

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092920\  
 Data File : VU040381.D  
 Acq On : 30 Sep 2020 00:21  
 Operator : SY/MD  
 Sample : L4186-13  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG0F3

Quant Time: Sep 30 02:57:48 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Sep 30 02:48:48 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 123064   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 126409   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 54880    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 29821    | 4.90     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 98.00%  |
| 7) Chloroethane-d5             | 1.92   | 69    | 26629    | 4.99     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 99.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 45154    | 3.08     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 61.60%  |
| 20) 2-Butanone-d5              | 4.65   | 46    | 151631   | 50.10    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 100.20% |
| 24) Chloroform-d               | 5.08   | 84    | 69257    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 43982    | 4.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 99.60%  |
| 32) Benzene-d6                 | 5.74   | 84    | 120606   | 4.75     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.00%  |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 45386    | 4.88     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 97.60%  |
| 41) Toluene-d8                 | 7.91   | 98    | 95161    | 4.31     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 86.20%  |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 15752    | 4.15     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 83.00%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 104691   | 46.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 93.82%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 43762    | 4.84     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 96.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 45558    | 5.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 109.60% |

## Target Compounds

|                               |       |    |        |              | Ovalue |
|-------------------------------|-------|----|--------|--------------|--------|
| 5) Vinyl chloride             | 1.61  | 62 | 308041 | 25.895 ug/L  | 99     |
| 8) Chloroethane               | 1.96  | 64 | 663    | 0.094 ug/L # | 52     |
| 17) Methyl tert-butyl Ether   | 3.38  | 73 | 76746  | 2.972 ug/L   | 99     |
| 18) trans-1,2-Dichloroethene  | 3.37  | 96 | 2803   | 0.289 ug/L   | 95     |
| 19) 1,1-Dichloroethane        | 3.89  | 63 | 2407   | 0.121 ug/L   | 98     |
| 22) cis-1,2-Dichloroethene    | 4.68  | 96 | 2969   | 0.277 ug/L   | 75     |
| 25) Chloroform                | 5.11  | 83 | 1458   | 0.072 ug/L   | 87     |
| 27) 1,2-Dichloroethane        | 5.74  | 62 | 873    | 0.062 ug/L # | 74     |
| 33) Benzene                   | 5.78  | 78 | 995    | 0.023 ug/L   | 100    |
| 34) Trichloroethene           | 6.26  | 95 | 2145   | 0.191 ug/L # | 8      |
| 35) Methylcyclohexane         | 6.70  | 83 | 10576  | 0.641 ug/L # | 13     |
| 37) 1,2-Dichloropropane       | 6.70  | 63 | 5102   | 0.432 ug/L # | 88     |
| 44) trans-1,3-Dichloropropene | 8.19  | 75 | 802    | 0.055 ug/L # | 83     |
| 48) 2-Hexanone                | 8.64  | 43 | 14581  | 2.141 ug/L # | 74     |
| 59) 1,2,3-Trichloropropane    | 11.81 | 75 | 7744   | 0.905 ug/L   | 96     |

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Sample : L4186-13  
Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 38 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG0F3

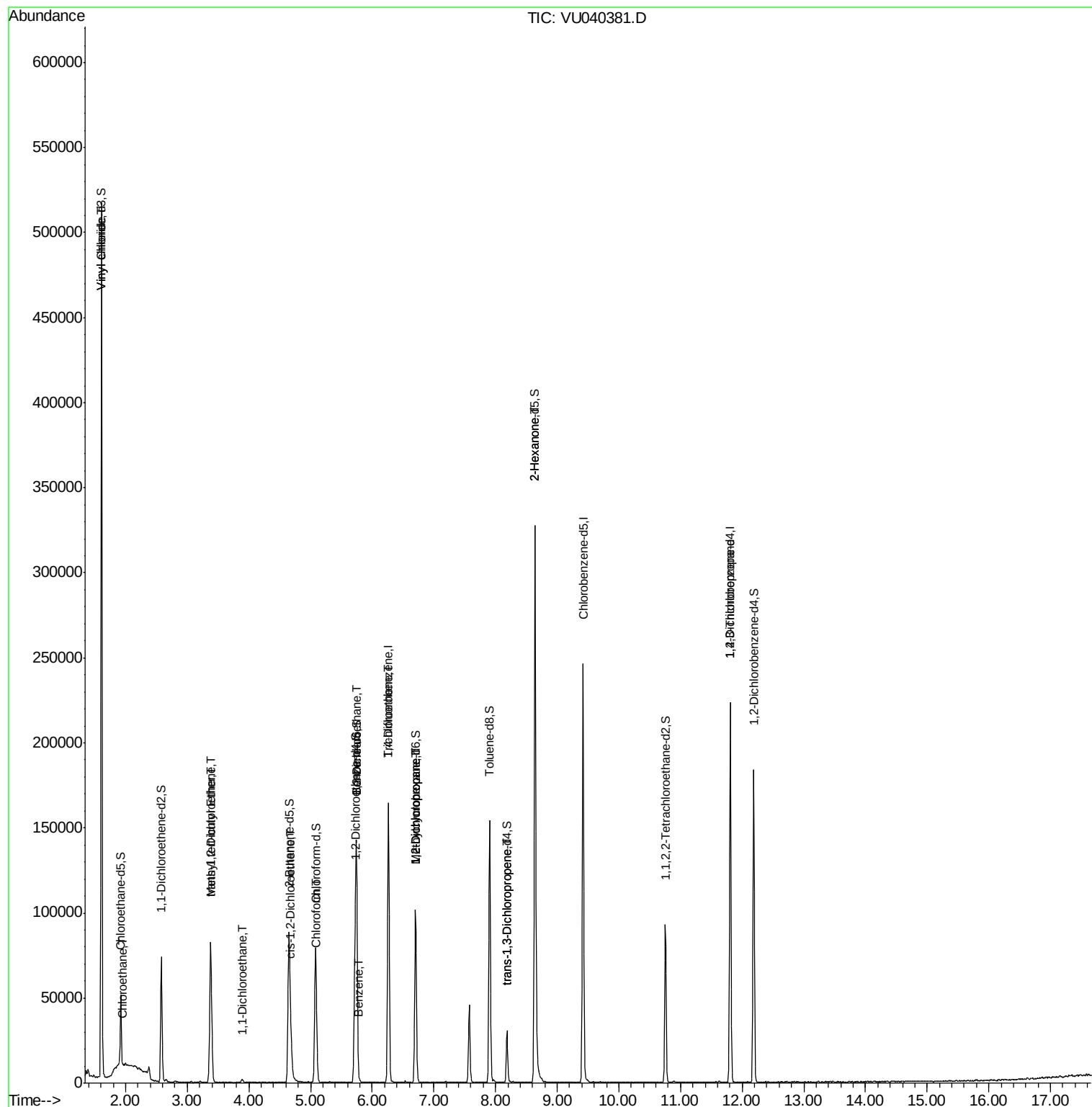
Quant Time: Sep 30 02:57:48 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Sep 30 02:48:48 2020  
Response via : Initial Calibration

