

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U071720\  
 Data File : VU039549.D  
 Acq On : 17 Jul 2020 14:07  
 Operator : SY/MD  
 Sample : L3292-10  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFT86

Quant Time: Jul 17 23:42:29 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR070720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Fri Jul 17 23:38:36 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.27  | 114  | 73854    | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 72051    | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 32010    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 20140    | 4.71     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 94.20%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 21431    | 4.89     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 97.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 35164    | 4.18     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 83.60%  |
| 20) 2-Butanone-d5              | 4.66   | 46    | 105626   | 53.93    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 107.86% |
| 24) Chloroform-d               | 5.09   | 84    | 48855    | 5.36     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 107.20% |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 33127    | 5.79     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 115.80% |
| 32) Benzene-d6                 | 5.75   | 84    | 97345    | 5.61     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 112.20% |
| 36) 1,2-Dichloropropane-d6     | 6.71   | 67    | 33981    | 5.58     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 111.60% |
| 41) Toluene-d8                 | 7.91   | 98    | 85145    | 5.66     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 113.20% |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 13299    | 4.94     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 98.80%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 73547    | 46.07    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 92.14%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.76  | 84    | 30346    | 5.02     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 100.40% |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 34204    | 5.99     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 119.80% |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 3) Chloromethane               | 1.53 | 50   | 1317     | 0.243 | ug/L   | 90     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.59 | 101  | 3563     | 0.830 | ug/L   | 89     |
| 12) 1,1-Dichloroethene         | 2.60 | 96   | 5145     | 1.171 | ug/L # | 51     |
| 13) Acetone                    | 2.66 | 43   | 1301     | 1.231 | ug/L   | 74     |
| 16) Methylene chloride         | 3.07 | 84   | 692      | 0.125 | ug/L # | 84     |
| 17) Methyl tert-butyl Ether    | 3.38 | 73   | 1975     | 0.143 | ug/L # | 15     |
| 19) 1,1-Dichloroethane         | 3.89 | 63   | 9979     | 1.049 | ug/L   | 89     |
| 22) cis-1,2-Dichloroethene     | 4.69 | 96   | 15560    | 2.854 | ug/L   | 96     |
| 25) Chloroform                 | 5.11 | 83   | 5802     | 0.604 | ug/L   | 99     |
| 29) 1,1,1-Trichloroethane      | 5.34 | 97   | 10273    | 1.211 | ug/L # | 85     |
| 31) Carbon tetrachloride       | 5.34 | 117  | 1388     | 0.192 | ug/L # | 79     |
| 33) Benzene                    | 5.79 | 78   | 1788     | 0.083 | ug/L   | 100    |
| 34) Trichloroethene            | 6.56 | 95   | 37989    | 6.821 | ug/L   | 99     |
| 35) Methylcyclohexane          | 6.71 | 83   | 7386     | 0.828 | ug/L # | 18     |
| 37) 1,2-Dichloropropane        | 6.71 | 63   | 4204     | 0.716 | ug/L # | 91     |
| 39) cis-1,3-Dichloropropene    | 7.58 | 75   | 1079     | 0.122 | ug/L # | 76     |
| 45) 1,1,2-Trichloroethane      | 8.56 | 97   | 561      | 0.133 | ug/L # | 1      |

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Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFT86

Quant Time: Jul 17 23:42:29 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR070720WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Jul 17 23:38:36 2020  
Response via : Initial Calibration

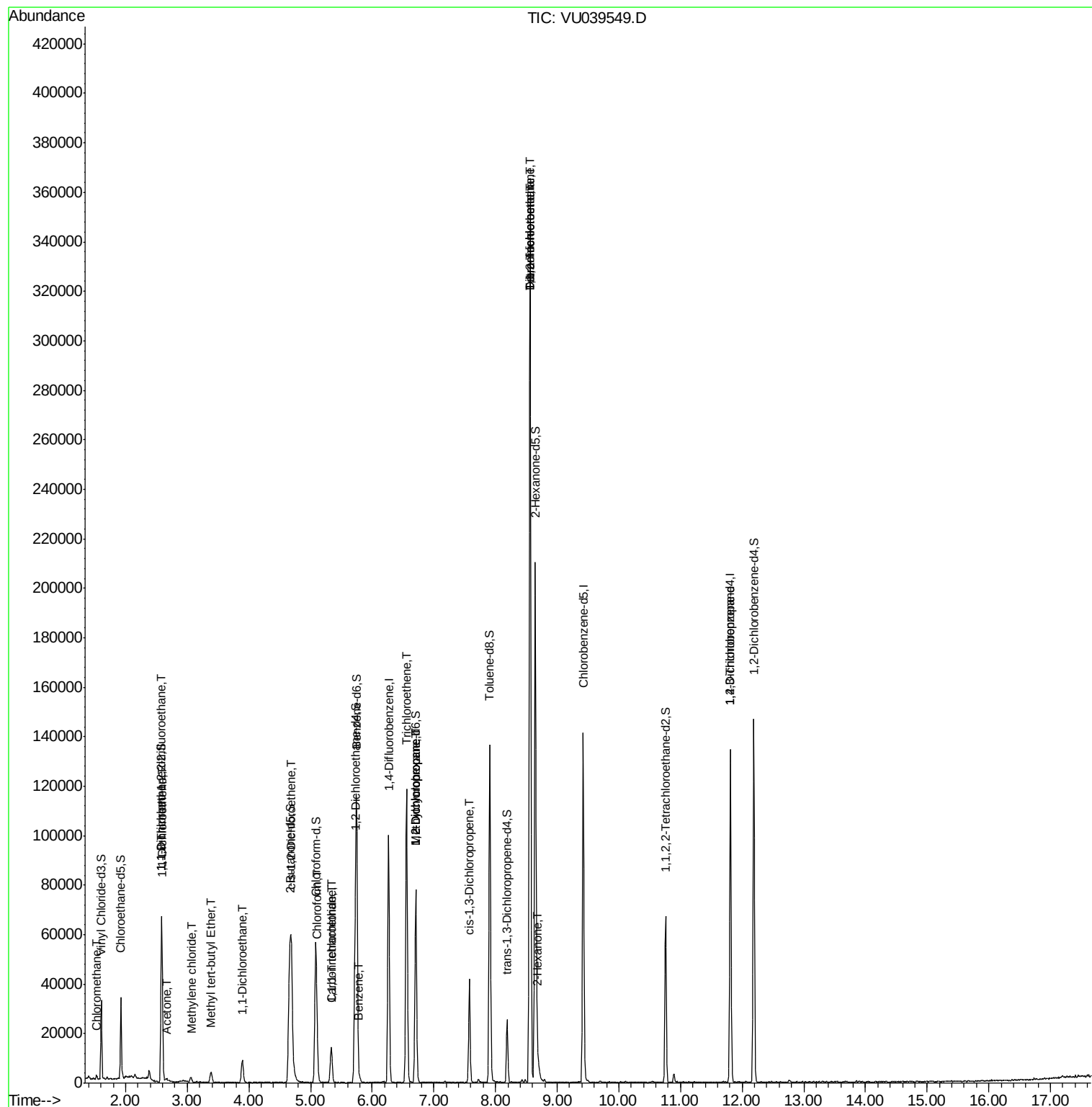
| Internal Standards         | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|----------------------------|-------|------|----------|--------|--------|----------|
| 47) Tetrachloroethene      | 8.56  | 164  | 66654    | 17.207 | ug/L   | 98       |
| 48) 2-Hexanone             | 8.69  | 43   | 3698     | 1.024  | ug/L # | 42       |
| 49) Dibromochloromethane   | 8.56  | 129  | 65396    | 12.800 | ug/L # | 10       |
| 59) 1,2,3-Trichloropropane | 11.81 | 75   | 5009     | 1.157  | ug/L # | 87       |

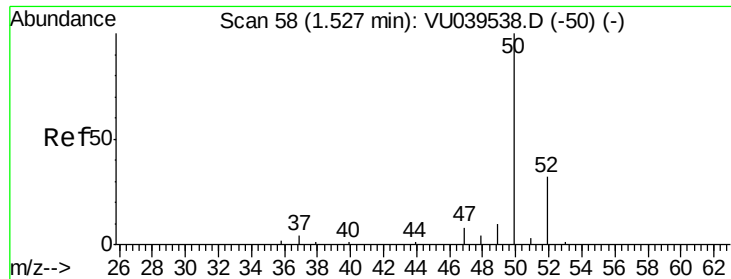
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#3

