

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U103020\  
 Data File : VU041027.D  
 Acq On : 29 Oct 2020 20:36  
 Operator : SY/MD  
 Sample : L4558-09  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C0BQ2

Quant Time: Oct 30 08:15:31 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR102620WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Fri Oct 30 08:06:28 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 49828    | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 52146    | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 20838    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 15282    | 3.65     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 73.00%  |
| 7) Chloroethane-d5             | 1.92   | 69    | 12817    | 3.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 79.60%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 24041    | 2.93     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 58.60%# |
| 20) 2-Butanone-d5              | 4.66   | 46    | 80053    | 58.07    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 116.14% |
| 24) Chloroform-d               | 5.08   | 84    | 33747    | 4.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 91.20%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 22800    | 4.97     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 99.40%  |
| 32) Benzene-d6                 | 5.74   | 84    | 58617    | 4.20     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 84.00%  |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 21702    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 95.60%  |
| 41) Toluene-d8                 | 7.91   | 98    | 45895    | 3.63     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 72.60%  |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 8075     | 4.10     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 82.00%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 54527    | 51.45    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 102.90% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 20575    | 4.88     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 97.60%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 18859    | 5.16     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 103.20% |

## Target Compounds

|                                |      |     |       |              | Ovalue |
|--------------------------------|------|-----|-------|--------------|--------|
| 3) Chloromethane               | 1.53 | 50  | 590   | 0.124 ug/L # | 76     |
| 9) Trichlorofluoromethane      | 2.15 | 101 | 33781 | 5.311 ug/L   | 96     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.59 | 101 | 182   | 0.049 ug/L # | 22     |
| 12) 1,1-Dichloroethene         | 2.59 | 96  | 638   | 0.181 ug/L # | 1      |
| 13) Acetone                    | 2.68 | 43  | 1080  | 1.146 ug/L # | 49     |
| 25) Chloroform                 | 5.11 | 83  | 2398  | 0.334 ug/L   | 85     |
| 27) 1,2-Dichloroethane         | 5.75 | 62  | 281   | 0.053 ug/L # | 74     |
| 31) Carbon tetrachloride       | 5.54 | 117 | 687   | 0.122 ug/L   | 88     |
| 33) Benzene                    | 5.74 | 78  | 380   | 0.024 ug/L   | 100    |
| 34) Trichloroethene            | 6.55 | 95  | 4108  | 1.036 ug/L   | 95     |
| 35) Methylcyclohexane          | 6.70 | 83  | 4903  | 0.829 ug/L # | 13     |
| 37) 1,2-Dichloropropane        | 6.70 | 63  | 2546  | 0.604 ug/L # | 86     |
| 39) cis-1,3-Dichloropropene    | 7.57 | 75  | 565   | 0.097 ug/L   | 86     |
| 44) trans-1,3-Dichloropropene  | 8.19 | 75  | 405   | 0.075 ug/L # | 78     |
| 45) 1,1,2-Trichloroethane      | 8.56 | 97  | 169   | 0.054 ug/L # | 1      |
| 47) Tetrachloroethene          | 8.56 | 164 | 28459 | 9.761 ug/L   | 99     |
| 48) 2-Hexanone                 | 8.64 | 43  | 7879  | 3.113 ug/L # | 68     |

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Sample : L4558-09  
Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
C0BQ2

Quant Time: Oct 30 08:15:31 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR102620WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Oct 30 08:06:28 2020  
Response via : Initial Calibration

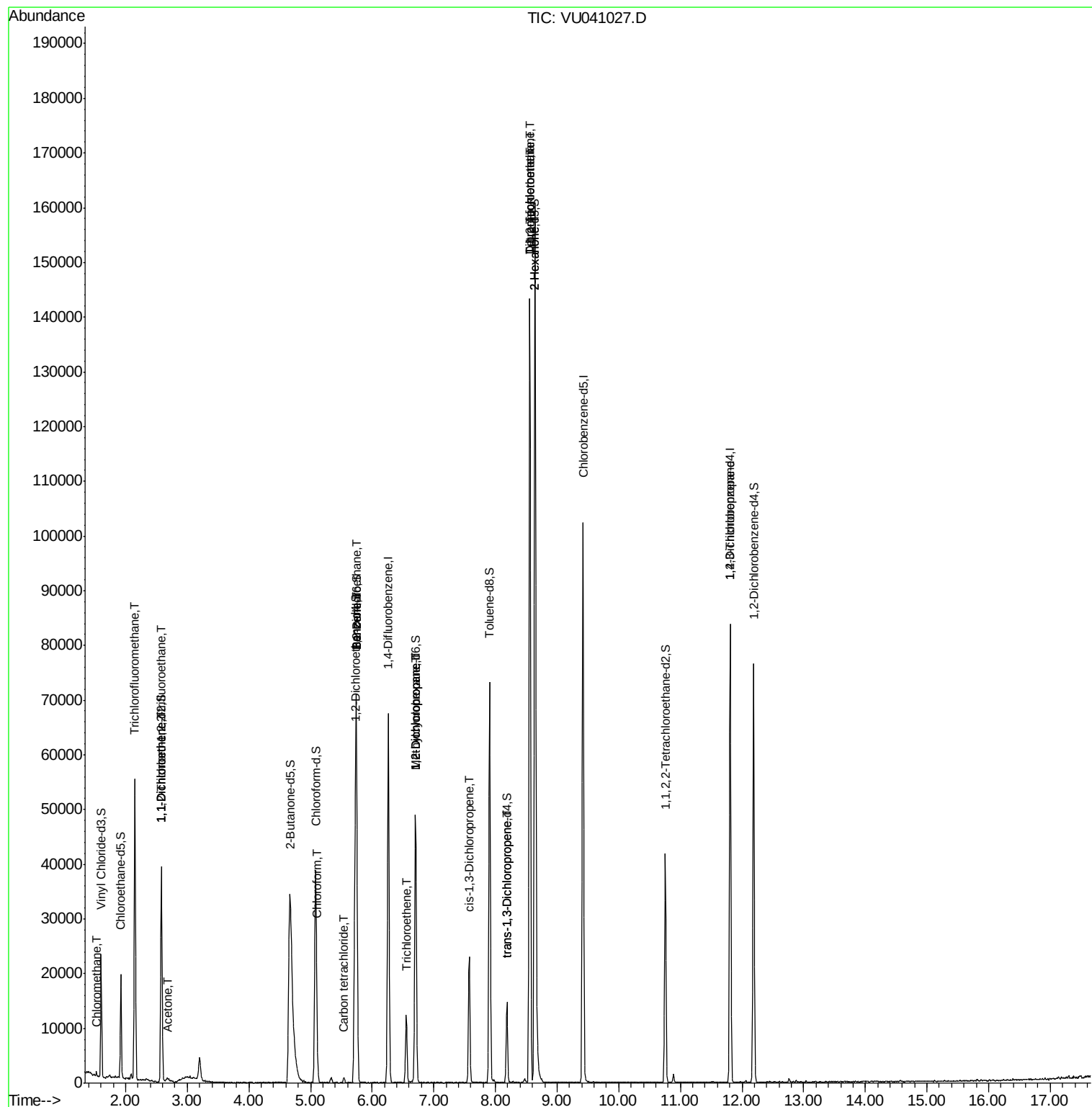
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 49) Dibromochloromethane   | 8.56  | 129  | 29556    | 8.109 | ug/L # | 11       |
| 59) 1,2,3-Trichloropropane | 11.81 | 75   | 2999     | 0.954 | ug/L   | 98       |

