion: 43 Resp: 2484

Ion Ratio Lower Upper

43 100

58 40.9 28.6 42.8



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

3000

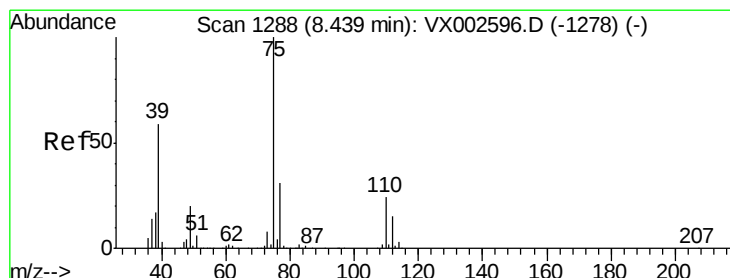
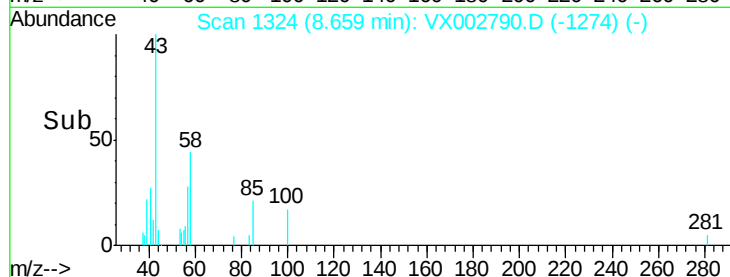
2000

1000

0

8.60 8.65 8.70

Time-->



#53

t-1,3-Dichloropropene

Concen: 2.40 ug/l

RT: 8.45 min Scan# 1289

Delta R.T. 0.01 min

Lab File: VX002790.D

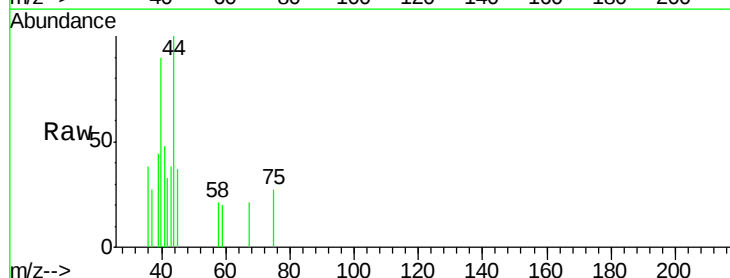
Acq: 21 Jun 2018 16:03

Tgt Ion: 75 Resp: 26

Ion Ratio Lower Upper

75 100

77 0.0 25.4 38.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 76.90 (76.60 to 77.60): VX0

