

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX090920\  
 Data File : VX018318.D  
 Acq On : 09 Sep 2020 13:36  
 Operator : JC/SP  
 Sample : L3902-13  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FT-PZ461I-20200901

Quant Time: Sep 10 07:04:18 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 21 03:03:56 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 463242   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 714110   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 675422   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 335595   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 317042   | 49.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.60%  |          |
| 35) Dibromofluoromethane    | 5.47  | 113  | 247122   | 50.81 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.62% |          |
| 50) Toluene-d8              | 8.70  | 98   | 884715   | 48.84 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.68%  |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 335222   | 47.04 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.08%  |          |

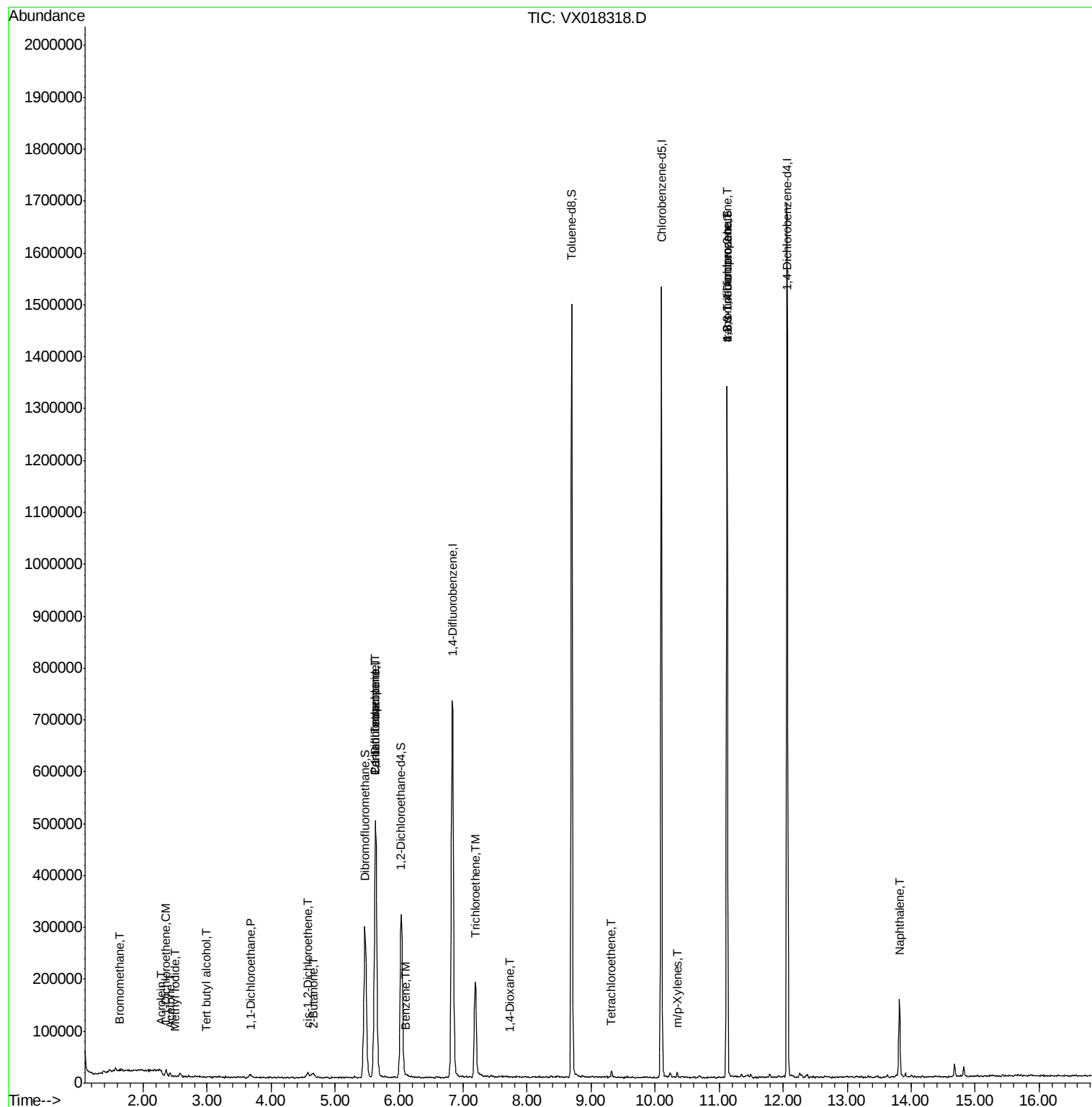
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.63  | 94   | 609      | 0.213     | ug/l # | 40     |
| 10) Methyl Iodide              | 2.51  | 142  | 675      | 5.416     | ug/l # | 86     |
| 11) Tert butyl alcohol         | 2.99  | 59   | 584      | 0.467     | ug/l # | 87     |
| 12) 1,1-Dichloroethene         | 2.36  | 96   | 4133     | 0.913     | ug/l   | 92     |
| 13) Acrolein                   | 2.28  | 56   | 307      | 0.592     | ug/l # | 67     |
| 16) Acetone                    | 2.42  | 43   | 5730     | 2.287     | ug/l # | 65     |
| 20) Methylene Chloride         | 2.84  | 84   | 622      | Below Cal | #      | 43     |
| 24) 1,1-Dichloroethane         | 3.67  | 63   | 7351     | 0.804     | ug/l # | 89     |
| 25) 2-Butanone                 | 4.65  | 43   | 1118     | 0.271     | ug/l # | 85     |
| 27) cis-1,2-Dichloroethene     | 4.57  | 96   | 7042     | 1.219     | ug/l   | 84     |
| 36) 1,1-Dichloropropene        | 5.64  | 75   | 35328    | 5.364     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.64  | 117  | 48547    | 6.540     | ug/l # | 20     |
| 40) Benzene                    | 6.10  | 78   | 5999     | 0.310     | ug/l # | 74     |
| 44) Trichloroethene            | 7.19  | 130  | 67930    | 12.422    | ug/l   | 98     |
| 49) 1,4-Dioxane                | 7.73  | 88   | 586      | 5.259     | ug/l # | 7      |
| 64) Tetrachloroethene          | 9.32  | 164  | 2081     | 0.419     | ug/l # | 84     |
| 68) m/p-Xylenes                | 10.35 | 106  | 1817     | 0.212     | ug/l   | 100    |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 171378   | 22.956    | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 171378   | 62.001    | ug/l # | 12     |
| 95) Naphthalene                | 13.82 | 128  | 104243   | 4.697     | ug/l   | 98     |

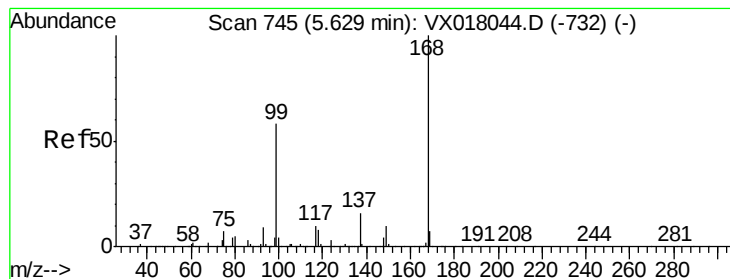
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Sep 10 07:04:18 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
Quant Title : SW846 8260  
QLast Update : Fri Aug 21 03:03:56 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

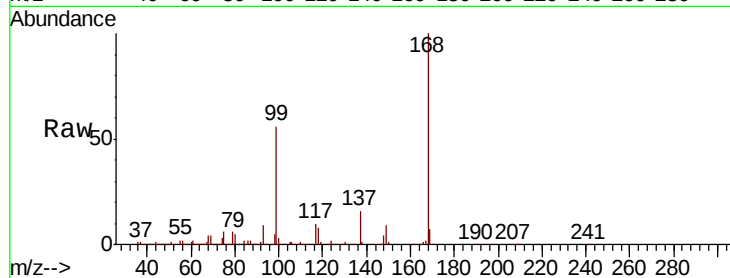
FT-PZ461I-20200901

Tot Ion:168 Resp: 463242

Ion Ratio Lower Upper

168 100

99 55.8 46.3 69.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

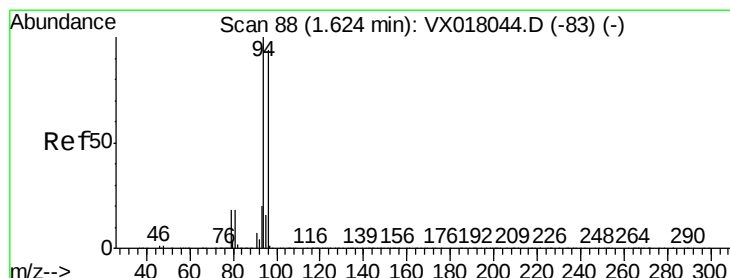
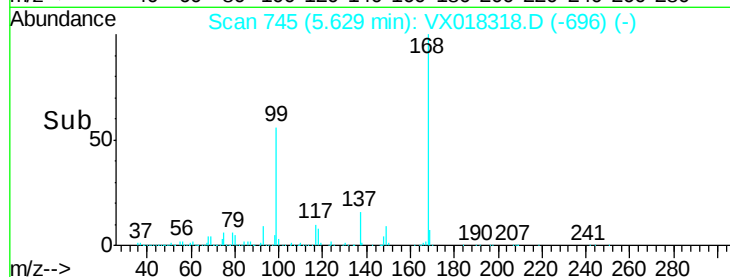
150000