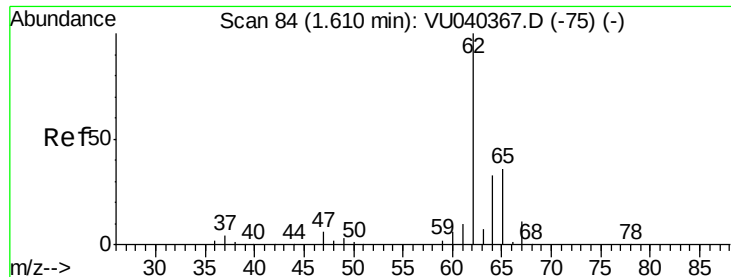
| Internal Standards                                                         | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                                                      |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Sep 30 02:48:48 2020  
Response via : Initial Calibration





#5

Vinyl chloride

Concen: 25.895 ug/L

RT: 1.61 min Scan# 84

Delta R.T. -0.00 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Instrument :

MSVOA\_U

ClientSampleId :

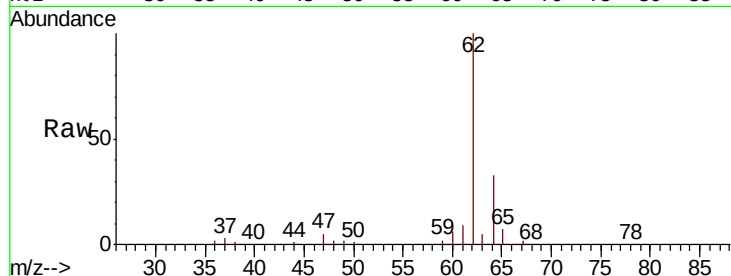
BG0F3

Tot Ion: 62 Resp: 308041

Ion Ratio Lower Upper

62 100

64 32.6 23.0 42.8



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.10 (63.80 to 64.80): VU0

1.61

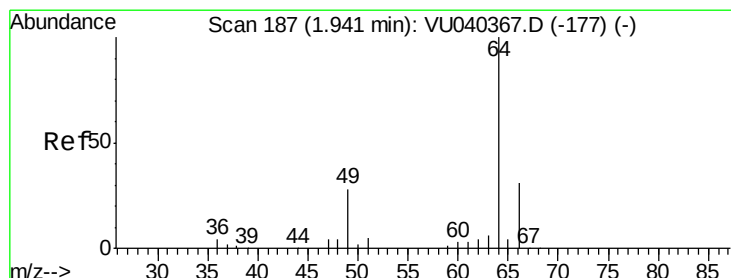
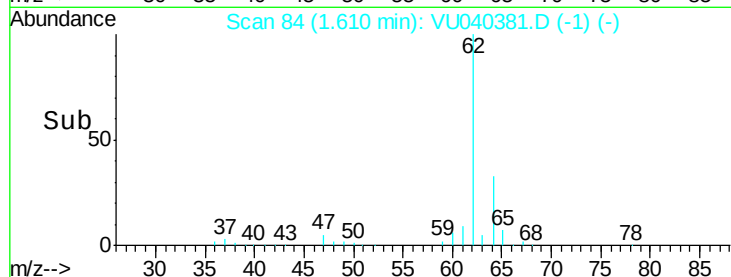
300000

