

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU052720\  
 Data File : VU038310.D  
 Acq On : 27 May 2020 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: May 28 04:10:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR050720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed May 27 14:09:04 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 345858   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 336296   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 174150   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 134649   | 4.26     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 85.20%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 118402   | 4.33     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 86.60%  |
| 11) 1,1-Dichloroethene-d2      | 2.59   | 63    | 263544   | 4.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 99.60%  |
| 20) 2-Butanone-d5              | 4.66   | 46    | 433466   | 55.54    | ug/L | -0.01   |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 111.08% |
| 24) Chloroform-d               | 5.10   | 84    | 269087   | 5.61     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 112.20% |
| 26) 1,2-Dichloroethane-d4      | 5.74   | 65    | 152885   | 5.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 111.20% |
| 32) Benzene-d6                 | 5.76   | 84    | 552022   | 5.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 109.60% |
| 36) 1,2-Dichloropropane-d6     | 6.72   | 67    | 172645   | 5.31     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 106.20% |
| 41) Toluene-d8                 | 7.93   | 98    | 503375   | 5.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 111.20% |
| 43) trans-1,3-Dichloropropene- | 8.20   | 79    | 73666    | 5.65     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 113.00% |
| 46) 2-Hexanone-d5              | 8.66   | 63    | 350104   | 56.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 113.82% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77  | 84    | 145395   | 5.66     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 113.20% |
| 64) 1,2-Dichlorobenzene-d4     | 12.21  | 152   | 193147   | 5.70     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 114.00% |

## Target Compounds

|                                |      |     |        |             | Ovalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 171108 | 5.410 ug/L  | 97     |
| 3) Chloromethane               | 1.53 | 50  | 139822 | 3.668 ug/L  | 98     |
| 5) Vinyl chloride              | 1.62 | 62  | 162122 | 4.340 ug/L  | 100    |
| 6) Bromomethane                | 1.87 | 94  | 79696  | 3.748 ug/L  | 100    |
| 8) Chloroethane                | 1.95 | 64  | 96043  | 4.180 ug/L  | 99     |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 214659 | 5.621 ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.60 | 101 | 132010 | 5.575 ug/L  | 97     |
| 12) 1,1-Dichloroethene         | 2.61 | 96  | 123362 | 5.140 ug/L  | 86     |
| 13) Acetone                    | 2.65 | 43  | 242472 | 49.514 ug/L | 98     |
| 14) Carbon disulfide           | 2.82 | 76  | 427767 | 4.996 ug/L  | 100    |
| 15) Methyl Acetate             | 2.98 | 43  | 65757  | 4.800 ug/L  | 97     |
| 16) Methylene chloride         | 3.08 | 84  | 139819 | 4.998 ug/L  | 95     |
| 17) Methyl tert-butyl Ether    | 3.40 | 73  | 353610 | 5.302 ug/L  | 98     |
| 18) trans-1,2-Dichloroethene   | 3.39 | 96  | 137772 | 5.258 ug/L  | 97     |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 251240 | 4.909 ug/L  | 100    |
| 21) 2-Butanone                 | 4.74 | 43  | 438607 | 50.744 ug/L | 99     |
| 22) cis-1,2-Dichloroethene     | 4.71 | 96  | 150429 | 5.327 ug/L  | 97     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU052720\  
 Data File : VU038310.D  
 Acq On : 27 May 2020 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

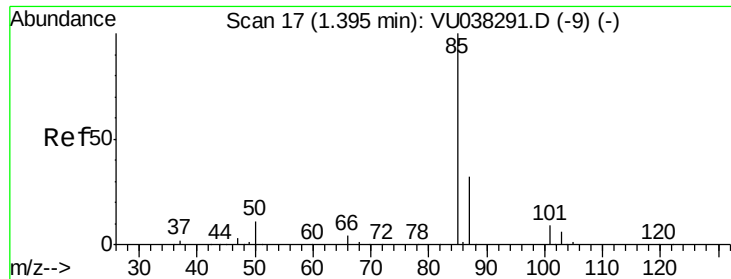
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: May 28 04:10:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR050720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed May 27 14:09:04 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 5.01  | 128  | 64513    | 5.309  | ug/L  | 91       |
| 25) Chloroform                  | 5.13  | 83   | 255348   | 5.349  | ug/L  | 97       |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 175419   | 5.206  | ug/L  | 99       |
| 29) 1,1,1-Trichloroethane       | 5.35  | 97   | 217676   | 5.649  | ug/L  | 97       |
| 30) Cyclohexane                 | 5.42  | 56   | 250035   | 5.496  | ug/L  | 99       |
| 31) Carbon tetrachloride        | 5.56  | 117  | 186120   | 6.010  | ug/L  | 98       |
| 33) Benzene                     | 5.81  | 78   | 572145   | 5.313  | ug/L  | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 147359   | 5.471  | ug/L  | 99       |
| 35) Methylcyclohexane           | 6.79  | 83   | 244921   | 5.613  | ug/L  | 96       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 145924   | 4.989  | ug/L  | 98       |
| 38) Bromodichloromethane        | 7.13  | 83   | 181910   | 5.379  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.63  | 75   | 222671   | 5.319  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 1035421  | 51.072 | ug/L  | 99       |
| 42) Toluene                     | 8.00  | 91   | 610272   | 5.368  | ug/L  | 97       |
| 44) trans-1,3-Dichloropropene   | 8.23  | 75   | 194497   | 5.463  | ug/L  | 97       |
| 45) 1,1,2-Trichloroethane       | 8.42  | 97   | 108306   | 5.332  | ug/L  | 99       |
| 47) Tetrachloroethene           | 8.58  | 164  | 109107   | 5.791  | ug/L  | 97       |
| 48) 2-Hexanone                  | 8.71  | 43   | 772143   | 52.006 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.83  | 129  | 118686   | 5.630  | ug/L  | 99       |
| 50) 1,2-Dibromoethane           | 8.95  | 107  | 103785   | 5.505  | ug/L  | 99       |
| 51) Chlorobenzene               | 9.47  | 112  | 385632   | 5.466  | ug/L  | 98       |
| 52) Ethylbenzene                | 9.59  | 91   | 686605   | 5.576  | ug/L  | 100      |
| 53) m,p-Xylene                  | 9.71  | 106  | 264593   | 5.603  | ug/L  | 99       |
| 54) o-Xylene                    | 10.12 | 106  | 255247   | 5.591  | ug/L  | 98       |
| 55) Styrene                     | 10.13 | 104  | 438804   | 5.725  | ug/L  | 99       |
| 56) Isopropylbenzene            | 10.50 | 105  | 679505   | 5.794  | ug/L  | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 138267   | 5.361  | ug/L  | 96       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 104246   | 5.310  | ug/L  | 100      |
| 61) Bromoform                   | 10.31 | 173  | 65240    | 5.542  | ug/L  | 98       |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 306404   | 5.408  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 309848   | 5.397  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 12.23 | 146  | 293119   | 5.377  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 24018    | 5.391  | ug/L  | 90       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 230261   | 5.600  | ug/L  | 98       |
| 68) 1,2,4-trichlorobenzene      | 13.87 | 180  | 213748   | 5.732  | ug/L  | 97       |
| 69) Naphthalene                 | 14.12 | 128  | 452200   | 5.760  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 14.37 | 180  | 197439   | 5.696  | ug/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 5.410 ug/L

RT: 1.39 min Scan# 17

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

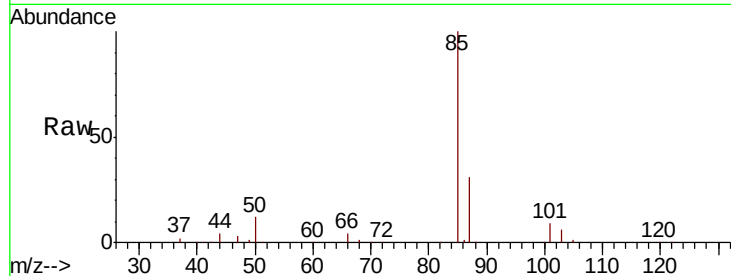
ClientSampleId :

Tot Ion: 85 Resp: 171108

Ion Ratio Lower Upper

85 100

87 31.4 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VU038291.D (-9) (-)

Ion 87.00 (86.70 to 87.70): VU038291.D (-9) (-)

1.39

200000

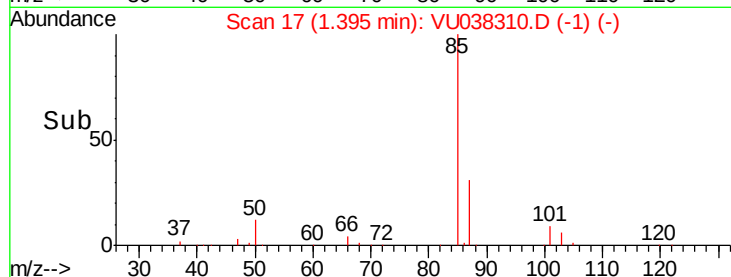
150000

100000

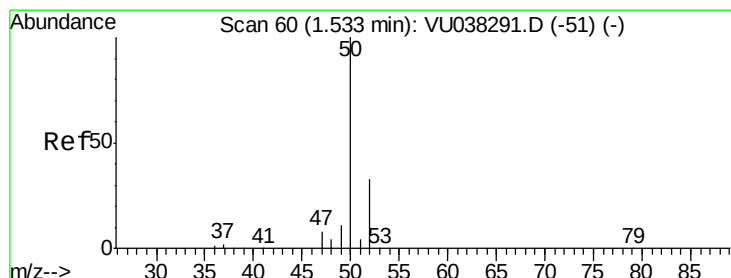
50000

0

Time-->



Time-->



#3

Chloromethane

Concen: 3.668 ug/L

RT: 1.53 min Scan# 60

Delta R.T. 0.00 min

Lab File: VU038310.D

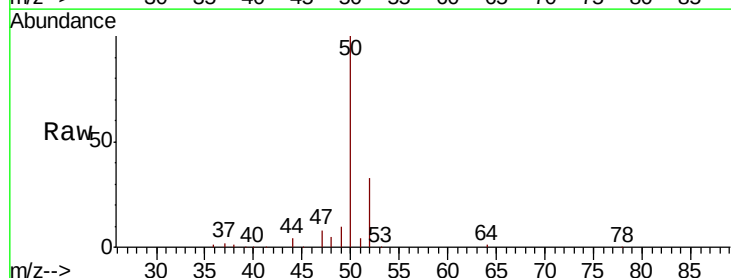
Acq: 27 May 2020 10:10

Tgt Ion: 50 Resp: 139822

Ion Ratio Lower Upper

50 100

52 33.0 22.5 41.7



Abundance Ion 50.05 (49.75 to 50.75): VU038291.D (-51) (-)

Ion 52.05 (51.75 to 52.75): VU038291.D (-51) (-)

1.53

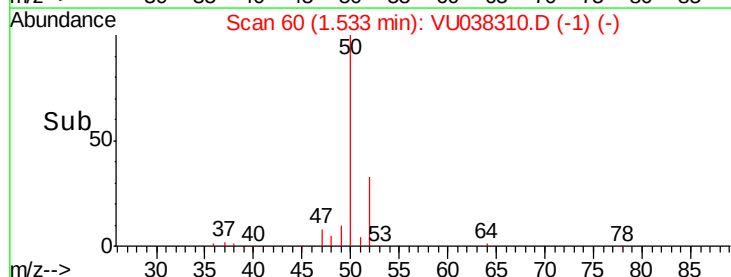
150000

100000

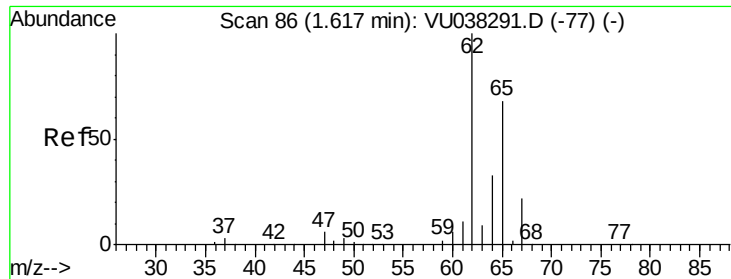
50000

0

Time-->



Time-->



#5

Vinyl chloride

Concen: 4.340 ug/L

RT: 1.62 min Scan# 86

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

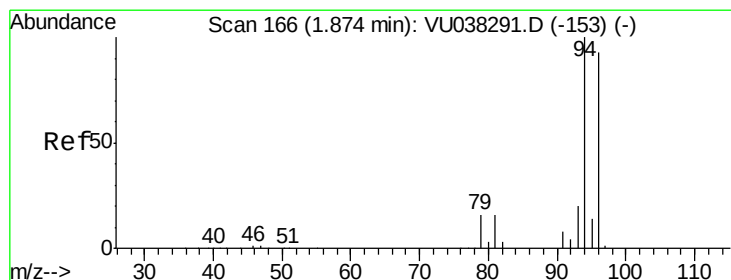
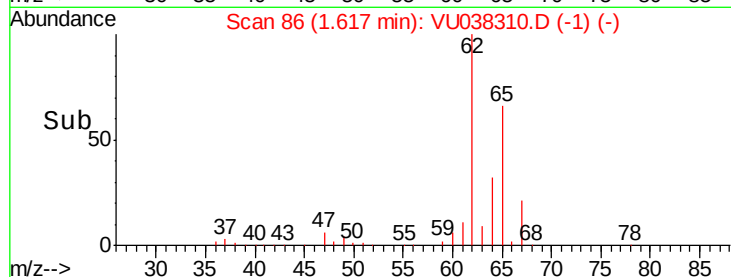
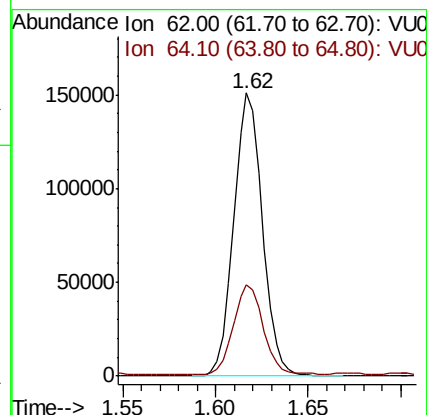
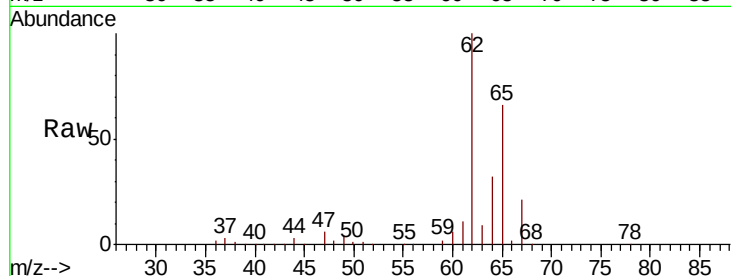
ClientSampleId :

Tot Ion: 62 Resp: 162122

Ion Ratio Lower Upper

62 100

64 32.4 22.8 42.4



#6

Bromomethane

Concen: 3.748 ug/L

RT: 1.87 min Scan# 165

Delta R.T. -0.00 min

Lab File: VU038310.D

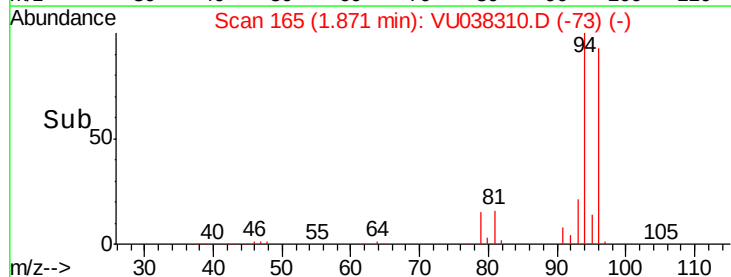
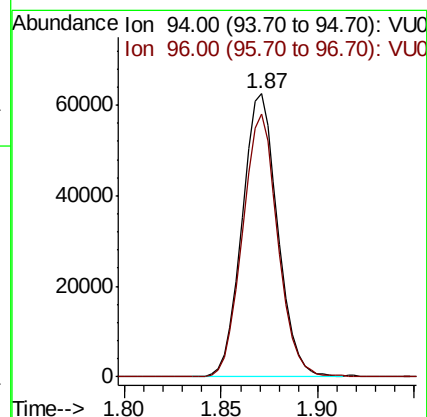
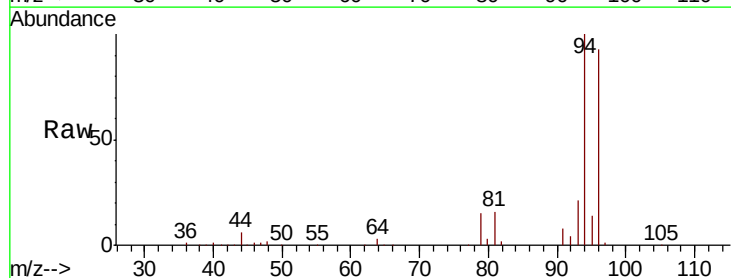
Acq: 27 May 2020 10:10

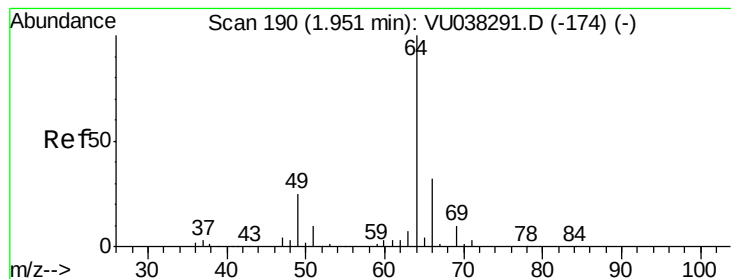
Tgt Ion: 94 Resp: 79696

Ion Ratio Lower Upper

94 100

96 92.7 65.0 120.8





#8

Chloroethane

Concen: 4.180 ug/L

RT: 1.95 min Scan# 190

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

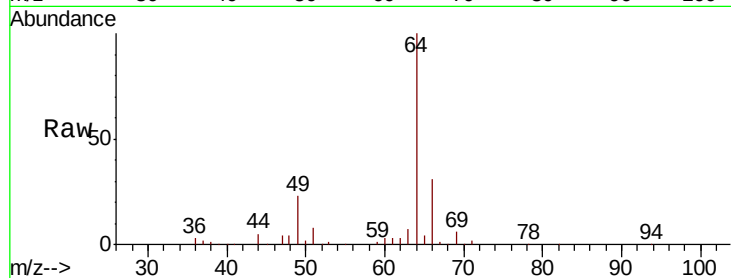
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 64 Resp: 96043