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.213 ug/l

RT: 1.63 min Scan# 89

Delta R.T. 0.01 min

Lab File: VX018318.D

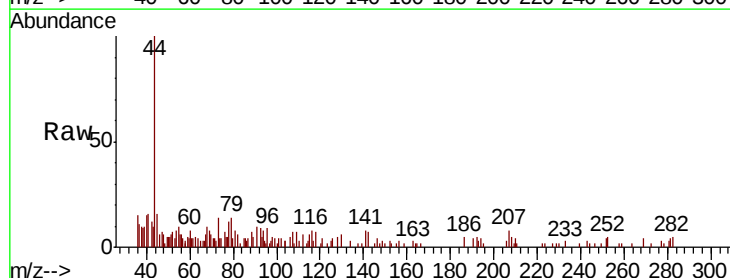
Acq: 09 Sep 2020 13:36

Tgt Ion: 94 Resp: 609

Ion Ratio Lower Upper

94 100

96 35.8 74.8 112.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.63

500

400

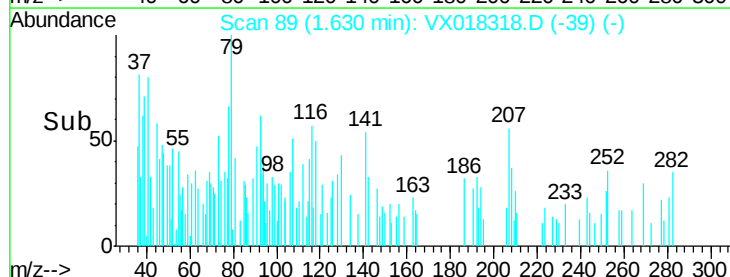
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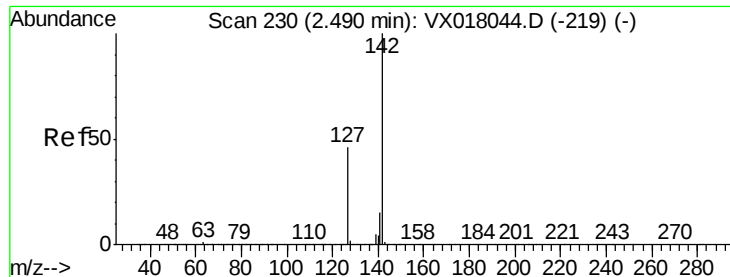
200

100

0

Time-->

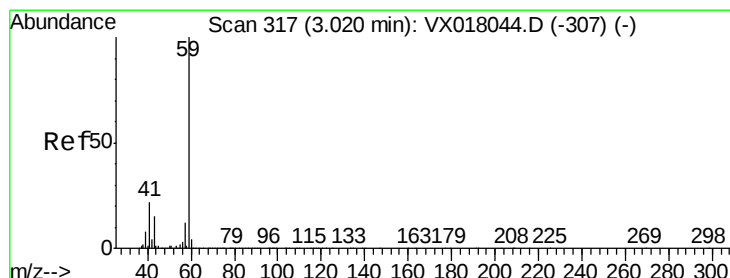
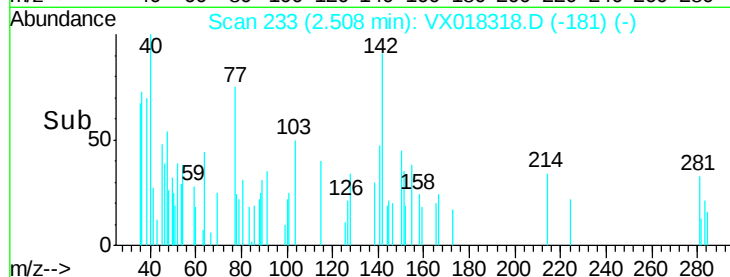
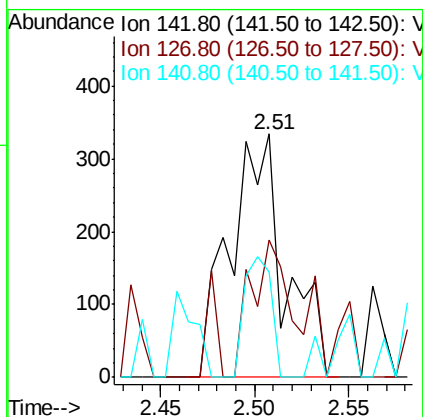
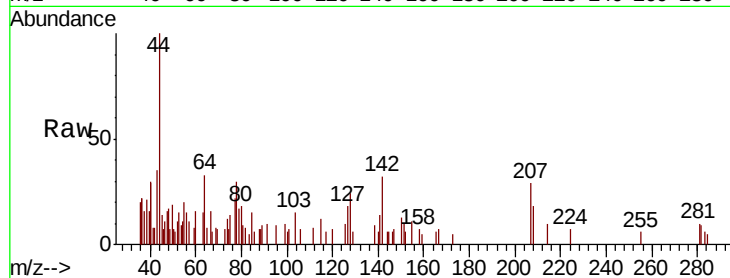




#10  
Methvl Iodide  
Concen: 5.416 ug/l  
RT: 2.51 min Scan# 233  
Delta R.T. 0.02 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

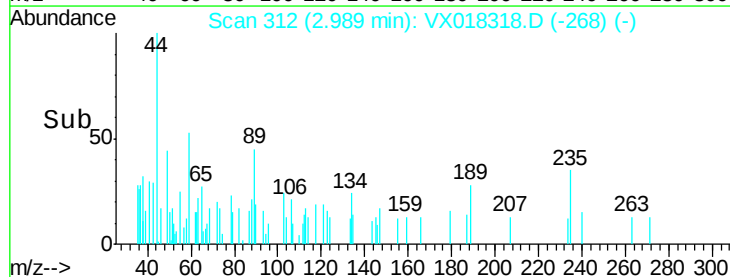
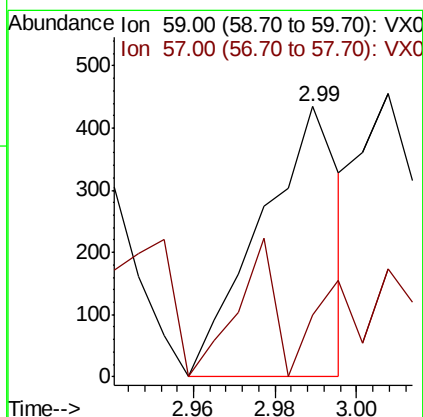
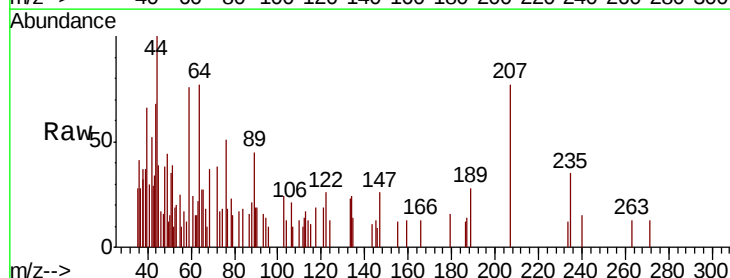
Instrument :  
MSVOA\_X  
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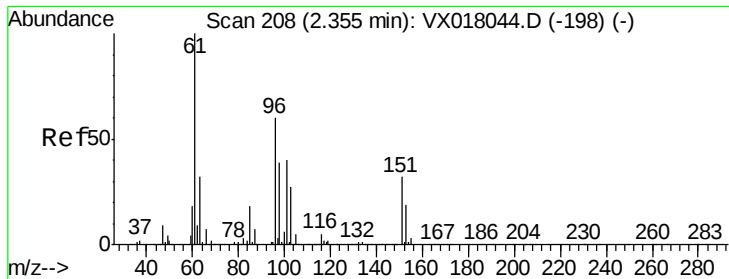
Tot Ion:142 Resp: 675  
Ion Ratio Lower Upper  
142 100  
127 39.1 37.0 55.6  
141 24.3 11.5 17.3#



#11  
Tert butyl alcohol  
Concen: 0.467 ug/l  
RT: 2.99 min Scan# 312  
Delta R.T. -0.03 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

Tgt Ion: 59 Resp: 584  
Ion Ratio Lower Upper  
59 100  
57 6.3 8.9 13.3#





#12

1,1-Dichloroethene

Concen: 0.913 ug/l

RT: 2.36 min Scan# 208

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

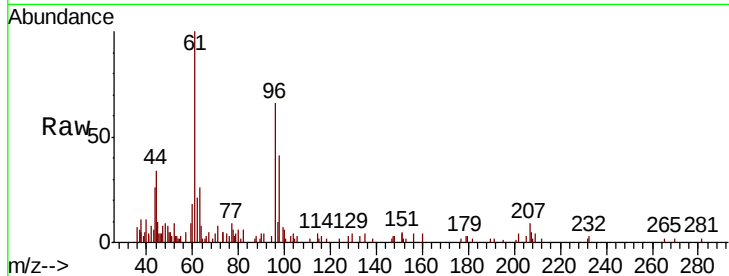
Tot Ion: 96 Resp: 4133

Ion Ratio Lower Upper

96 100

61 151.6 133.0 199.4

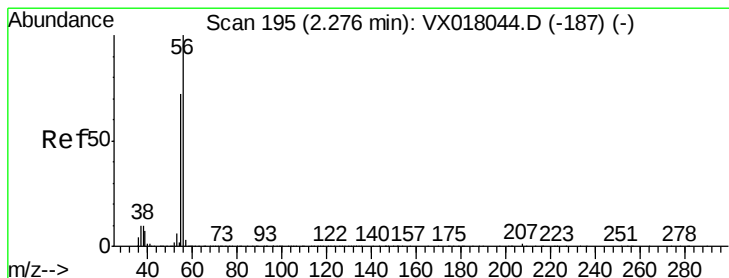
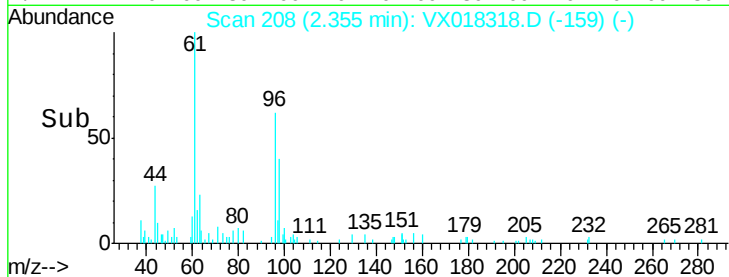
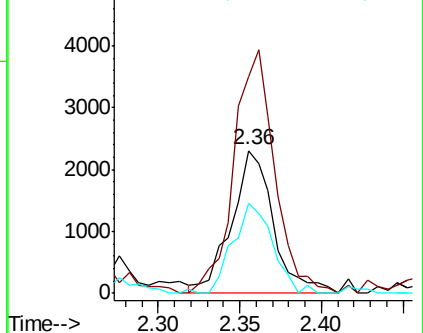
98 62.7 51.6 77.4