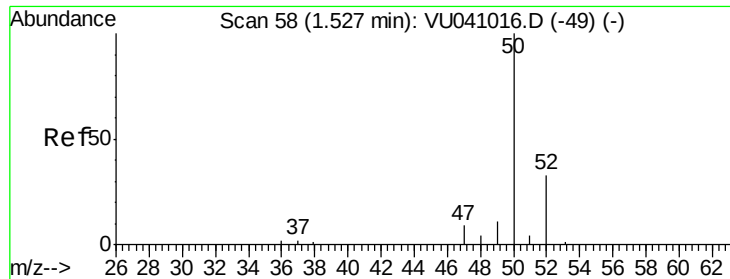
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Oct 30 08:06:28 2020  
Response via : Initial Calibration





#3

Chloromethane

Concen: 0.124 ug/L

RT: 1.53 min Scan# 58

Delta R.T. -0.00 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

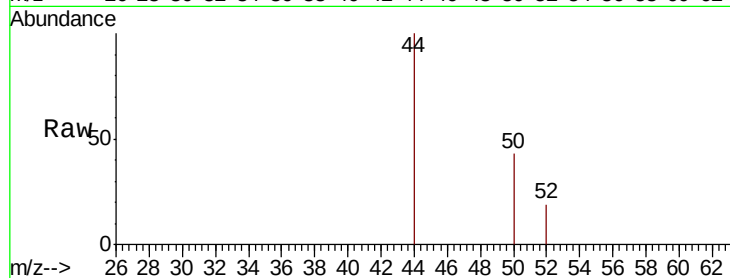
C0BQ2

Tot Ion: 50 Resp: 590

Ion Ratio Lower Upper

50 100

52 45.6 22.4 41.6#



Abundance Ion 50.05 (49.75 to 50.75): VU041027.D (-159) (-)

Ion 52.05 (51.75 to 52.75): VU041027.D (-159) (-)

1.53

600

500

400

300

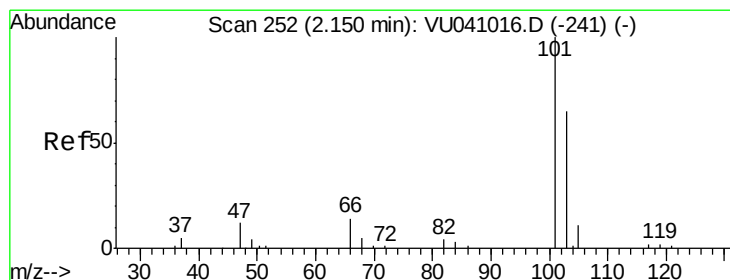
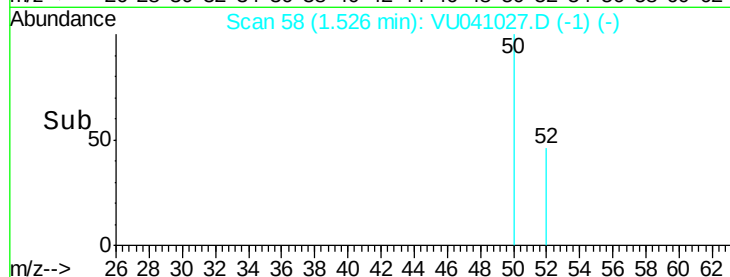
200

100

0

1.50 1.52 1.54

Time-->



#9

Trichlorofluoromethane

Concen: 5.311 ug/L

RT: 2.15 min Scan# 252

Delta R.T. -0.00 min

Lab File: VU041027.D

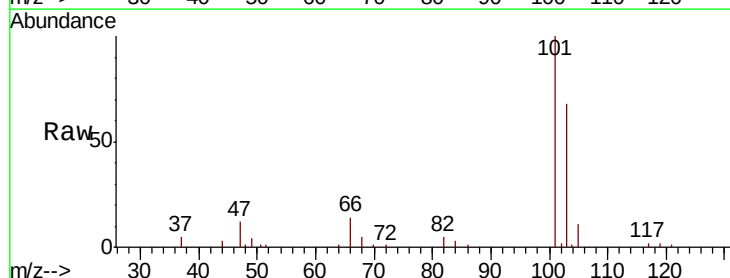
Acq: 29 Oct 2020 20:36

Tgt Ion:101 Resp: 33781

Ion Ratio Lower Upper

101 100

103 66.8 51.0 76.4



Abundance Ion 101.00 (100.70 to 101.70): VU041027.D (-159) (-)

Ion 103.00 (102.70 to 103.70): VU041027.D (-159) (-)