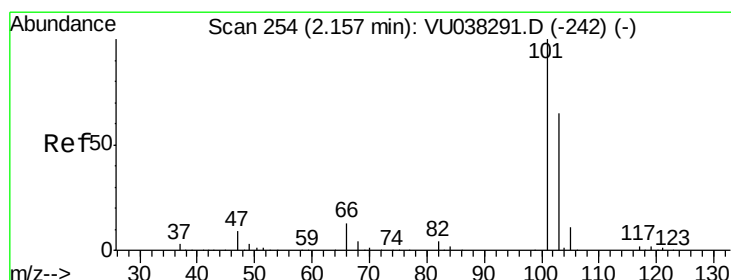
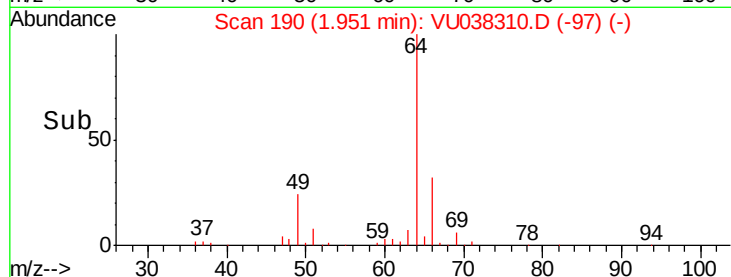
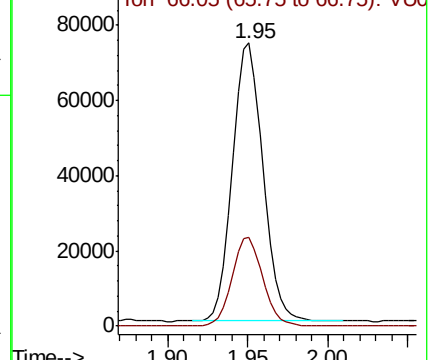
Ion Ratio Lower Upper

64 100

66 31.5 21.8 40.4



Abundance Ion 64.10 (63.80 to 64.80): VU038310.D (-174) (-)



#9

Trichlorofluoromethane

Concen: 5.621 ug/L

RT: 2.16 min Scan# 254

Delta R.T. 0.00 min

Lab File: VU038310.D

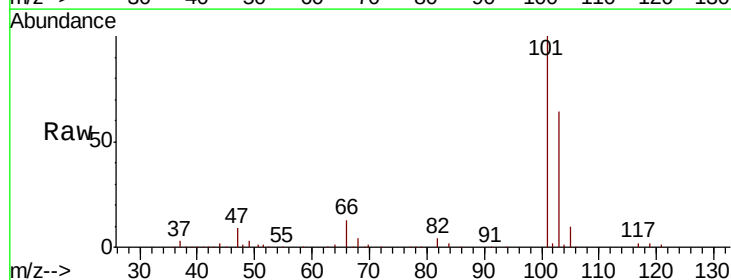
Acq: 27 May 2020 10:10

Tgt Ion:101 Resp: 214659

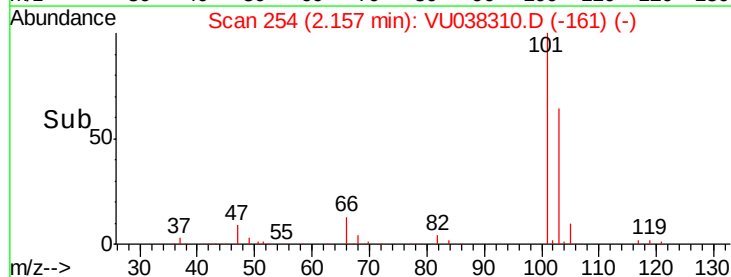
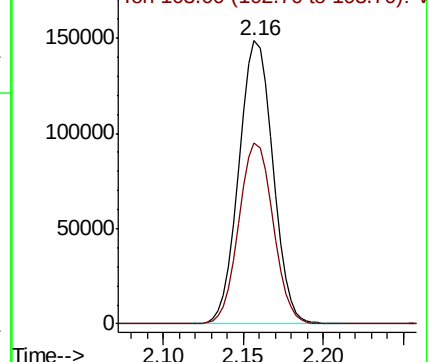
Ion Ratio Lower Upper

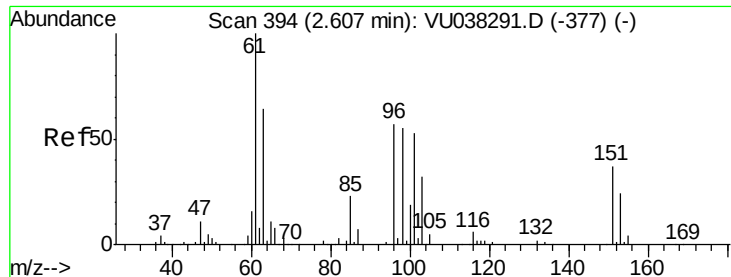
101 100

103 64.7 51.0 76.4



Abundance Ion 101.00 (100.70 to 101.70): VU038310.D (-161) (-)





#10

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

Concen: 5.575 ug/L

RT: 2.60 min Scan# 393

Delta R.T. -0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

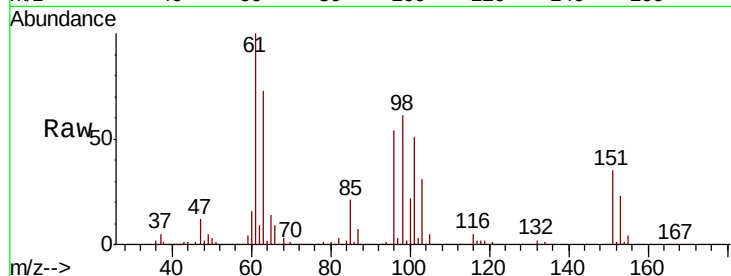
Tot Ion:101 Resp: 132010

Ion Ratio Lower Upper

101 100

85 42.8 35.3 52.9

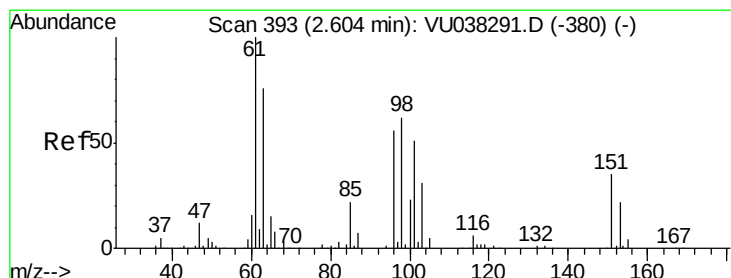
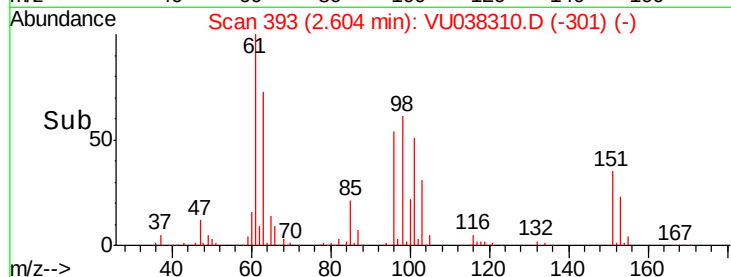
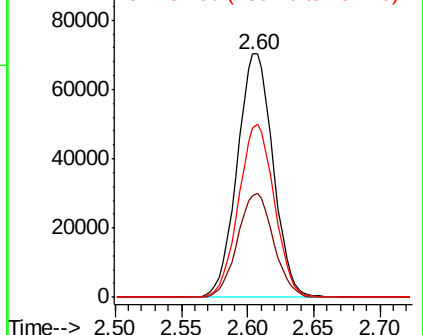
151 70.9 54.2 81.2



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: 5.140 ug/L

RT: 2.61 min Scan# 394

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

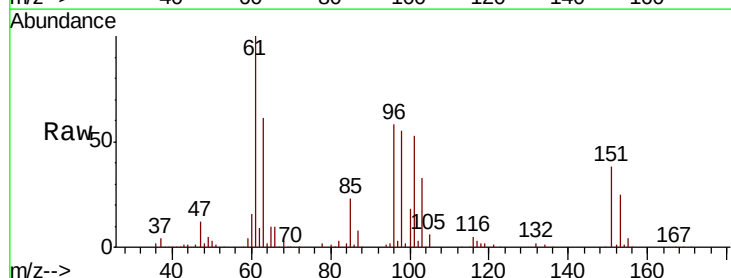
Tgt Ion: 96 Resp: 123362

Ion Ratio Lower Upper

96 100

61 173.9 126.2 234.4

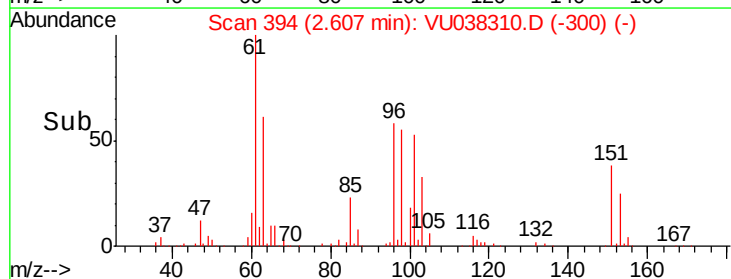
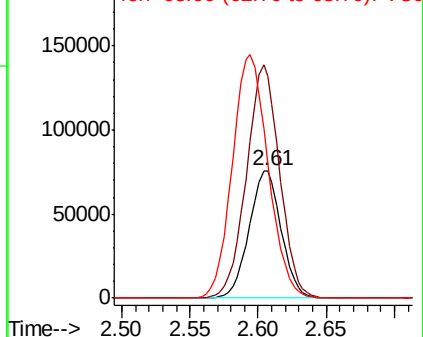
63 105.3 96.9 179.9

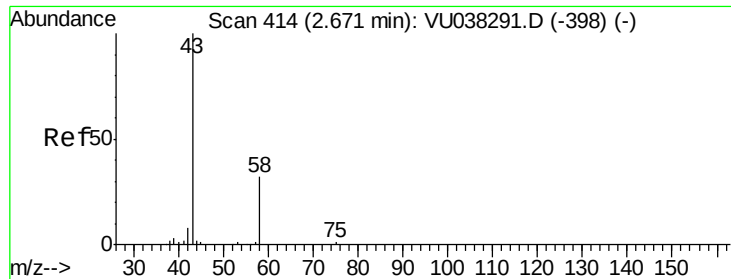


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 49.514 ug/L

RT: 2.65 min Scan# 408

Delta R.T. -0.02 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

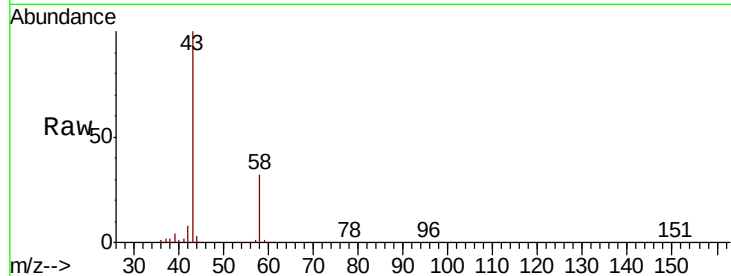
ClientSampleId :

Tot Ion: 43 Resp: 242472

Ion Ratio Lower Upper

43 100

58 32.7 0.0 63.6



Abundance Ion 43.05 (42.75 to 43.75): VU038310.D (-321) (-)

Ion 58.05 (57.75 to 58.75): VU038310.D (-321) (-)

2.65

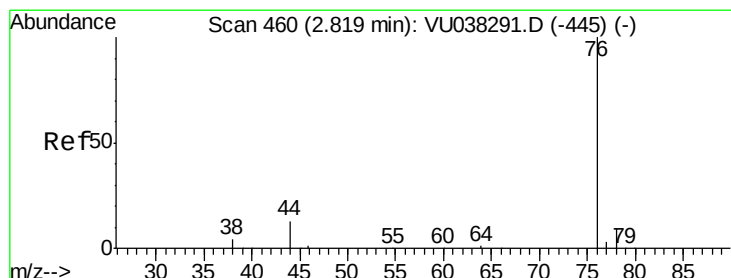
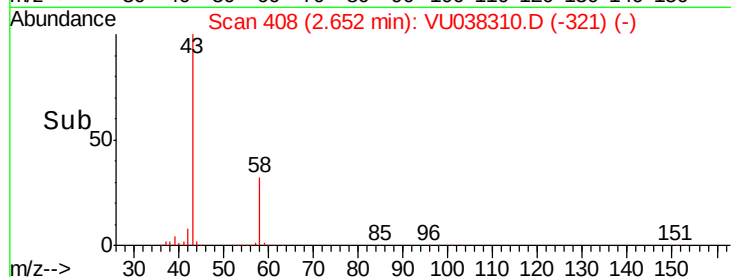
150000

100000

50000

0

Time-->



#14

Carbon disulfide

Concen: 4.996 ug/L

RT: 2.82 min Scan# 460

Delta R.T. 0.00 min

Lab File: VU038310.D

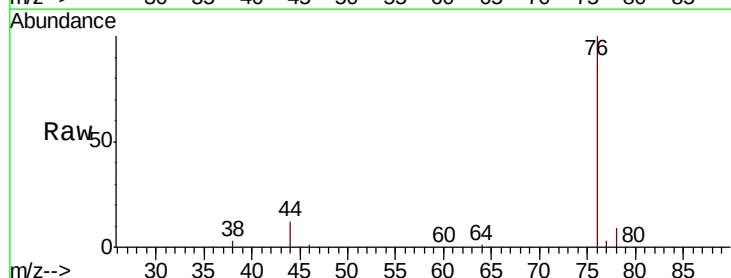
Acq: 27 May 2020 10:10

Tgt Ion: 76 Resp: 427767

Ion Ratio Lower Upper

76 100

78 8.8 7.1 10.7



Abundance Ion 76.05 (75.75 to 76.75): VU038310.D (-367) (-)

Ion 78.00 (77.70 to 78.70): VU038310.D (-367) (-)

2.82

300000

250000

200000

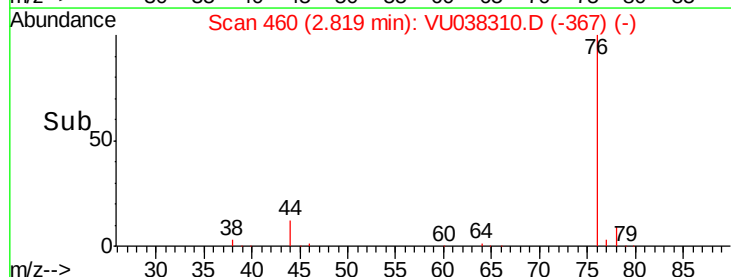
150000

100000

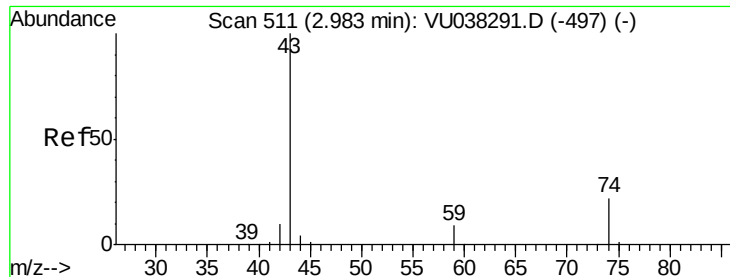
50000

0

Time-->



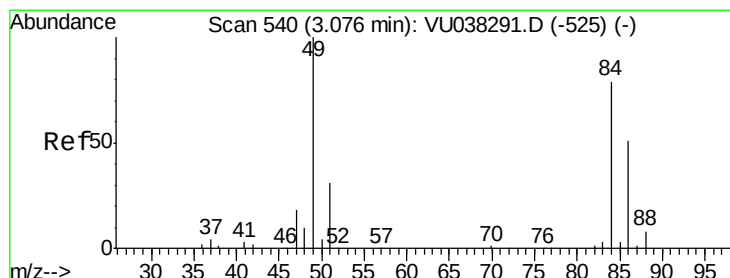
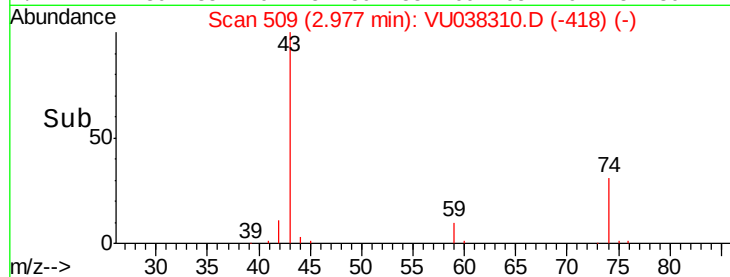
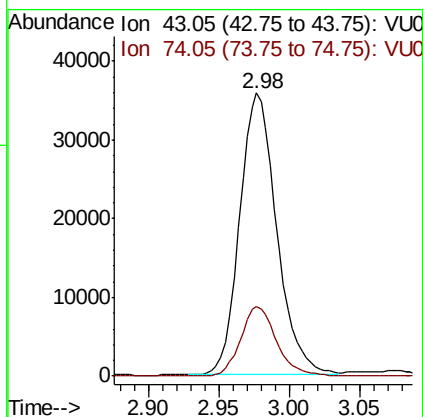
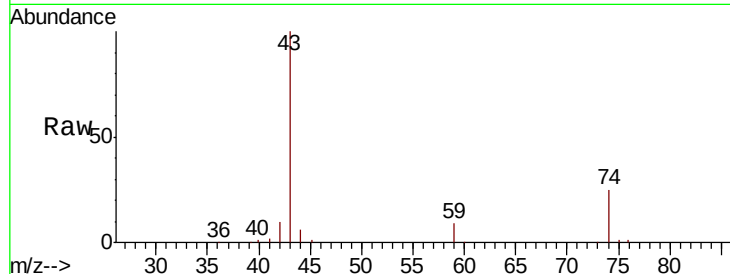




#15  
Methvl Acetate  
Concen: 4.800 ug/L  
RT: 2.98 min Scan# 509  
Delta R.T. -0.01 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