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



#13

Acrolein

Concen: 0.592 ug/l

RT: 2.28 min Scan# 196

Delta R.T. 0.01 min

Lab File: VX018318.D

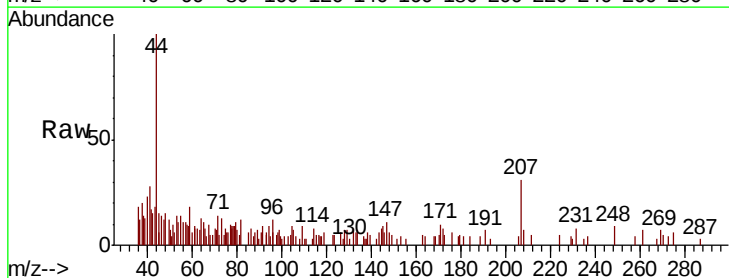
Acq: 09 Sep 2020 13:36

Tgt Ion: 56 Resp: 307

Ion Ratio Lower Upper

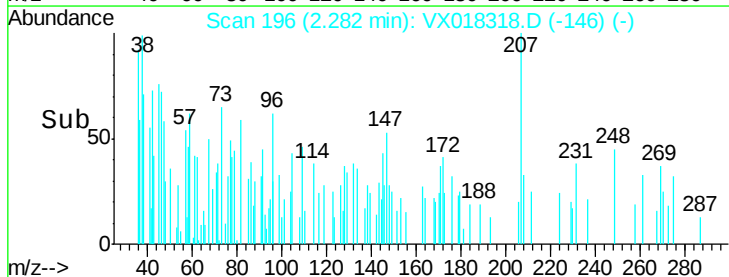
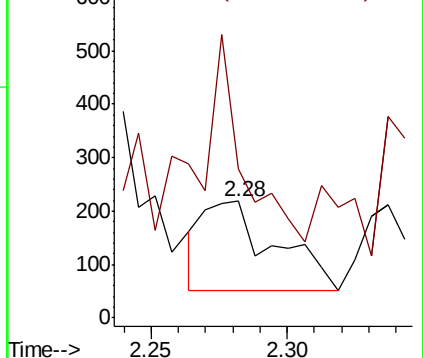
56 100

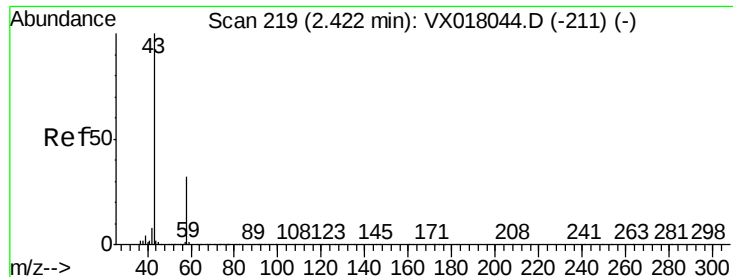
55 98.4 57.0 85.6#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

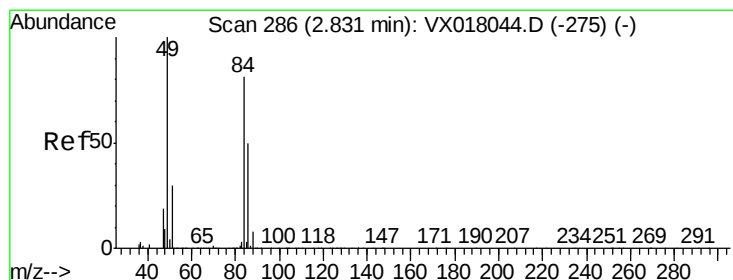
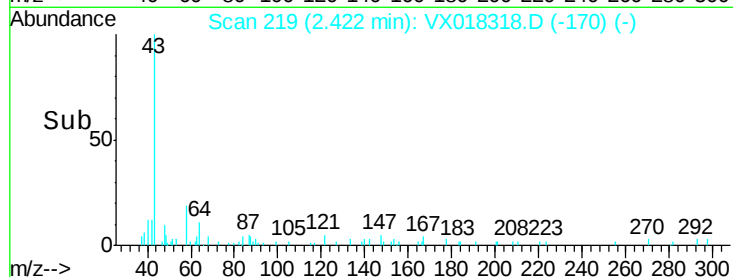
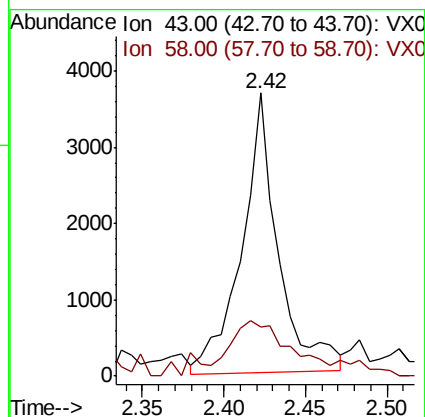
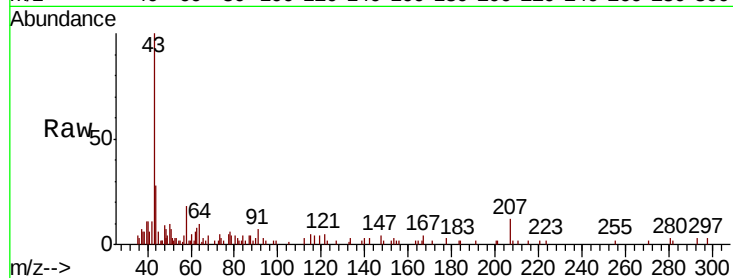




#16  
Acetone  
Concen: 2.287 ug/l  
RT: 2.42 min Scan# 219  
Delta R.T. -0.00 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

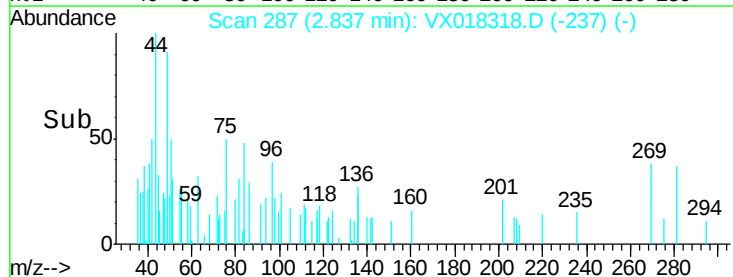
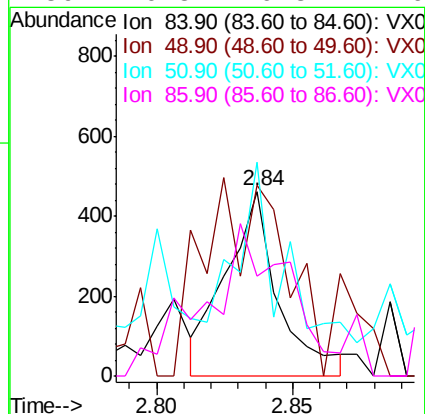
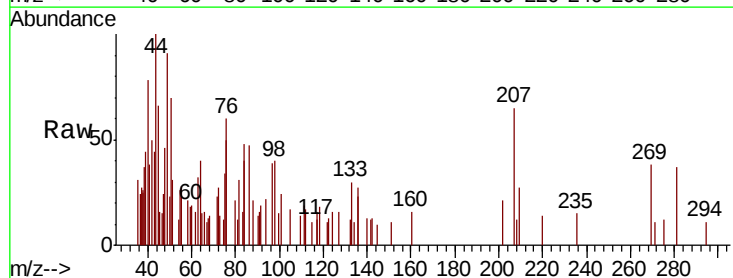
Instrument :  
MSVOA\_X  
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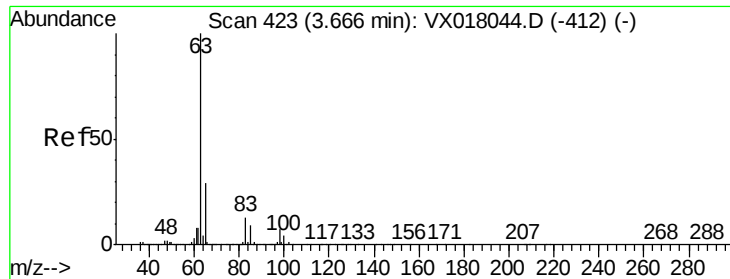
Tot Ion: 43 Resp: 5730  
Ion Ratio Lower Upper  
43 100  
58 12.2 25.5 38.3#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.84 min Scan# 287  
Delta R.T. 0.01 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

Tgt Ion: 84 Resp: 622  
Ion Ratio Lower Upper  
84 100  
49 54.4 98.6 148.0#  
51 98.8 29.6 44.4#  
86 46.8 49.8 74.6#





#24

1,1-Dichloroethane

Concen: 0.804 ug/l

RT: 3.67 min Scan# 424

Delta R.T. 0.01 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

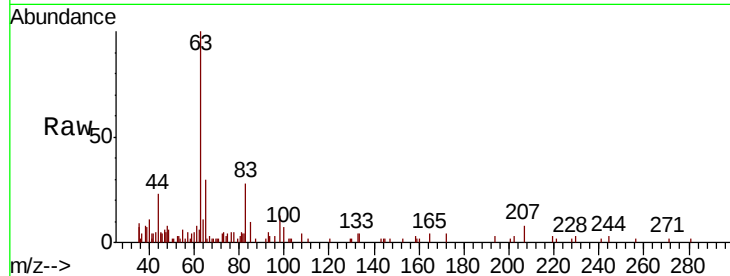
Tot Ion: 63 Resp: 7351

Ion Ratio Lower Upper

63 100

98 11.4 3.6 10.8#

100 7.0 2.0 6.0#



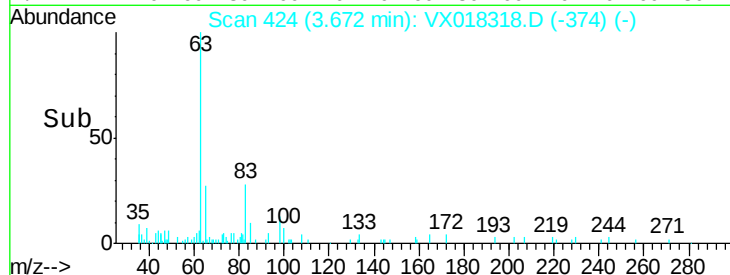
Abundance Ion 62.90 (62.60 to 63.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