80

60

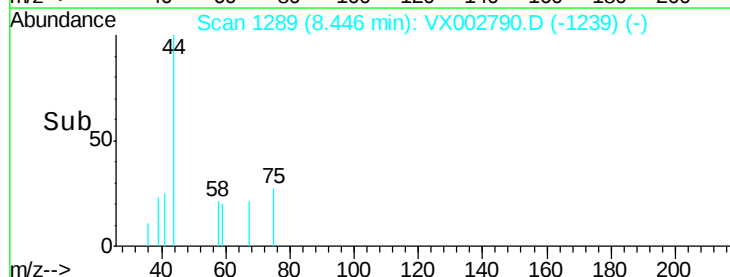
40

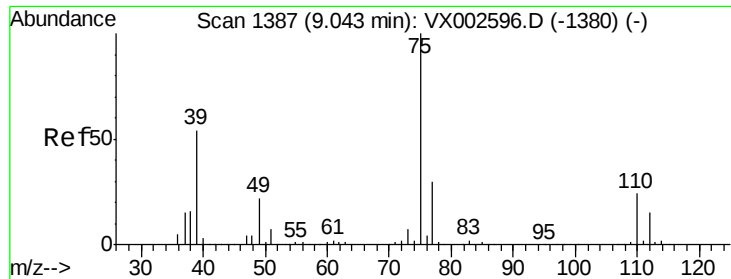
20

0

8.43 8.44 8.45 8.46

Time-->

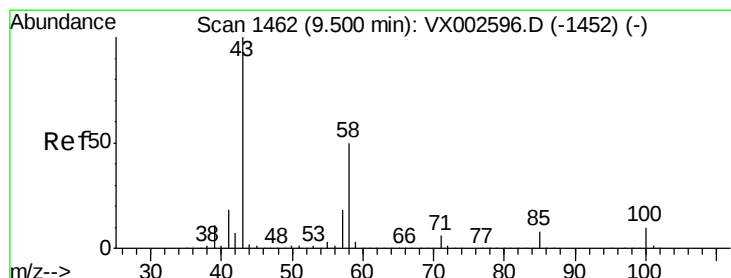
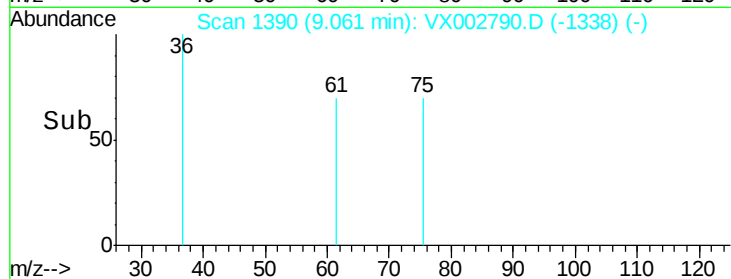
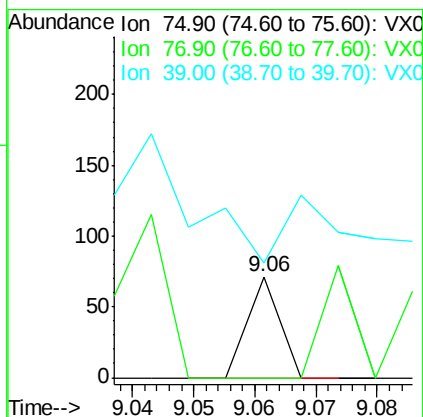
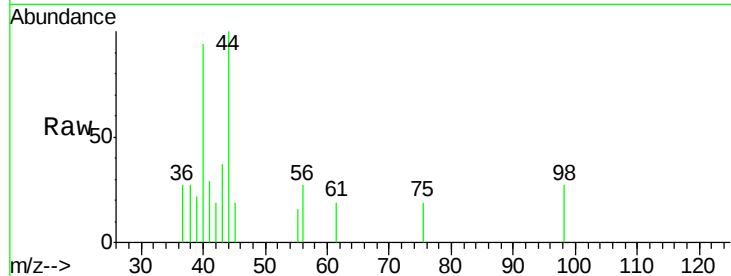




#54  
 cis-1,3-Dichloropropene  
 Concen: 3.22 ug/l  
 RT: 9.06 min Scan# 1390  
 Delta R.T. 0.02 min  
 Lab File: VX002790.D  
 Acq: 21 Jun 2018 16:03

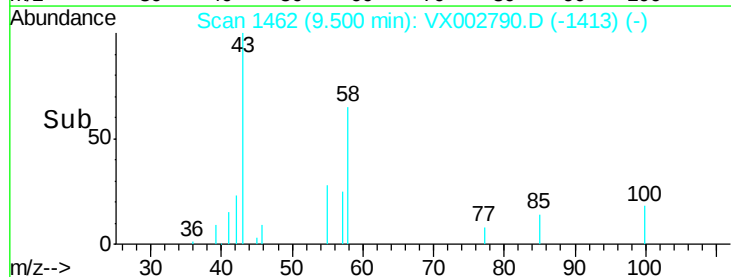
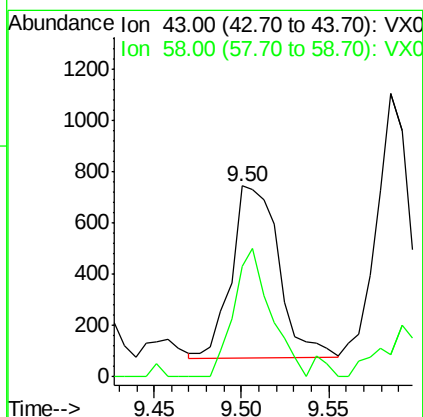
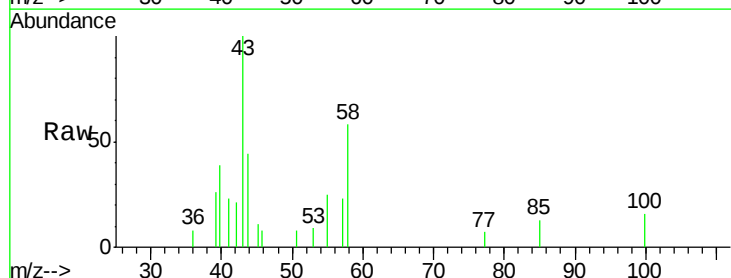
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 20180373-AMENDED-COMPOSITE-