2.15

25000

20000

15000

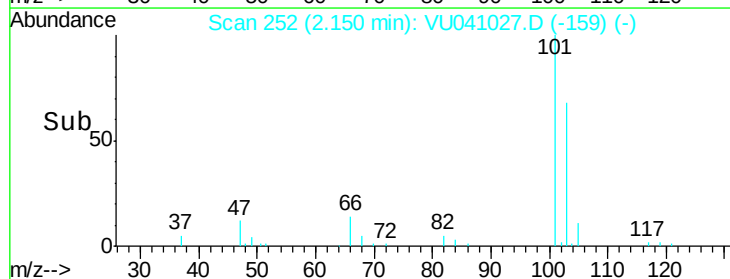
10000

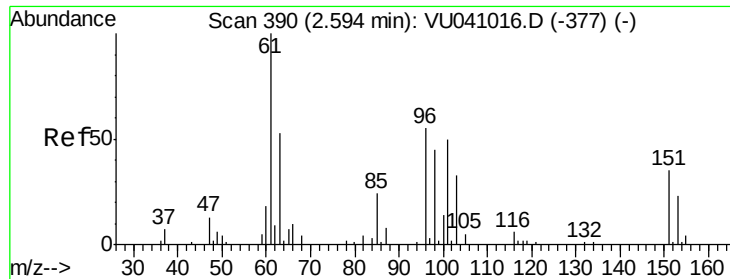
5000

0

2.10 2.15 2.20

Time-->





#10

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

Concen: 0.049 ug/L

RT: 2.59 min Scan# 388

Delta R.T. -0.01 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

C0BQ2

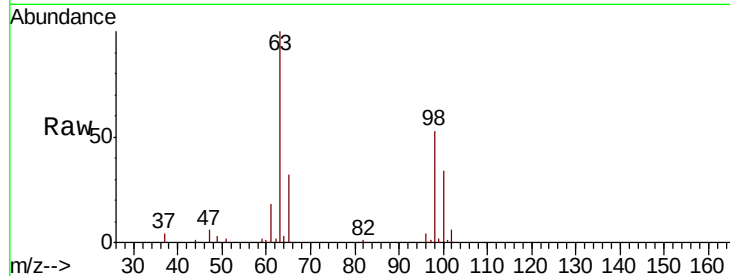
Tot Ion:101 Resp: 182

Ion Ratio Lower Upper

101 100

85 0.0 35.0 52.4#

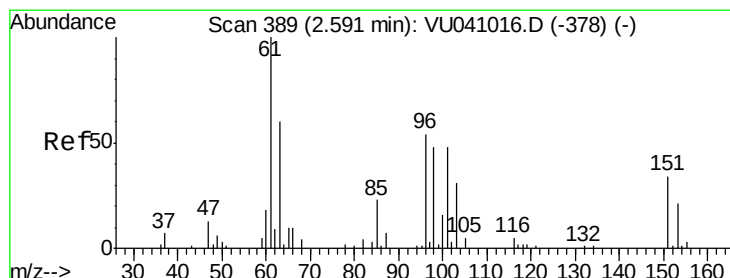
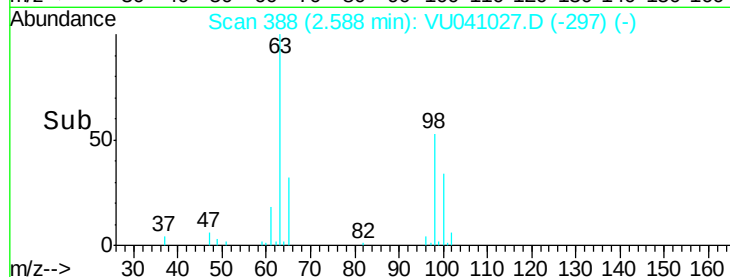
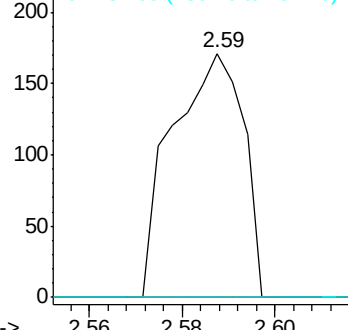
151 0.0 55.3 82.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 0.181 ug/L

RT: 2.59 min Scan# 389

Delta R.T. -0.00 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

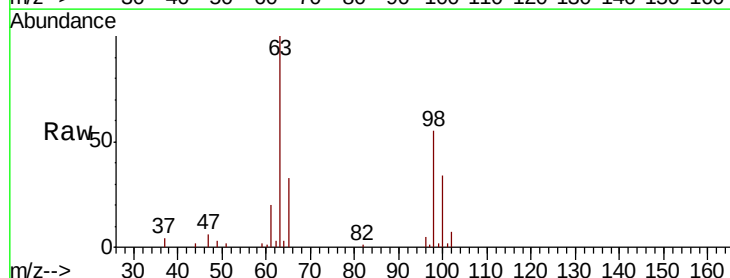
Tgt Ion: 96 Resp: 638

Ion Ratio Lower Upper

96 100

61 413.0 134.3 249.5#

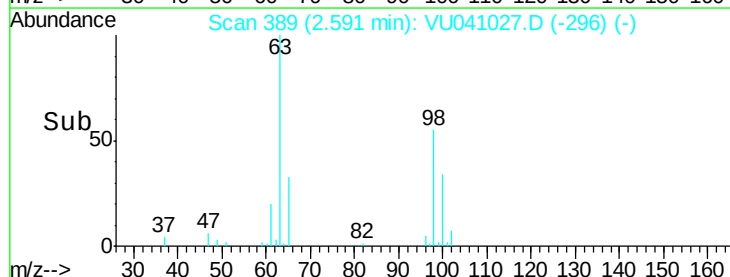
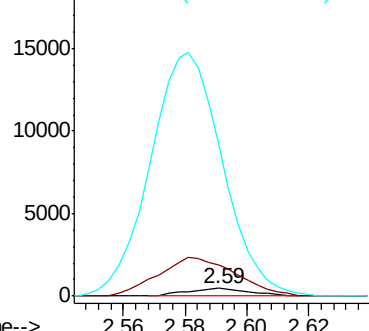
63 2027.8 95.0 176.4#

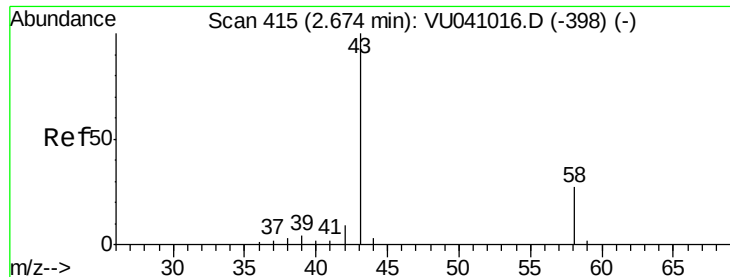


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 1.146 ug/L

RT: 2.68 min Scan# 416

Delta R.T. 0.00 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

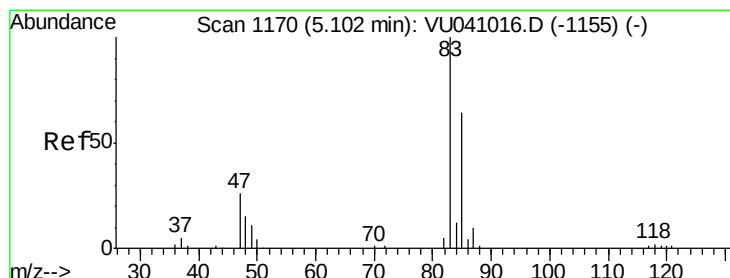
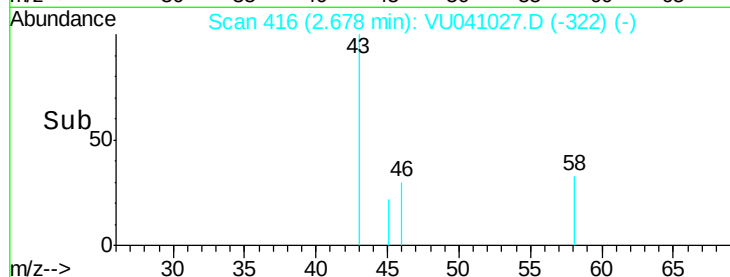
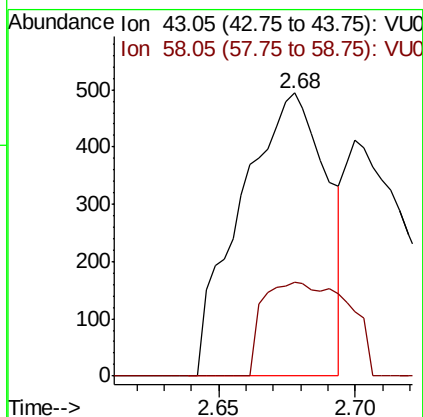
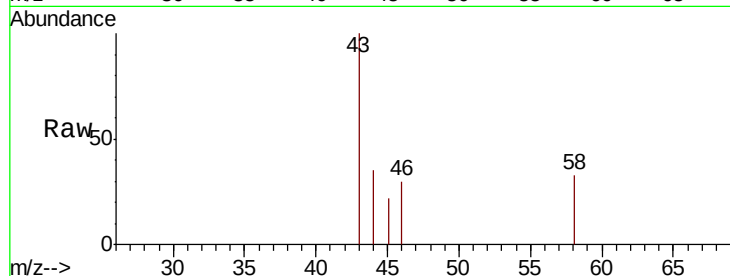
C0BQ2