200000

100000

0

Time-->



#8

Chloroethane

Concen: 0.094 ug/L

RT: 1.96 min Scan# 192

Delta R.T. 0.02 min

Lab File: VU040381.D

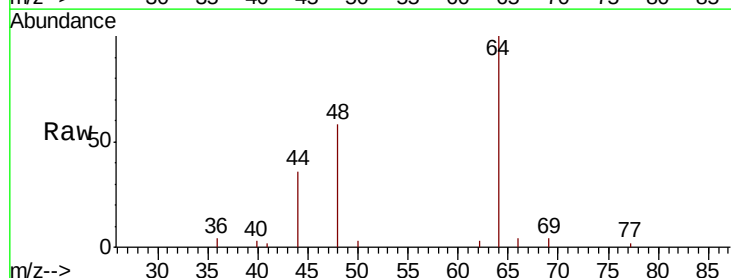
Acq: 30 Sep 2020 00:21

Tgt Ion: 64 Resp: 663

Ion Ratio Lower Upper

64 100

66 4.3 21.3 39.6#



Abundance Ion 64.10 (63.80 to 64.80): VU0

Ion 66.05 (65.75 to 66.75): VU0

6000

5000

4000

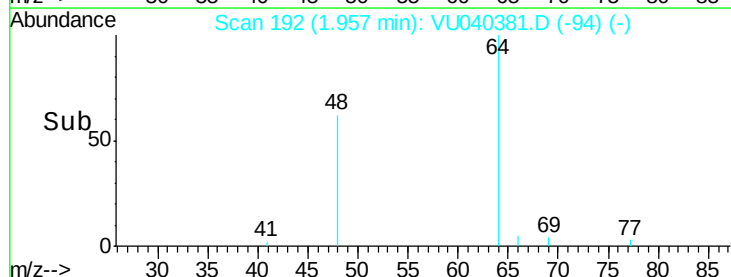
3000

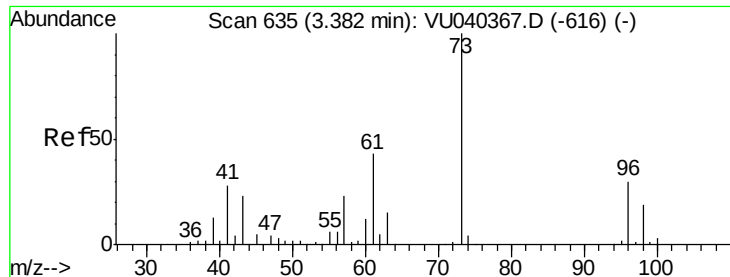
2000

1000

0

Time-->

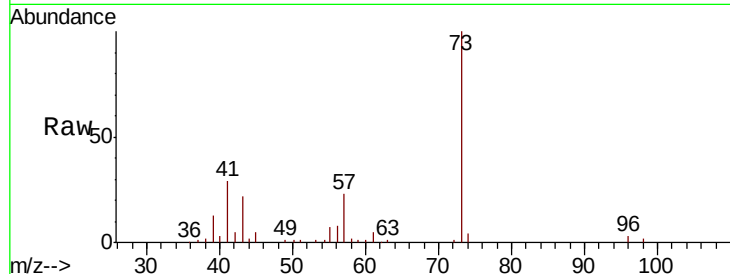




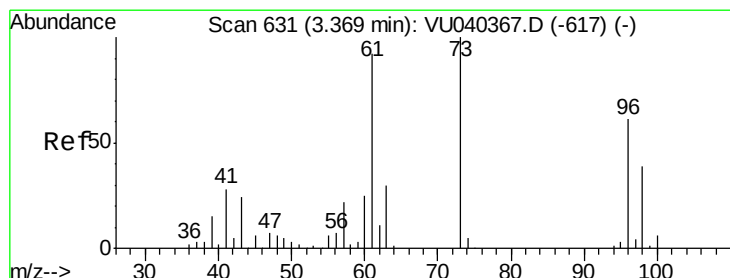
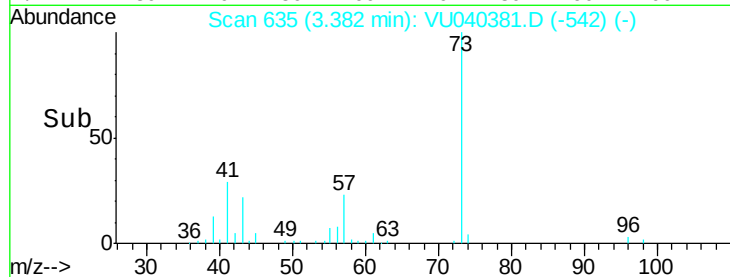
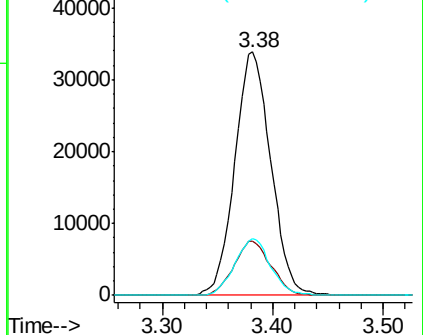
#17  
Methyl tert-butyl Ether  
Concen: 2.972 ug/L  
RT: 3.38 min Scan# 635  
Delta R.T. -0.00 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

Instrument :  
MSVOA\_U  
ClientSampleID :  
BG0F3

Tot Ion: 73 Resp: 76746  
Ion Ratio Lower Upper  
73 100  
43 22.8 19.0 28.4  
57 23.0 18.9 28.3

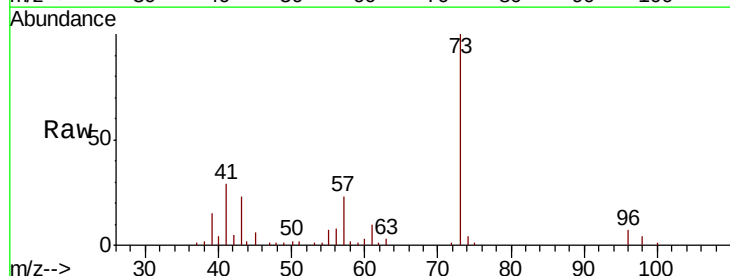


Abundance Ion 73.10 (72.80 to 73.80): VU0  
Ion 43.05 (42.75 to 43.75): VU0  
Ion 57.10 (56.80 to 57.80): VU0

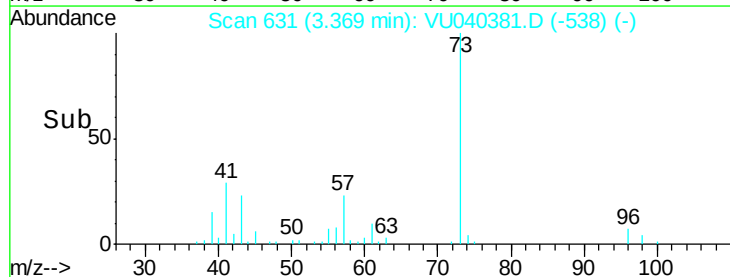
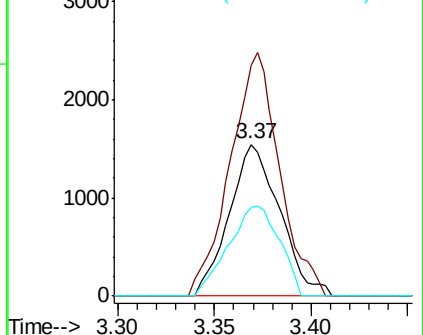


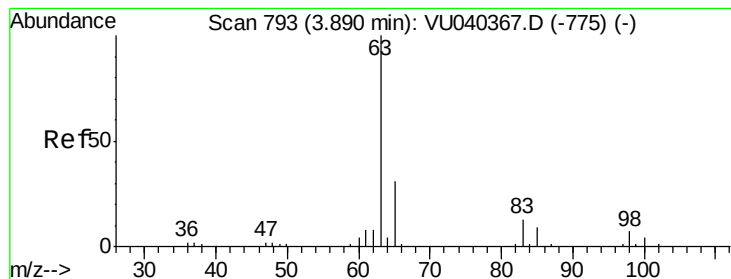
#18  
trans-1,2-Dichloroethene  
Concen: 0.289 ug/L  
RT: 3.37 min Scan# 631  
Delta R.T. -0.00 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