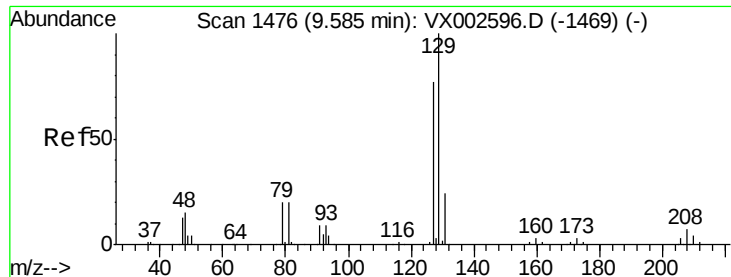
Tot Ion: 75 Resp: 26  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 24.8 37.2#  
 39 0.0 42.4 63.6#



#59  
 2-Hexanone  
 Concen: 0.39 ug/l  
 RT: 9.50 min Scan# 1462  
 Delta R.T. 0.00 min  
 Lab File: VX002790.D  
 Acq: 21 Jun 2018 16:03

Tgt Ion: 43 Resp: 1262  
 Ion Ratio Lower Upper  
 43 100  
 58 58.7 24.6 73.6





#60

Dibromochloromethane

Concen: 3.77 ug/l

RT: 9.68 min Scan# 1491

Delta R.T. 0.09 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

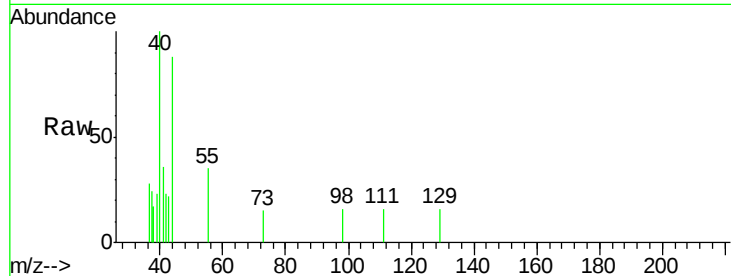
20180373-AMENDED-COMPOSITE-

Tot Ion:129 Resp: 19

Ion Ratio Lower Upper

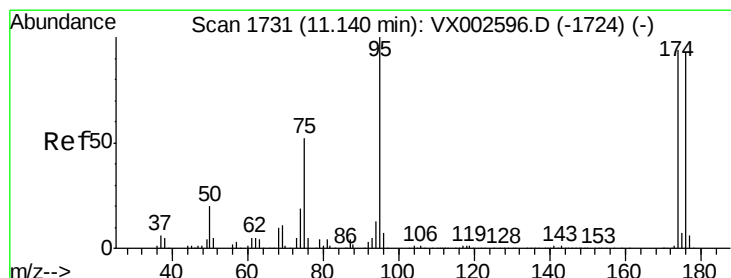
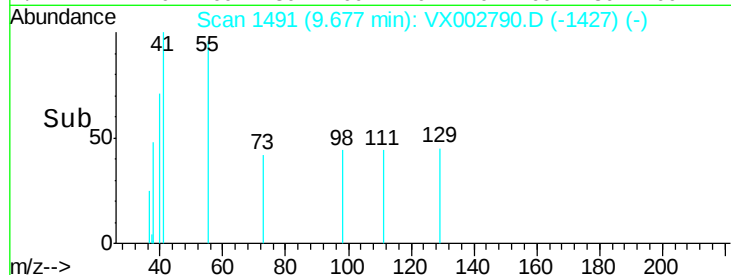
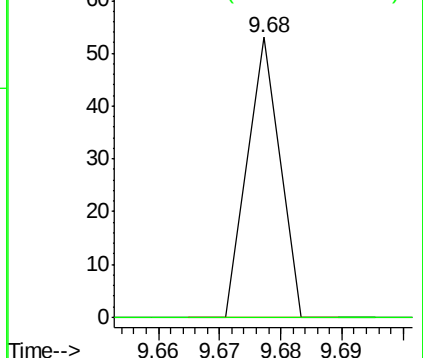
129 100