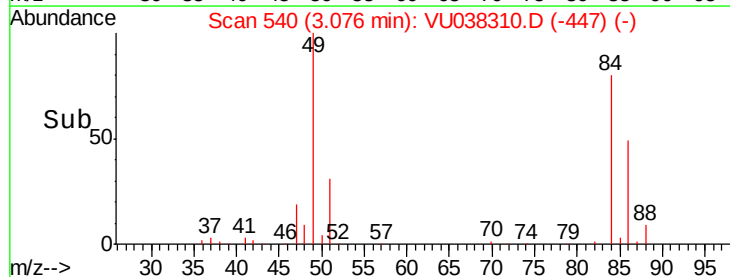
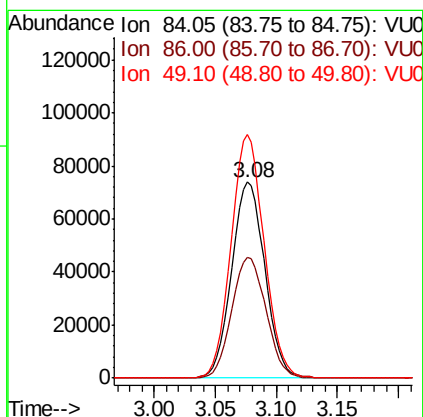
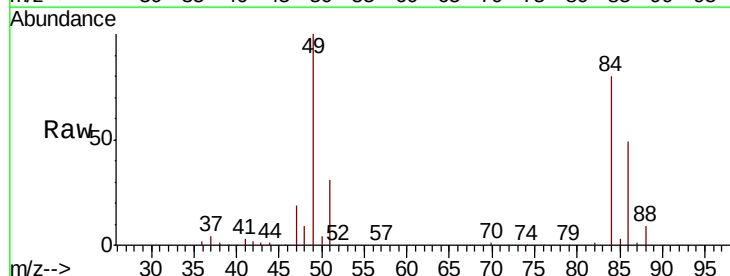
Instrument :  
MSVOA\_U  
ClientSampleId :

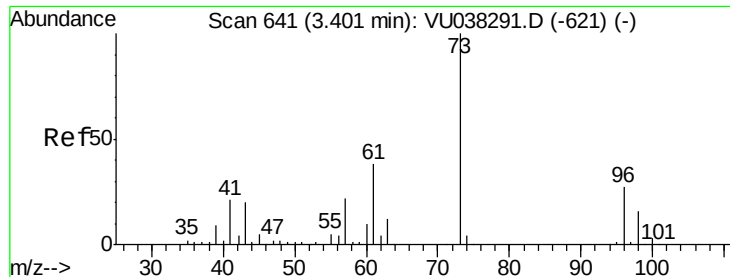
Tot Ion: 43 Resp: 65757  
Ion Ratio Lower Upper  
43 100  
74 23.8 18.0 27.0



#16  
Methylene chloride  
Concen: 4.998 ug/L  
RT: 3.08 min Scan# 540  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 84 Resp: 139819  
Ion Ratio Lower Upper  
84 100  
86 61.5 44.9 83.3  
49 124.3 92.0 170.9

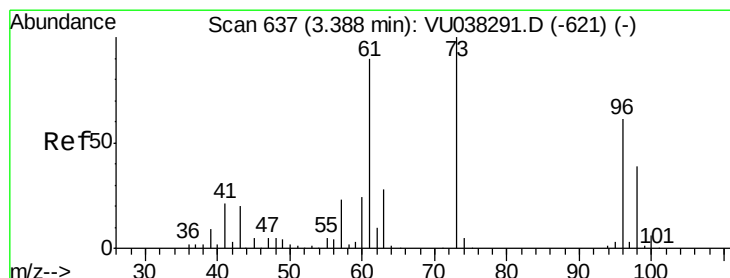
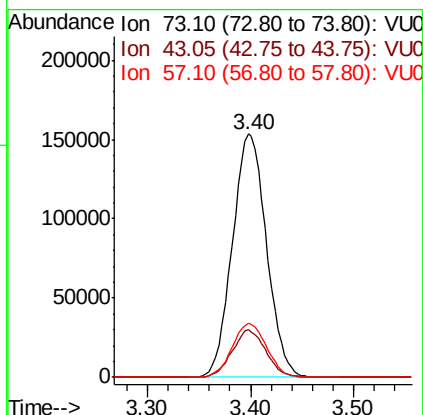
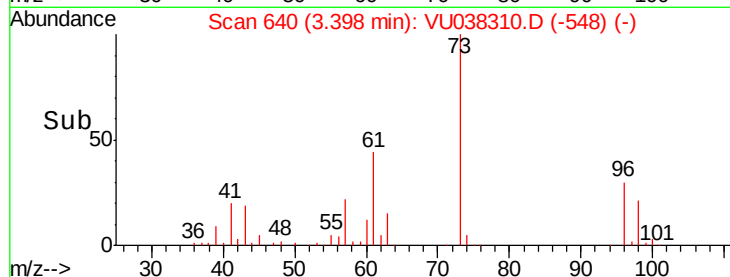
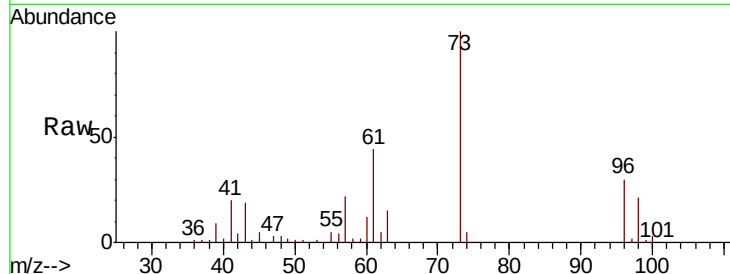




#17  
Methyl tert-butyl Ether  
Concen: 5.302 ug/L  
RT: 3.40 min Scan# 640  
Delta R.T. -0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

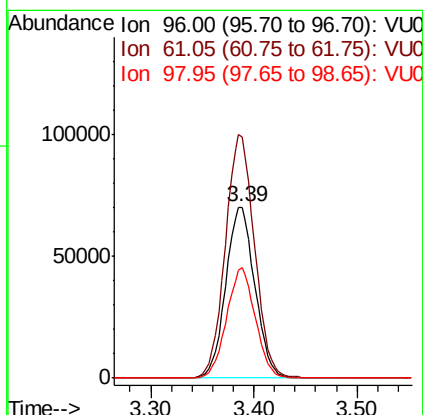
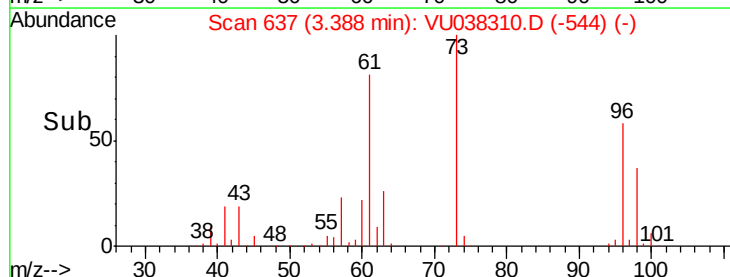
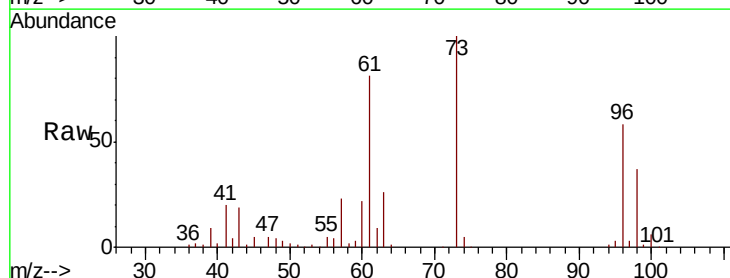
Instrument :  
MSVOA\_U  
ClientSampleId :

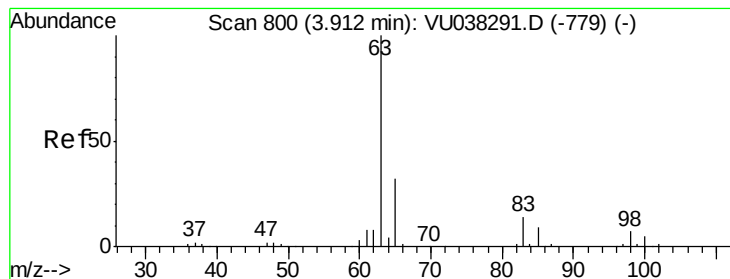
Tot Ion: 73 Resp: 353610  
Ion Ratio Lower Upper  
73 100  
43 18.9 16.9 25.3  
57 22.5 18.2 27.2



#18  
trans-1,2-Dichloroethene  
Concen: 5.258 ug/L  
RT: 3.39 min Scan# 637  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 96 Resp: 137772  
Ion Ratio Lower Upper  
96 100  
61 141.1 102.1 189.5  
98 64.5 45.6 84.8





#19

1,1-Dichloroethane

Concen: 4.909 ug/L

RT: 3.91 min Scan# 799

Delta R.T. -0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

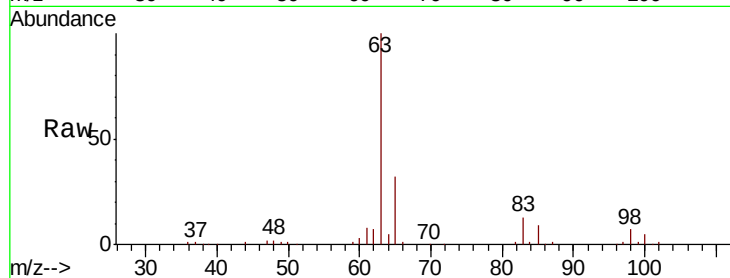
Tot Ion: 63 Resp: 251240

Ion Ratio Lower Upper

63 100

65 32.0 22.5 41.7

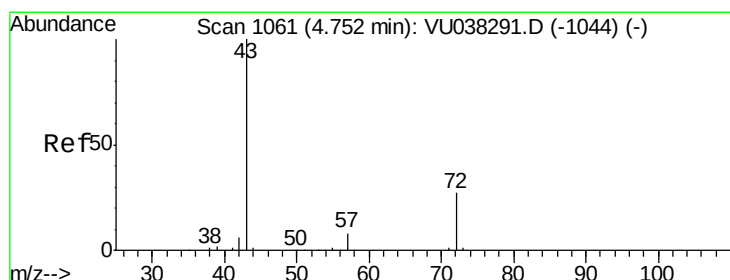
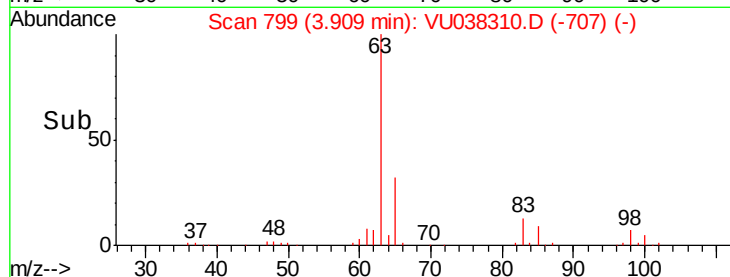
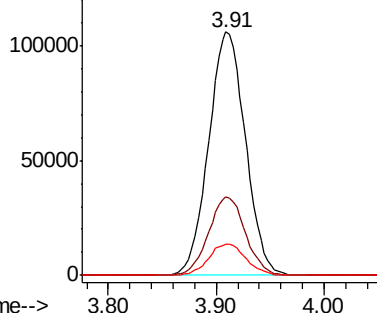
83 12.6 8.9 16.5



Abundance Ion 63.10 (62.80 to 63.80): VU038310.D (-799) (-)

Ion 65.10 (64.80 to 65.80): VU038310.D (-799) (-)

Ion 83.05 (82.75 to 83.75): VU038310.D (-799) (-)



#21

2-Butanone

Concen: 50.744 ug/L

RT: 4.74 min Scan# 1058

Delta R.T. -0.01 min

Lab File: VU038310.D

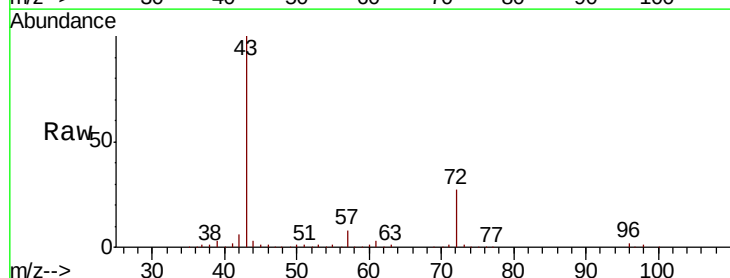
Acq: 27 May 2020 10:10

Tgt Ion: 43 Resp: 438607

Ion Ratio Lower Upper

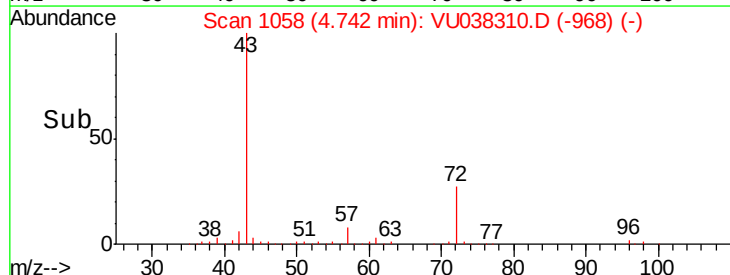
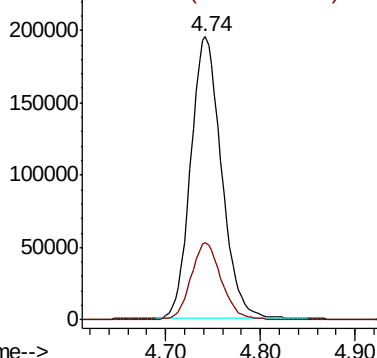
43 100

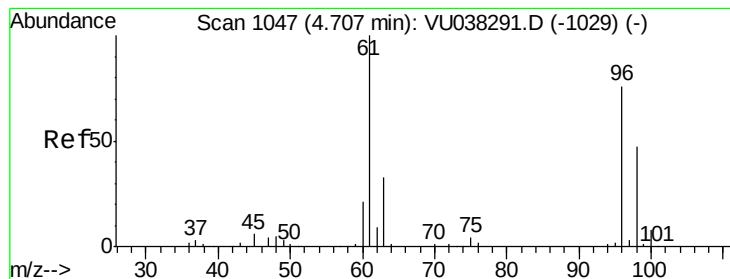
72 27.5 13.5 40.4



Abundance Ion 43.05 (42.75 to 43.75): VU038310.D (-1058) (-)

Ion 72.10 (71.80 to 72.80): VU038310.D (-1058) (-)





#22

cis-1,2-Dichloroethene

Concen: 5.327 ug/L

RT: 4.71 min Scan# 1047

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampled :

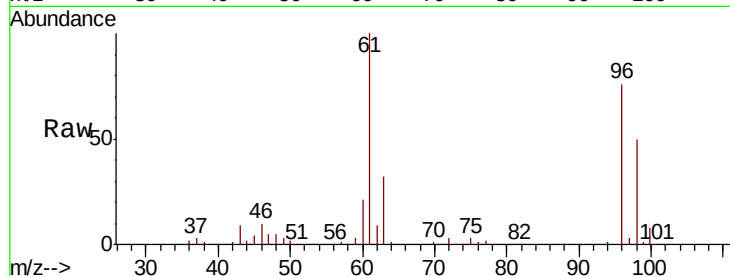
Tot Ion: 96 Resp: 150429

Ion Ratio Lower Upper

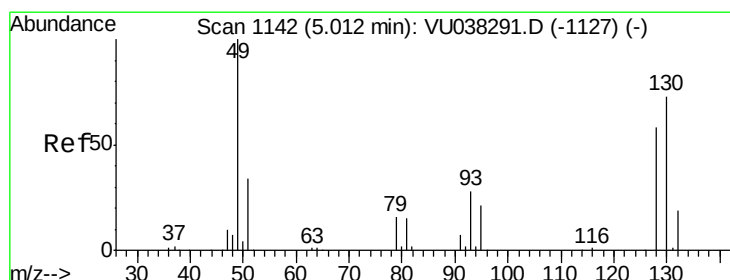
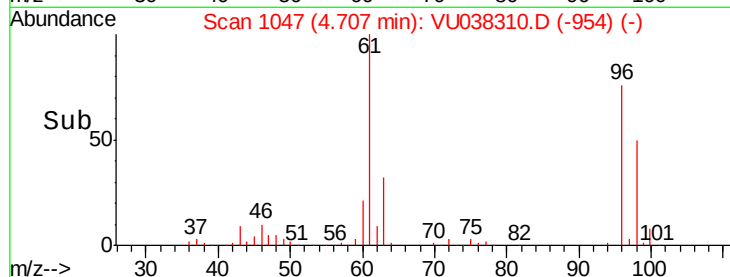
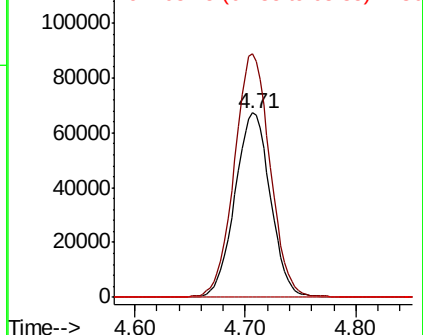
96 100

61 131.9 95.3 176.9

68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 68.15 (67.85 to 68.85): VU0



#23

Bromochloromethane

Concen: 5.309 ug/L

RT: 5.01 min Scan# 1142

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Tgt Ion: 128 Resp: 64513

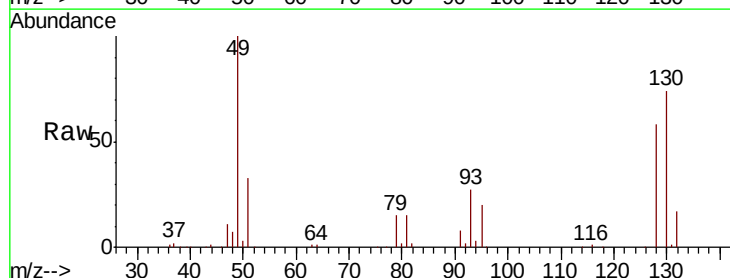
Ion Ratio Lower Upper

128 100

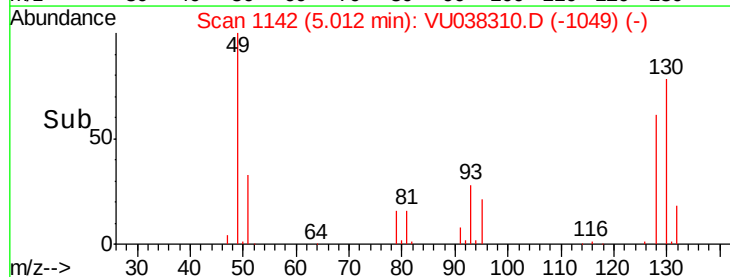
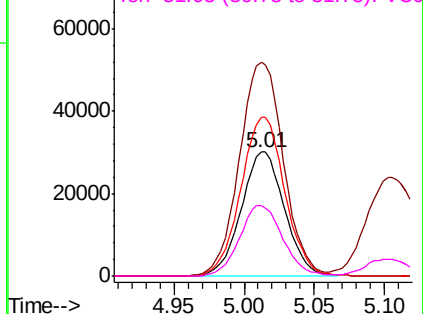
49 172.1 135.6 251.8