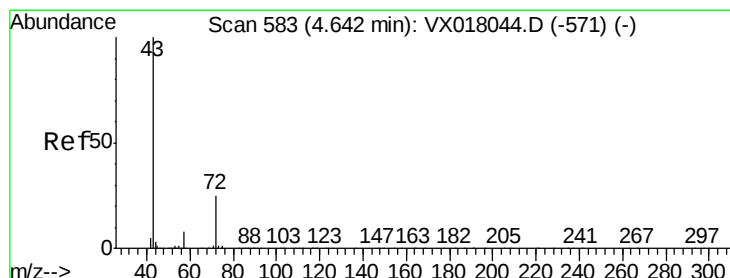
Ion 99.90 (99.60 to 100.60): VX0

3.67

Time-->



Time-->



#25

2-Butanone

Concen: 0.271 ug/l

RT: 4.65 min Scan# 585

Delta R.T. 0.01 min

Lab File: VX018318.D

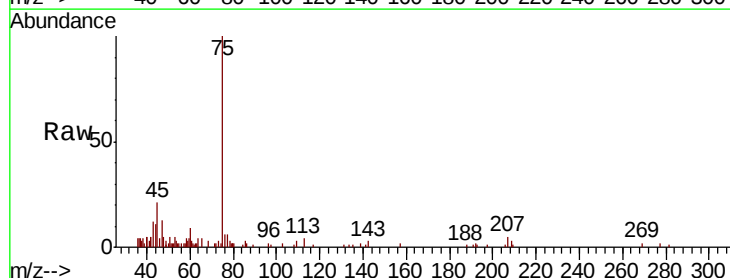
Acq: 09 Sep 2020 13:36

Tgt Ion: 43 Resp: 1118

Ion Ratio Lower Upper

43 100

72 17.2 19.8 29.6#

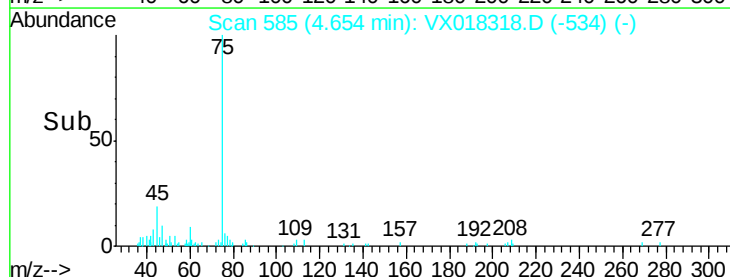


Abundance Ion 43.00 (42.70 to 43.70): VX0

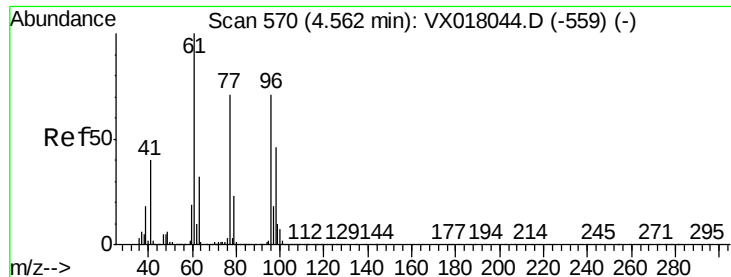
Ion 72.00 (71.70 to 72.70): VX0

4.65

Time-->



Time-->

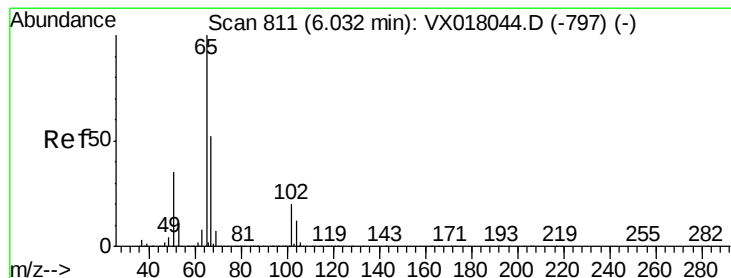
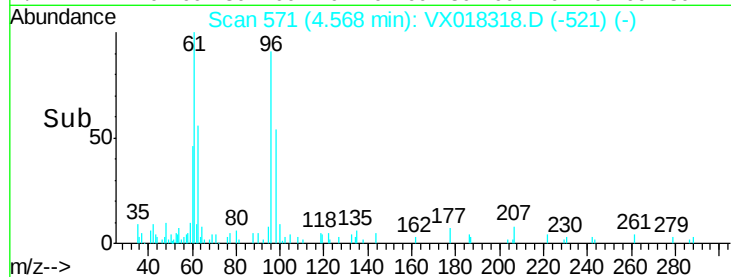
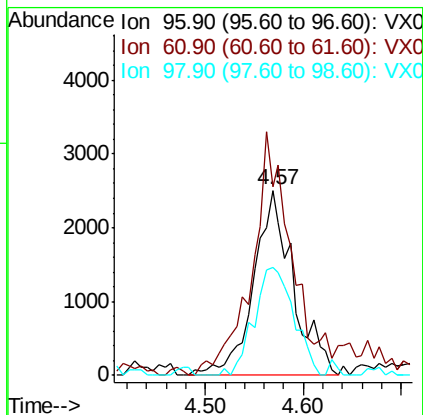
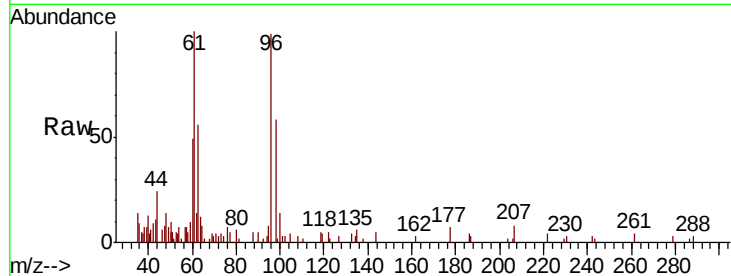


#27

cis-1,2-Dichloroethene  
 Concen: 1.219 ug/l  
 RT: 4.57 min Scan# 571  
 Delta R.T. 0.01 min  
 Lab File: VX018318.D  
 Acq: 09 Sep 2020 13:36

Instrument :  
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 ClientSampleId :  
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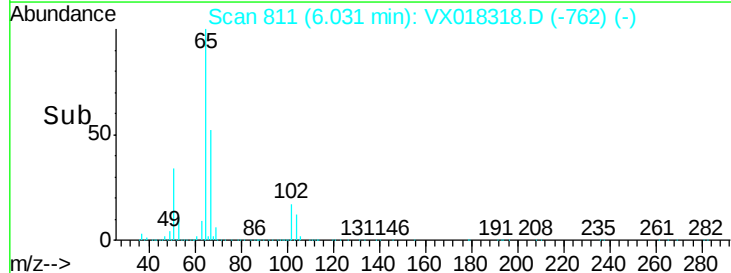
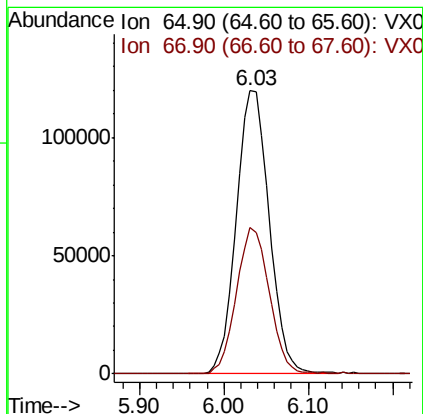
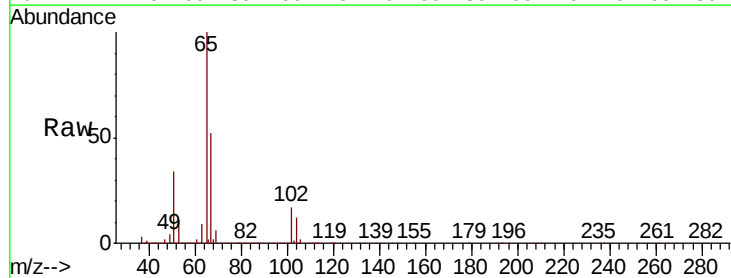
Tot Ion: 96 Resp: 7042  
 Ion Ratio Lower Upper  
 96 100  
 61 124.6 0.0 296.6  
 98 58.6 0.0 130.2

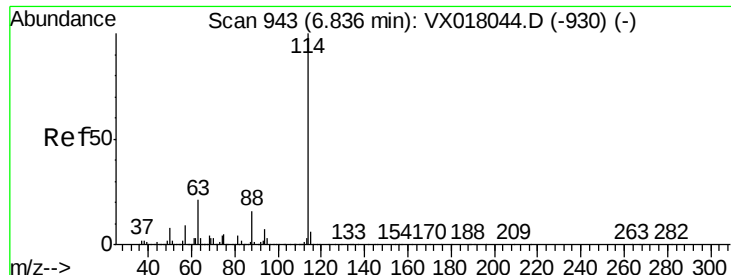


#33

1,2-Dichloroethane-d4  
 Concen: 49.299 ug/l  
 RT: 6.03 min Scan# 811  
 Delta R.T. -0.00 min  
 Lab File: VX018318.D  
 Acq: 09 Sep 2020 13:36

Tgt Ion: 65 Resp: 317042  
 Ion Ratio Lower Upper  
 65 100  
 67 51.1 0.0 105.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. -0.01 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ4611-20200901

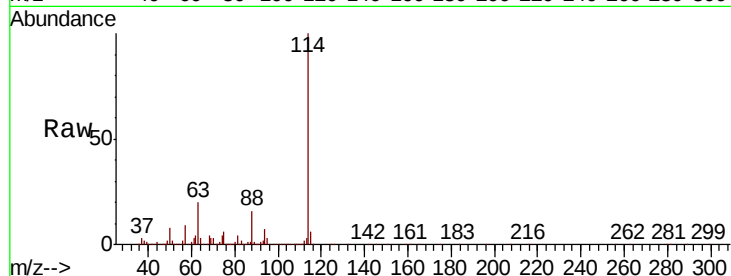
Tot Ion:114 Resp: 714110

Ion Ratio Lower Upper

114 100

63 20.4 0.0 42.6

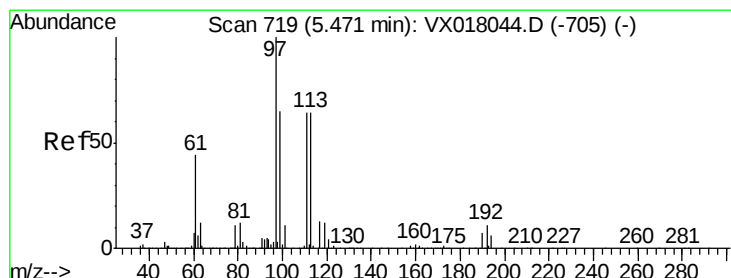
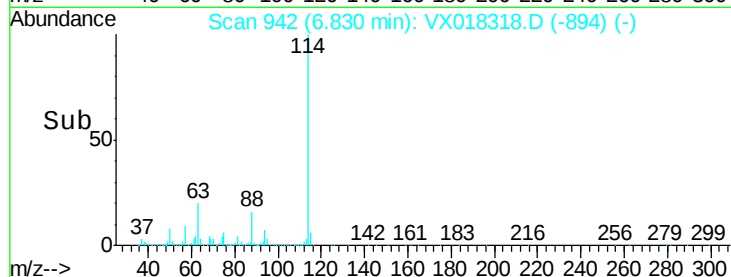
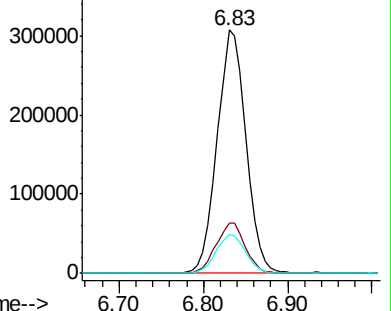
88 16.1 0.0 31.8