Tot Ion: 43 Resp: 1080

Ion Ratio Lower Upper

43 100

58 33.0 0.0 25.4#



#25

Chloroform

Concen: 0.334 ug/L

RT: 5.11 min Scan# 1172

Delta R.T. 0.01 min

Lab File: VU041027.D

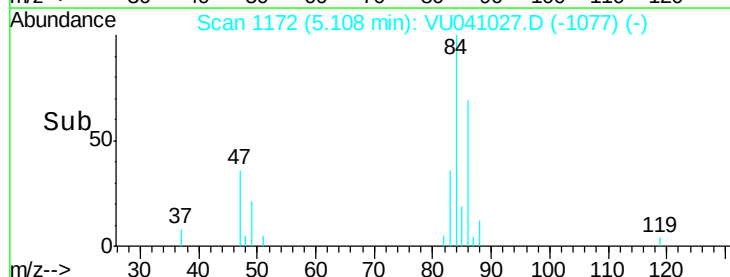
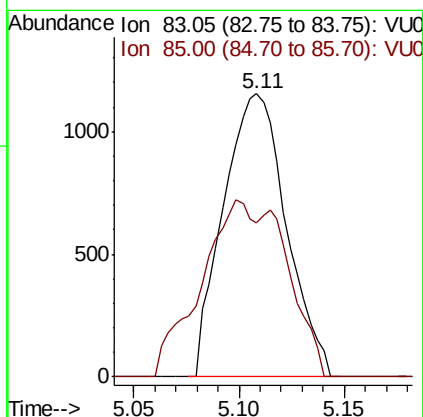
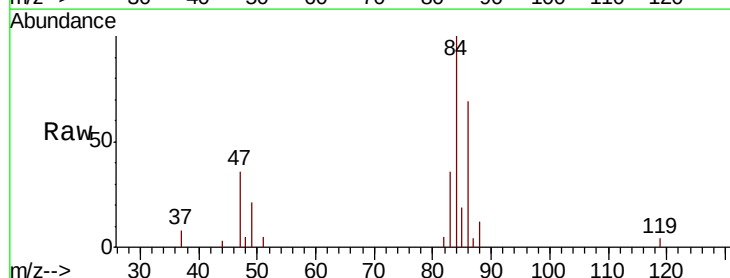
Acq: 29 Oct 2020 20:36

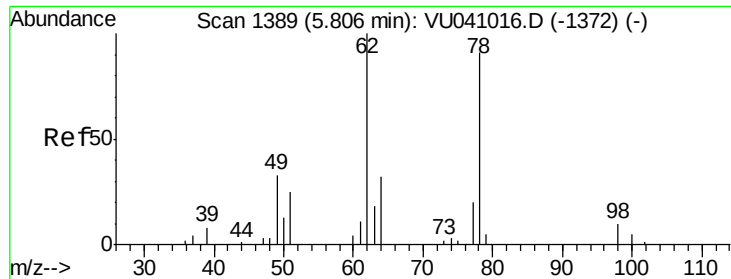
Tgt Ion: 83 Resp: 2398

Ion Ratio Lower Upper

83 100

85 54.3 46.1 85.7

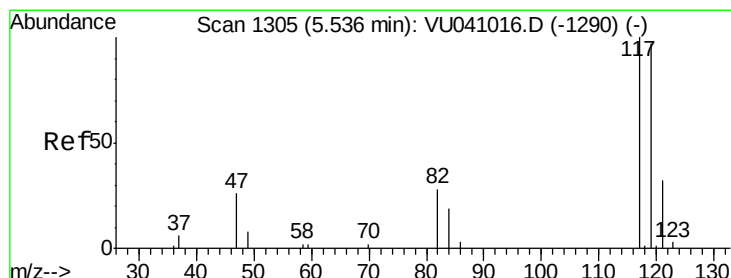
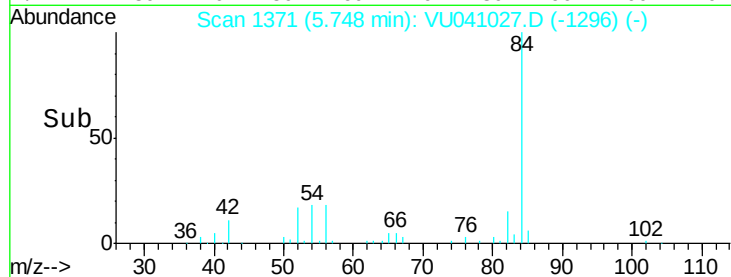
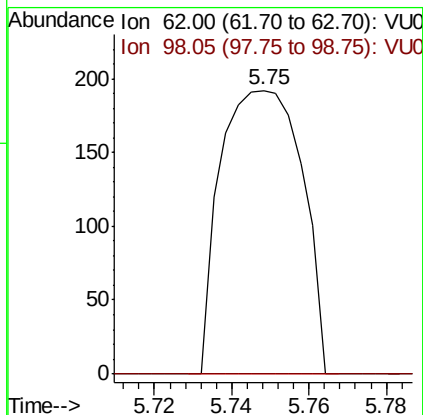
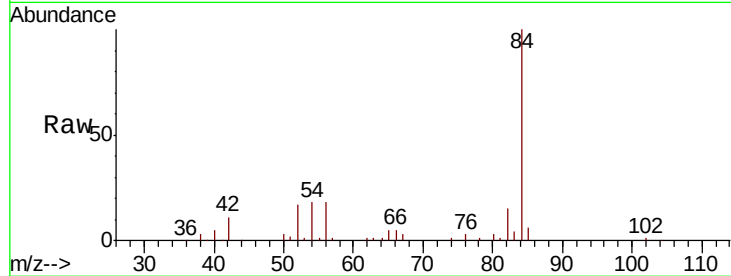




#27  
 1,2-Dichloroethane  
 Concen: 0.053 ug/L  
 RT: 5.75 min Scan# 1371  
 Delta R.T. -0.06 min  
 Lab File: VU041027.D  
 Acq: 29 Oct 2020 20:36

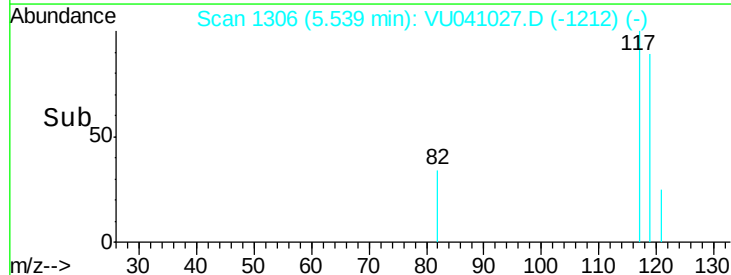
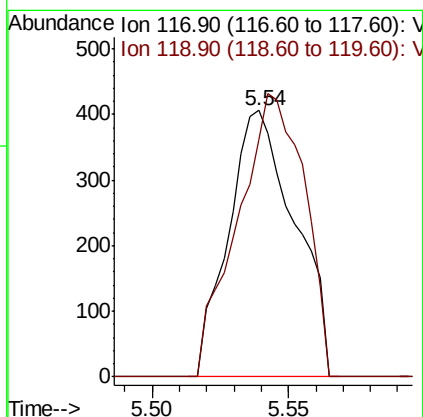
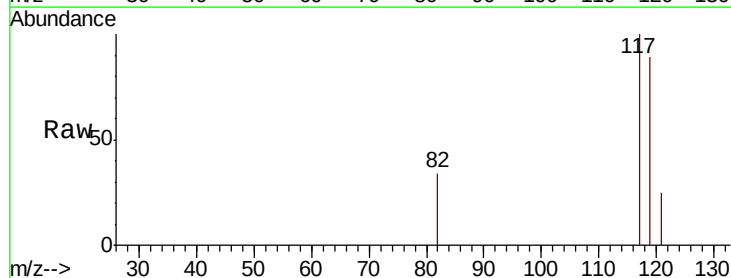
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C0BQ2