Tgt Ion: 96 Resp: 2803  
Ion Ratio Lower Upper  
96 100  
61 152.3 109.3 203.1  
98 58.4 45.8 85.0



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 97.95 (97.65 to 98.65): VU0





#19

1,1-Dichloroethane

Concen: 0.121 ug/L

RT: 3.89 min Scan# 794

Delta R.T. 0.00 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Instrument :

MSVOA\_U

ClientSampled :

BG0F3

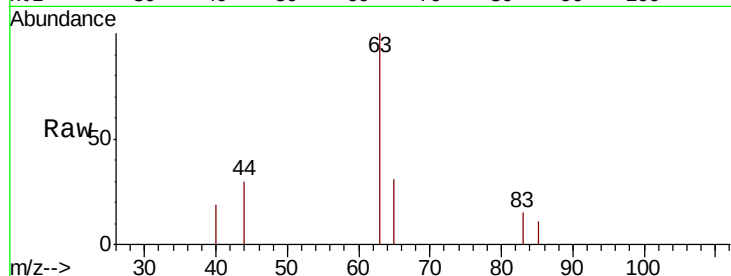
Tot Ion: 63 Resp: 2407

Ion Ratio Lower Upper

63 100

65 31.3 21.7 40.3

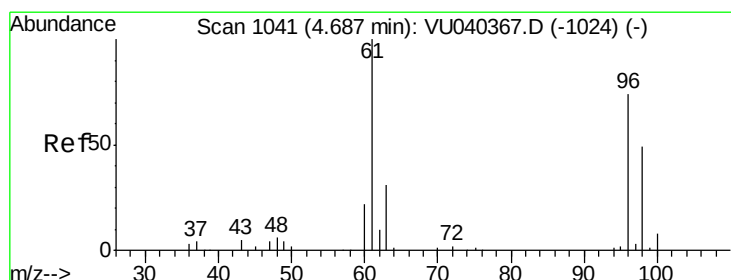
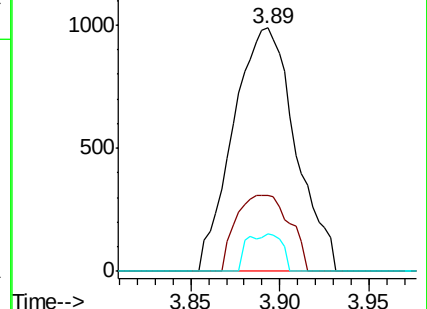
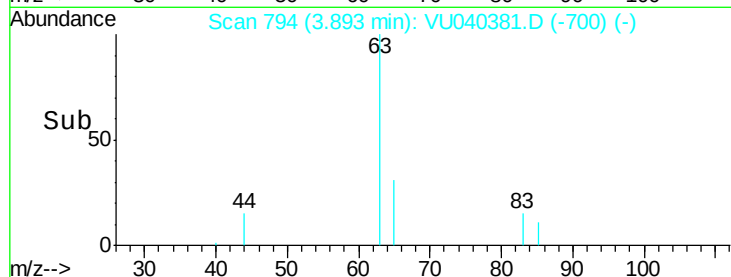
83 15.3 9.1 16.9



Abundance Ion 63.10 (62.80 to 63.80): VU040381.D (-700) (-)

Ion 65.10 (64.80 to 65.80): VU040381.D (-700) (-)

Ion 83.05 (82.75 to 83.75): VU040381.D (-700) (-)



#22

cis-1,2-Dichloroethene

Concen: 0.277 ug/L

RT: 4.68 min Scan# 1040

Delta R.T. -0.00 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

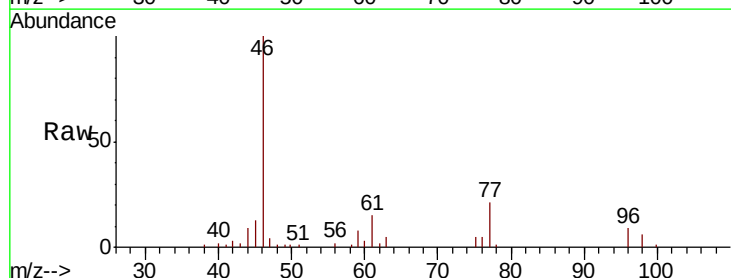
Tgt Ion: 96 Resp: 2969

Ion Ratio Lower Upper

96 100

61 172.4 99.3 184.5

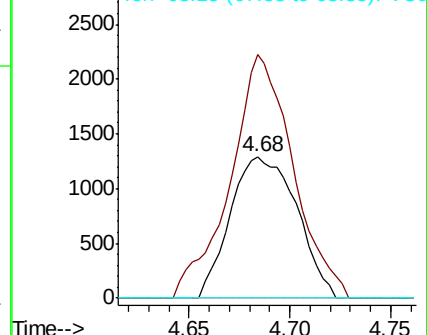
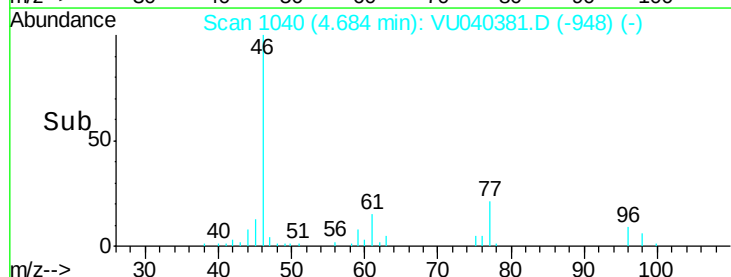
68 0.0 0.0 0.0