Chloromethane

Concen: 0.243 ug/L

RT: 1.53 min Scan# 58

Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

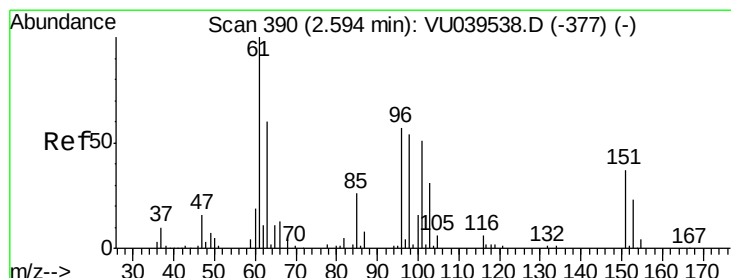
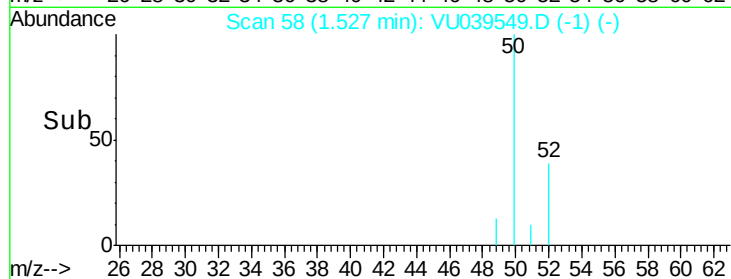
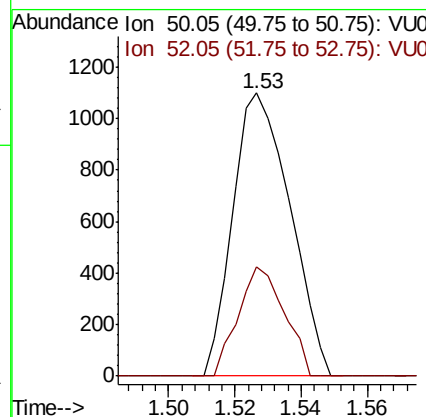
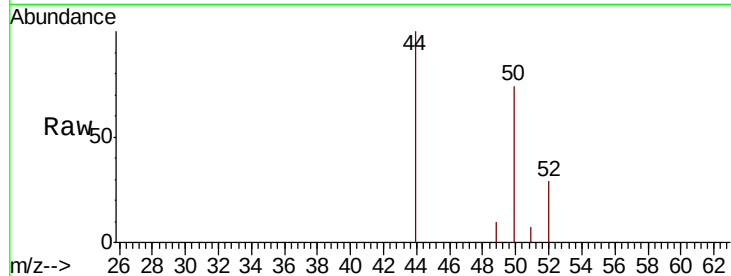
BFT86

Tot Ion: 50 Resp: 1317

Ion Ratio Lower Upper

50 100

52 38.7 23.0 42.8



#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 0.830 ug/L

RT: 2.59 min Scan# 390

Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

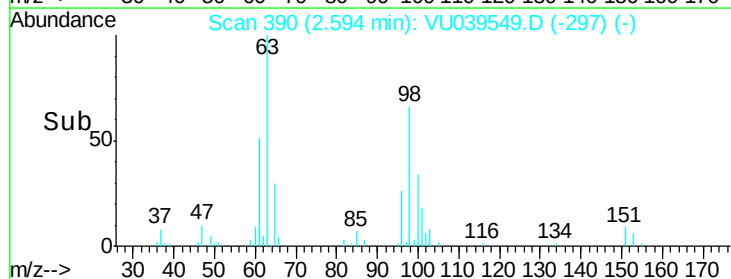
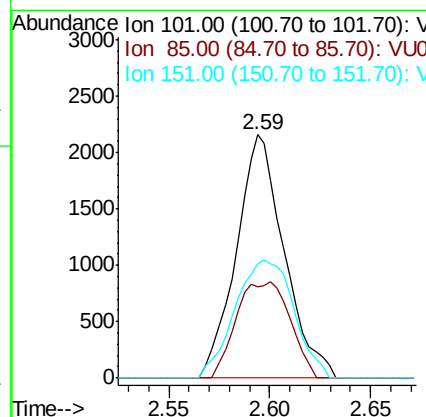
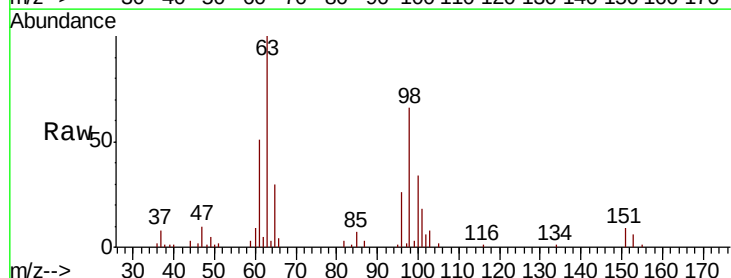
Tgt Ion: 101 Resp: 3563

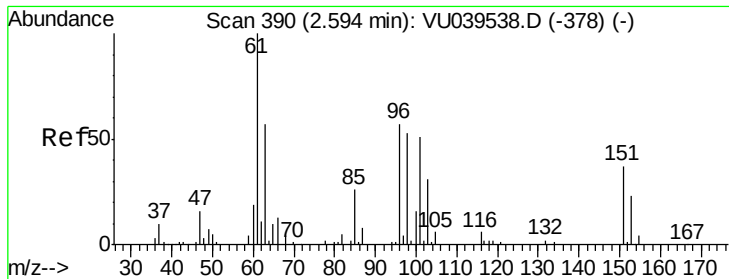
Ion Ratio Lower Upper

101 100

85 44.5 38.9 58.3

151 59.7 57.0 85.4





#12

1,1-Dichloroethene

Concen: 1.171 ug/L

RT: 2.60 min Scan# 391

Delta R.T. 0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampled :

BFT86

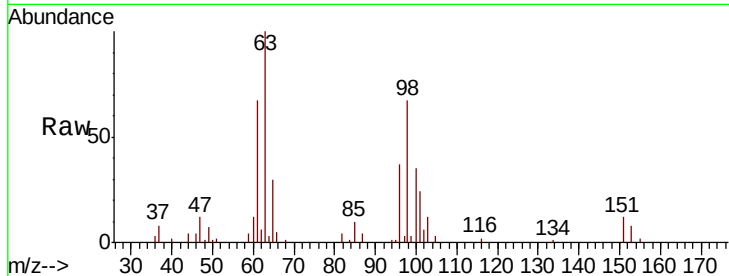
Tot Ion: 96 Resp: 5145

Ion Ratio Lower Upper

96 100

61 180.3 125.4 232.8

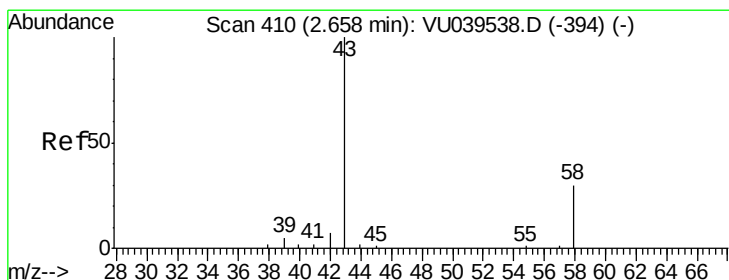
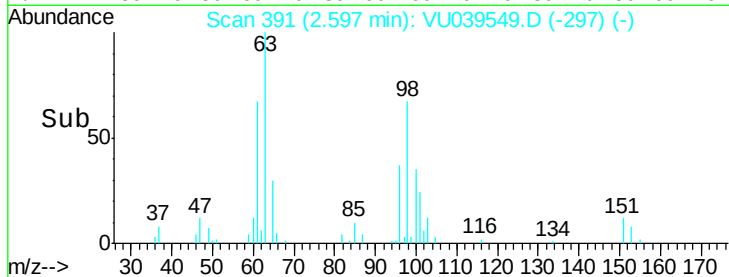
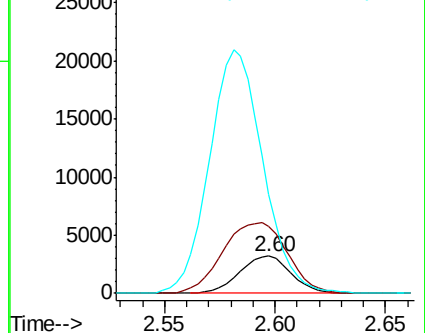
63 267.6 92.7 172.3#



Abundance Ion 96.00 (95.70 to 96.70): VU039538.D (-378) (-)