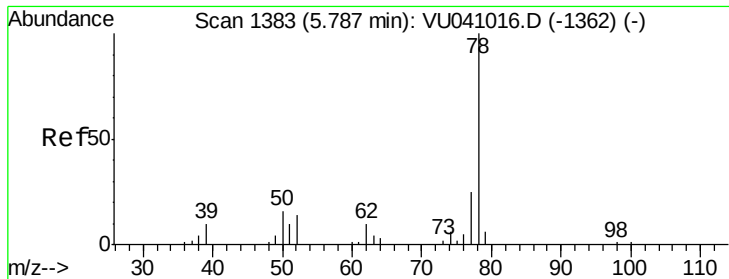
Tot Ion: 62.00 Resp: 281  
 Ion Ratio Lower Upper  
 62 100  
 98 0.0 7.6 11.4#



#31  
 Carbon tetrachloride  
 Concen: 0.122 ug/L  
 RT: 5.54 min Scan# 1306  
 Delta R.T. 0.00 min  
 Lab File: VU041027.D  
 Acq: 29 Oct 2020 20:36

Tgt Ion: 117 Resp: 687  
 Ion Ratio Lower Upper  
 117 100  
 119 107.1 76.1 114.1





#33

Benzene

Concen: 0.024 ug/L

RT: 5.74 min Scan# 1369

Delta R.T. -0.05 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

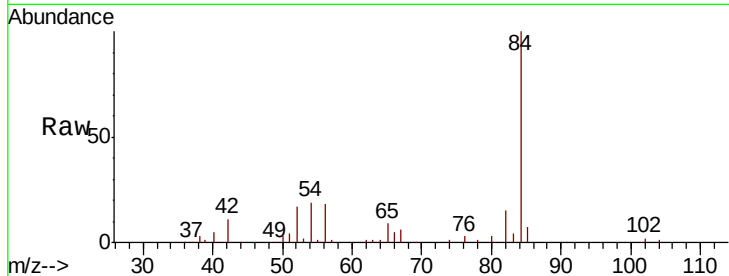
Instrument :

MSVOA\_U

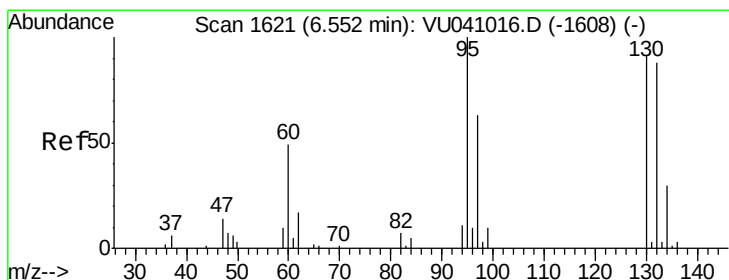
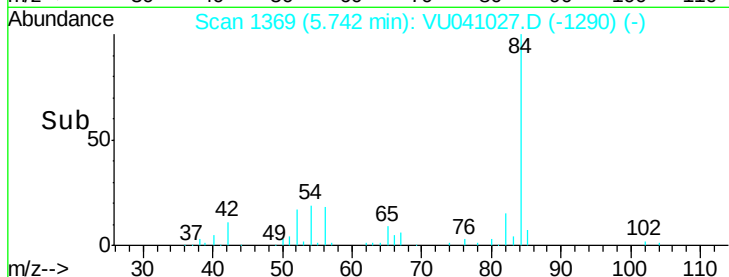
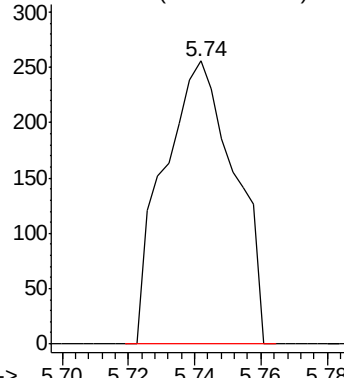
ClientSampled :

C0BQ2

Tgt Ion: 78 Resp: 380



Abundance Ion 78.10 (77.80 to 78.80): VU0



#34

Trichloroethene

Concen: 1.036 ug/L

RT: 6.55 min Scan# 1621

Delta R.T. -0.00 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Tgt Ion: 95 Resp: 4108

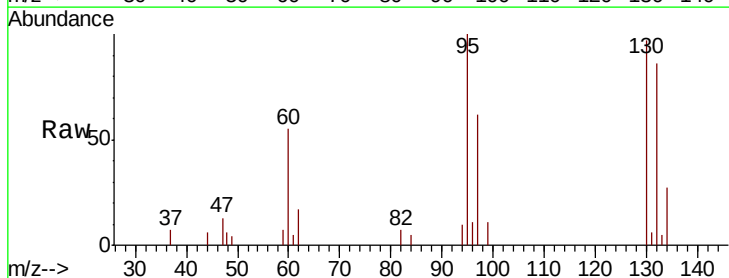
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 97  | 61.8  | 45.6  | 84.6  |
| 132 | 85.8  | 64.8  | 120.4 |
| 130 | 96.9  | 64.8  | 120.4 |

95 100

97 61.8 45.6 84.6

132 85.8 64.8 120.4

130 96.9 64.8 120.4

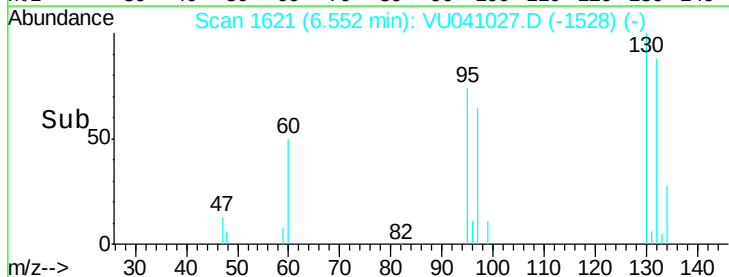
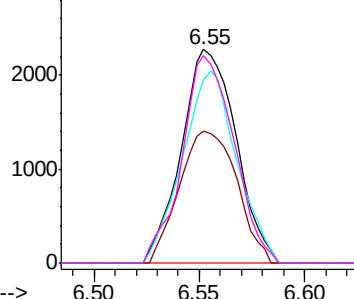


Abundance Ion 95.00 (94.70 to 95.70): VU0

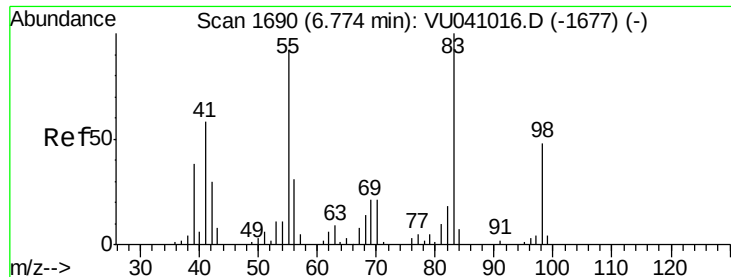
Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