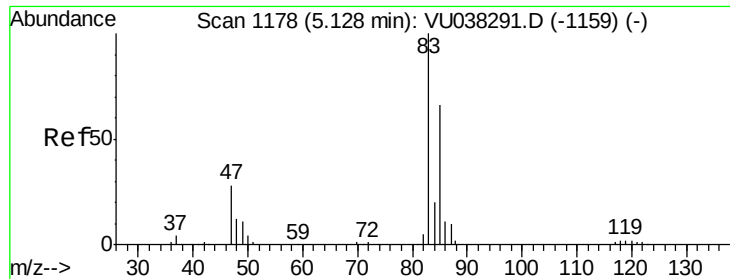
130 127.8 91.4 169.8

51 56.3 49.6 74.4



Abundance Ion 127.90 (127.60 to 128.60): V  
Ion 49.10 (48.80 to 49.80): VU0  
Ion 129.95 (129.65 to 130.65): V  
Ion 51.05 (50.75 to 51.75): VU0

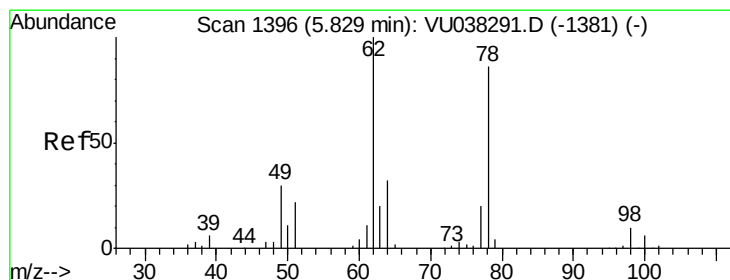
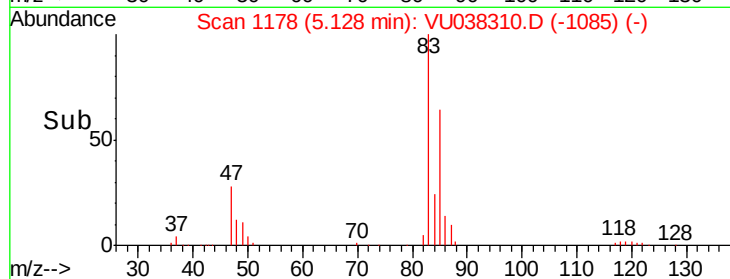
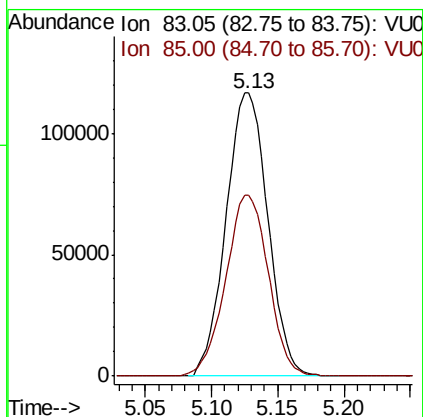
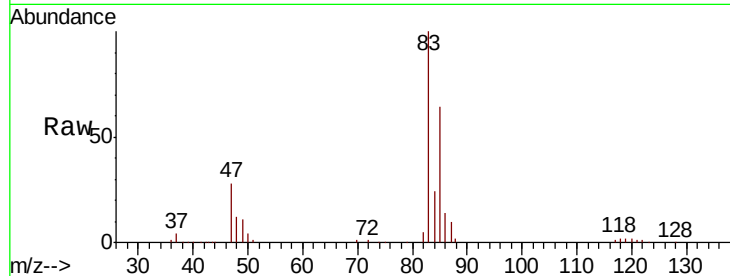




#25  
Chloroform  
Concen: 5.349 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

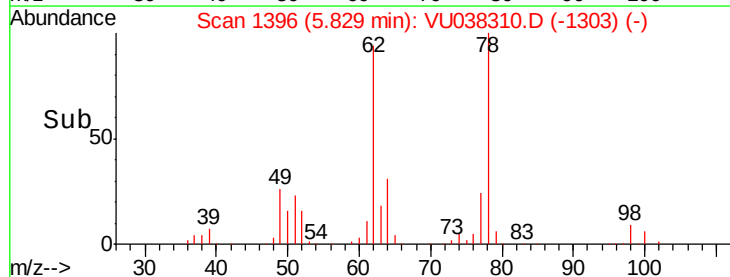
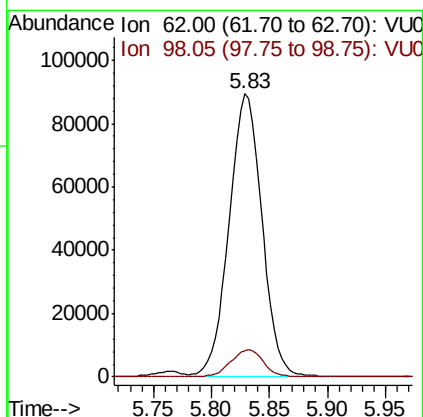
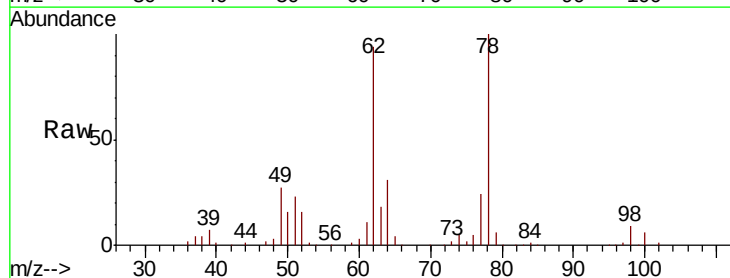
Instrument :  
MSVOA\_U  
ClientSampled :

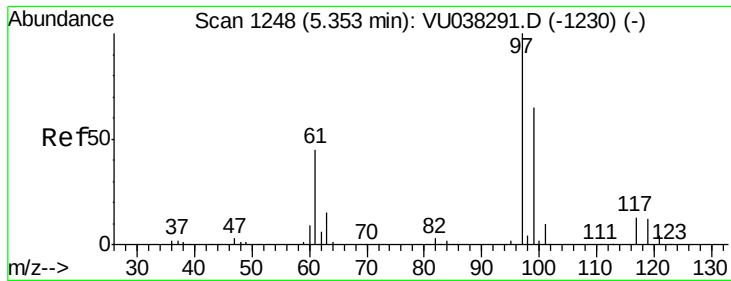
Tot Ion: 83 Resp: 255348  
Ion Ratio Lower Upper  
83 100  
85 63.9 46.2 85.8



#27  
1,2-Dichloroethane  
Concen: 5.206 ug/L  
RT: 5.83 min Scan# 1396  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 62 Resp: 175419  
Ion Ratio Lower Upper  
62 100  
98 9.4 7.8 11.8

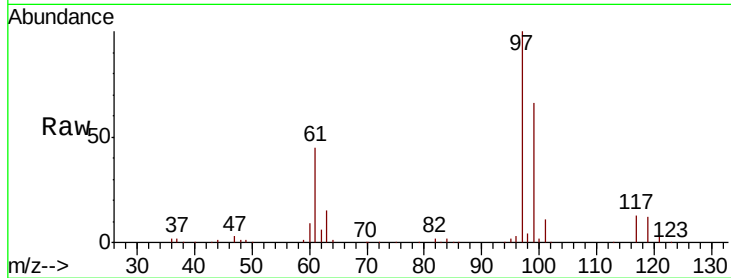




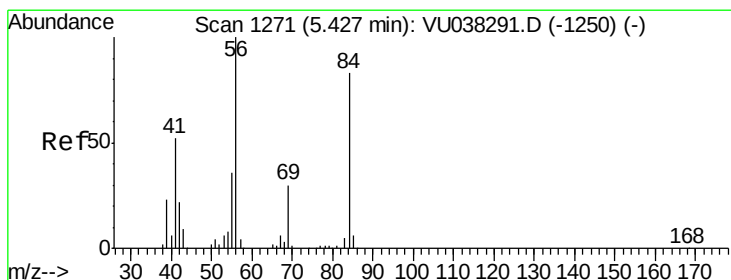
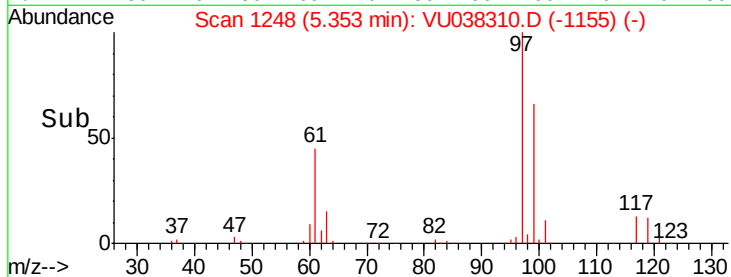
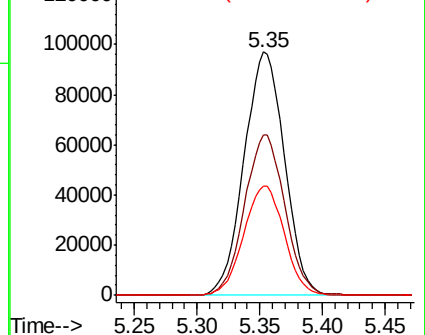
#29  
1,1,1-Trichloroethane  
Concen: 5.649 ug/L  
RT: 5.35 min Scan# 1248  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 97 Resp: 217676  
Ion Ratio Lower Upper  
97 100  
99 65.7 51.0 76.4  
61 45.3 38.2 57.4

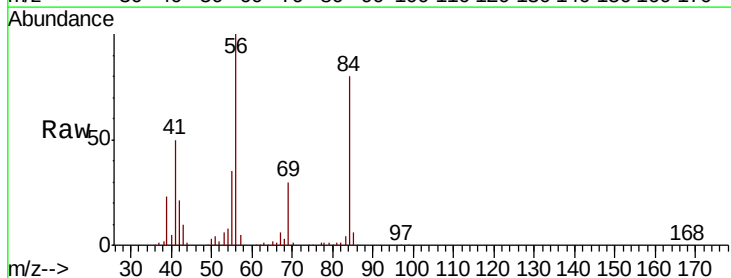


Abundance Ion 96.95 (96.65 to 97.65): VU0  
Ion 99.05 (98.75 to 99.75): VU0  
Ion 61.05 (60.75 to 61.75): VU0

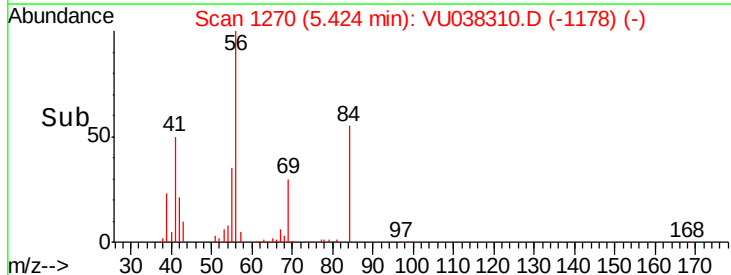
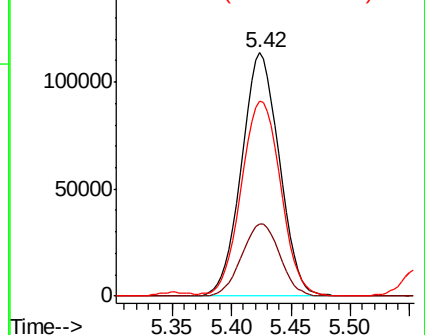


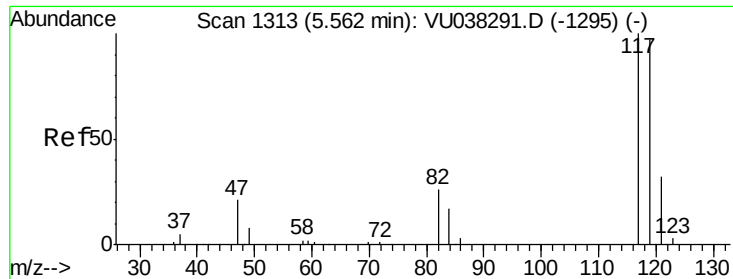
#30  
Cyclohexane  
Concen: 5.496 ug/L  
RT: 5.42 min Scan# 1270  
Delta R.T. -0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 56 Resp: 250035  
Ion Ratio Lower Upper  
56 100  
69 30.1 24.2 36.4  
84 84.0 68.5 102.7



Abundance Ion 56.10 (55.80 to 56.80): VU0  
Ion 69.15 (68.85 to 69.85): VU0  
Ion 84.15 (83.85 to 84.85): VU0

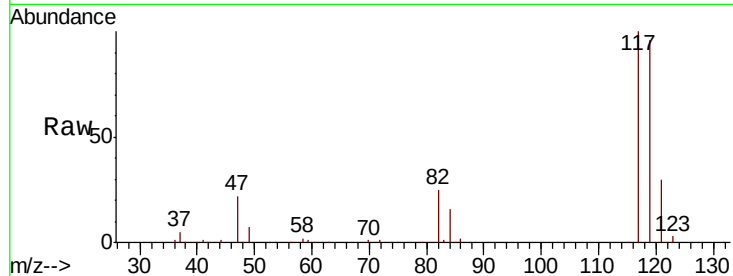




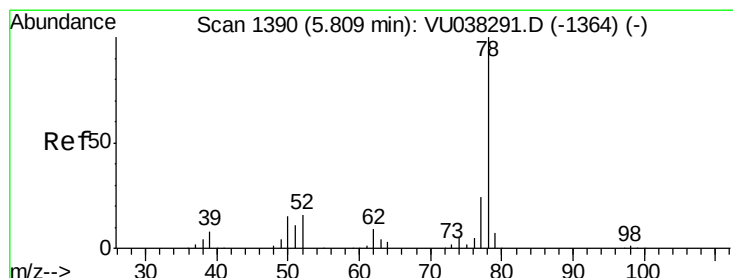
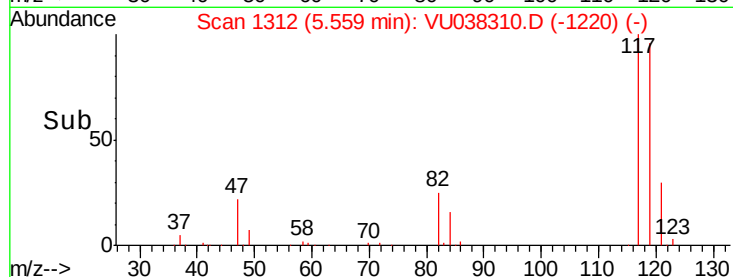
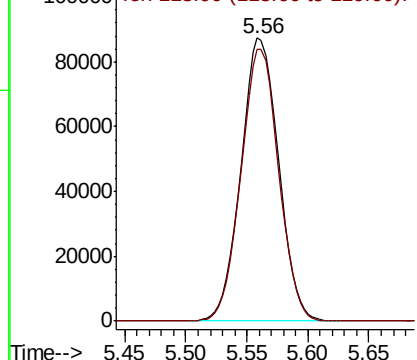
#31  
Carbon tetrachloride  
Concen: 6.010 ug/L  
RT: 5.56 min Scan# 1312  
Delta R.T. -0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:117 Resp: 186120  
Ion Ratio Lower Upper  
117 100  
119 96.0 75.4 113.2

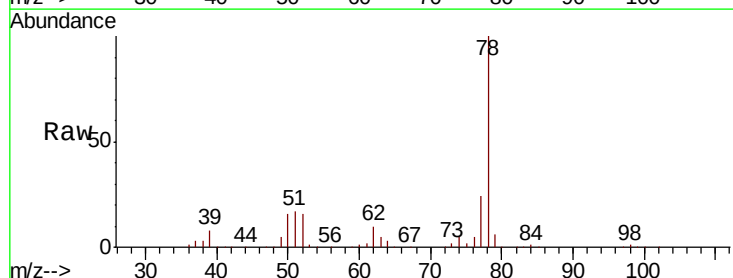


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 118.90 (118.60 to 119.60): V

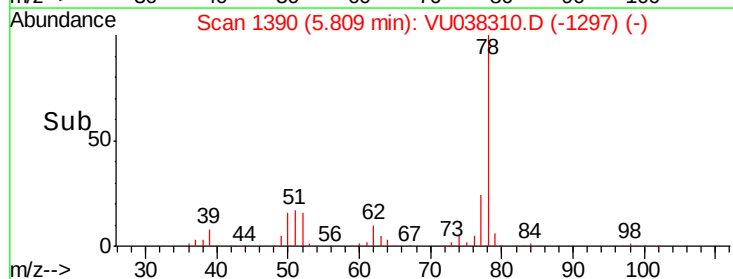
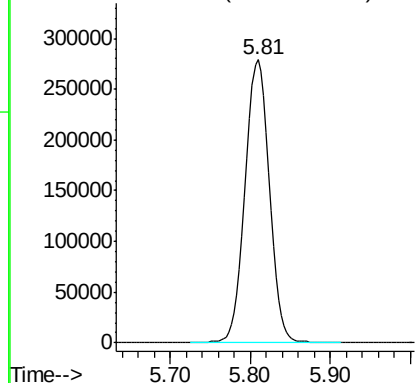