Ion 61.05 (60.75 to 61.75): VU039538.D (-378) (-)

Ion 63.00 (62.70 to 63.70): VU039538.D (-378) (-)



#13

Acetone

Concen: 1.231 ug/L

RT: 2.66 min Scan# 410

Delta R.T. -0.00 min

Lab File: VU039549.D

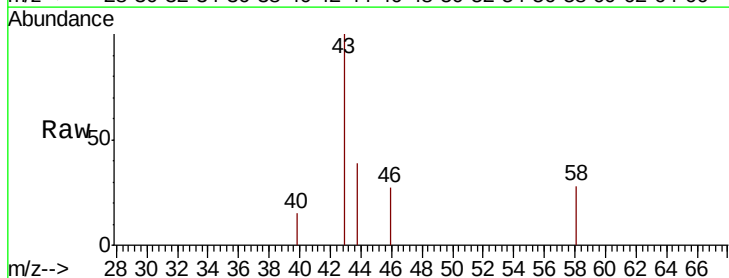
Acq: 17 Jul 2020 14:07

Tgt Ion: 43 Resp: 1301

Ion Ratio Lower Upper

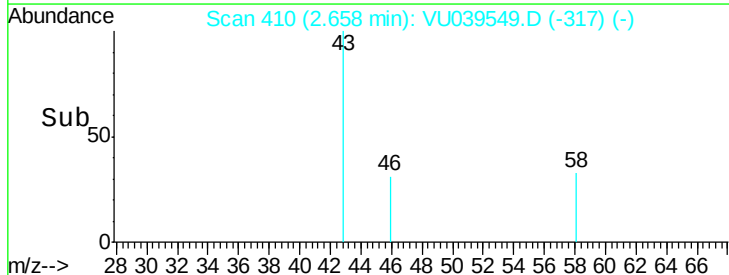
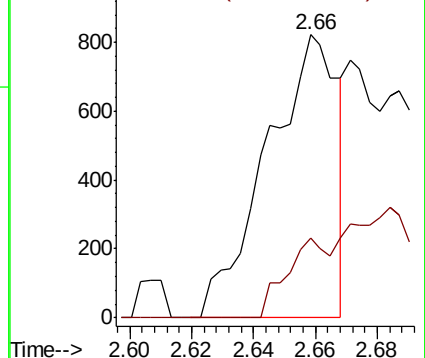
43 100

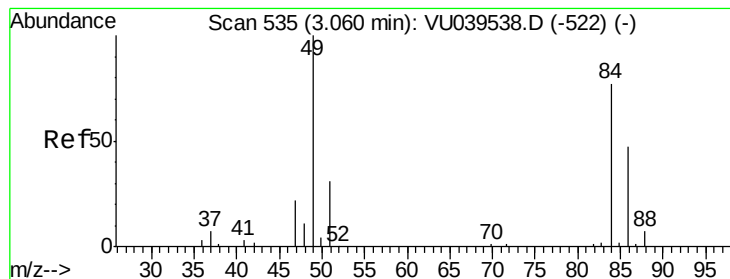
58 17.0 0.0 62.8



Abundance Ion 43.05 (42.75 to 43.75): VU039538.D (-394) (-)

Ion 58.05 (57.75 to 58.75): VU039538.D (-394) (-)





#16

Methylene chloride

Concen: 0.125 ug/L

RT: 3.07 min Scan# 537

Delta R.T. 0.01 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

BFT86

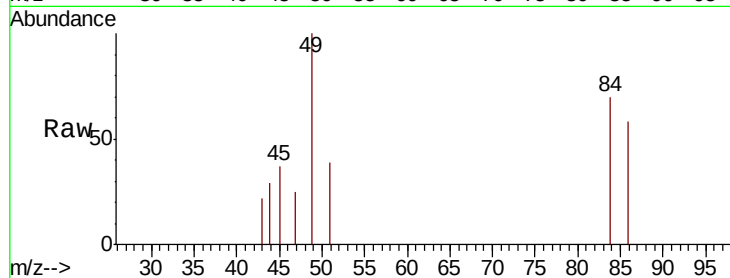
Tot Ion: 84 Resp: 692

Ion Ratio Lower Upper

84 100

86 83.5 43.5 80.9#

49 142.7 91.1 169.1

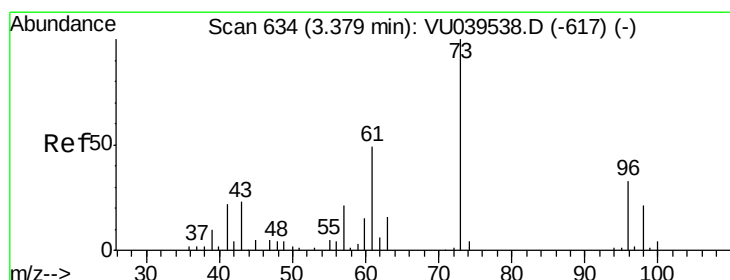
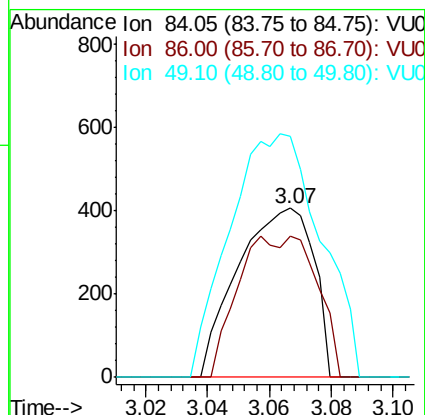
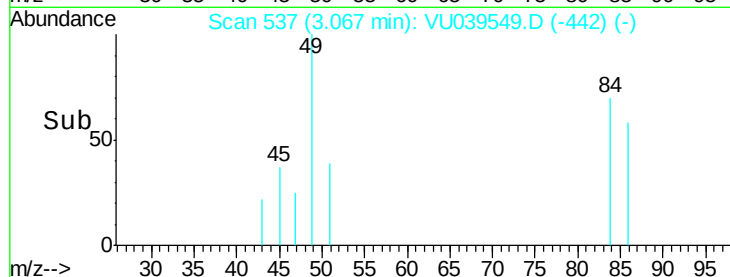


Abundance Ion 84.05 (83.75 to 84.75): VU039538.D (-522) (-)

Ion 86.00 (85.70 to 86.70): VU039538.D (-522) (-)

Ion 49.10 (48.80 to 49.80): VU039538.D (-522) (-)

Time-->



#17

Methyl tert-butyl Ether

Concen: 0.143 ug/L

RT: 3.38 min Scan# 634

Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

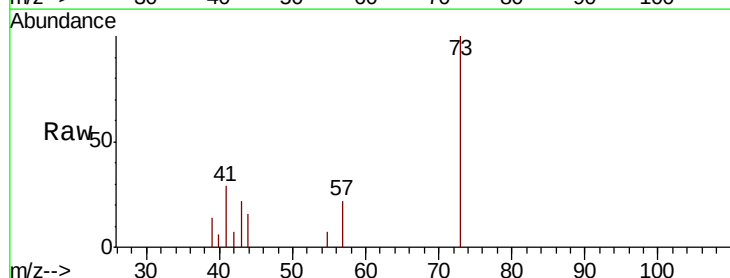
Tgt Ion: 73 Resp: 1975

Ion Ratio Lower Upper

73 100

43 64.5 18.6 28.0#

57 63.6 17.9 26.9#

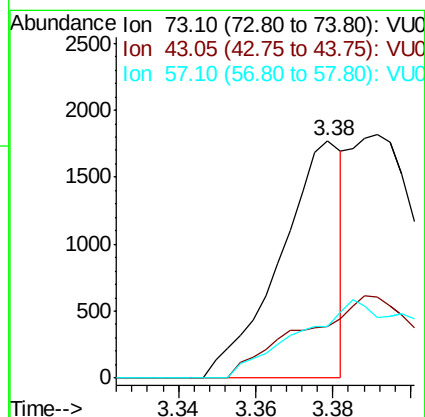
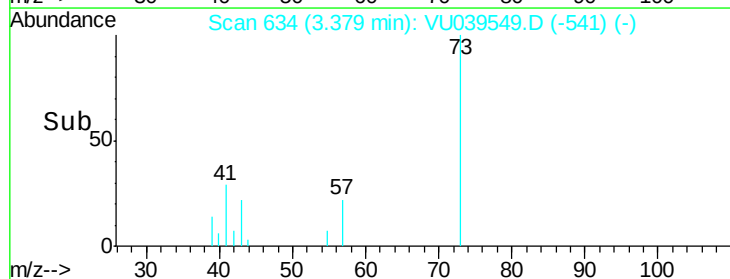