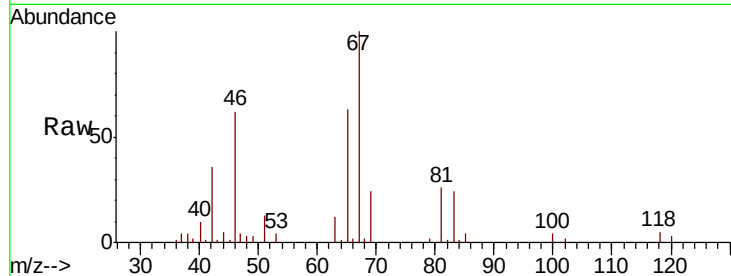




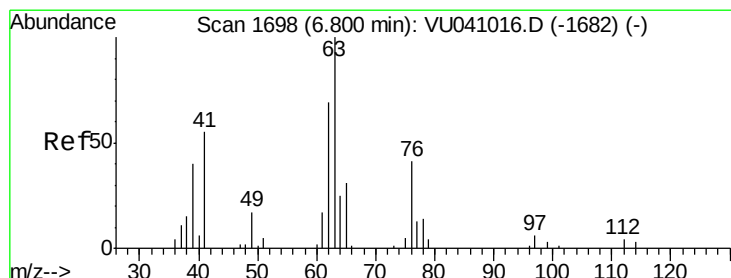
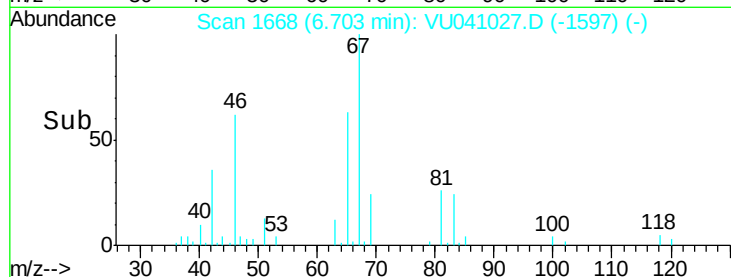
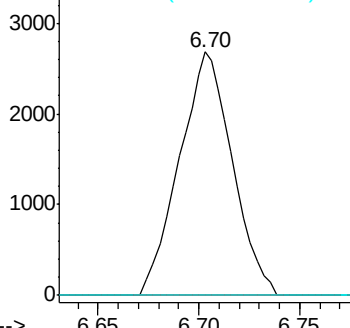
#35  
Methylvlcyclohexane  
Concen: 0.829 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.07 min  
Lab File: VU041027.D  
Acq: 29 Oct 2020 20:36

Instrument :  
MSVOA\_U  
ClientSampleId :  
C0BQ2

Tot Ion: 83 Resp: 4903  
Ion Ratio Lower Upper  
83 100  
55 0.0 72.0 108.0#  
98 0.0 36.6 55.0#

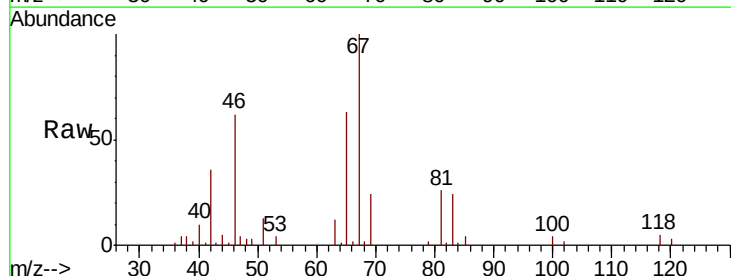


Abundance Ion 83.15 (82.85 to 83.85): VU0  
Ion 55.10 (54.80 to 55.80): VU0  
Ion 98.15 (97.85 to 98.85): VU0

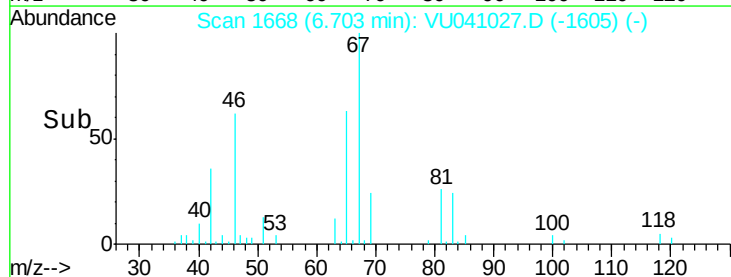
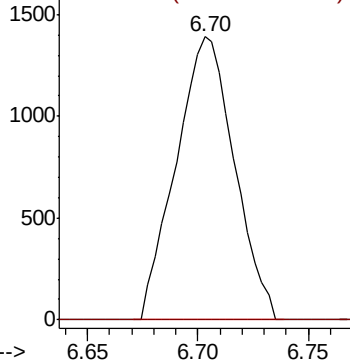


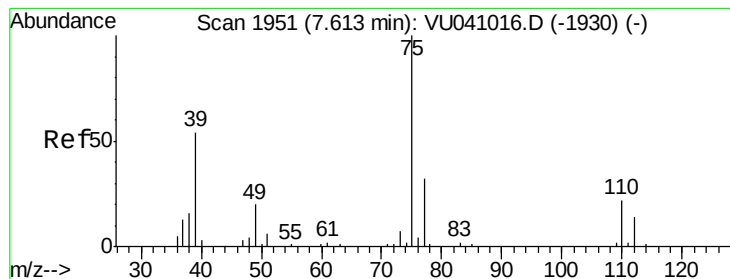
#37  
1,2-Dichloropropane  
Concen: 0.604 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.10 min  
Lab File: VU041027.D  
Acq: 29 Oct 2020 20:36

Tgt Ion: 63 Resp: 2546  
Ion Ratio Lower Upper  
63 100  
112 0.0 3.6 5.4#



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





#39

cis-1,3-Dichloropropene

Concen: 0.097 ug/L

RT: 7.57 min Scan# 1939

Delta R.T. -0.04 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

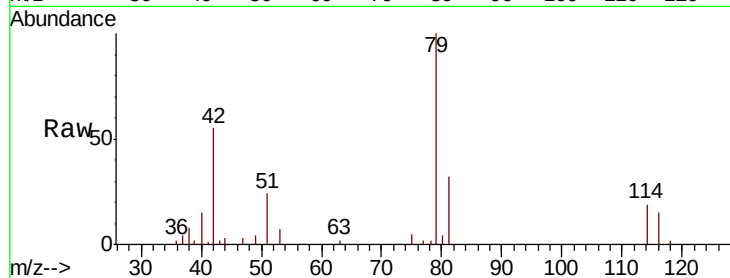
C0BQ2

Tot Ion: 75 Resp: 565

Ion Ratio Lower Upper

75 100

77 40.6 22.7 42.3



Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 77.05 (76.75 to 77.75): VU0

7.57

400

300

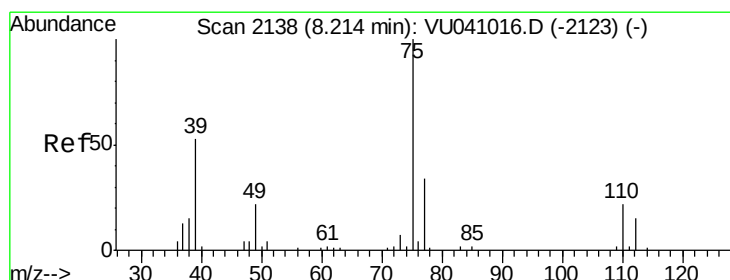
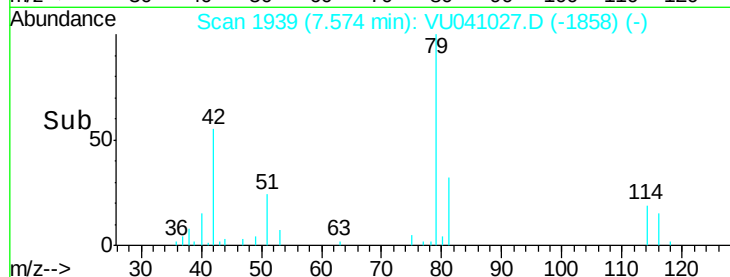
200