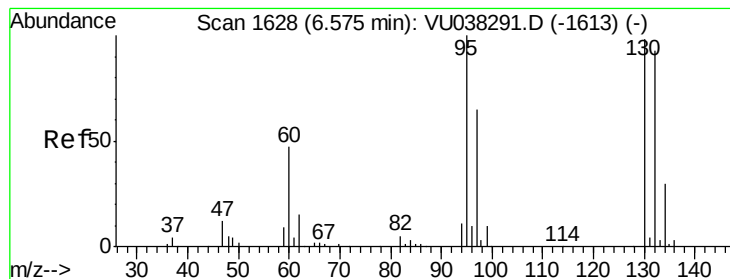
#33  
Benzene  
Concen: 5.313 ug/L  
RT: 5.81 min Scan# 1390  
Delta R.T. 0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 78 Resp: 572145



Abundance Ion 78.10 (77.80 to 78.80): VU0





#34

Trichloroethene

Concen: 5.471 ug/L

RT: 6.57 min Scan# 1627

Delta R.T. -0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

Tot Ion: 95 Resp: 147359

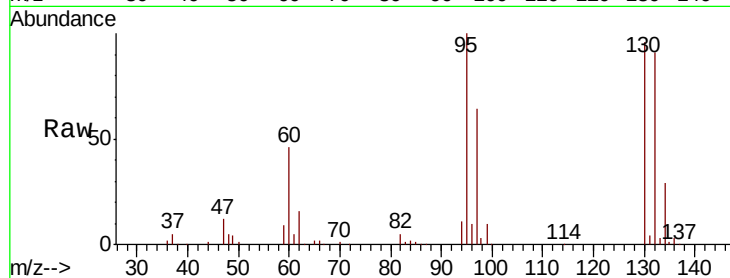
Ion Ratio Lower Upper

95 100

97 64.1 44.9 83.3

132 90.9 63.3 117.5

130 96.0 65.7 122.1

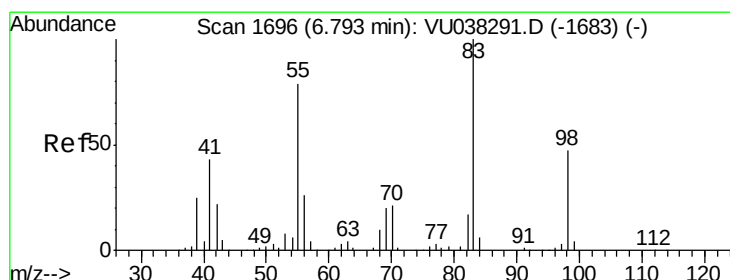
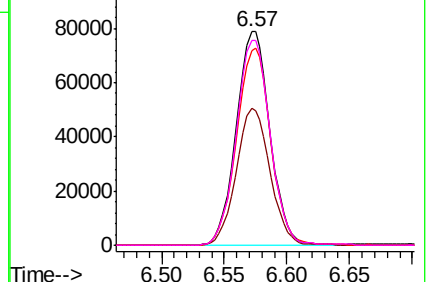
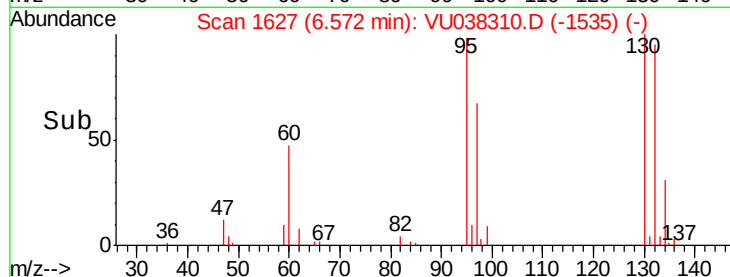


Abundance Ion 95.00 (94.70 to 95.70): VU038310.D (-1613) (-)

Ion 96.95 (96.65 to 97.65): VU038310.D (-1613) (-)

Ion 131.95 (131.65 to 132.65): VU038310.D (-1613) (-)

Ion 129.95 (129.65 to 130.65): VU038310.D (-1613) (-)



#35

Methylcyclohexane

Concen: 5.613 ug/L

RT: 6.79 min Scan# 1696

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

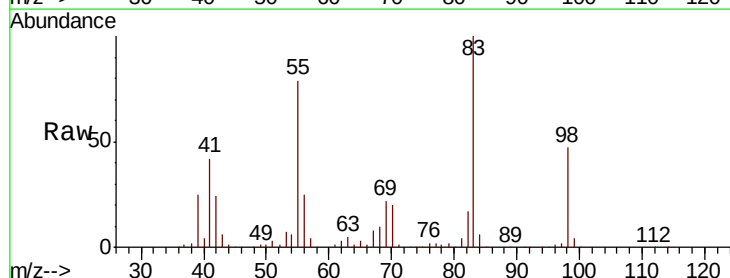
Tgt Ion: 83 Resp: 244921

Ion Ratio Lower Upper

83 100

55 79.3 66.7 100.1

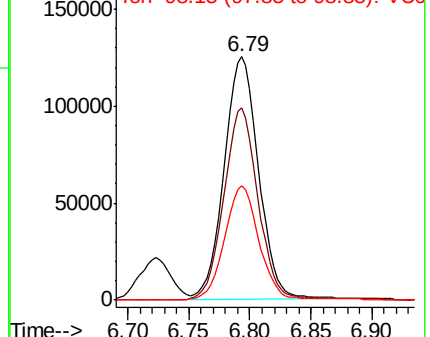
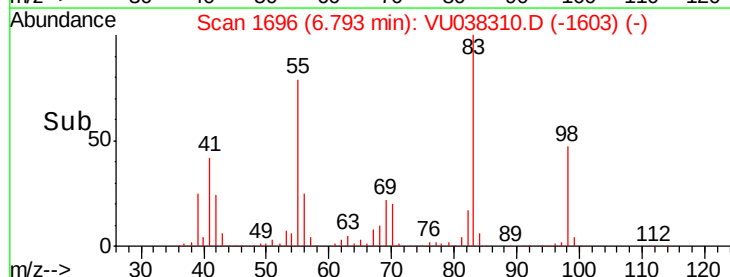
98 47.1 39.4 59.2



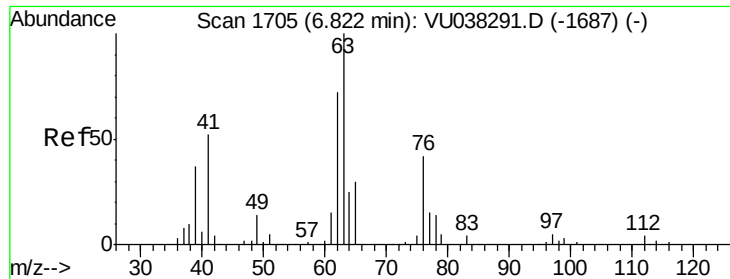
Abundance Ion 83.15 (82.85 to 83.85): VU038310.D (-1683) (-)

Ion 55.10 (54.80 to 55.80): VU038310.D (-1683) (-)

Ion 98.15 (97.85 to 98.85): VU038310.D (-1683) (-)



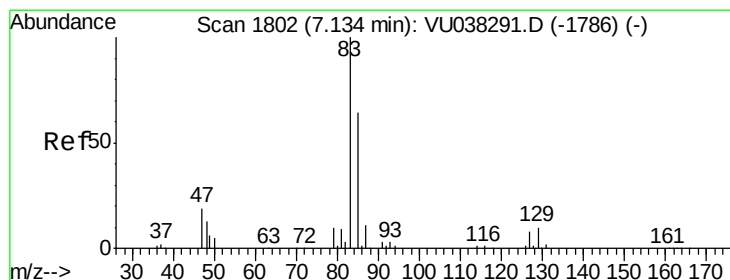
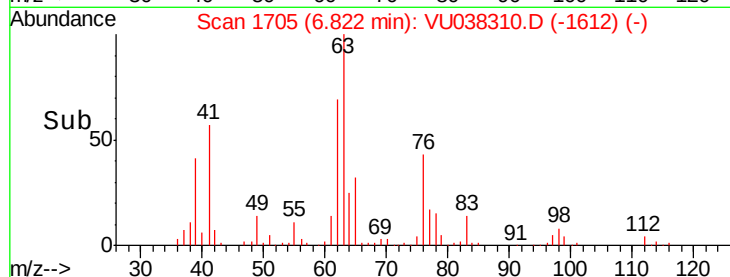
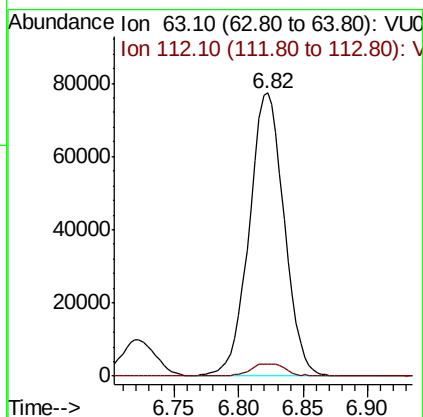
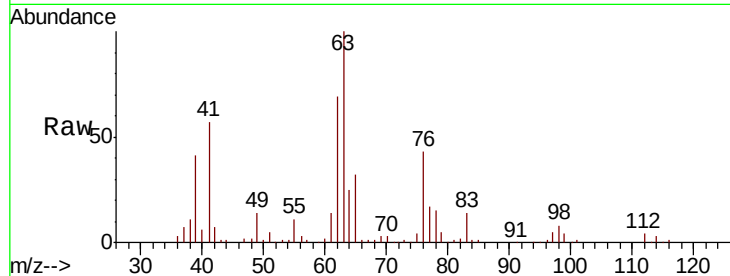




#37  
 1,2-Dichloropropane  
 Concen: 4.989 ug/L  
 RT: 6.82 min Scan# 1705  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

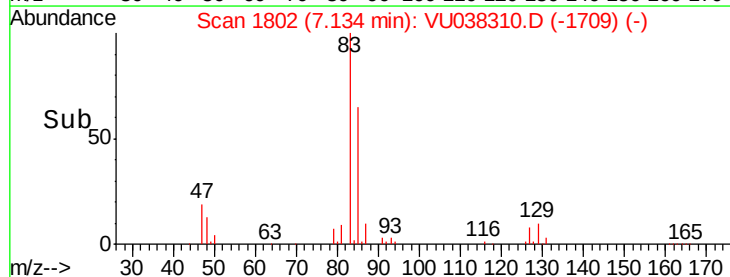
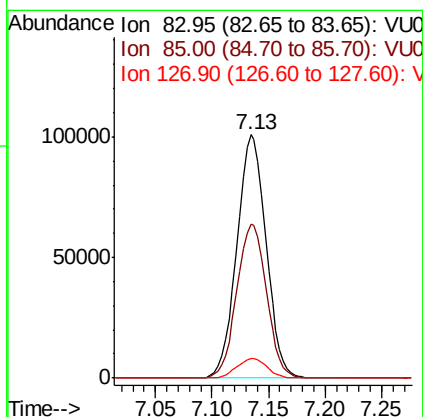
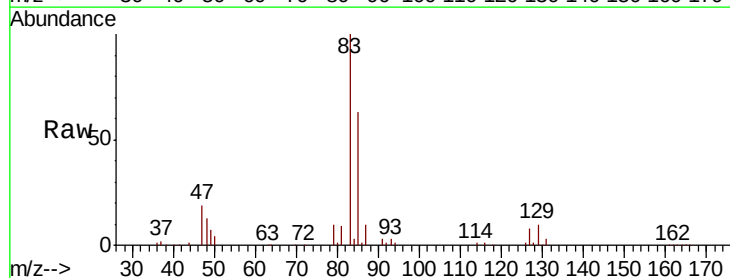
Instrument :  
 MSVOA\_U  
 ClientSampled :

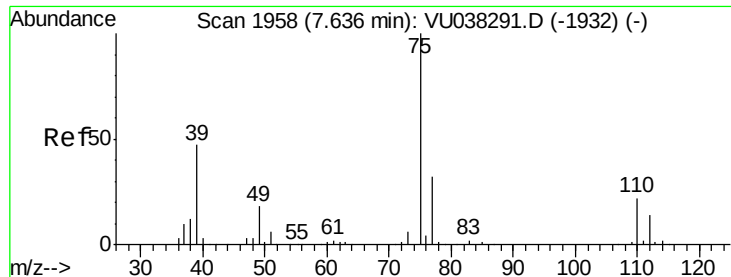
Tot Ion: 63 Resp: 145924  
 Ion Ratio Lower Upper  
 63 100  
 112 4.5 3.1 4.7



#38  
 Bromodichloromethane  
 Concen: 5.379 ug/L  
 RT: 7.13 min Scan# 1802  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

Tgt Ion: 83 Resp: 181910  
 Ion Ratio Lower Upper  
 83 100  
 85 63.2 44.6 82.8  
 127 7.9 6.4 9.6

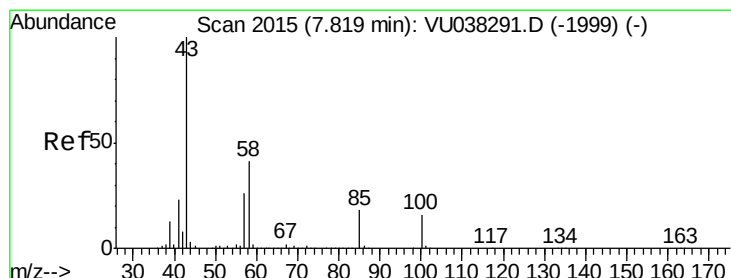
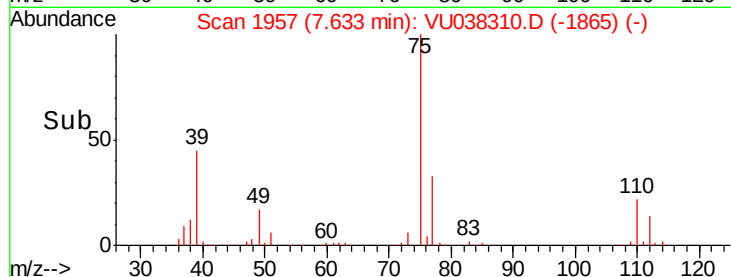
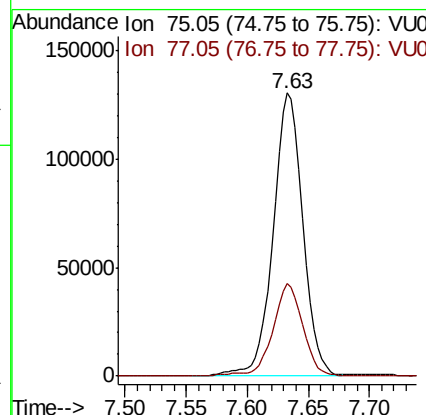
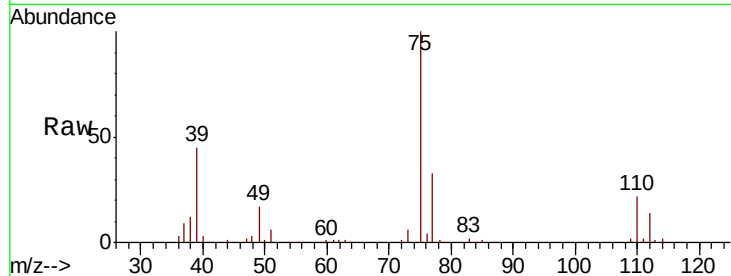




#39  
 cis-1,3-Dichloropropene  
 Concen: 5.319 ug/L  
 RT: 7.63 min Scan# 1957  
 Delta R.T. -0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

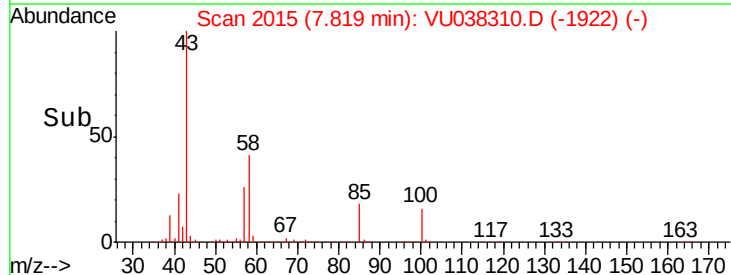
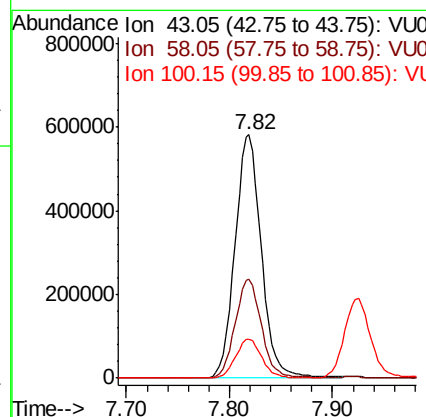
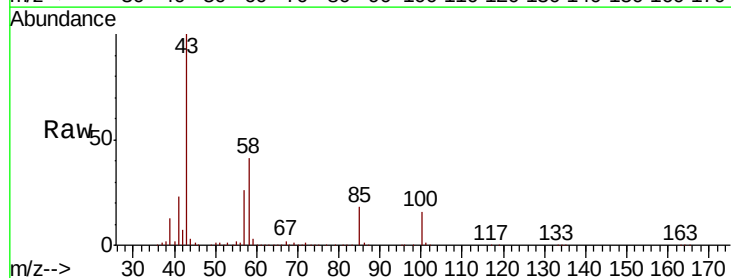
Instrument :  
 MSVOA\_U  
 ClientSampled :

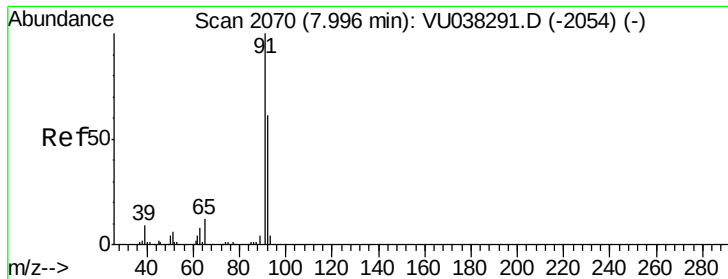
Tot Ion: 75 Resp: 222671  
 Ion Ratio Lower Upper  
 75 100  
 77 32.6 22.4 41.6



#40  
 4-Methyl-2-pentanone  
 Concen: 51.072 ug/L  
 RT: 7.82 min Scan# 2015  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

Tgt Ion: 43 Resp: 1035421  
 Ion Ratio Lower Upper  
 43 100  
 58 40.7 32.2 48.4  
 100 16.1 12.1 18.1