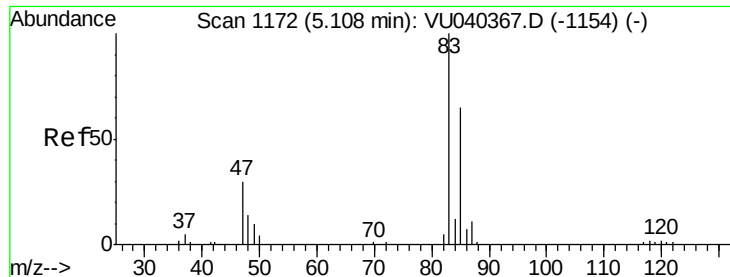


Abundance Ion 96.00 (95.70 to 96.70): VU040381.D (-948) (-)

Ion 61.05 (60.75 to 61.75): VU040381.D (-948) (-)

Ion 68.15 (67.85 to 68.85): VU040381.D (-948) (-)

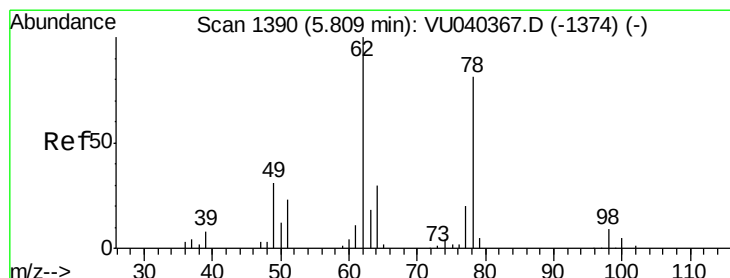
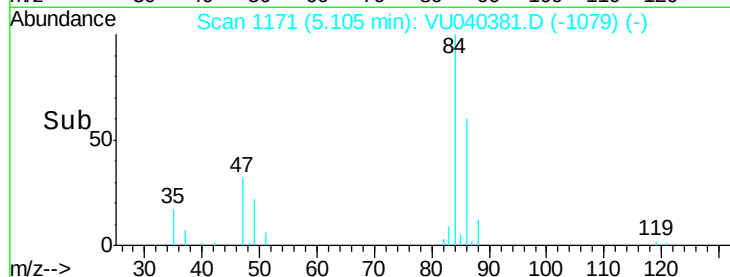
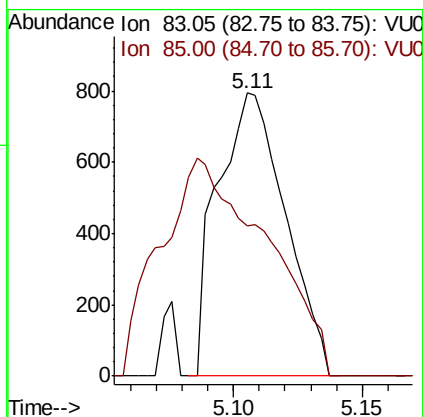
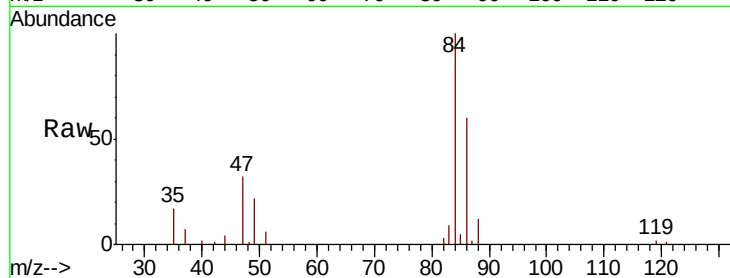




#25  
Chloroform  
Concen: 0.072 ug/L  
RT: 5.11 min Scan# 1171  
Delta R.T. -0.00 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

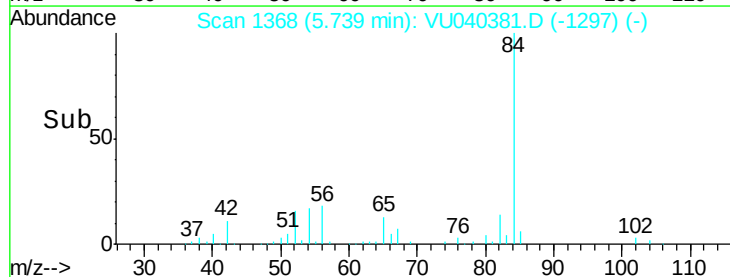
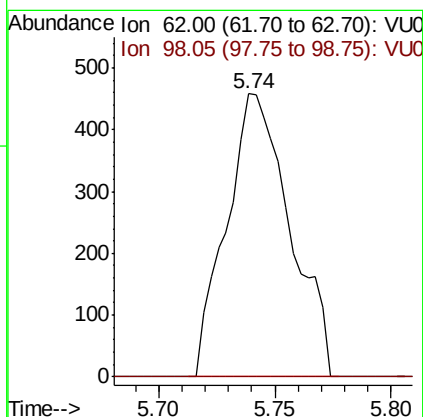
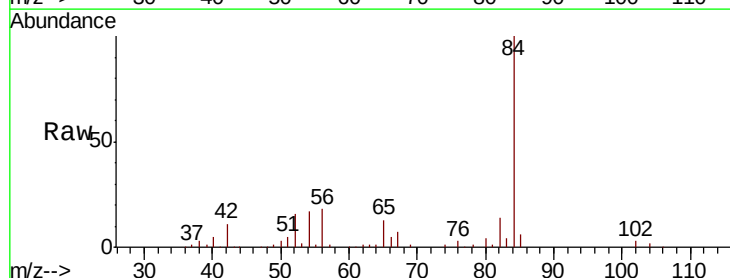
Instrument :  
MSVOA\_U  
ClientSampleID :  
BG0F3

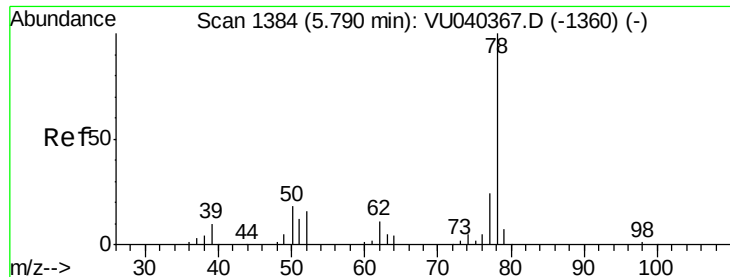
Tot Ion: 83 Resp: 1458  
Ion Ratio Lower Upper  
83 100  
85 53.3 44.6 82.8