127 0.0 38.5 115.3#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V



#62

4-Bromofluorobenzene

Concen: 43.19 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

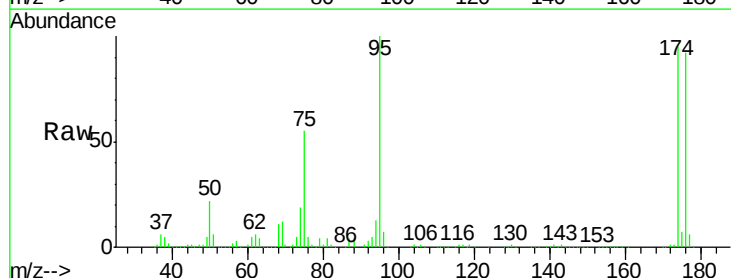
Tgt Ion: 95 Resp: 165406

Ion Ratio Lower Upper

95 100

174 97.6 0.0 187.4

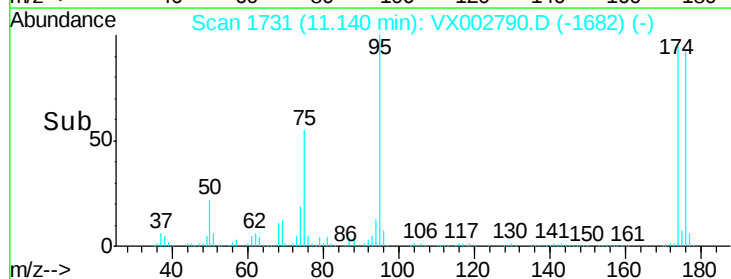
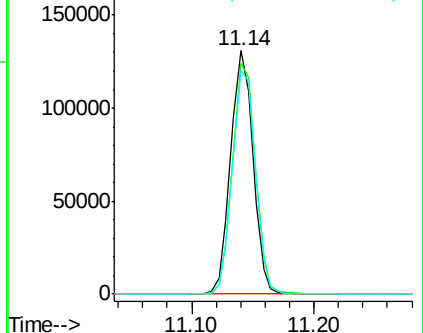
176 94.6 0.0 181.0