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: 50.812 ug/l

RT: 5.47 min Scan# 719

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

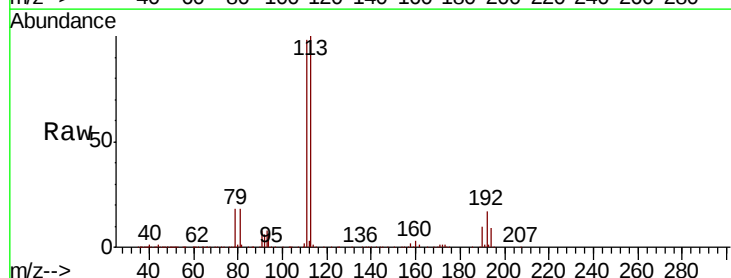
Tgt Ion:113 Resp: 247122

Ion Ratio Lower Upper

113 100

111 102.2 81.6 122.4

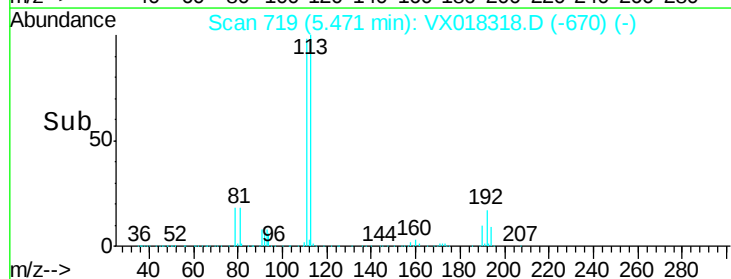
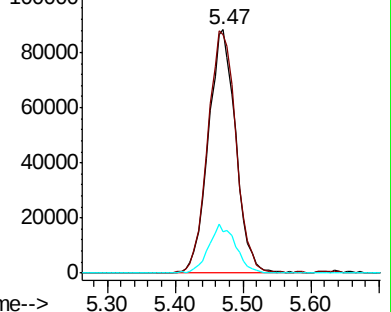
192 19.8 15.8 23.8

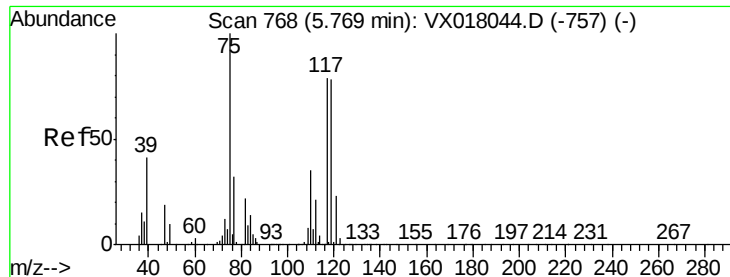


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

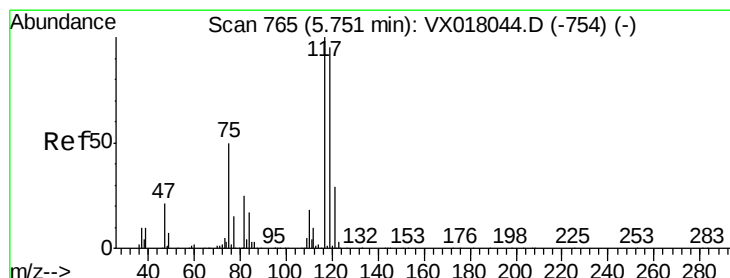
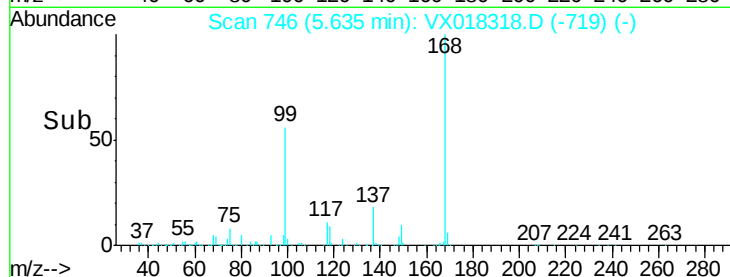
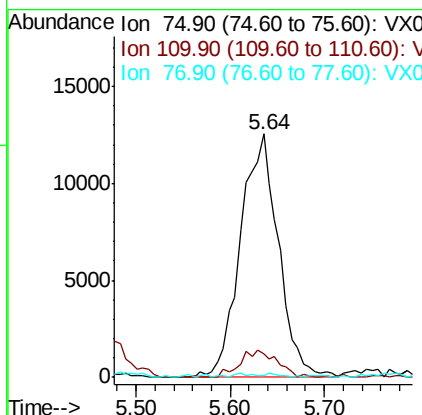
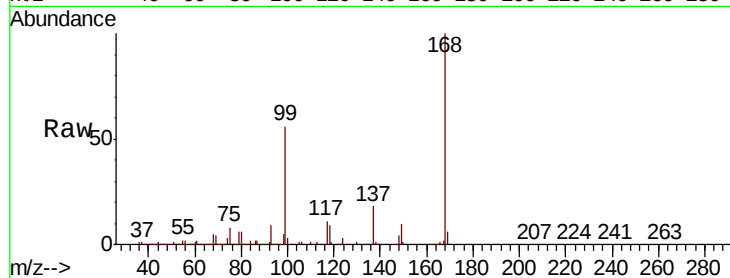




#36  
 1,1-Dichloropropene  
 Concen: 5.364 ug/l  
 RT: 5.64 min Scan# 746  
 Delta R.T. -0.13 min  
 Lab File: VX018318.D  
 Acq: 09 Sep 2020 13:36

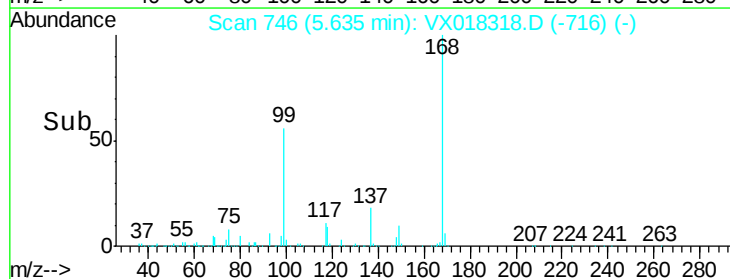
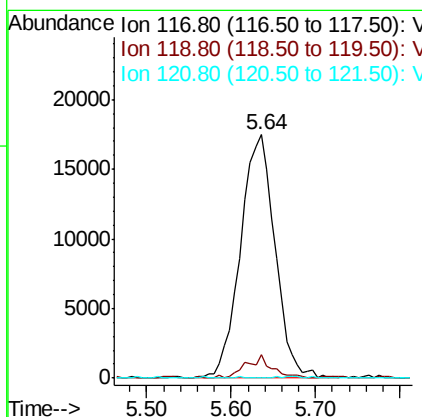
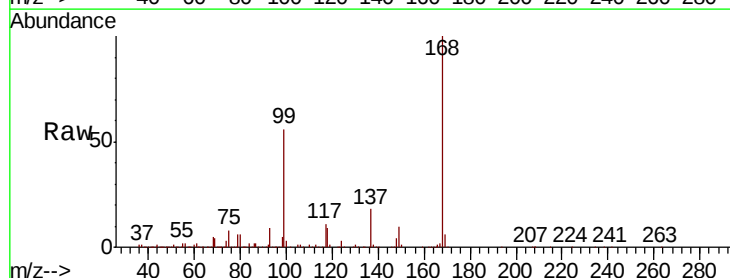
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FT-PZ4611-20200901

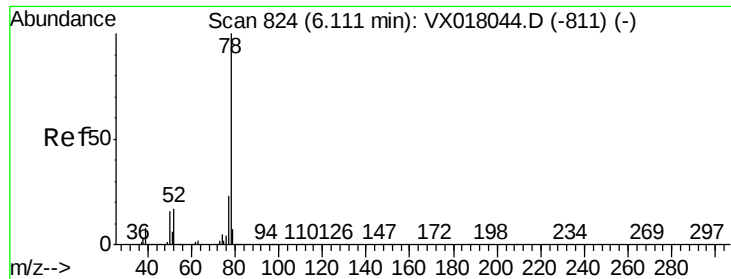
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.0  | 18.0  | 54.0# |
| 77      | 0.9   | 24.4  | 36.6# |



#38  
 Carbon Tetrachloride  
 Concen: 6.540 ug/l  
 RT: 5.64 min Scan# 746  
 Delta R.T. -0.12 min  
 Lab File: VX018318.D  
 Acq: 09 Sep 2020 13:36

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 9.7   | 75.8  | 113.6# |
| 121     | 0.0   | 23.4  | 35.0#  |