#27  
1,2-Dichloroethane  
Concen: 0.062 ug/L  
RT: 5.74 min Scan# 1368  
Delta R.T. -0.07 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

Tgt Ion: 62 Resp: 873  
Ion Ratio Lower Upper  
62 100  
98 0.0 7.5 11.3#





#33

Benzene

Concen: 0.023 ug/L

RT: 5.78 min Scan# 1382

Delta R.T. -0.01 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

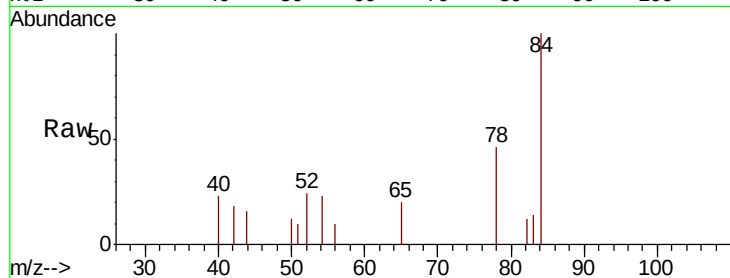
Instrument :

MSVOA\_U

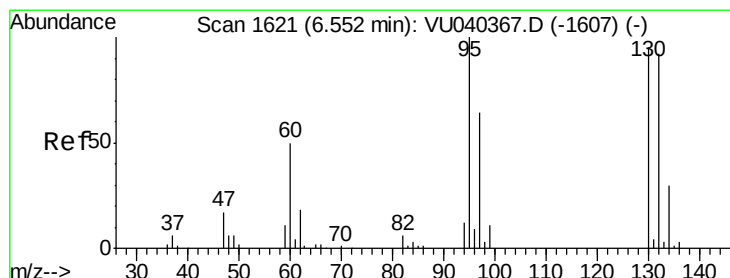
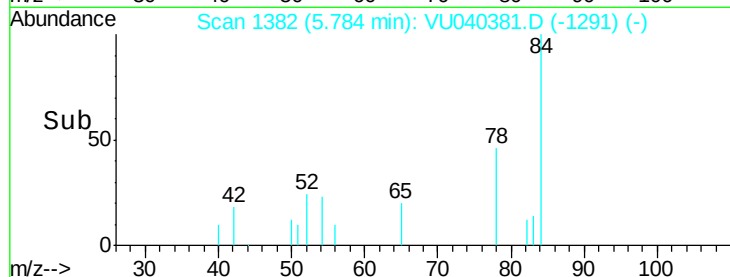
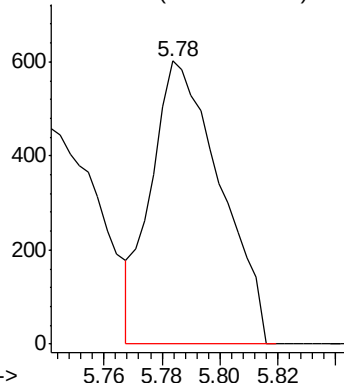
ClientSampled :

BG0F3

Tgt Ion: 78 Resp: 995



Abundance Ion 78.10 (77.80 to 78.80): VU0



#34

Trichloroethene

Concen: 0.191 ug/L

RT: 6.26 min Scan# 1531

Delta R.T. -0.29 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Tgt Ion: 95 Resp: 2145

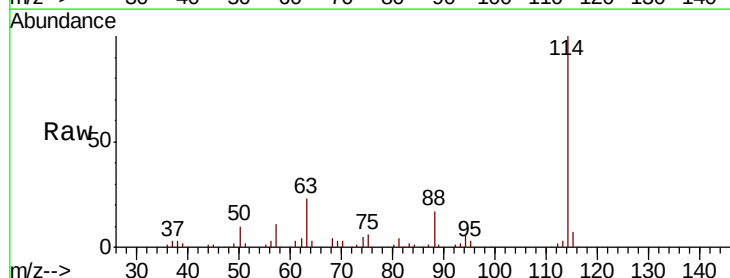
Ion Ratio Lower Upper

95 100

97 0.0 46.3 85.9#

132 0.0 60.5 112.3#

130 0.0 64.3 119.3#

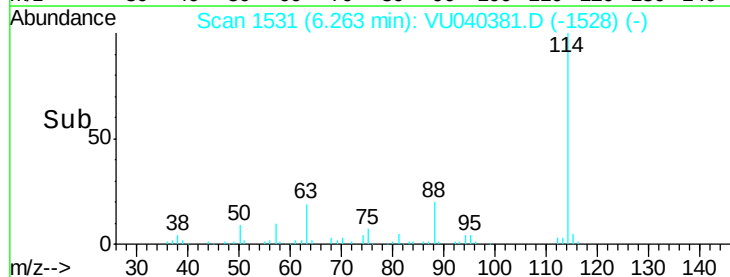
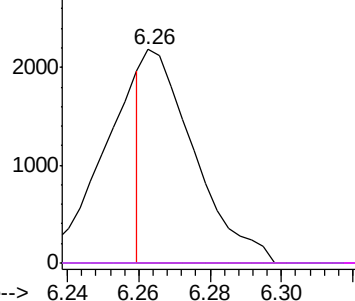


Abundance Ion 95.00 (94.70 to 95.70): VU0

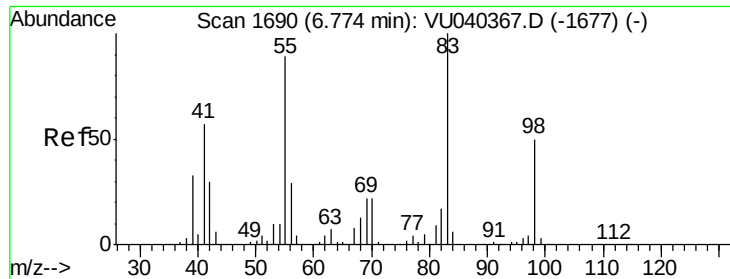
Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): VU0