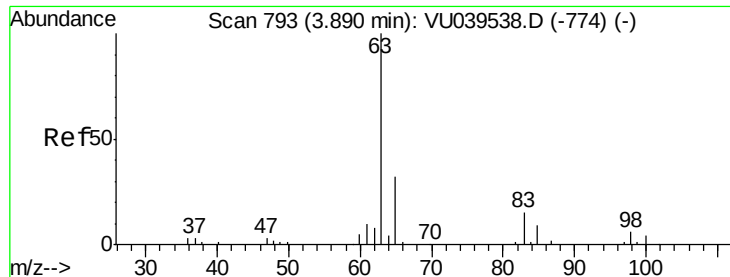
Abundance Ion 73.10 (72.80 to 73.80): VU039538.D (-617) (-)

Ion 43.05 (42.75 to 43.75): VU039538.D (-617) (-)

Ion 57.10 (56.80 to 57.80): VU039538.D (-617) (-)

Time-->





#19

1,1-Dichloroethane

Concen: 1.049 ug/L

RT: 3.89 min Scan# 794

Delta R.T. 0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampled :

BFT86

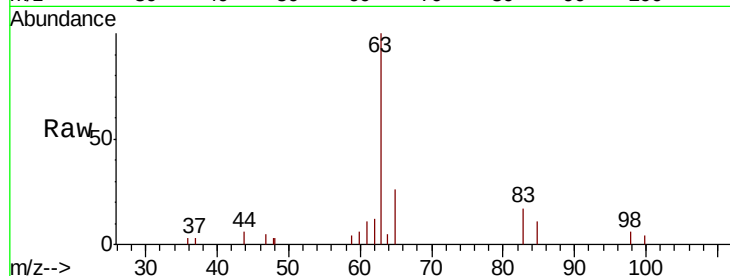
Tot Ion: 63 Resp: 9979

Ion Ratio Lower Upper

63 100

65 25.0 23.0 42.6

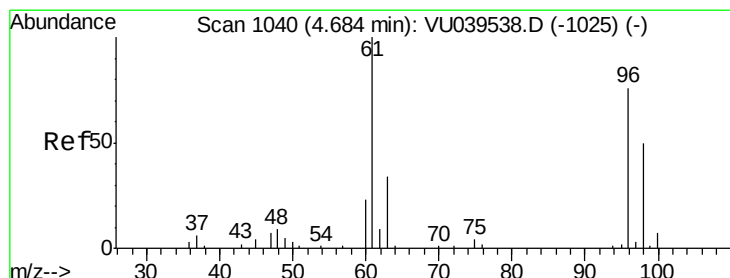
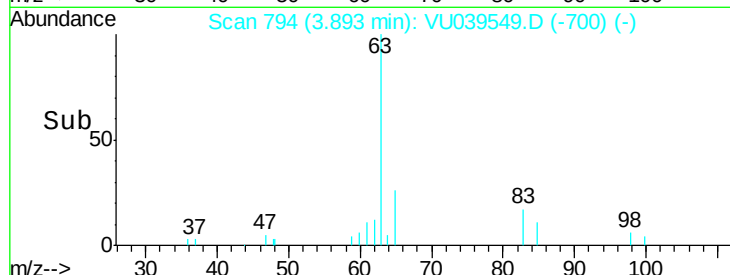
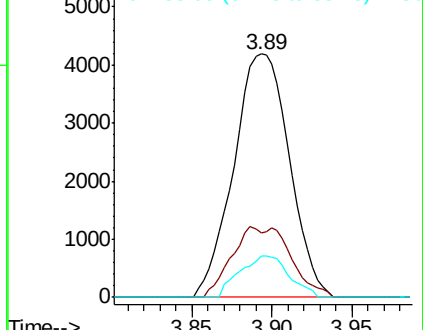
83 16.0 9.6 17.8



Abundance Ion 63.10 (62.80 to 63.80): VU039538.D (-774) (-)

Ion 65.10 (64.80 to 65.80): VU039538.D (-774) (-)

Ion 83.05 (82.75 to 83.75): VU039538.D (-774) (-)



#22

cis-1,2-Dichloroethene

Concen: 2.854 ug/L

RT: 4.69 min Scan# 1042

Delta R.T. 0.01 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

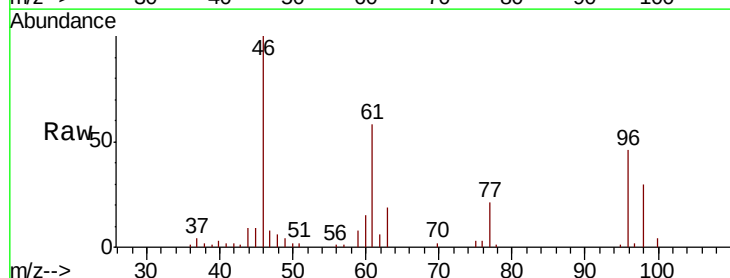
Tgt Ion: 96 Resp: 15560

Ion Ratio Lower Upper

96 100

61 127.7 92.8 172.4

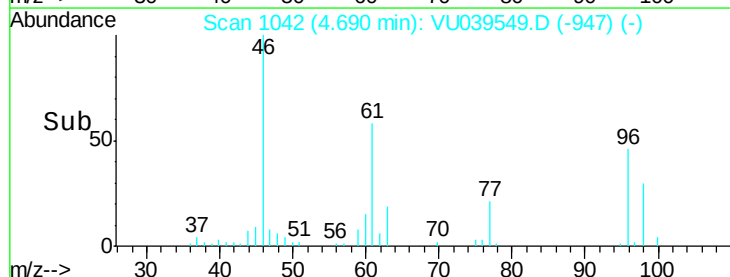
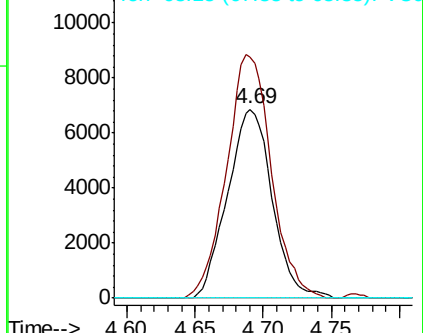
68 0.0 0.0 0.0

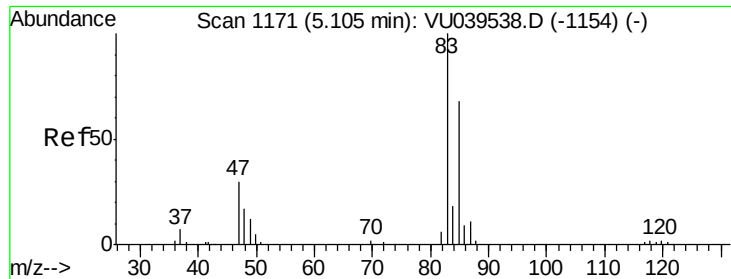


Abundance Ion 96.00 (95.70 to 96.70): VU039538.D (-1025) (-)

Ion 61.05 (60.75 to 61.75): VU039538.D (-1025) (-)

Ion 68.15 (67.85 to 68.85): VU039538.D (-1025) (-)

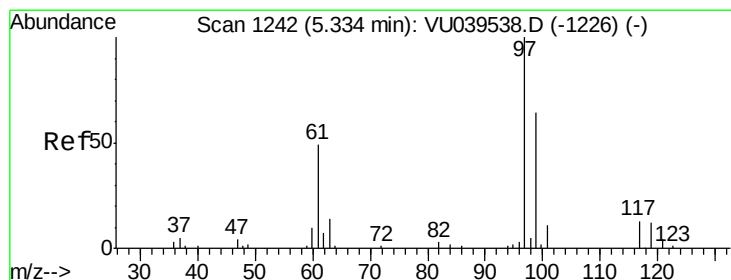
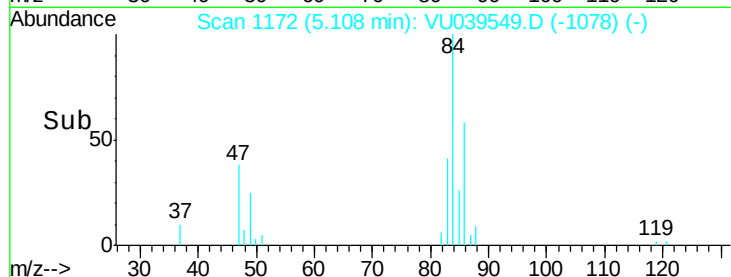
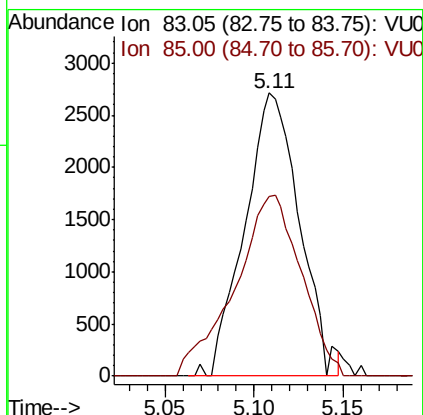
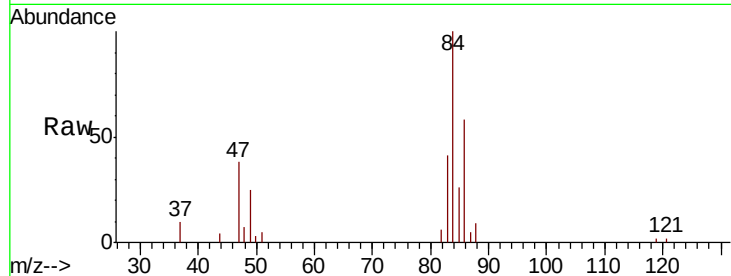