#40

Benzene

Concen: 0.310 ug/l

RT: 6.10 min Scan# 823

Delta R.T. -0.01 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

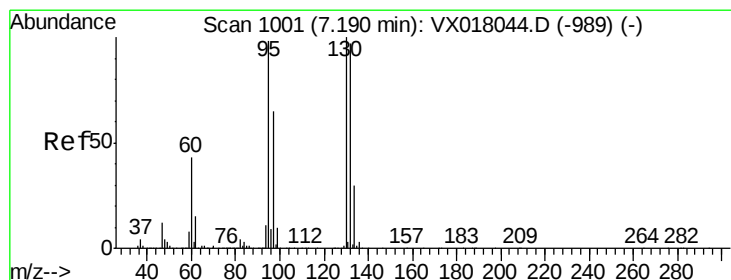
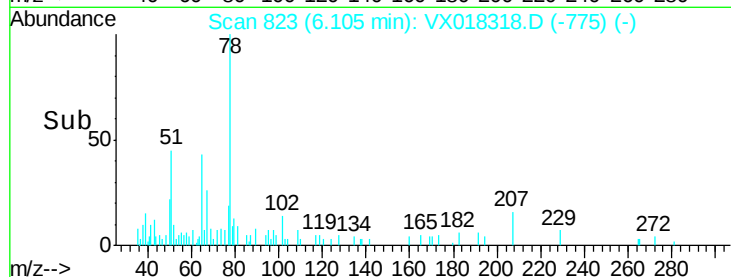
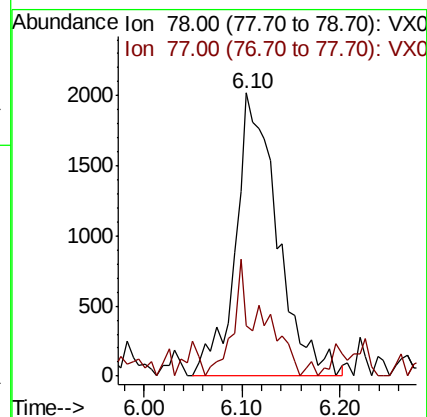
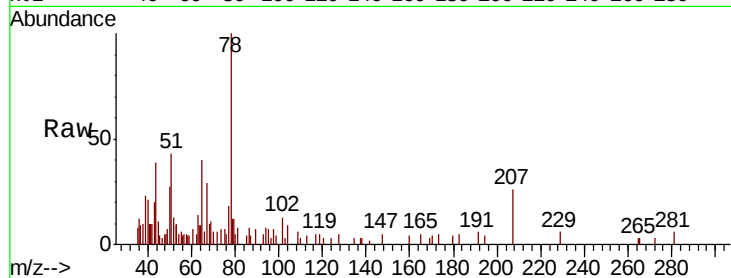
FT-PZ461I-20200901

Tot Ion: 78 Resp: 5999

Ion Ratio Lower Upper

78 100

77 10.0 18.2 27.2#



#44

Trichloroethene

Concen: 12.422 ug/l

RT: 7.19 min Scan# 1001

Delta R.T. -0.00 min

Lab File: VX018318.D

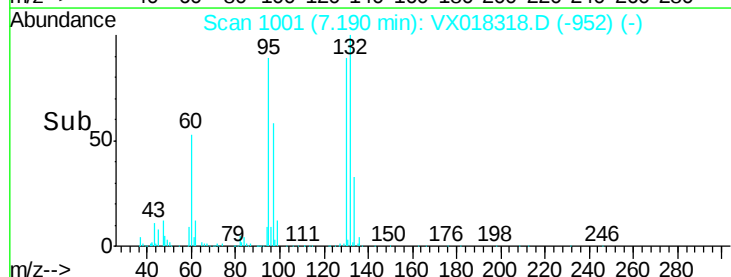
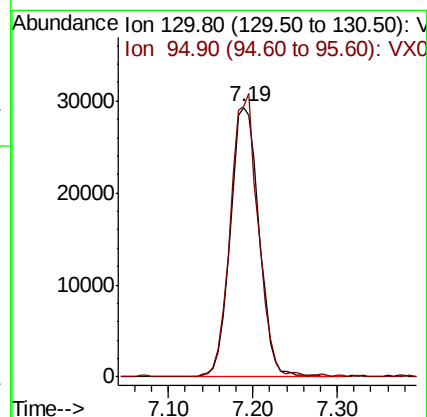
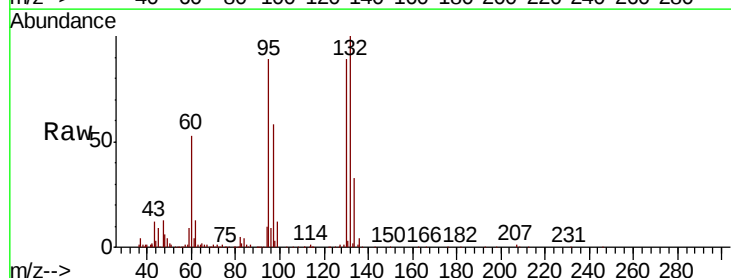
Acq: 09 Sep 2020 13:36

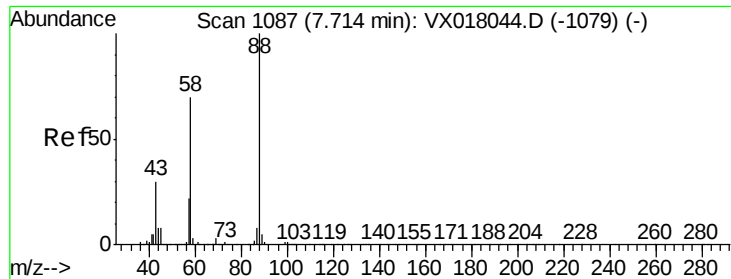
Tgt Ion:130 Resp: 67930

Ion Ratio Lower Upper

130 100

95 100.2 0.0 196.4





#49

1,4-Dioxane

Concen: 5.259 ug/l

RT: 7.73 min Scan# 1089

Delta R.T. 0.01 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

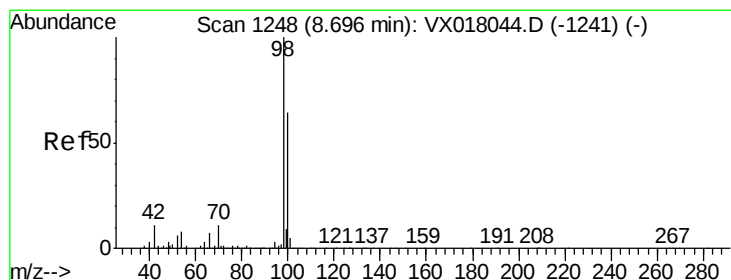
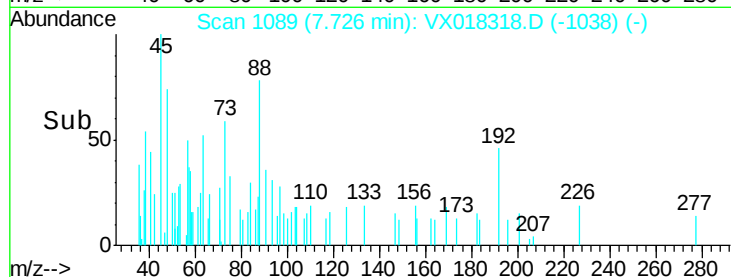
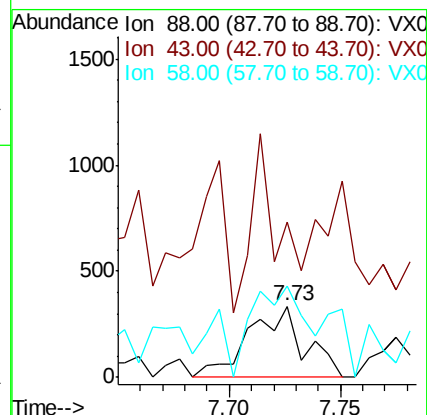
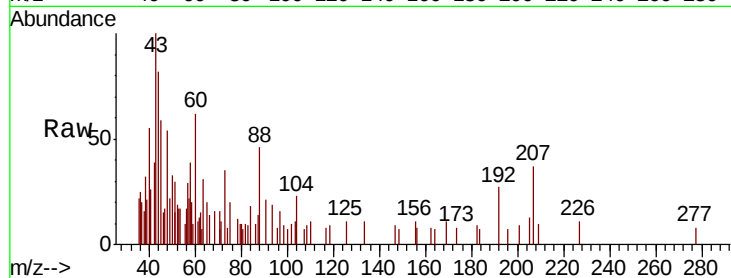
Tot Ion: 88 Resp: 586

Ion Ratio Lower Upper

88 100

43 123.9 27.4 41.0#

58 121.5 56.4 84.6#



#50

Toluene-d8

Concen: 48.841 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX018318.D

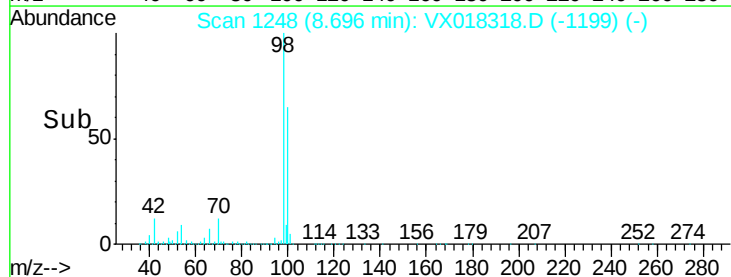
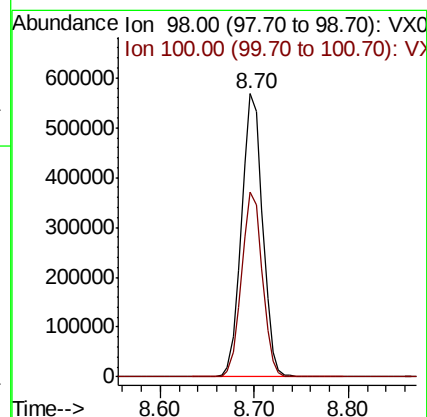
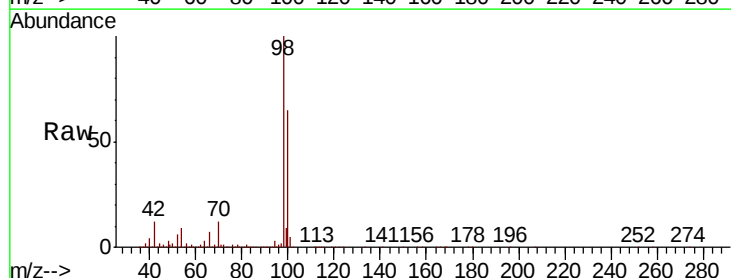
Acq: 09 Sep 2020 13:36