Ion 129.95 (129.65 to 130.65): VU0



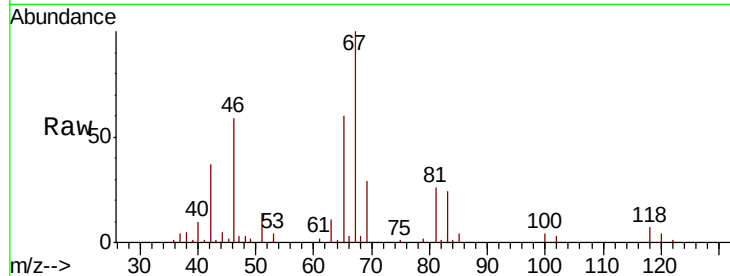




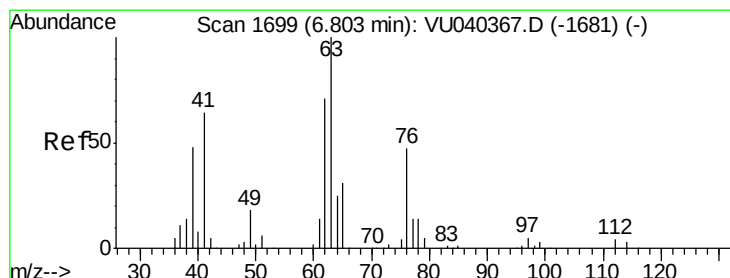
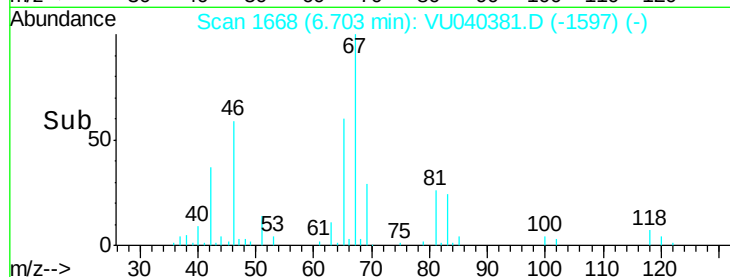
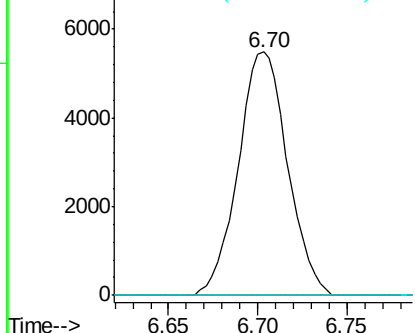
#35  
Methylvlcyclohexane  
Concen: 0.641 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.07 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG0F3

Tot Ion: 83 Resp: 10576  
Ion Ratio Lower Upper  
83 100  
55 0.0 71.4 107.2#  
98 0.2 38.5 57.7#

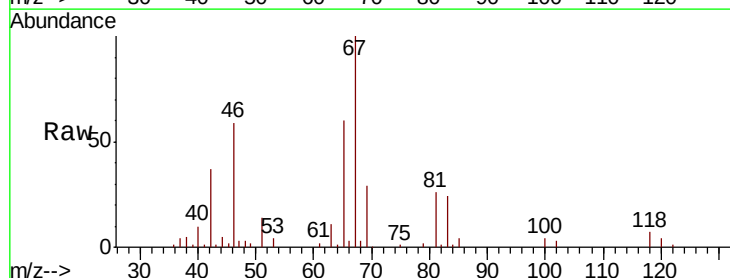


Abundance Ion 83.15 (82.85 to 83.85): VU0  
Ion 55.10 (54.80 to 55.80): VU0  
Ion 98.15 (97.85 to 98.85): VU0

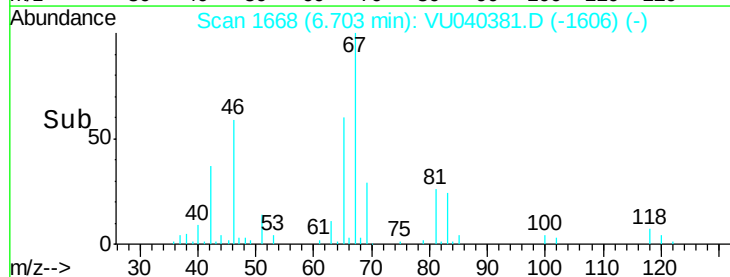
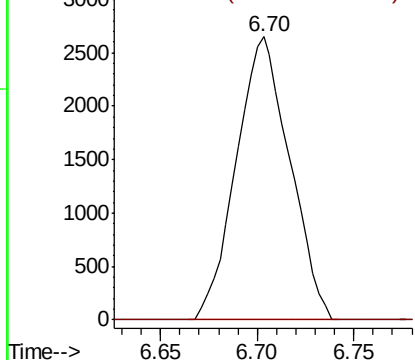


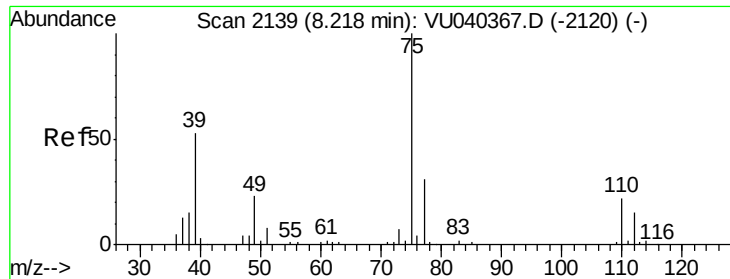
#37  
1,2-Dichloropropane  
Concen: 0.432 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.10 min  
Lab File: VU040381.D  
Acq: 30 Sep 2020 00:21

Tgt Ion: 63 Resp: 5102  
Ion Ratio Lower Upper  
63 100  
112 0.0 3.2 4.8#



Abundance Ion 63.10 (62.80 to 63.80): VU0  
Ion 112.10 (111.80 to 112.80): V





#44

trans-1,3-Dichloropropene

Concen: 0.055 ug/L

RT: 8.19 min Scan# 2129

Delta R.T. -0.03 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Instrument :