#25  
Chloroform  
Concen: 0.604 ug/L  
RT: 5.11 min Scan# 1172  
Delta R.T. 0.00 min  
Lab File: VU039549.D  
Acq: 17 Jul 2020 14:07

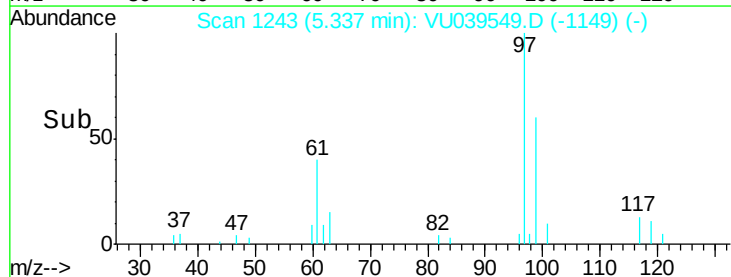
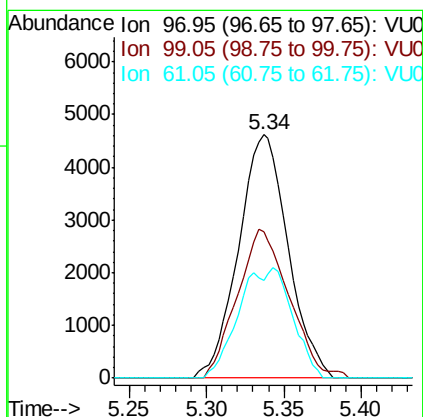
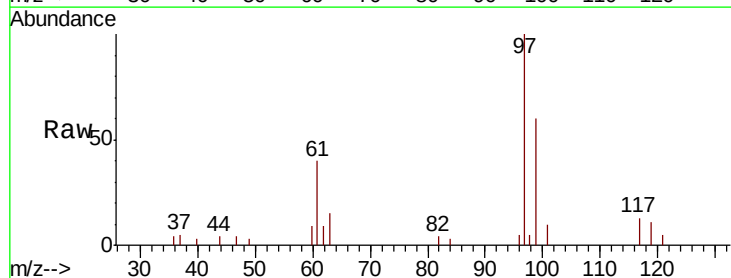
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFT86

Tot Ion: 83 Resp: 5802  
Ion Ratio Lower Upper  
83 100  
85 63.3 44.9 83.5

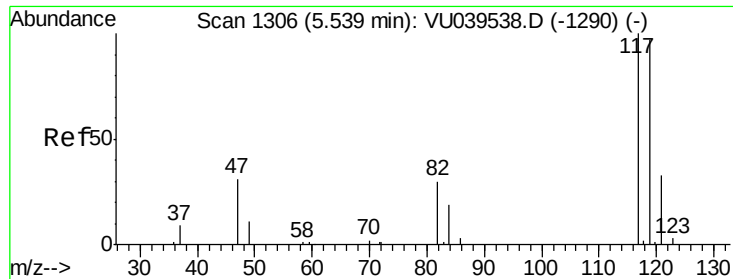


#29  
1,1,1-Trichloroethane  
Concen: 1.211 ug/L  
RT: 5.34 min Scan# 1243  
Delta R.T. 0.00 min  
Lab File: VU039549.D  
Acq: 17 Jul 2020 14:07

Tgt Ion: 97 Resp: 10273  
Ion Ratio Lower Upper  
97 100  
99 64.1 52.6 79.0  
61 25.0 37.9 56.9#







#31

Carbon tetrachloride

Concen: 0.192 ug/L

RT: 5.34 min Scan# 1243

Delta R.T. -0.20 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

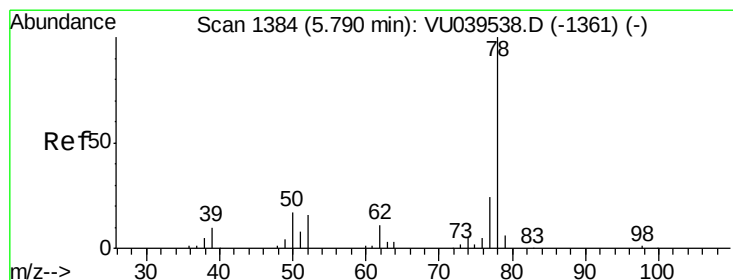
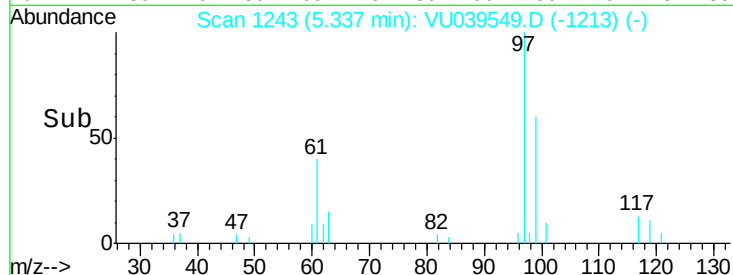
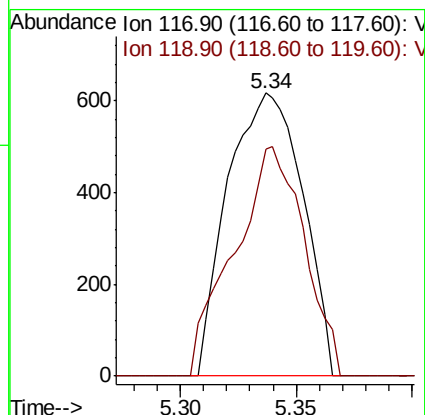
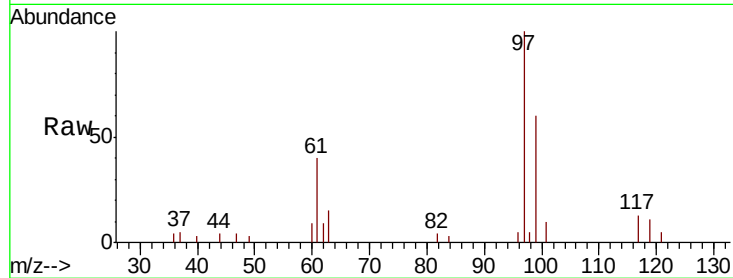
BFT86