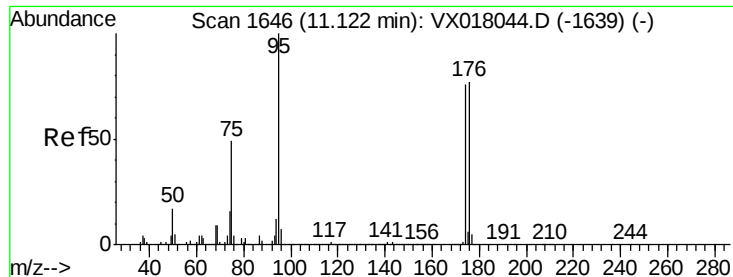
Tgt Ion: 98 Resp: 884715

Ion Ratio Lower Upper

98 100

100 64.1 52.2 78.4





#62

4-Bromofluorobenzene

Concen: 47.037 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

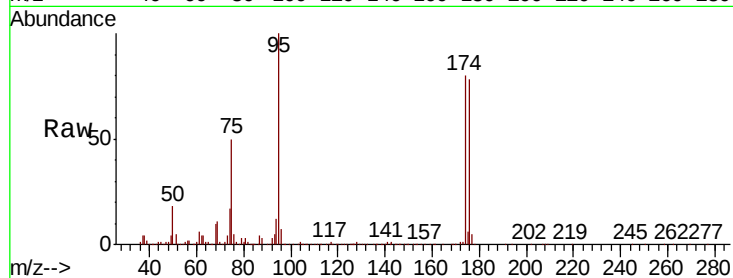
Tot Ion: 95 Resp: 335222

Ion Ratio Lower Upper

95 100

174 79.6 0.0 160.2

176 77.3 0.0 155.8

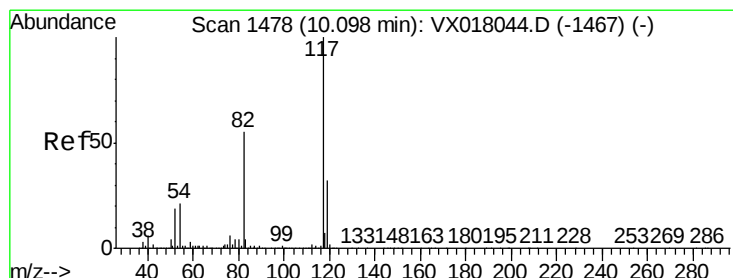
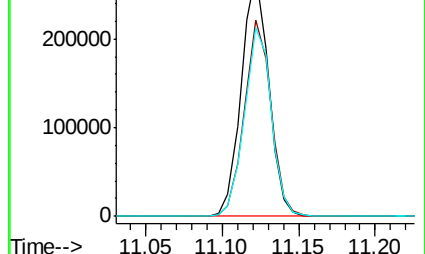
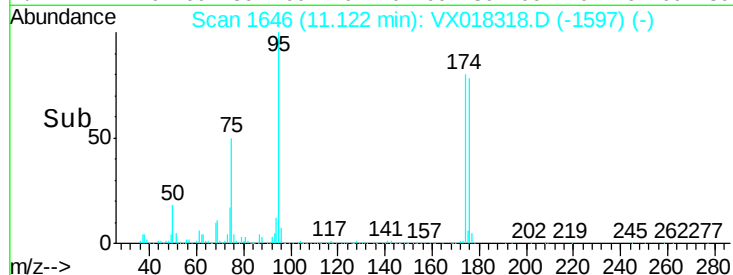


Abundance Ion 94.90 (94.60 to 95.60): VX018318.D (-1597) (-)

Ion 173.80 (173.50 to 174.50): VX018318.D (-1597) (-)

Ion 175.80 (175.50 to 176.50): VX018318.D (-1597) (-)

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1478

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

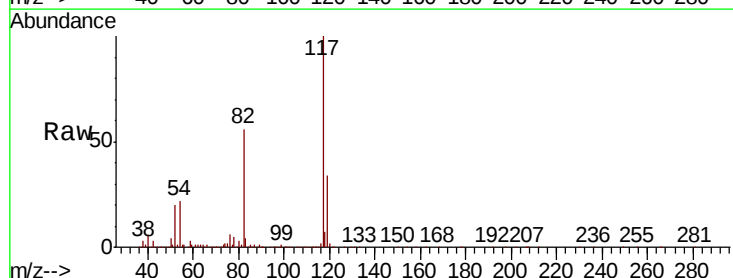
Tgt Ion: 117 Resp: 675422

Ion Ratio Lower Upper

117 100

82 56.3 44.2 66.2

119 34.1 25.7 38.5

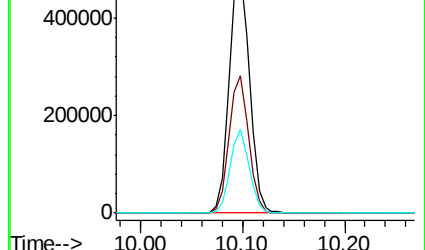
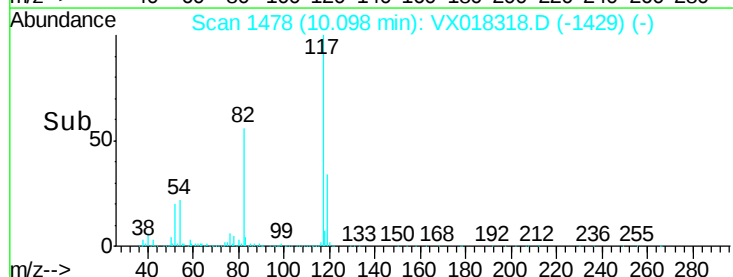


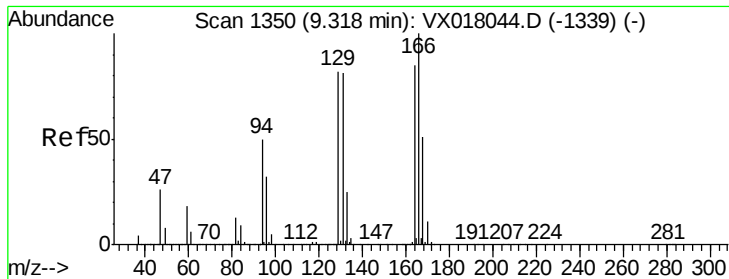
Abundance Ion 116.90 (116.60 to 117.60): VX018318.D (-1429) (-)

Ion 82.00 (81.70 to 82.70): VX018318.D (-1429) (-)

Ion 118.90 (118.60 to 119.60): VX018318.D (-1429) (-)

Time-->

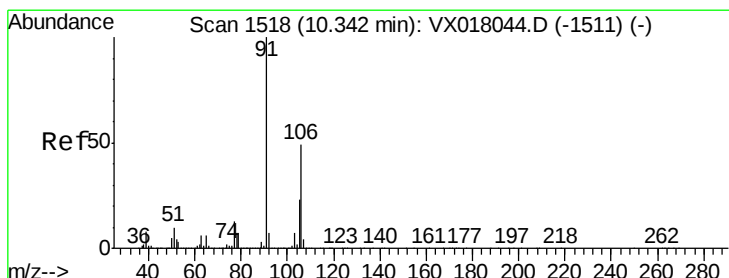
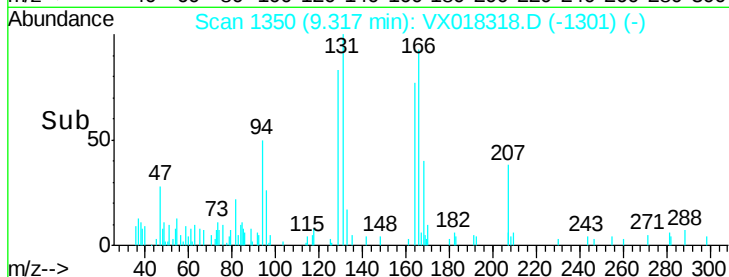
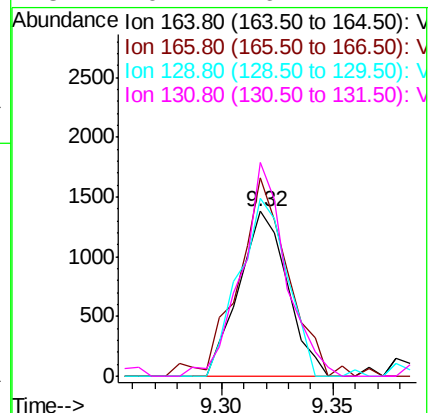
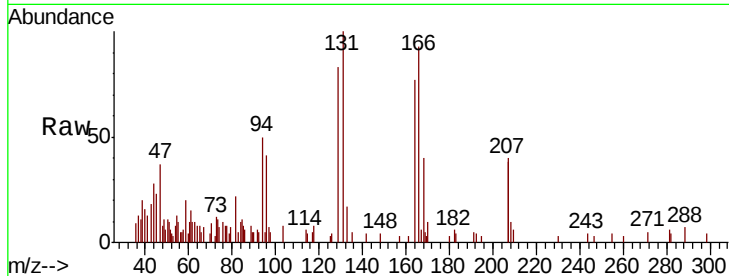




#64  
Tetrachloroethene  
Concen: 0.419 ug/l  
RT: 9.32 min Scan# 1350  
Delta R.T. -0.00 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

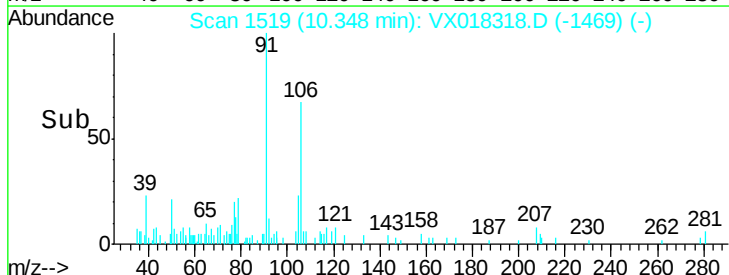
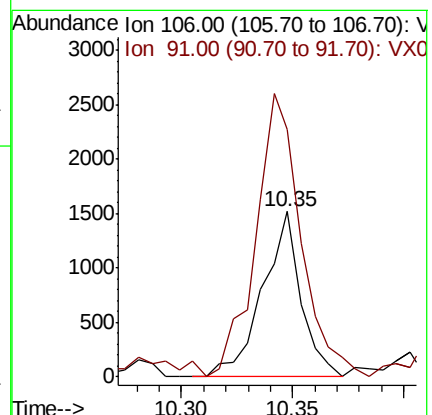
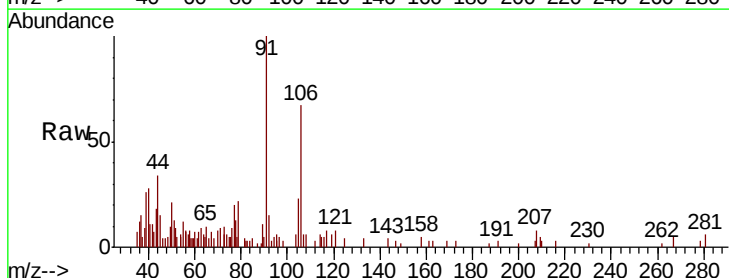
Instrument :  
MSVOA\_X  
ClientSampleId :  
FT-PZ461I-20200901