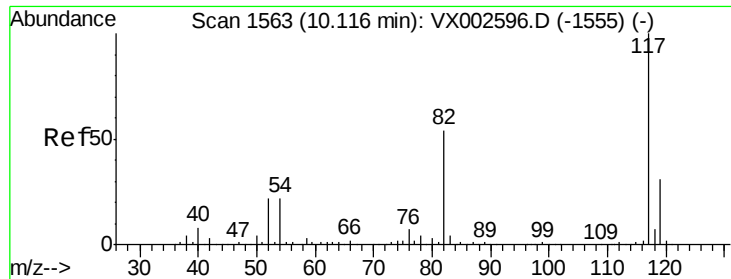


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

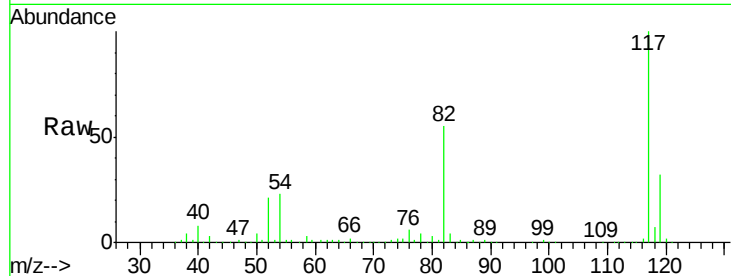




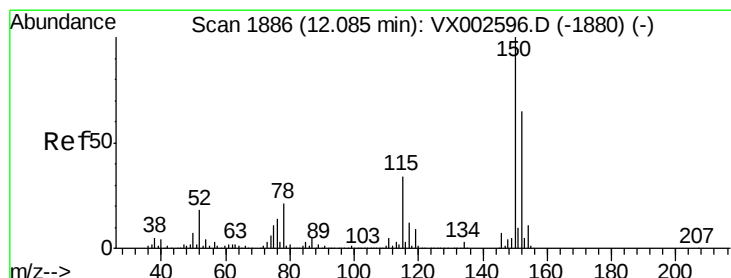
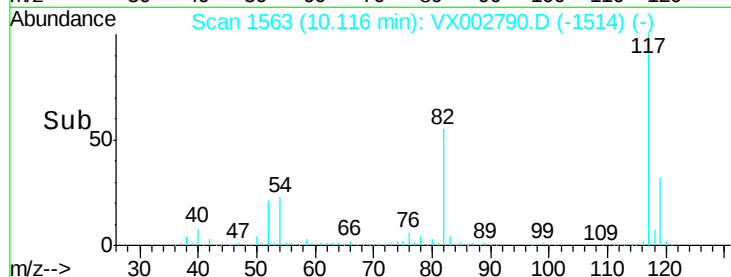
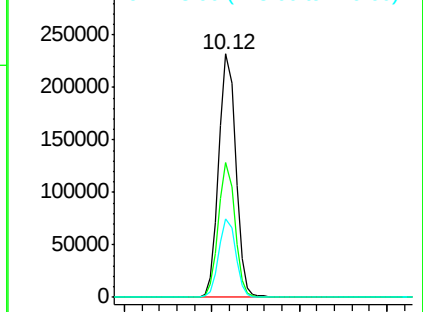
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. 0.00 min  
Lab File: VX002790.D  
Acq: 21 Jun 2018 16:03

Instrument :  
MSVOA\_X  
ClientSampleId :  
20180373-AMENDED-COMPOSITE-

Tot Ion:117 Resp: 313201  
Ion Ratio Lower Upper  
117 100  
82 55.4 45.0 67.4  
119 32.3 25.8 38.6

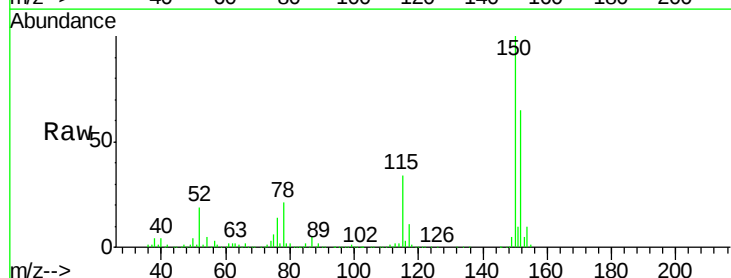


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

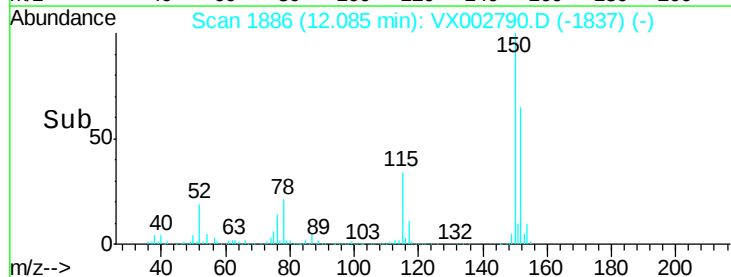
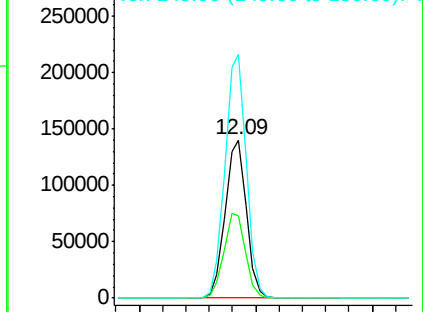