Tot Ion:117 Resp: 1388

Ion Ratio Lower Upper

117 100

119 75.9 77.4 116.0#



#33

Benzene

Concen: 0.083 ug/L

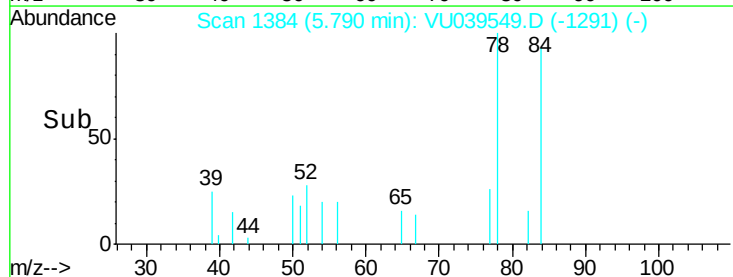
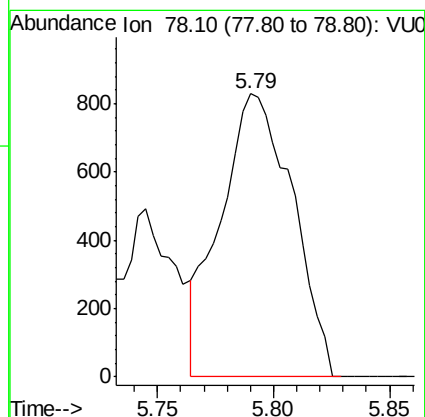
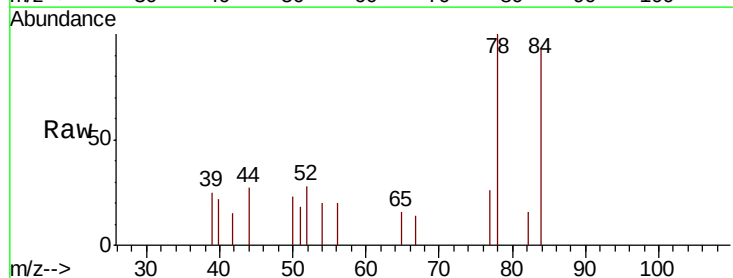
RT: 5.79 min Scan# 1384

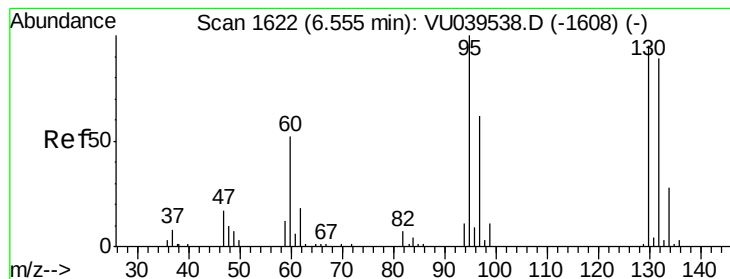
Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Tgt Ion: 78 Resp: 1788





#34

Trichloroethene

Concen: 6.821 ug/L

RT: 6.56 min Scan# 1622

Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

BFT86

Tot Ion: 95 Resp: 37989

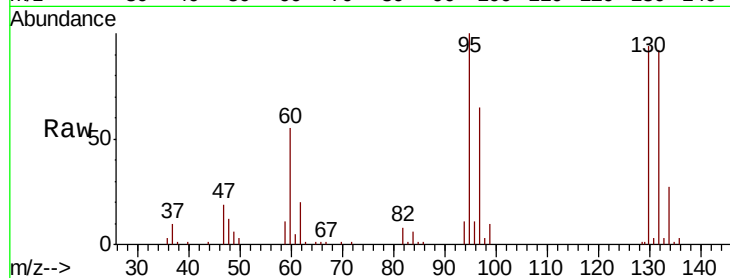
Ion Ratio Lower Upper

95 100

97 65.1 46.3 85.9

132 91.9 64.0 118.8

130 94.1 64.3 119.5



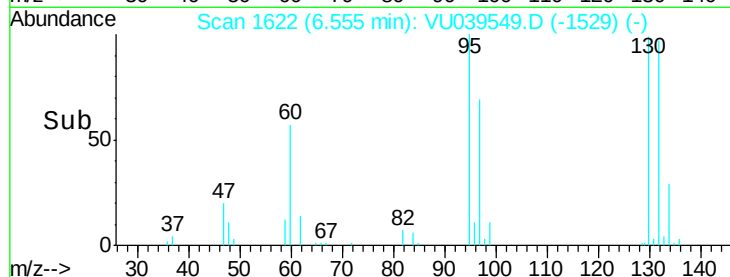
Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V

Time-->



Abundance

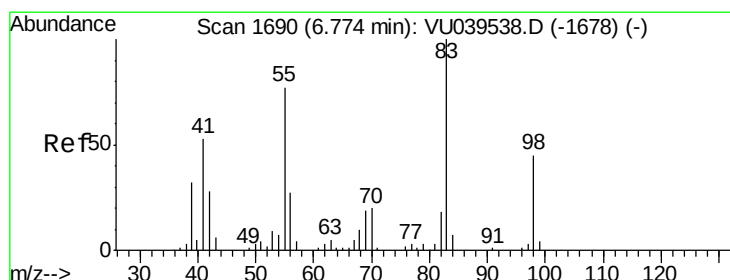
Ion 95.00 (94.70 to 95.70): VU0

Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V

Time-->



#35

Methylcyclohexane

Concen: 0.828 ug/L

RT: 6.71 min Scan# 1669

Delta R.T. -0.07 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

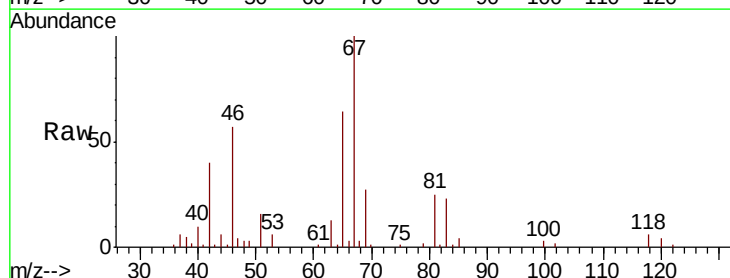
Tgt Ion: 83 Resp: 7386

Ion Ratio Lower Upper

83 100

55 0.0 62.1 93.1#

98 0.0 35.9 53.9#

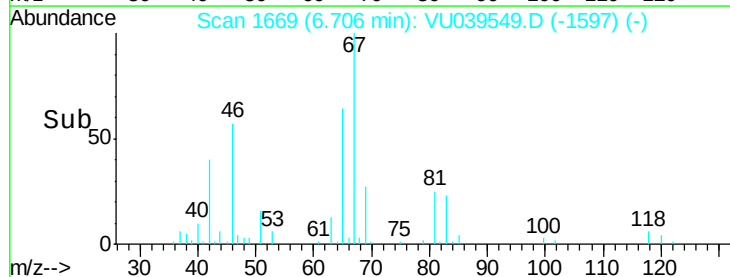


Abundance Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0

Time-->



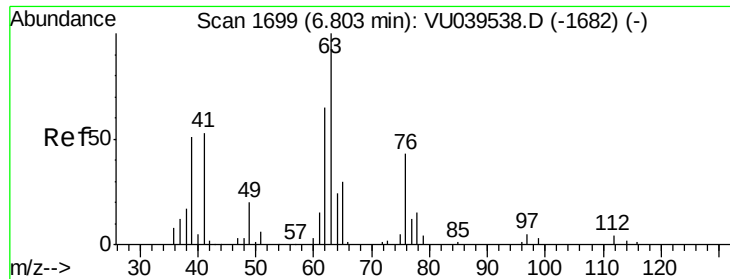
Abundance

Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0

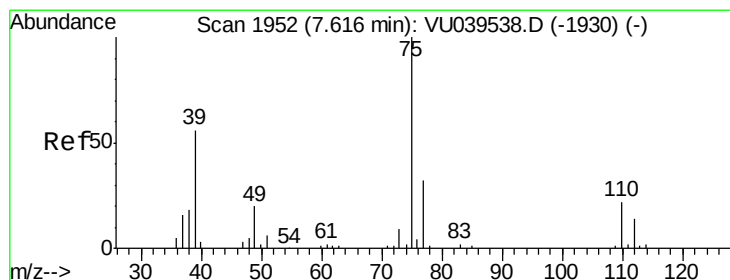
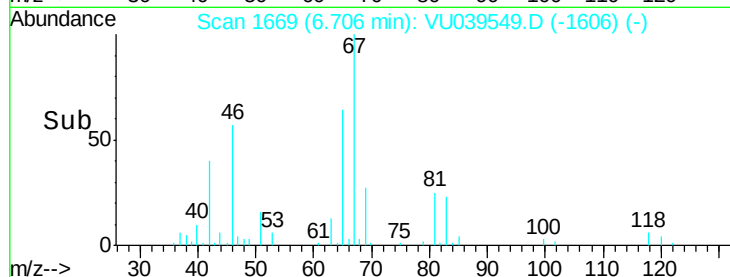
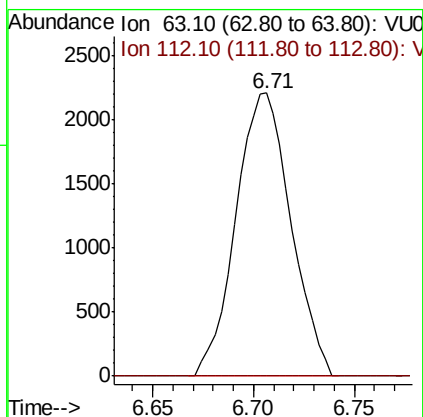
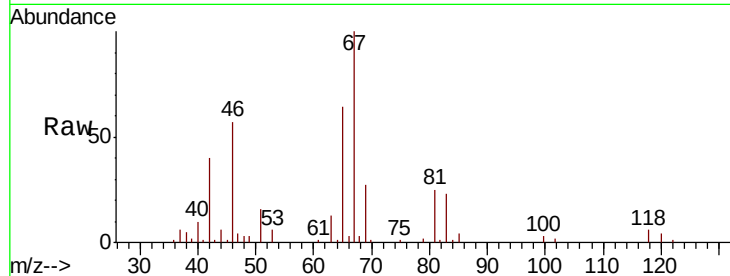
Time-->