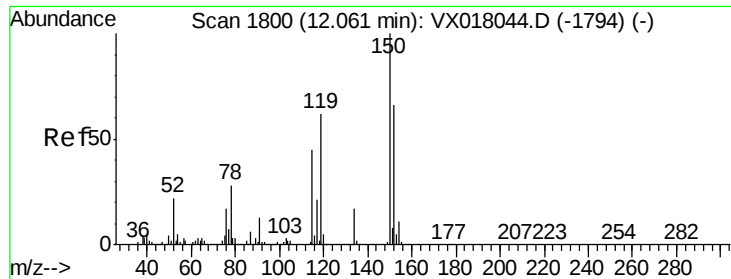
Tot Ion:164 Resp: 2081  
Ion Ratio Lower Upper  
164 100  
166 115.0 94.2 141.2  
129 108.0 76.9 115.3  
131 129.7 76.1 114.1#



#68  
m/p-Xylenes  
Concen: 0.212 ug/l  
RT: 10.35 min Scan# 1519  
Delta R.T. 0.01 min  
Lab File: VX018318.D  
Acq: 09 Sep 2020 13:36

Tgt Ion:106 Resp: 1817  
Ion Ratio Lower Upper  
106 100  
91 202.1 162.2 243.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

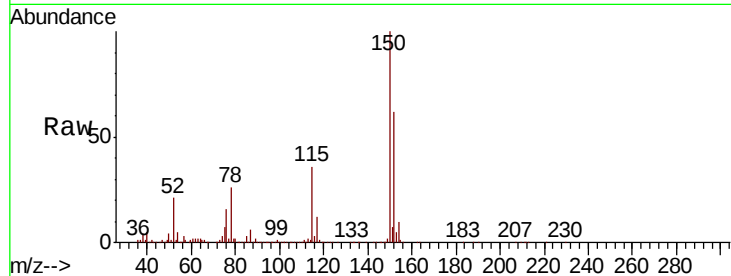
Tot Ion:152 Resp: 335595

Ion Ratio Lower Upper

152 100

115 60.1 41.5 124.5

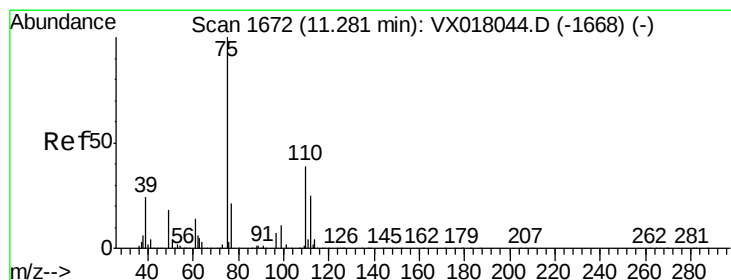
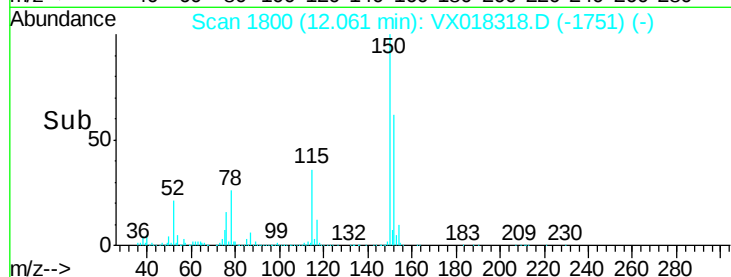
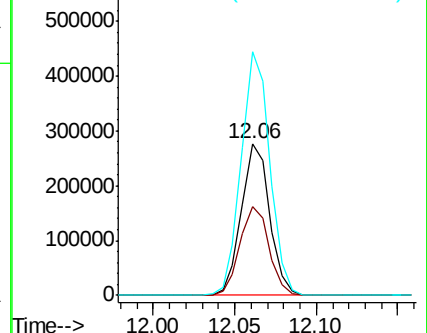
150 162.1 0.0 343.8



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: 22.956 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX018318.D

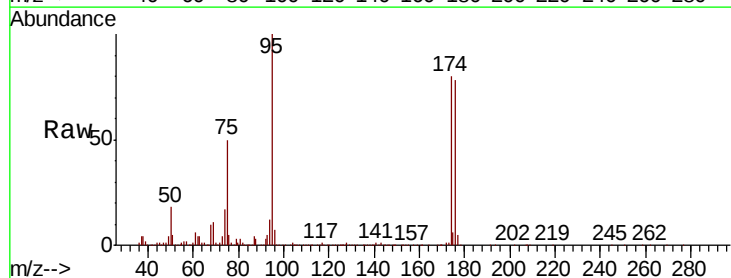
Acq: 09 Sep 2020 13:36

Tgt Ion: 75 Resp: 171378

Ion Ratio Lower Upper

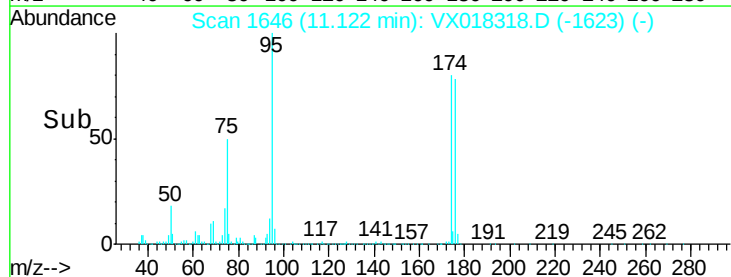
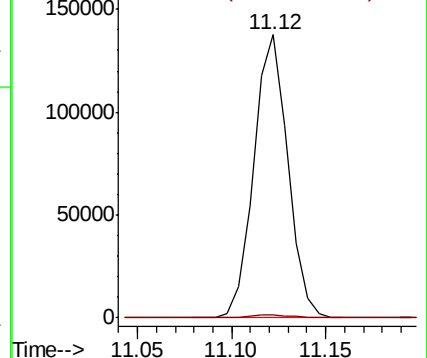
75 100

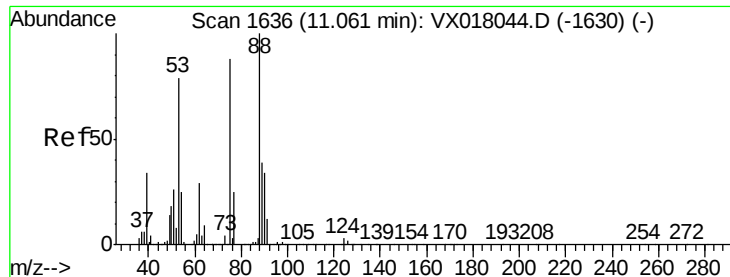
77 1.4 20.8 62.2#



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: 62.001 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.06 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

Instrument :

MSVOA\_X

ClientSampleId :

FT-PZ461I-20200901

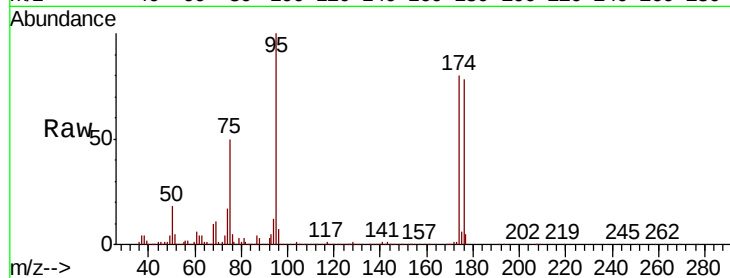
Tot Ion: 75 Resp: 171378

Ion Ratio Lower Upper

75 100

53 0.6 74.7 112.1#

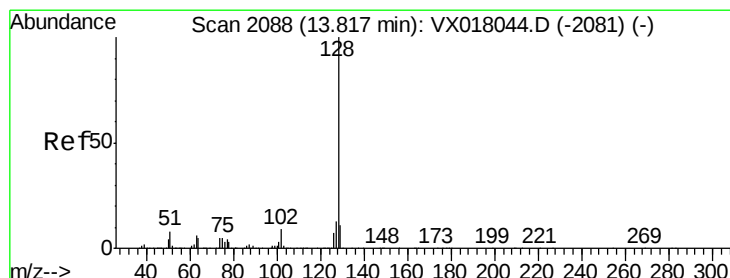
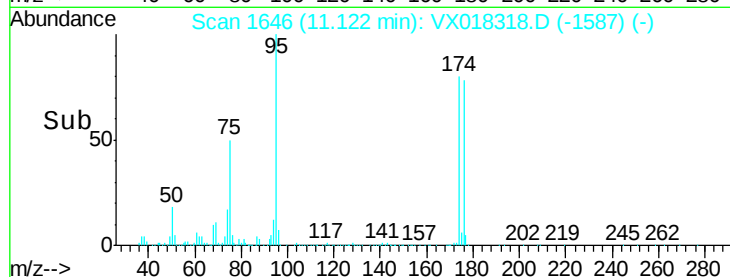
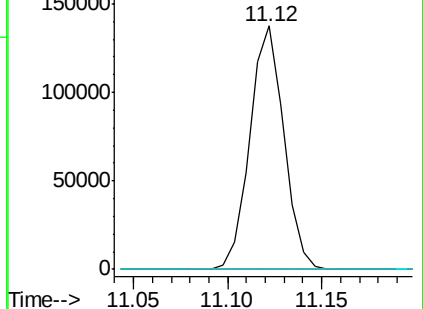
89 0.1 36.6 54.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#95

Naphthalene

Concen: 4.697 ug/l

RT: 13.82 min Scan# 2088

Delta R.T. -0.00 min

Lab File: VX018318.D

Acq: 09 Sep 2020 13:36

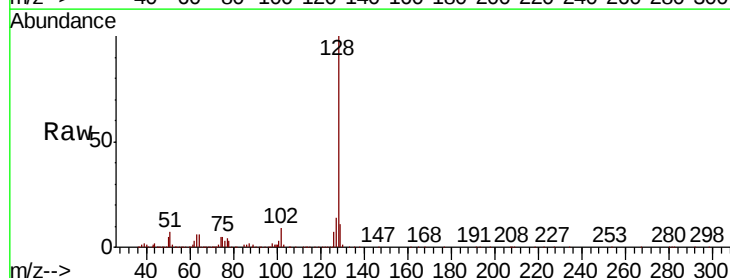
Tgt Ion: 128 Resp: 104243

Ion Ratio Lower Upper

128 100

127 13.3 10.2 15.2

129 11.5 8.7 13.1



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