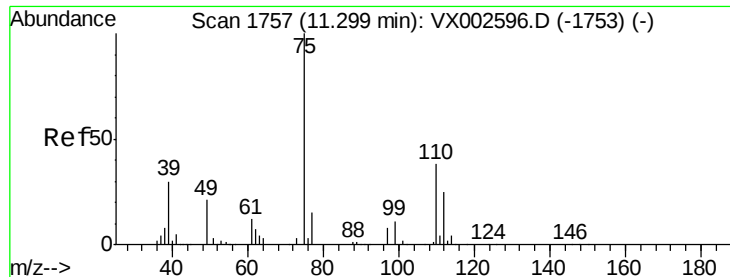
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 12.09 min Scan# 1886  
Delta R.T. 0.00 min  
Lab File: VX002790.D  
Acq: 21 Jun 2018 16:03

Tgt Ion:152 Resp: 175992  
Ion Ratio Lower Upper  
152 100  
115 54.4 40.1 120.2  
150 155.2 0.0 347.2



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

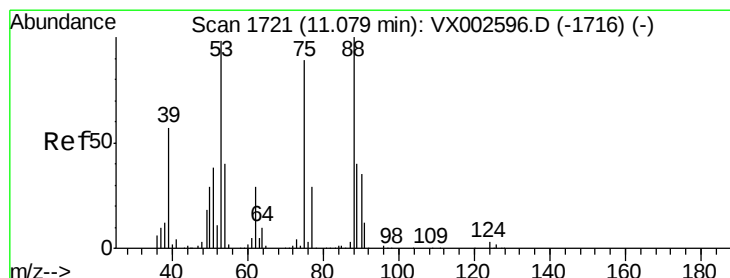
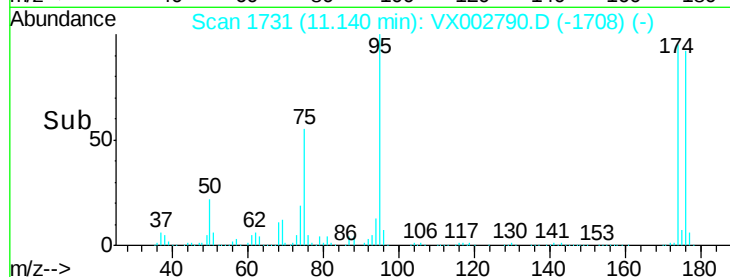
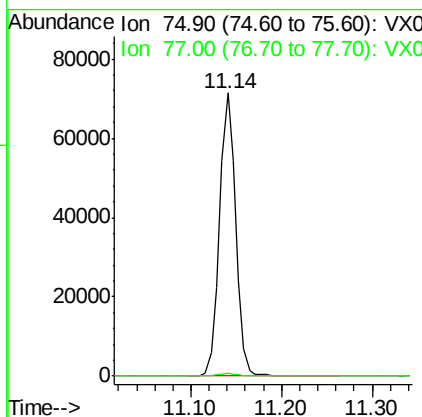
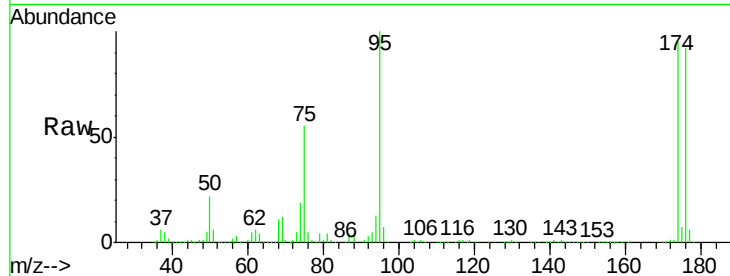




#76  
 1,2,3-Trichloropropane  
 Concen: 26.92 ug/l  
 RT: 11.14 min Scan# 1731  
 Delta R.T. -0.16 min  
 Lab File: VX002790.D  
 Acq: 21 Jun 2018 16:03