#37  
 1,2-Dichloropropane  
 Concen: 0.716 ug/L  
 RT: 6.71 min Scan# 1669  
 Delta R.T. -0.10 min  
 Lab File: VU039549.D  
 Acq: 17 Jul 2020 14:07

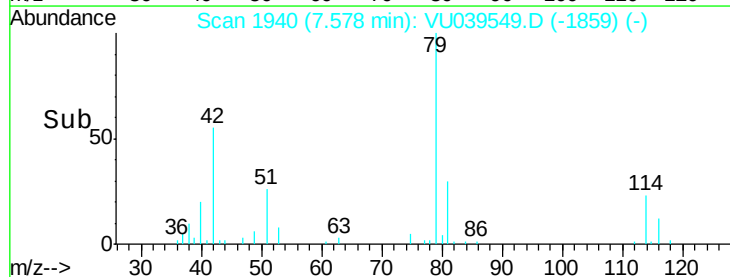
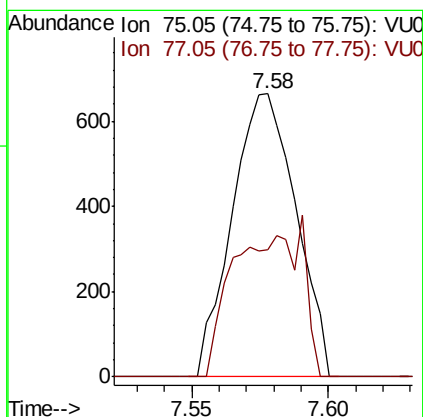
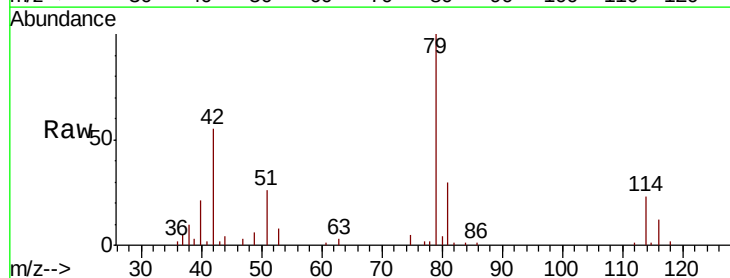
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFT86

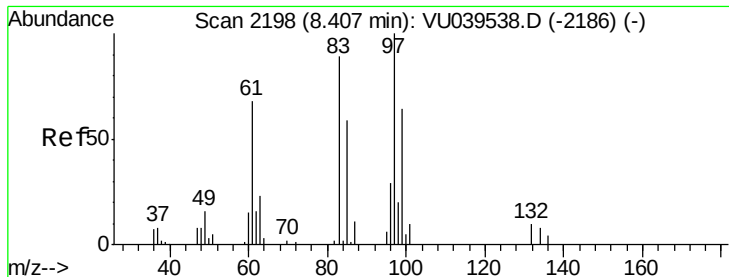
Tot Ion: 63 Resp: 4204  
 Ion Ratio Lower Upper  
 63 100  
 112 0.0 2.5 3.7#



#39  
 cis-1,3-Dichloropropene  
 Concen: 0.122 ug/L  
 RT: 7.58 min Scan# 1940  
 Delta R.T. -0.04 min  
 Lab File: VU039549.D  
 Acq: 17 Jul 2020 14:07

Tgt Ion: 75 Resp: 1079  
 Ion Ratio Lower Upper  
 75 100  
 77 45.0 22.3 41.3#





#45

1,1,2-Trichloroethane

Concen: 0.133 ug/L

RT: 8.56 min Scan# 2245

Delta R.T. 0.15 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

BFT86

Tot Ion: 97 Resp: 561

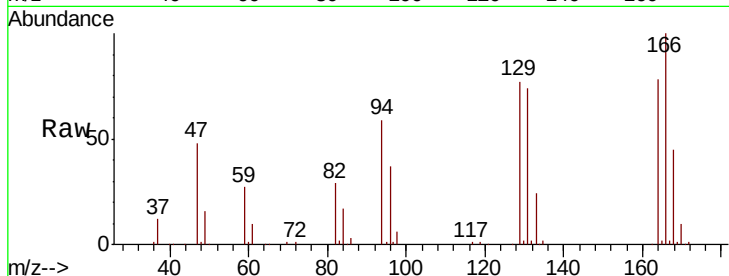
Ion Ratio Lower Upper

97 100

99 0.0 40.7 75.7#

83 273.5 60.6 112.6#

85 60.5 38.3 71.1

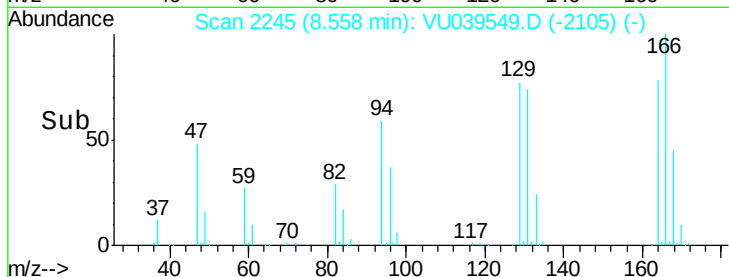
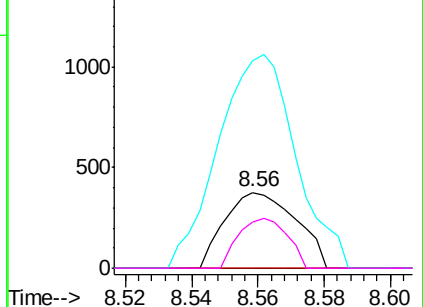


Abundance Ion 96.95 (96.65 to 97.65): VU0

Ion 99.05 (98.75 to 99.75): VU0

Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0



#47

Tetrachloroethene

Concen: 17.207 ug/L

RT: 8.56 min Scan# 2245

Delta R.T. -0.00 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Tgt Ion:164 Resp: 66654

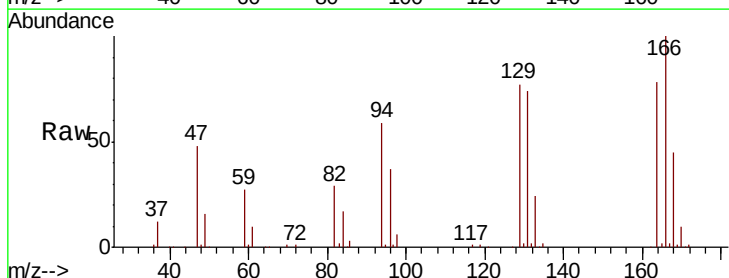
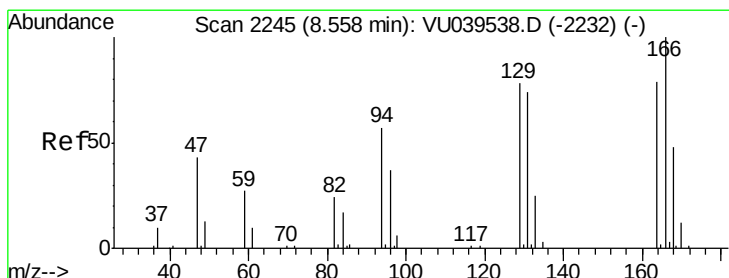
Ion Ratio Lower Upper