#42

Toluene

Concen: 5.368 ug/L

RT: 8.00 min Scan# 2070

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

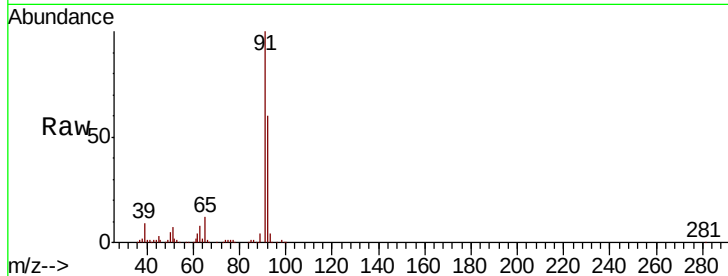
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 610272

Ion Ratio Lower Upper

91 100

92 60.4 40.9 75.9



Abundance Ion 91.15 (90.85 to 91.85): VU038310.D (-1977) (-)

Ion 92.15 (91.85 to 92.85): VU038310.D (-1977) (-)

8.00

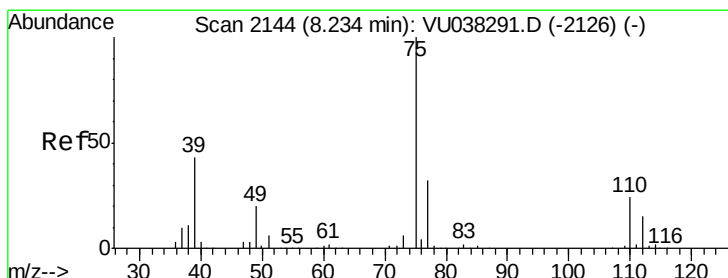
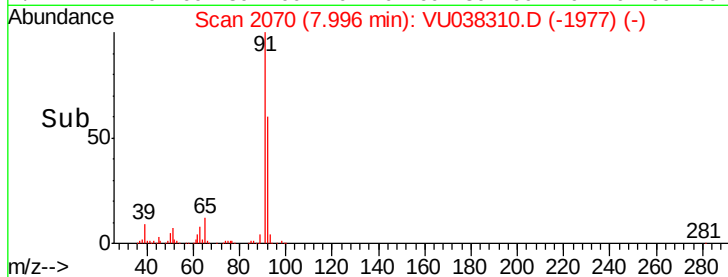
300000

200000

100000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 5.463 ug/L

RT: 8.23 min Scan# 2144

Delta R.T. 0.00 min

Lab File: VU038310.D

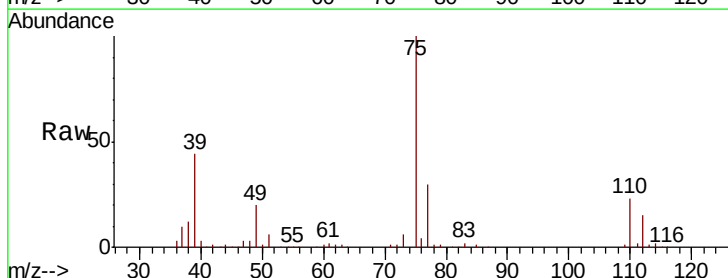
Acq: 27 May 2020 10:10

Tgt Ion: 75 Resp: 194497

Ion Ratio Lower Upper

75 100

77 30.4 22.4 41.6



Abundance Ion 75.05 (74.75 to 75.75): VU038310.D (-2051) (-)

Ion 77.05 (76.75 to 77.75): VU038310.D (-2051) (-)

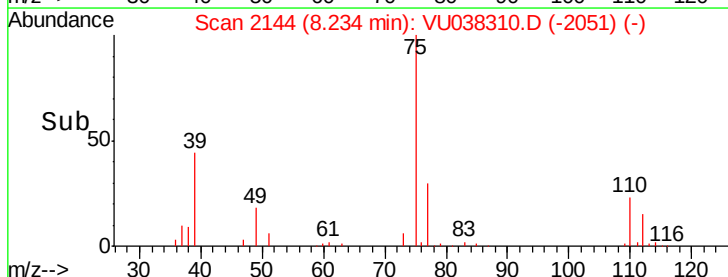
8.23

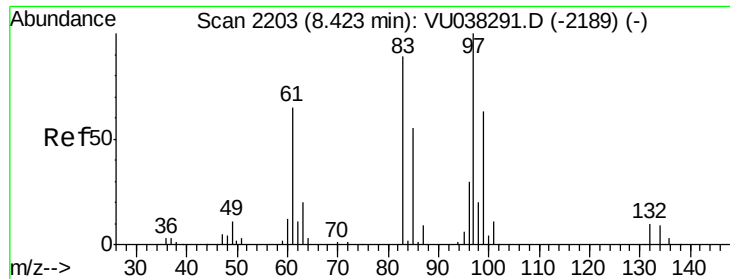
100000

50000

0

Time-->

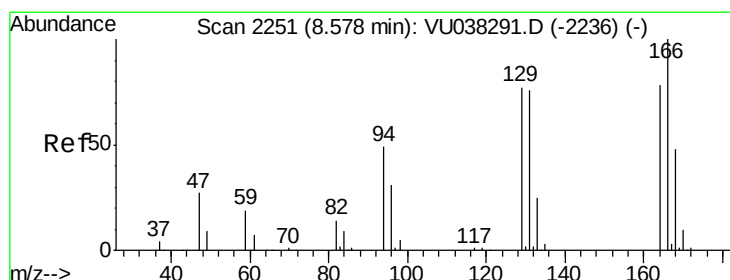
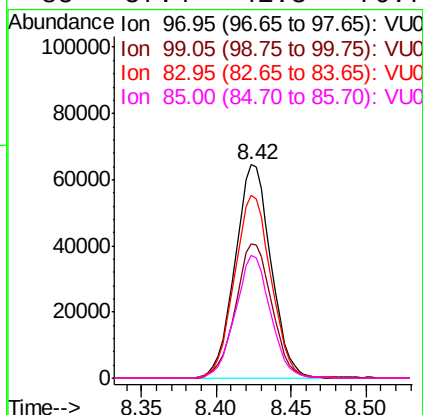
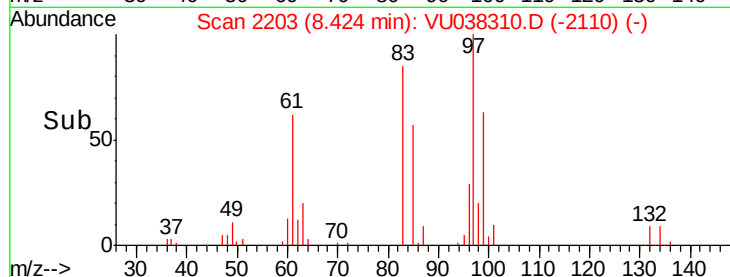
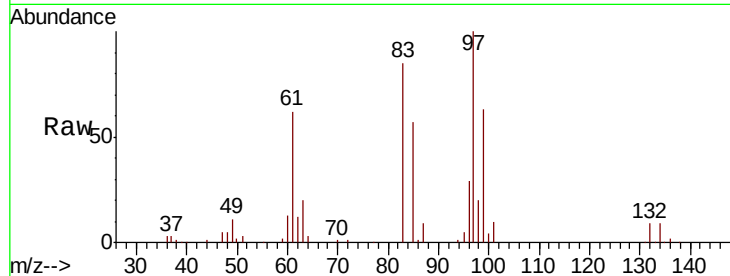




#45  
 1,1,2-Trichloroethane  
 Concen: 5.332 ug/L  
 RT: 8.42 min Scan# 2203  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

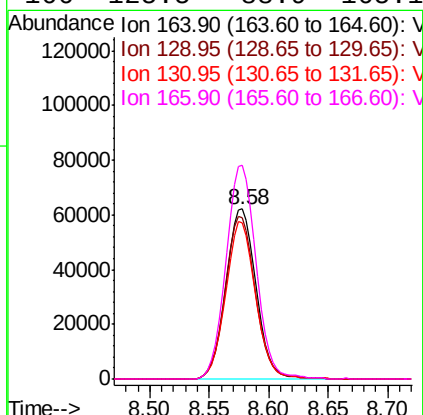
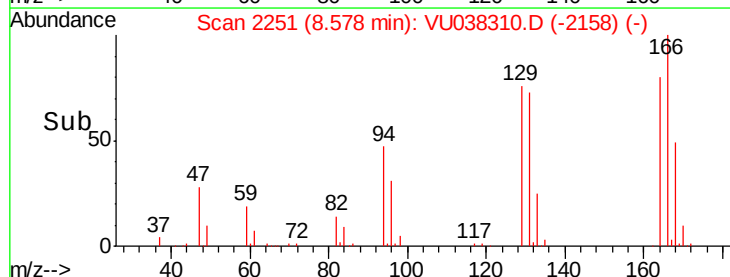
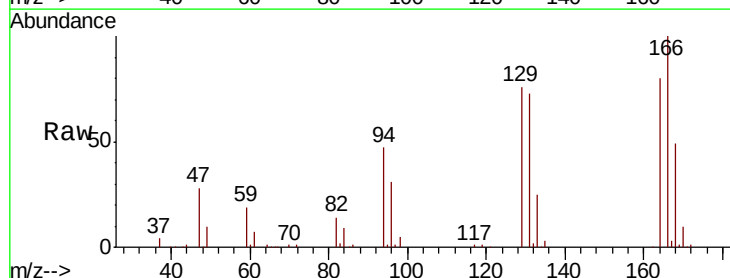
Instrument :  
 MSVOA\_U  
 ClientSampled :

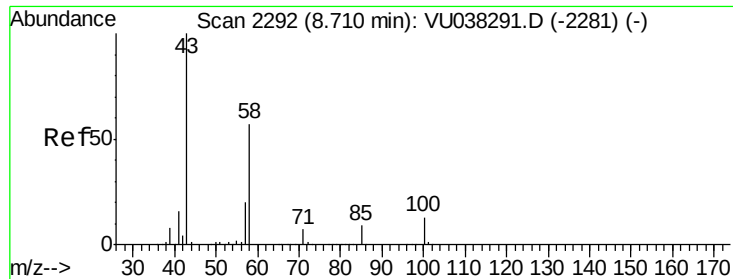
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 108306 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 62.9  | 44.0  | 81.6   |
| 83       | 85.4  | 59.6  | 110.8  |
| 85       | 57.4  | 41.3  | 76.7   |



#47  
 Tetrachloroethene  
 Concen: 5.791 ug/L  
 RT: 8.58 min Scan# 2251  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 109107 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 95.0  | 68.8  | 127.8  |
| 131      | 92.0  | 66.8  | 124.2  |
| 166      | 125.5 | 88.9  | 165.1  |

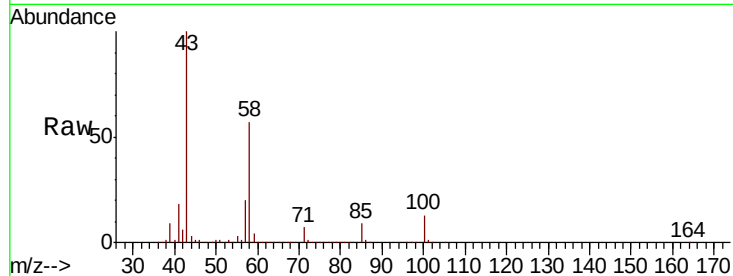




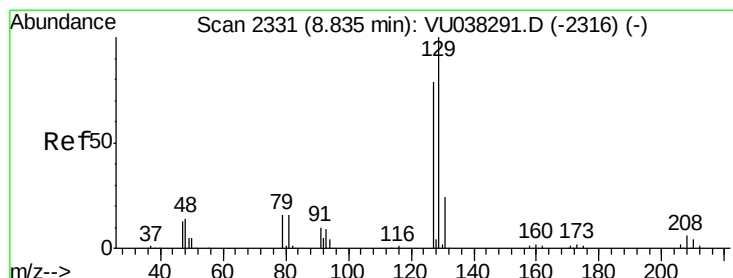
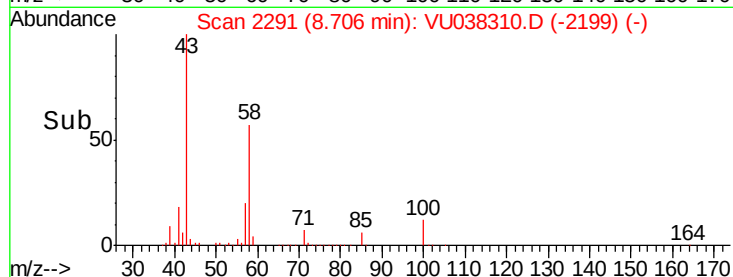
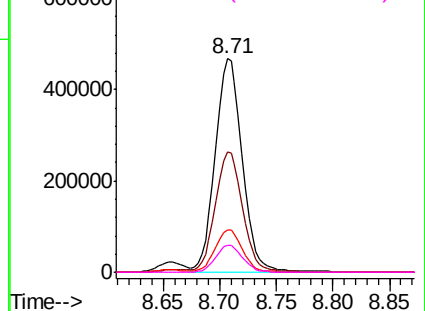
#48  
2-Hexanone  
Concen: 52.006 ug/L  
RT: 8.71 min Scan# 2291  
Delta R.T. -0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 772143  
Ion Ratio Lower Upper  
43 100  
58 56.9 45.2 67.8  
57 19.9 15.5 23.3  
100 12.8 9.5 14.3

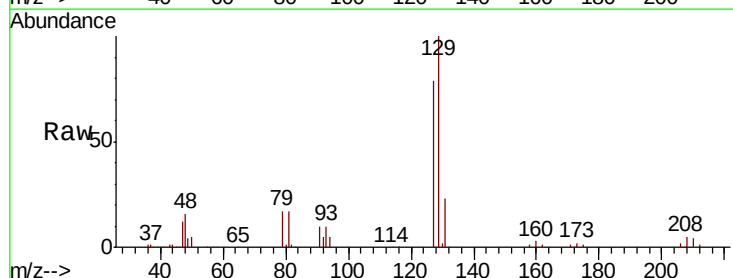


Abundance Ion 43.05 (42.75 to 43.75): VU0  
Ion 58.05 (57.75 to 58.75): VU0  
Ion 57.20 (56.90 to 57.90): VU0  
Ion 100.15 (99.85 to 100.85): VU0

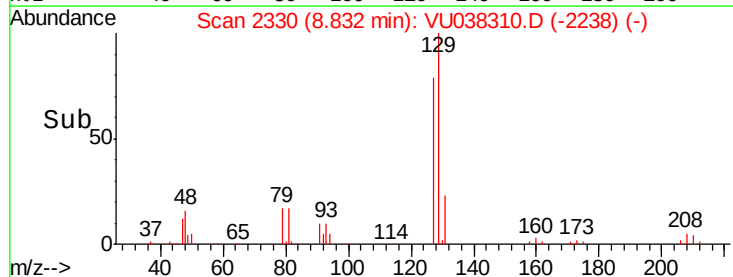
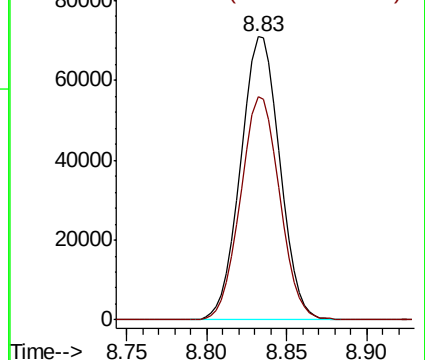


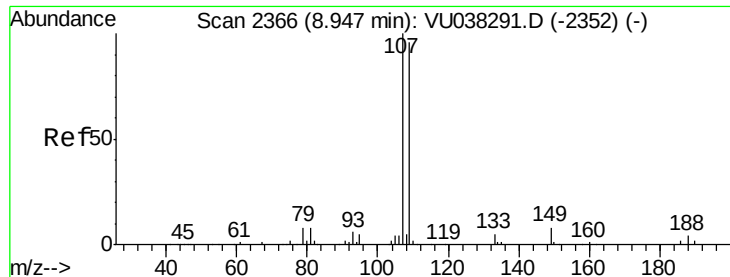
#49  
Dibromochloromethane  
Concen: 5.630 ug/L  
RT: 8.83 min Scan# 2330  
Delta R.T. -0.00 min  
Lab File: VU038310.D  
Acq: 27 May 2020 10:10

Tgt Ion: 129 Resp: 118686  
Ion Ratio Lower Upper  
129 100  
127 78.8 55.6 103.4



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

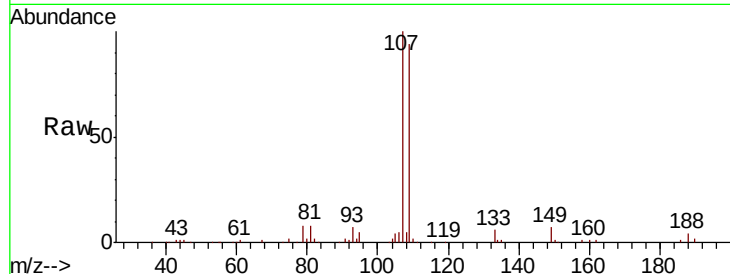




#50  
 1,2-Dibromoethane  
 Concen: 5.505 ug/L  
 RT: 8.95 min Scan# 2366  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 94.3  | 65.1  | 120.9 |
| 188     | 3.8   | 2.6   | 4.0   |

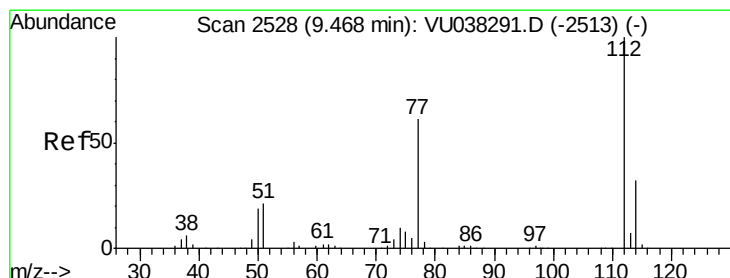
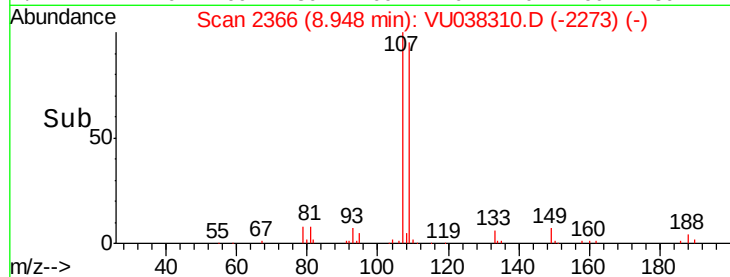
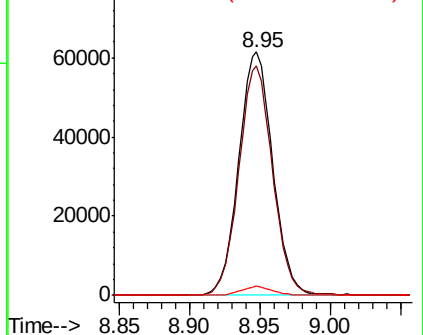