100

0

7.54 7.56 7.58 7.60

Time-->



#44

trans-1,3-Dichloropropene

Concen: 0.075 ug/L

RT: 8.19 min Scan# 2129

Delta R.T. -0.03 min

Lab File: VU041027.D

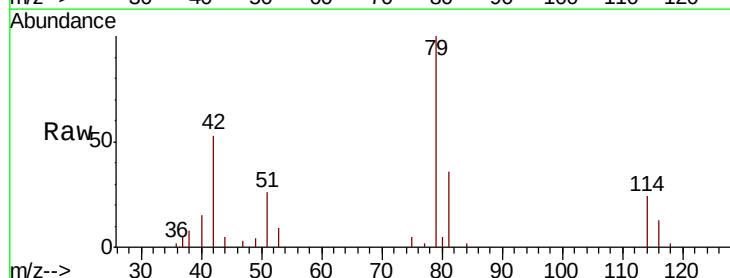
Acq: 29 Oct 2020 20:36

Tgt Ion: 75 Resp: 405

Ion Ratio Lower Upper

75 100

77 45.7 23.3 43.3#



Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 77.05 (76.75 to 77.75): VU0

8.19

250

200

150

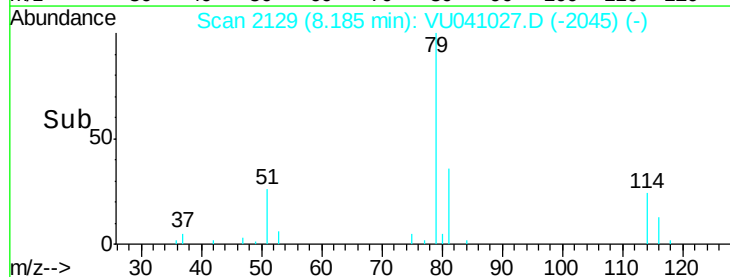
100

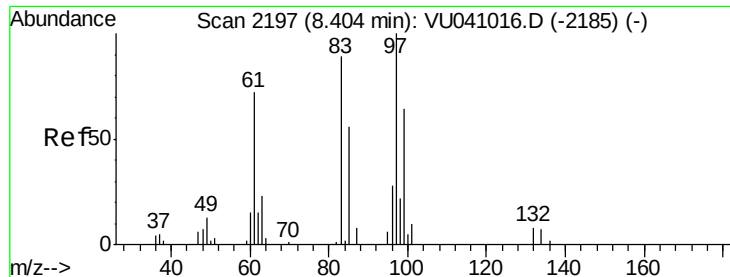
50

0

8.16 8.18 8.20 8.22

Time-->





#45

1,1,2-Trichloroethane

Concen: 0.054 ug/L

RT: 8.56 min Scan# 2247

Delta R.T. 0.16 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

C0BQ2

Tot Ion: 97 Resp: 169

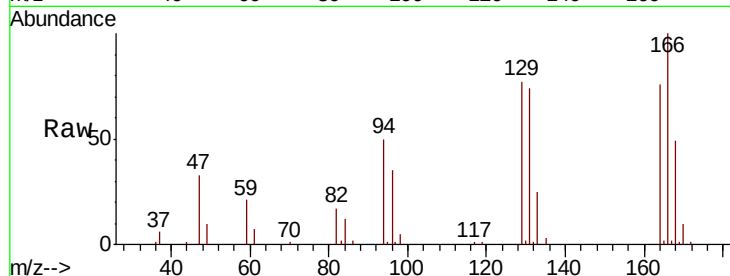
Ion Ratio Lower Upper

97 100

99 0.0 45.8 85.2#

83 243.5 67.9 126.1#

85 0.0 42.8 79.6#



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

800

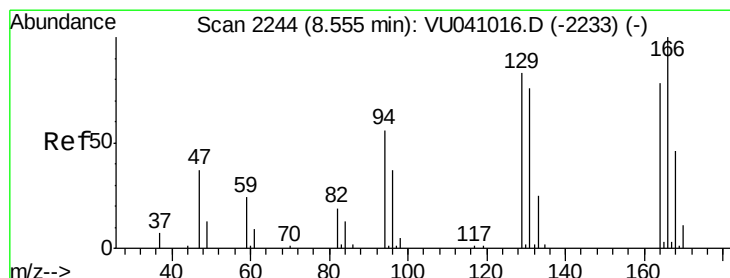
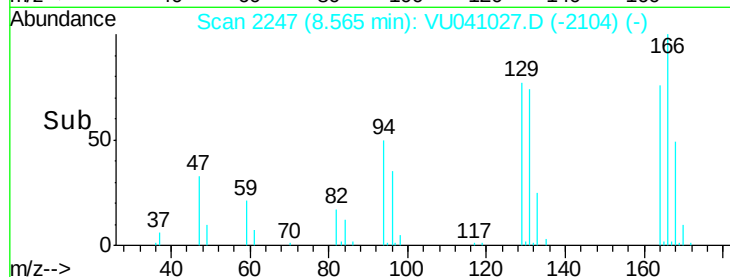
600

400

200

0

Time-->



#47

Tetrachloroethene

Concen: 9.761 ug/L

RT: 8.56 min Scan# 2245

Delta R.T. 0.00 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Tgt Ion: 164 Resp: 28459