164 100

129 98.2 68.6 127.4

131 94.5 66.4 123.4

166 128.3 85.9 159.5

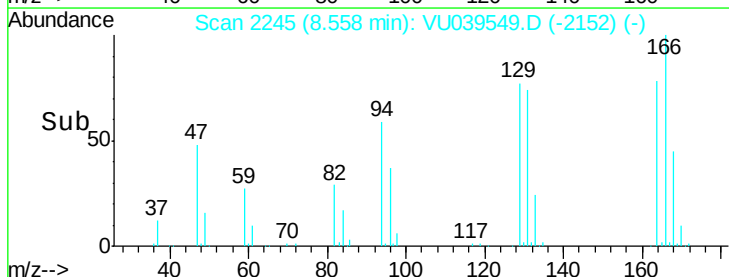
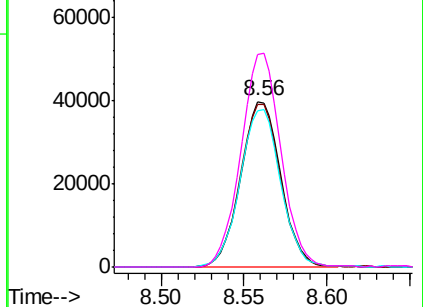


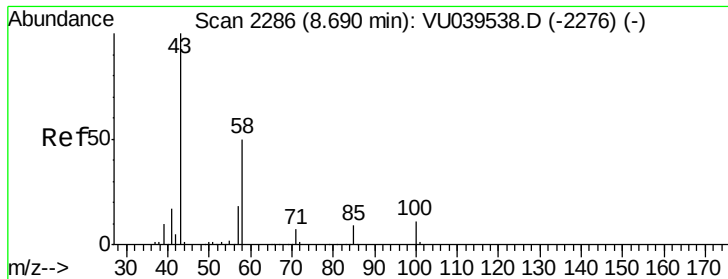
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V

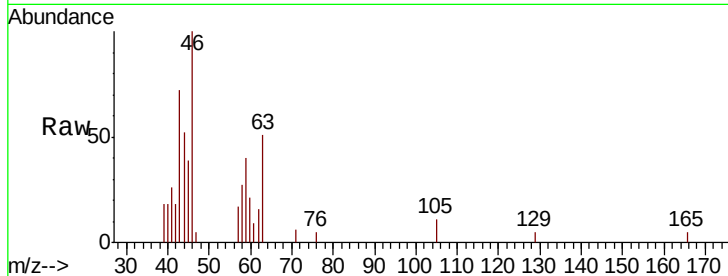




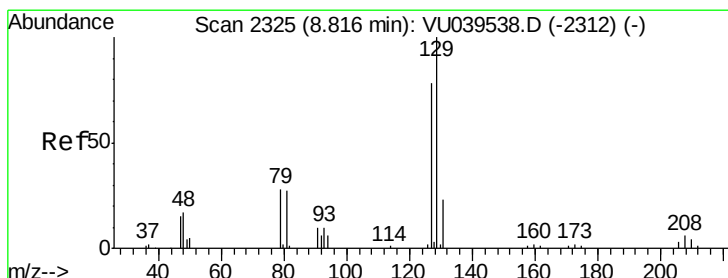
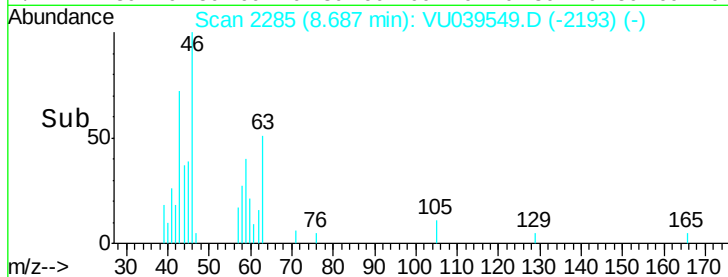
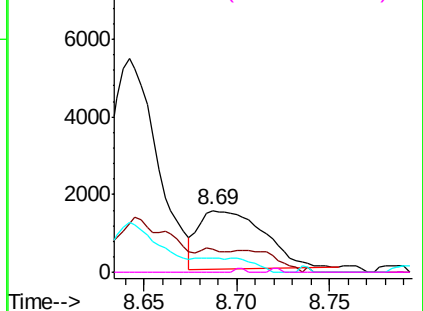
#48  
2-Hexanone  
Concen: 1.024 ug/L  
RT: 8.69 min Scan# 2285  
Delta R.T. -0.00 min  
Lab File: VU039549.D  
Acq: 17 Jul 2020 14:07

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFT86

Tot Ion: 43 Resp: 3698  
Ion Ratio Lower Upper  
43 100  
58 2.9 42.0 63.0#  
57 0.0 14.0 21.0#  
100 1.1 8.2 12.2#

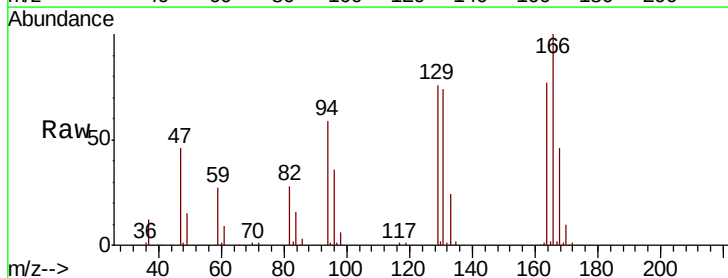


Abundance Ion 43.05 (42.75 to 43.75): VU0  
Ion 58.05 (57.75 to 58.75): VU0  
Ion 57.20 (56.90 to 57.90): VU0  
Ion 100.15 (99.85 to 100.85): VU0

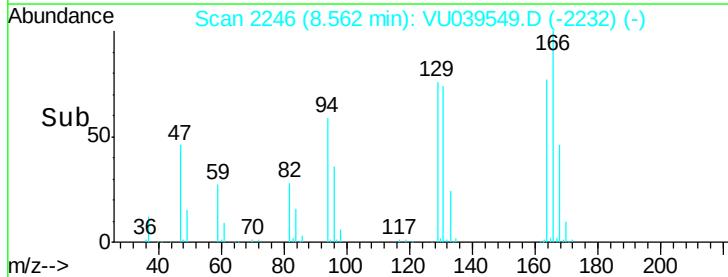
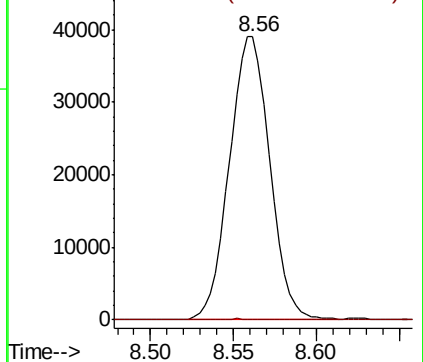


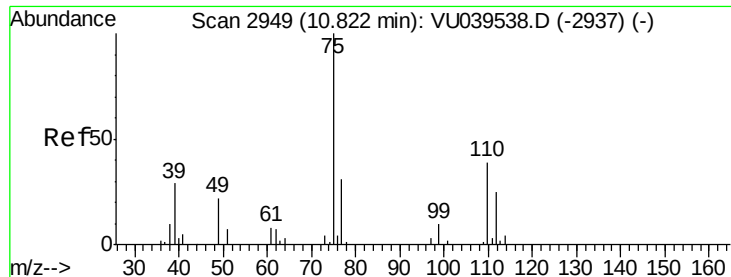
#49  
Dibromochloromethane  
Concen: 12.800 ug/L  
RT: 8.56 min Scan# 2246  
Delta R.T. -0.25 min  
Lab File: VU039549.D  
Acq: 17 Jul 2020 14:07

Tgt Ion: 129 Resp: 65396  
Ion Ratio Lower Upper  
129 100  
127 0.4 55.4 102.8#



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V





#59

1,2,3-Trichloropropane

Concen: 1.157 ug/L

RT: 11.81 min Scan# 3256

Delta R.T. 0.99 min

Lab File: VU039549.D

Acq: 17 Jul 2020 14:07

Instrument :

MSVOA\_U

ClientSampleId :

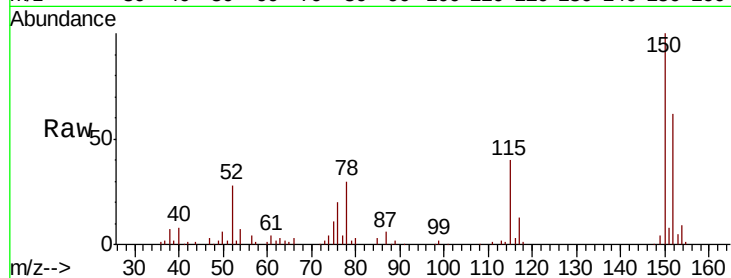
BFT86

Tot Ion: 75 Resp: 5009

Ion Ratio Lower Upper

75 100

77 40.9 26.8 40.2#



Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 77.00 (76.70 to 77.70): VU0