Abundance

Ion 106.95 (106.65 to 107.65): V

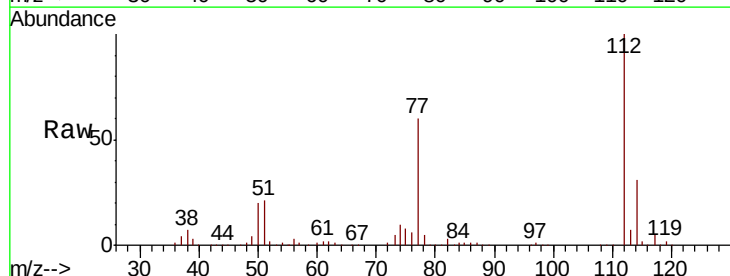
Ion 109.00 (108.70 to 109.70): V

Ion 187.90 (187.60 to 188.60): V



#51  
 Chlorobenzene  
 Concen: 5.466 ug/L  
 RT: 9.47 min Scan# 2528  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.4  | 22.5  | 41.7  |
| 77      | 60.4  | 49.9  | 74.9  |

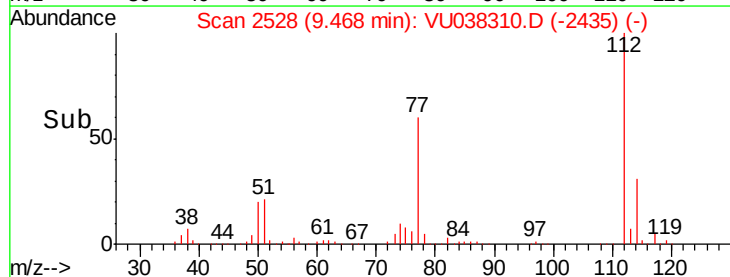
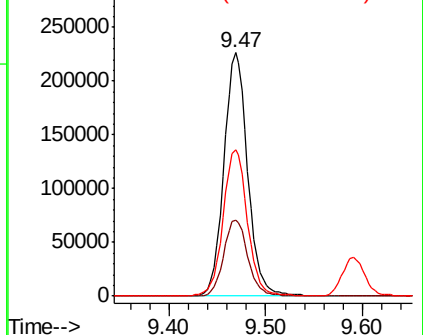


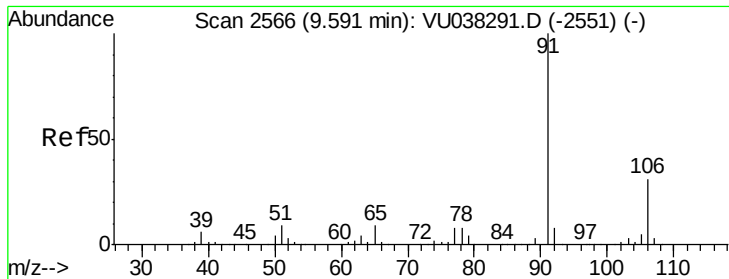
Abundance

Ion 112.10 (111.80 to 112.80): V

Ion 114.05 (113.75 to 114.75): V

Ion 77.10 (76.80 to 77.80): VU





#52

Ethylbenzene

Concen: 5.576 ug/L

RT: 9.59 min Scan# 2566

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

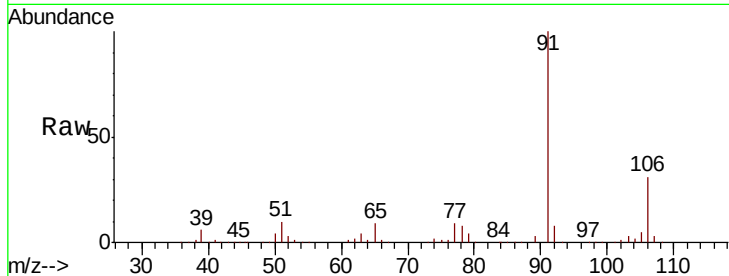
ClientSampled :

Tot Ion: 91 Resp: 686605

Ion Ratio Lower Upper

91 100

106 30.9 21.8 40.4



Abundance Ion 91.15 (90.85 to 91.85): VU038310.D (-2551) (-)

Ion 106.15 (105.85 to 106.85): VU038310.D (-2473) (-)

9.59

400000

300000

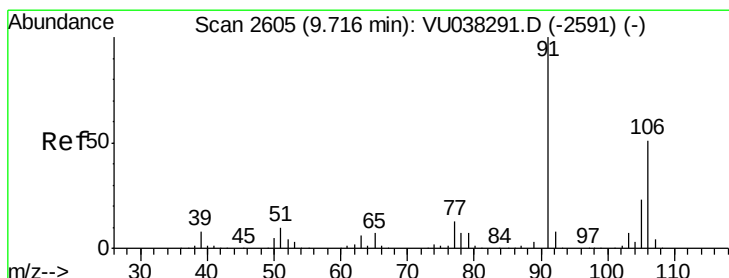
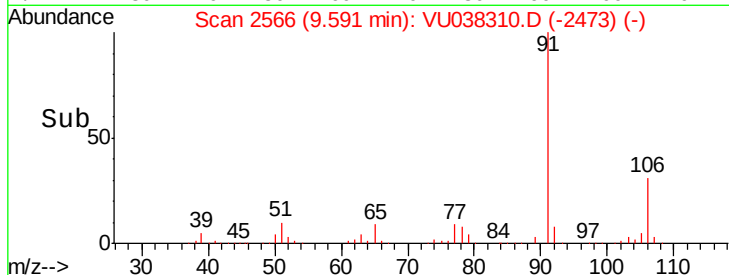
200000

100000

0

9.50 9.55 9.60 9.65 9.70

Time-->



#53

m,p-Xylene

Concen: 5.603 ug/L

RT: 9.71 min Scan# 2604

Delta R.T. -0.00 min

Lab File: VU038310.D

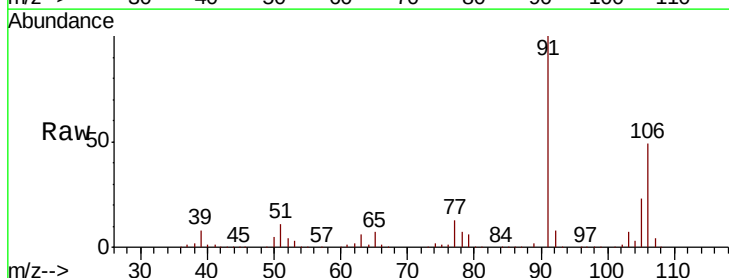
Acq: 27 May 2020 10:10

Tgt Ion: 106 Resp: 264593

Ion Ratio Lower Upper

106 100

91 202.1 142.1 263.9



Abundance Ion 106.15 (105.85 to 106.85): VU038310.D (-2512) (-)

Ion 91.15 (90.85 to 91.85): VU038310.D (-2591) (-)

9.71

300000

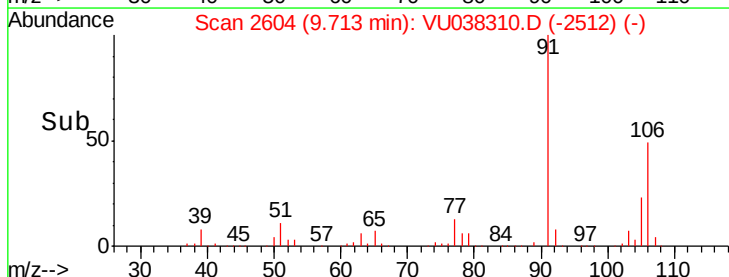
200000

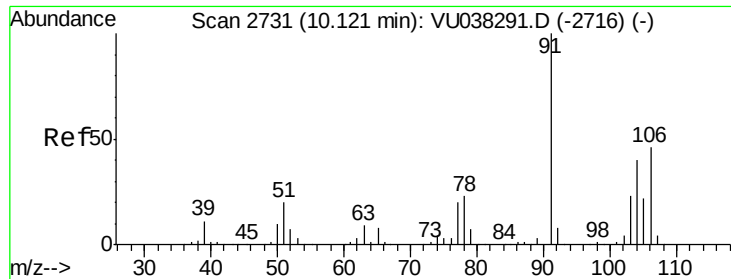
100000

0

9.70 9.80

Time-->





#54

o-Xylene

Concen: 5.591 ug/L

RT: 10.12 min Scan# 2730

Delta R.T. -0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

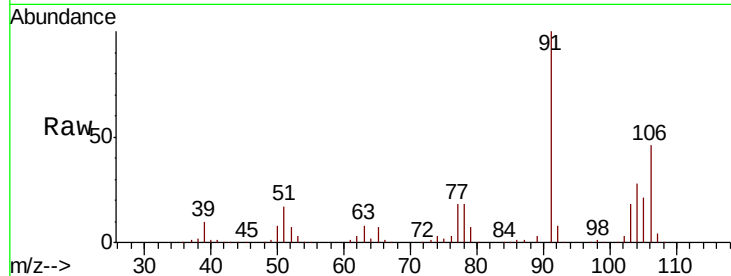
ClientSampled :

Tot Ion:106 Resp: 255247

Ion Ratio Lower Upper

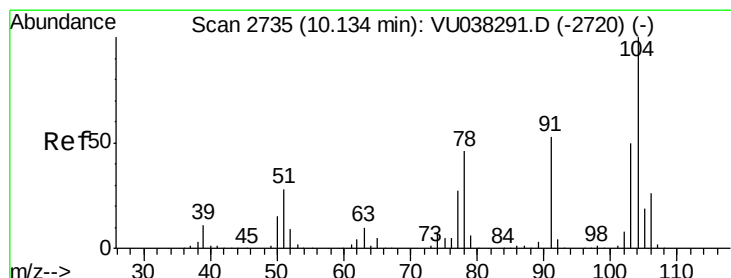
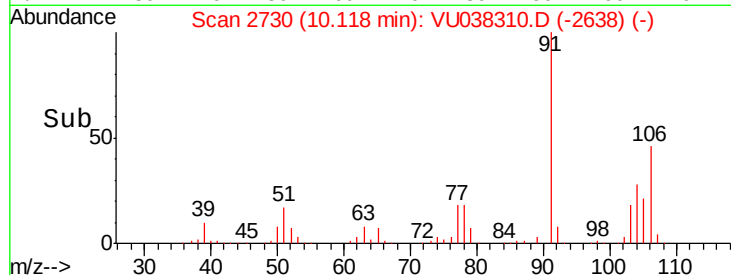
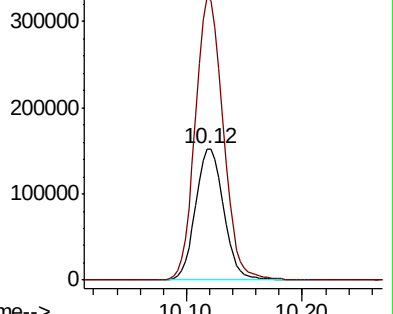
106 100

91 215.6 148.5 275.9



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VU0



#55

Styrene

Concen: 5.725 ug/L

RT: 10.13 min Scan# 2735

Delta R.T. 0.00 min

Lab File: VU038310.D

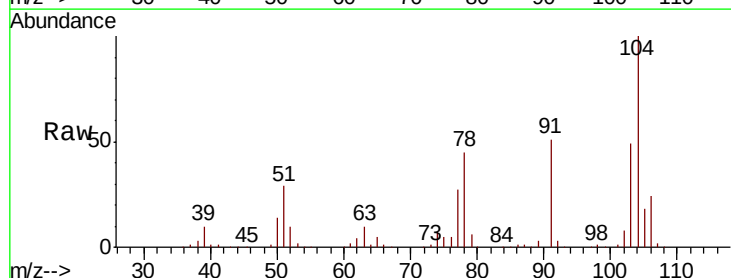
Acq: 27 May 2020 10:10

Tgt Ion:104 Resp: 438804

Ion Ratio Lower Upper

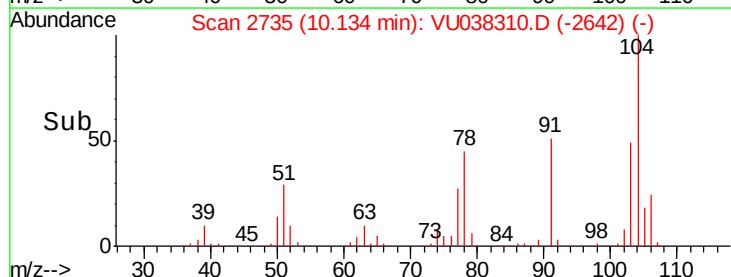
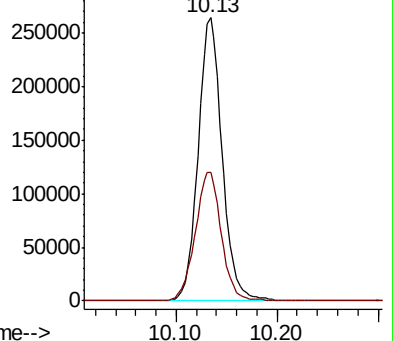
104 100

78 45.2 32.3 59.9

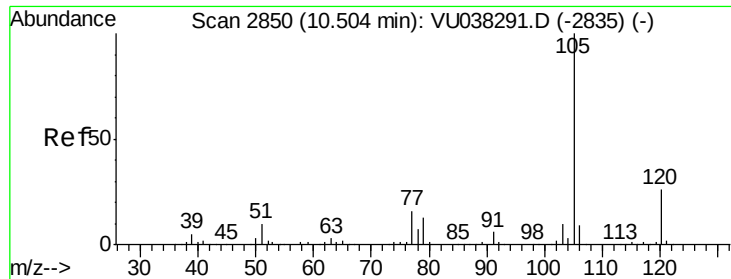


Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VU0







#56

Isopropylbenzene

Concen: 5.794 ug/L

RT: 10.50 min Scan# 2850

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

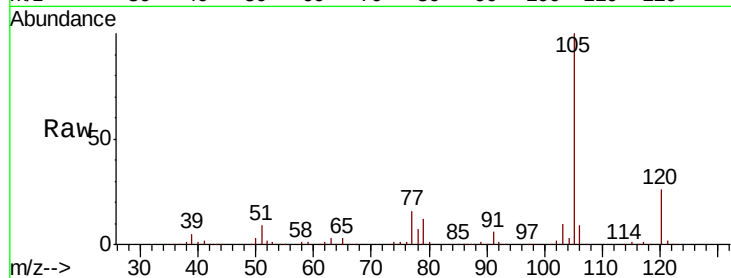
Tot Ion:105 Resp: 679505

Ion Ratio Lower Upper

105 100

120 25.6 21.0 31.6

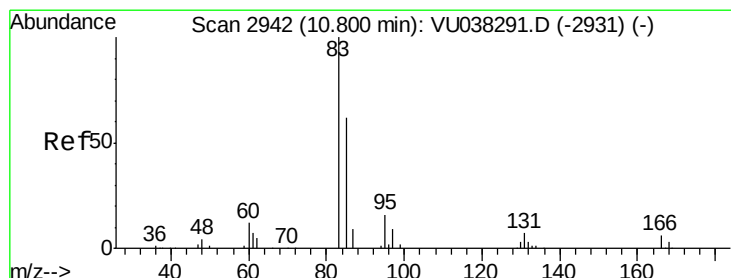
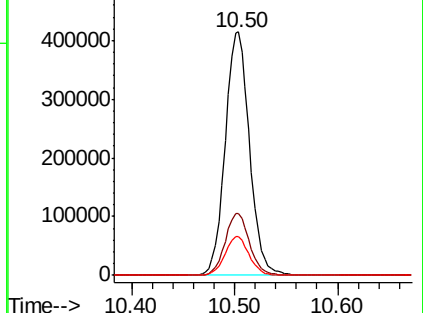
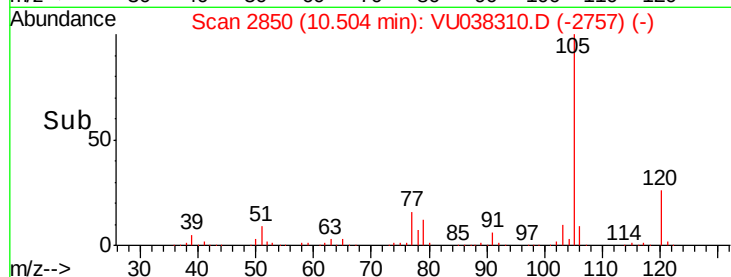
77 15.8 13.0 19.4



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 5.361 ug/L

RT: 10.80 min Scan# 2942

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

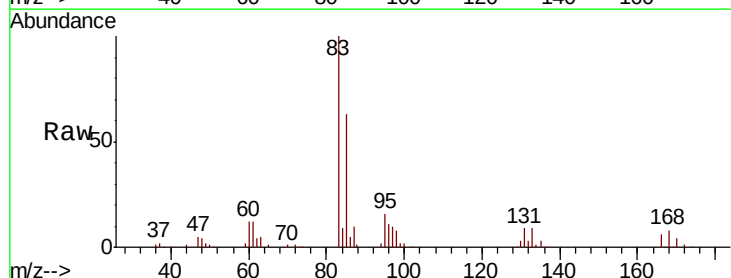
Tgt Ion: 83 Resp: 138267

Ion Ratio Lower Upper

83 100

85 63.3 47.0 87.2

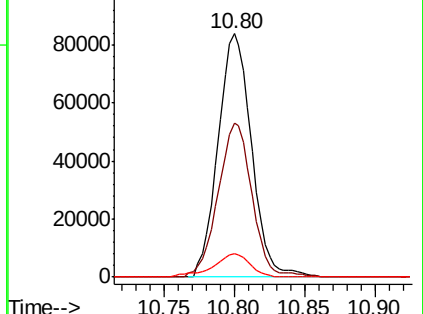
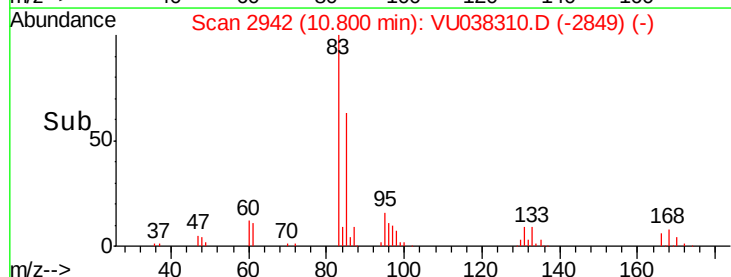
131 9.5 7.7 11.5