MSVOA\_U

ClientSampled :

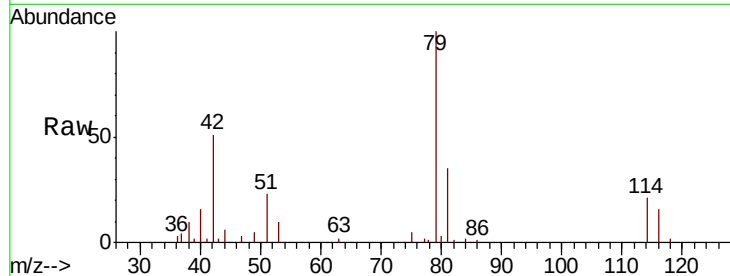
BG0F3

Tot Ion: 75 Resp: 802

Ion Ratio Lower Upper

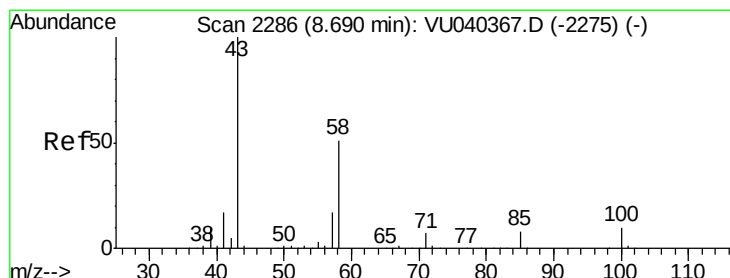
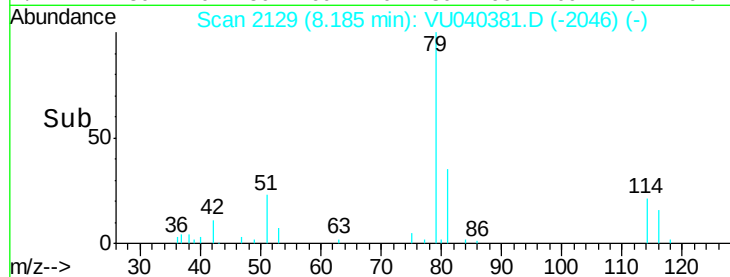
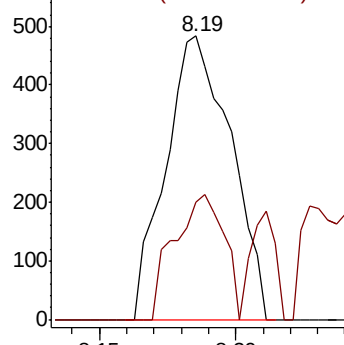
75 100

77 41.4 22.3 41.3#



Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 77.05 (76.75 to 77.75): VU0



#48

2-Hexanone

Concen: 2.141 ug/L

RT: 8.64 min Scan# 2270

Delta R.T. -0.05 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Tgt Ion: 43 Resp: 14581

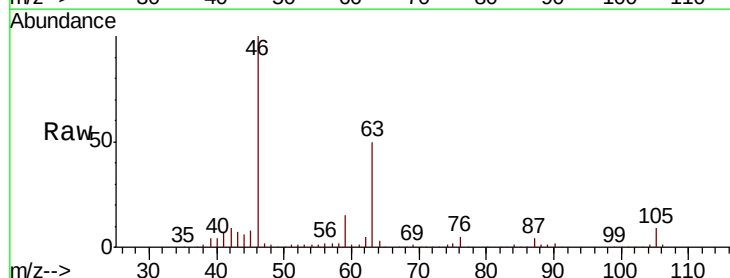
Ion Ratio Lower Upper

43 100

58 35.3 41.0 61.4#

57 35.2 14.6 22.0#

100 2.0 8.2 12.4#

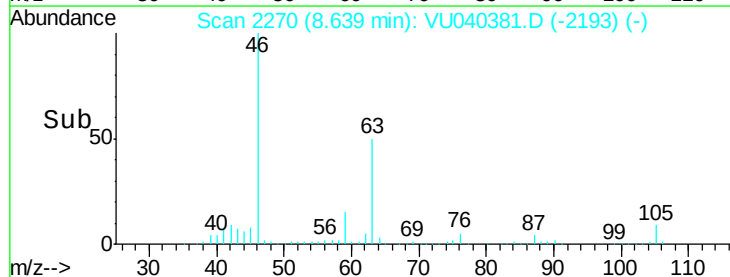
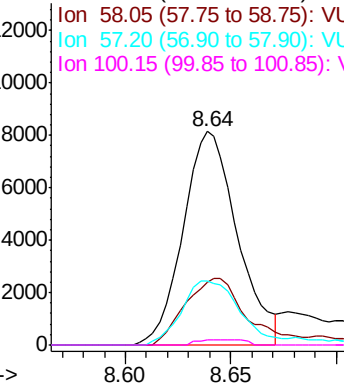


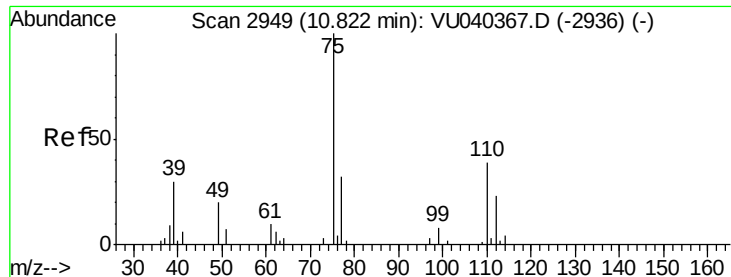
Abundance Ion 43.05 (42.75 to 43.75): VU0

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





#59

1,2,3-Trichloropropane

Concen: 0.905 ug/L

RT: 11.81 min Scan# 3255

Delta R.T. 0.98 min

Lab File: VU040381.D

Acq: 30 Sep 2020 00:21

Instrument :

MSVOA\_U

ClientSampleId :

BG0F3

Tot Ion: 75 Resp: 7744

Ion Ratio Lower Upper

75 100

77 34.2 25.7 38.5