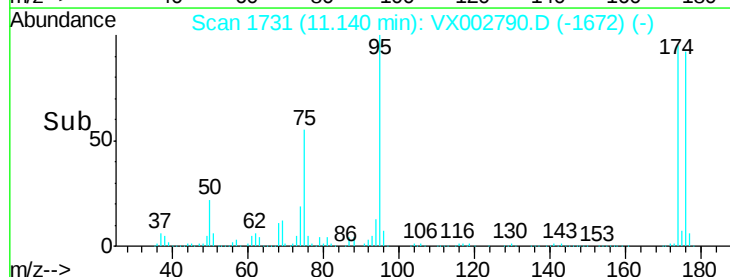
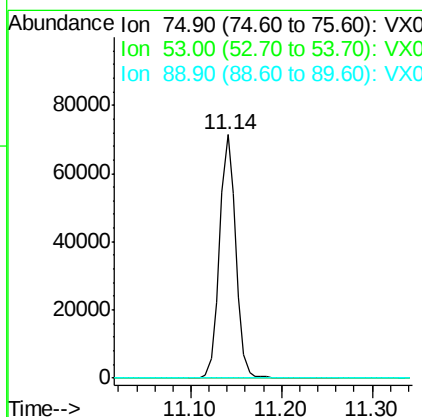
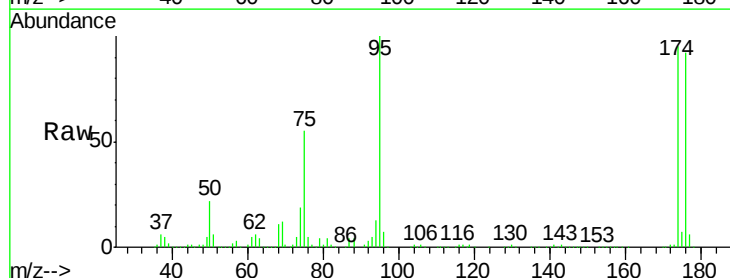
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 20180373-AMENDED-COMPOSITE-

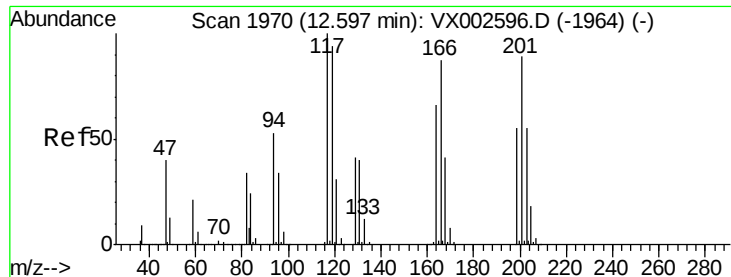
Tot Ion: 75 Resp: 89404  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 22.8 68.3#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 83.12 ug/l  
 RT: 11.14 min Scan# 1731  
 Delta R.T. 0.06 min  
 Lab File: VX002790.D  
 Acq: 21 Jun 2018 16:03

Tgt Ion: 75 Resp: 89404  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 86.8 130.2#  
 89 0.0 38.2 57.2#





#90

Hexachloroethane

Concen: 2.64 ug/l

RT: 12.58 min Scan# 1967

Delta R.T. -0.02 min

Lab File: VX002790.D

Acq: 21 Jun 2018 16:03

Instrument :

MSVOA\_X

ClientSampleId :

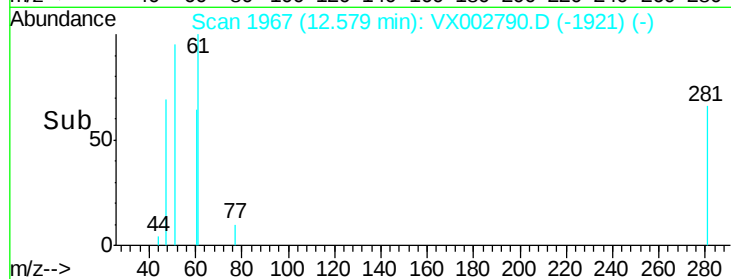
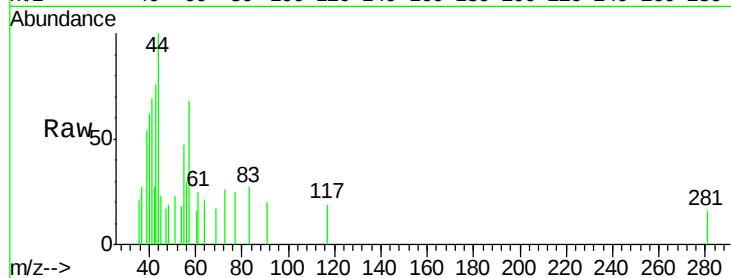
20180373-AMENDED-COMPOSITE-

Tot Ion:117 Resp: 22

Ion Ratio Lower Upper

117 100

201 0.0 49.0 147.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V