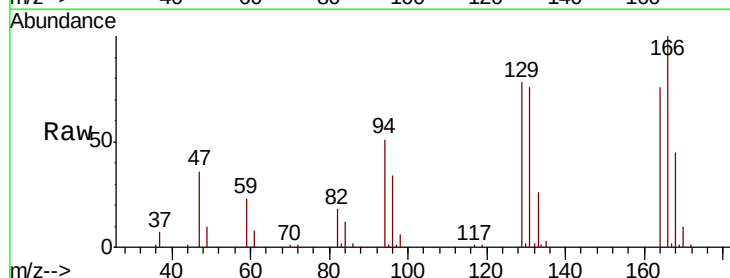
Ion Ratio Lower Upper

164 100

129 102.8 70.3 130.7

131 100.0 70.8 131.4

166 132.1 92.0 170.8



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

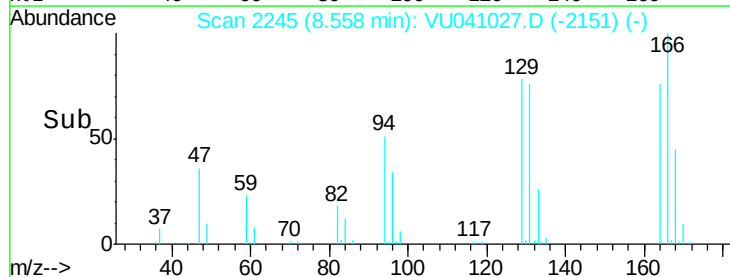
30000

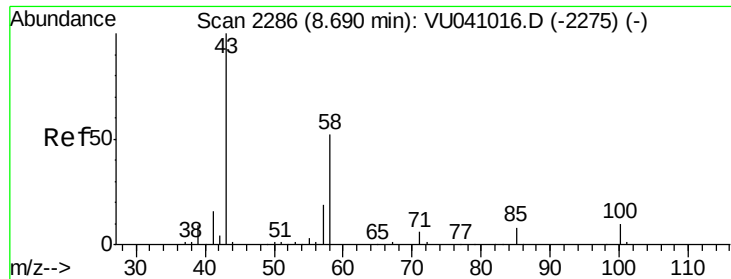
20000

10000

0

Time-->

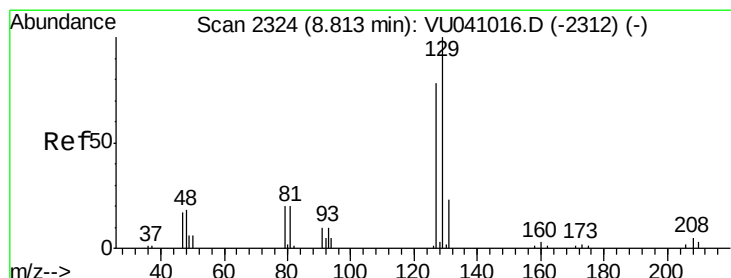
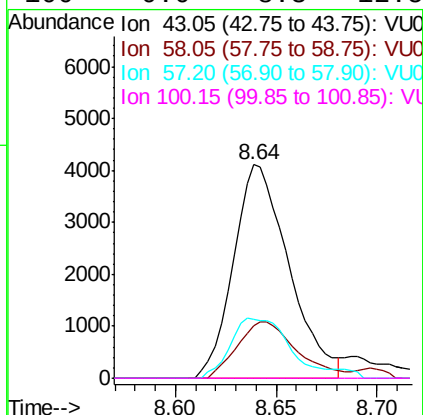
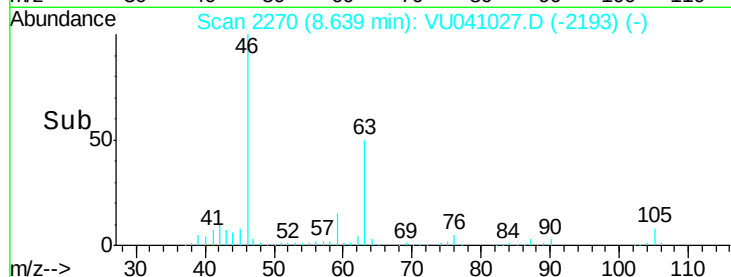
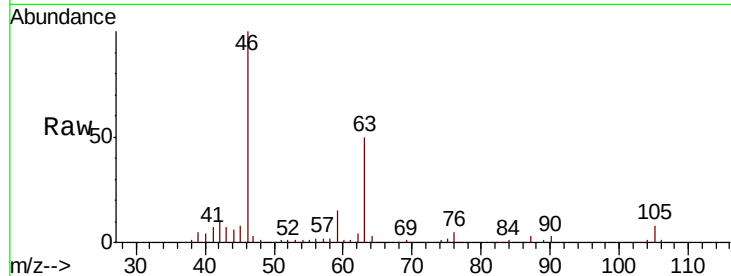




#48  
2-Hexanone  
Concen: 3.113 ug/L  
RT: 8.64 min Scan# 2270  
Delta R.T. -0.05 min  
Lab File: VU041027.D  
Acq: 29 Oct 2020 20:36

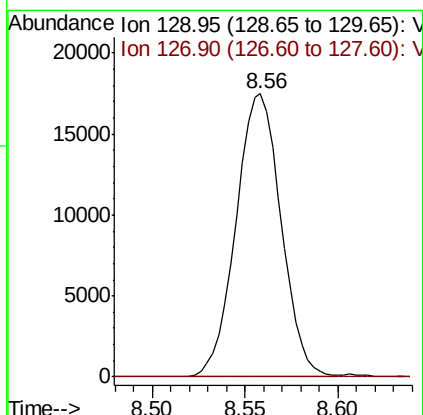
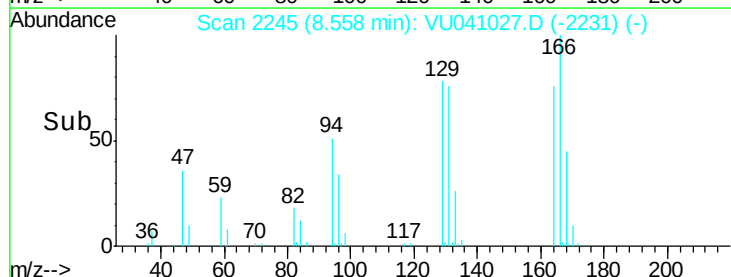
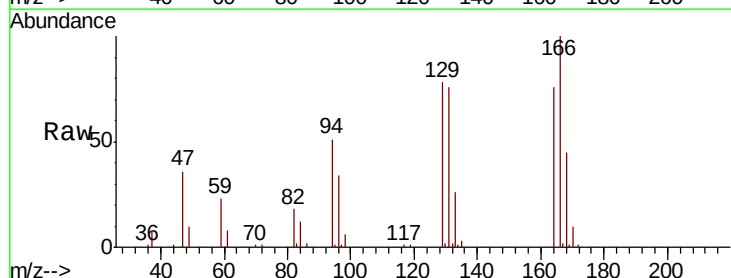
Instrument :  
MSVOA\_U  
ClientSampleId :  
C0BQ2

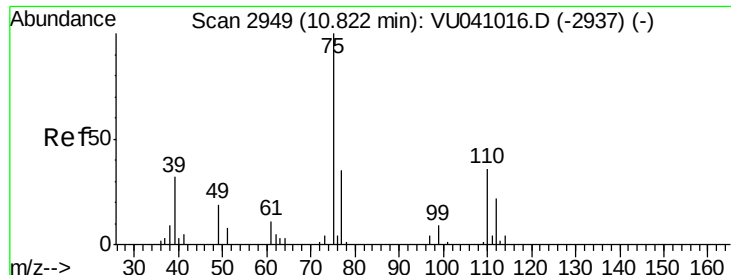
Tot Ion: 43 Resp: 7879  
Ion Ratio Lower Upper  
43 100  
58 28.3 41.4 62.2#  
57 31.5 14.6 21.8#  
100 0.0 8.3 12.5#



#49  
Dibromochloromethane  
Concen: 8.109 ug/L  
RT: 8.56 min Scan# 2245  
Delta R.T. -0.25 min  
Lab File: VU041027.D  
Acq: 29 Oct 2020 20:36

Tgt Ion: 129 Resp: 29556  
Ion Ratio Lower Upper  
129 100  
127 0.0 53.4 99.2#





#59

1,2,3-Trichloropropane

Concen: 0.954 ug/L

RT: 11.81 min Scan# 3255

Delta R.T. 0.98 min

Lab File: VU041027.D

Acq: 29 Oct 2020 20:36

Instrument :

MSVOA\_U

ClientSampleId :

C0BQ2

Tot Ion: 75 Resp: 2999

Ion Ratio Lower Upper

75 100

77 31.1 25.7 38.5