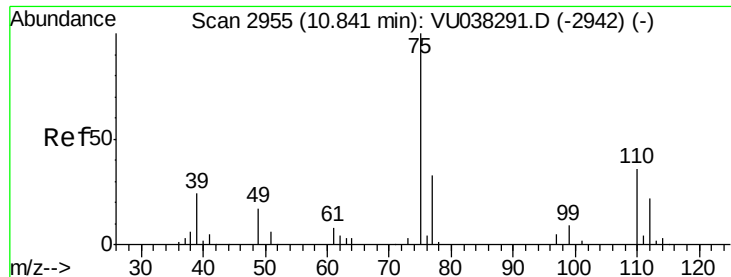


Abundance Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0

Ion 130.95 (130.65 to 131.65): V

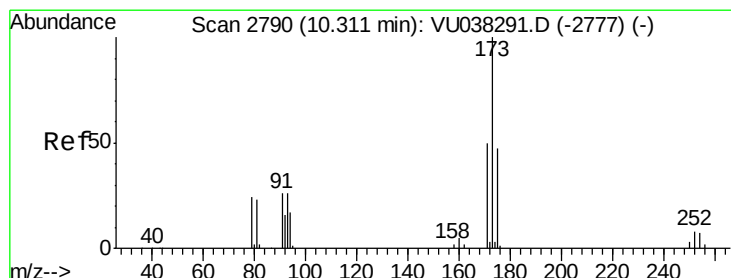
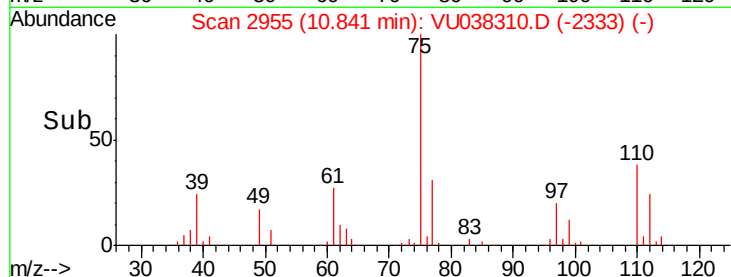
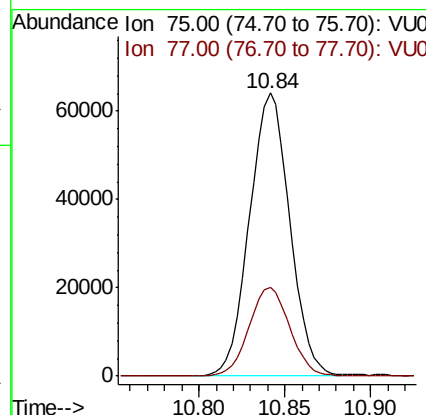
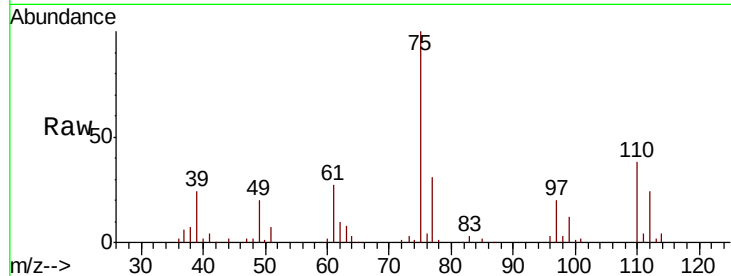




#59  
 1,2,3-Trichloropropane  
 Concen: 5.310 ug/L  
 RT: 10.84 min Scan# 2955  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

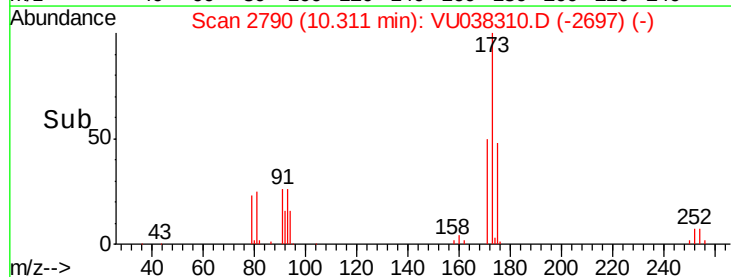
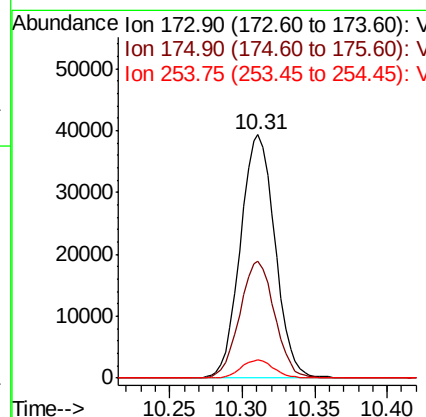
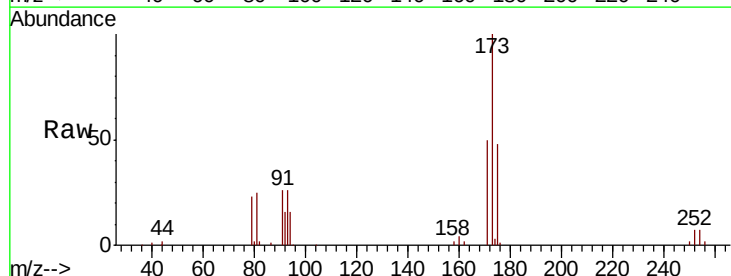
Instrument :  
 MSVOA\_U  
 ClientSampleId :

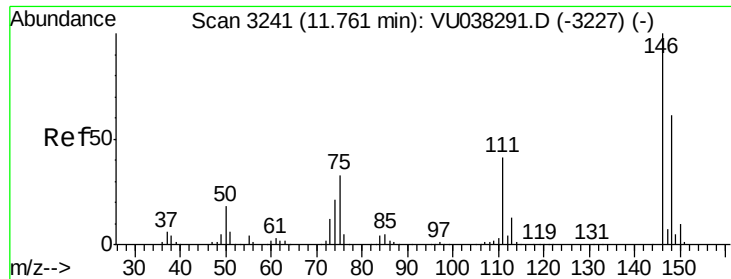
Tot Ion: 75 Resp: 104246  
 Ion Ratio Lower Upper  
 75 100  
 77 31.9 25.4 38.0



#61  
 Bromoform  
 Concen: 5.542 ug/L  
 RT: 10.31 min Scan# 2790  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

Tgt Ion:173 Resp: 65240  
 Ion Ratio Lower Upper  
 173 100  
 175 48.3 39.5 59.3  
 254 7.0 5.0 7.4





#62

1,3-Dichlorobenzene

Concen: 5.408 ug/L

RT: 11.76 min Scan# 3241

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

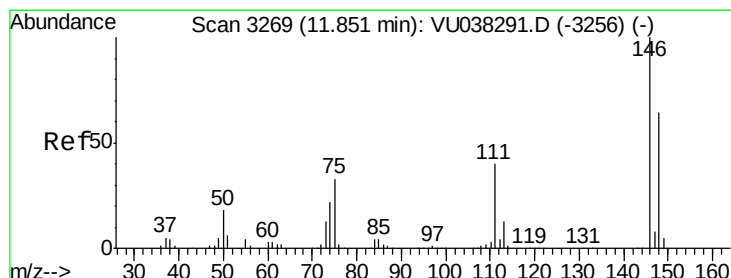
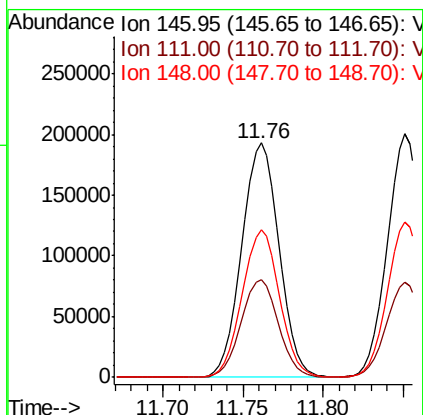
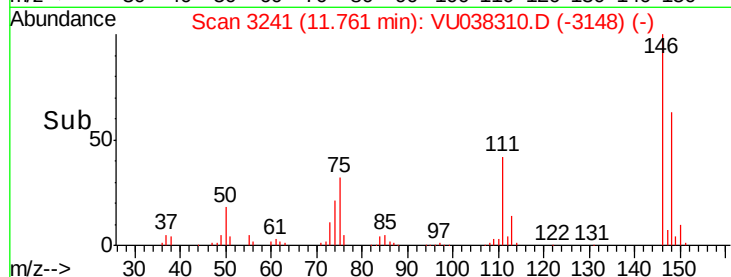
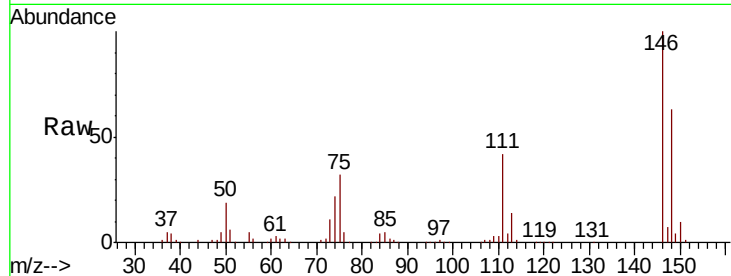
Tot Ion:146 Resp: 306404

Ion Ratio Lower Upper

146 100

111 41.6 28.6 53.2

148 63.2 45.2 84.0



#63

1,4-Dichlorobenzene

Concen: 5.397 ug/L

RT: 11.85 min Scan# 3269

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

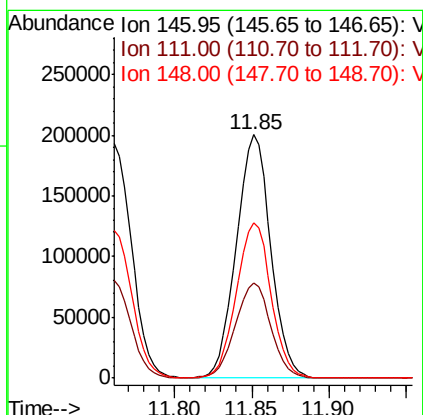
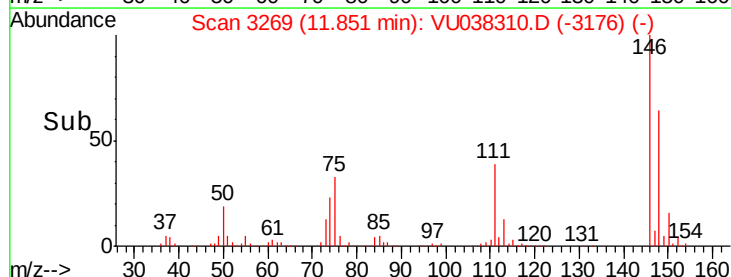
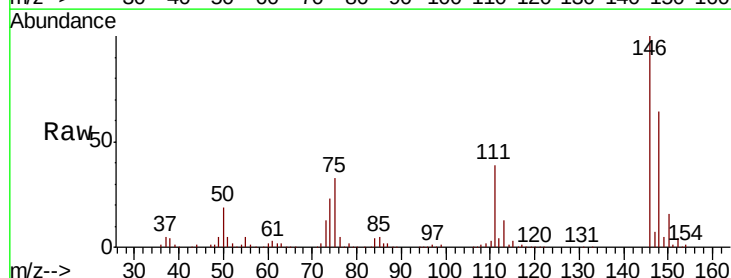
Tgt Ion:146 Resp: 309848

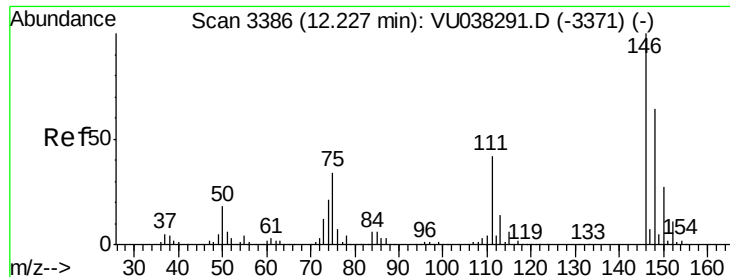
Ion Ratio Lower Upper

146 100

111 39.1 27.2 50.6

148 63.6 43.8 81.3

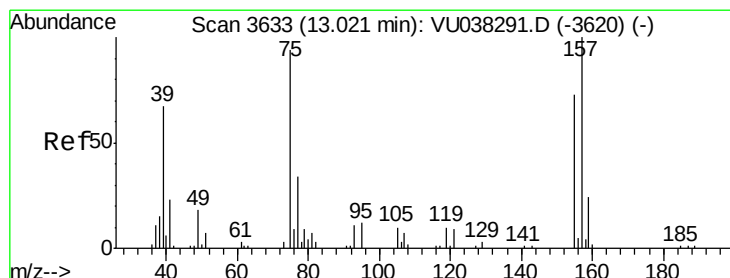
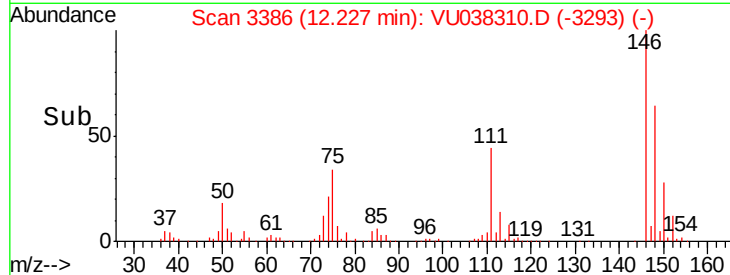
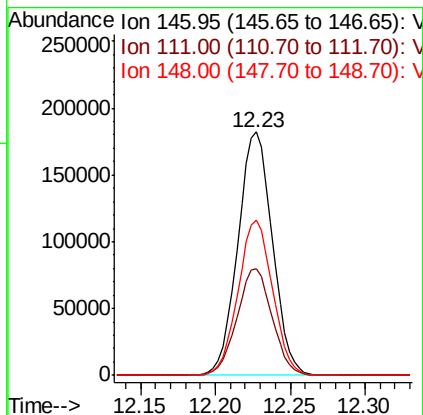
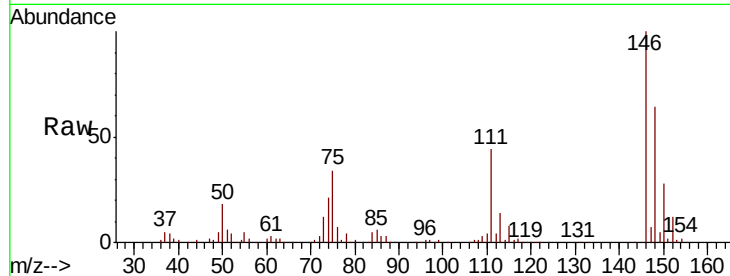




#65  
 1,2-Dichlorobenzene  
 Concen: 5.377 ug/L  
 RT: 12.23 min Scan# 3386  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

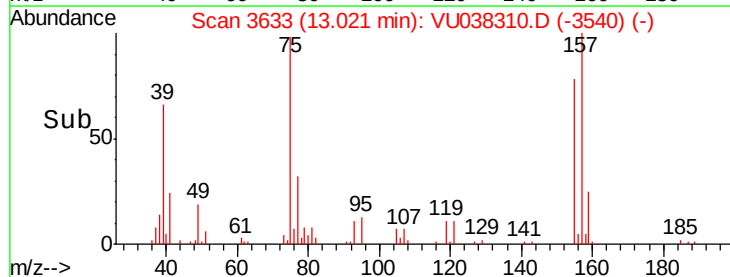
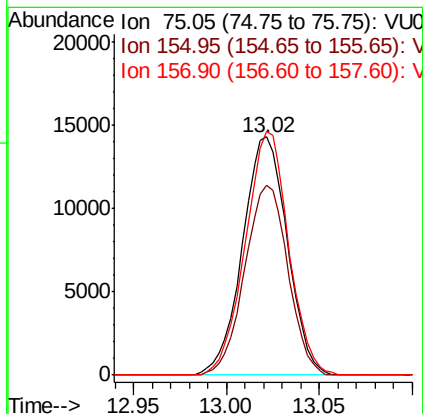
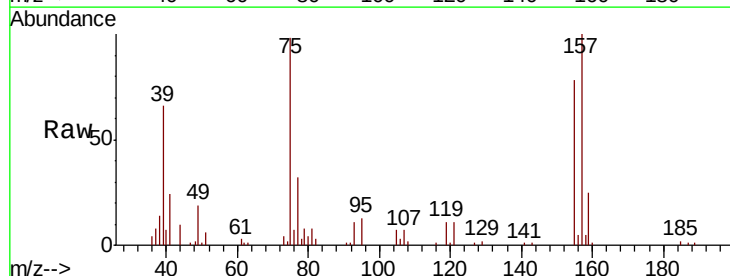
Instrument :  
 MSVOA\_U  
 ClientSampled :

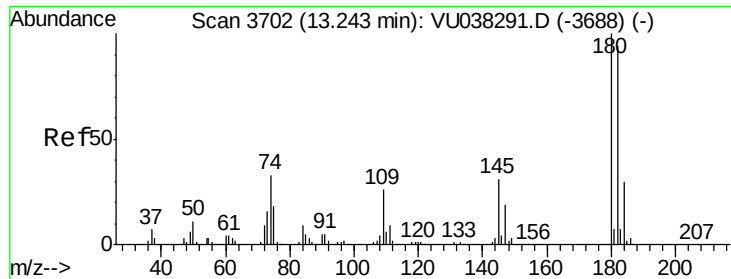
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 44.0  | 35.3  | 52.9  |
| 148     | 63.6  | 51.0  | 76.4  |



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 5.391 ug/L  
 RT: 13.02 min Scan# 3633  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 155     | 79.9  | 58.2  | 87.2  |
| 157     | 102.2 | 72.9  | 109.3 |

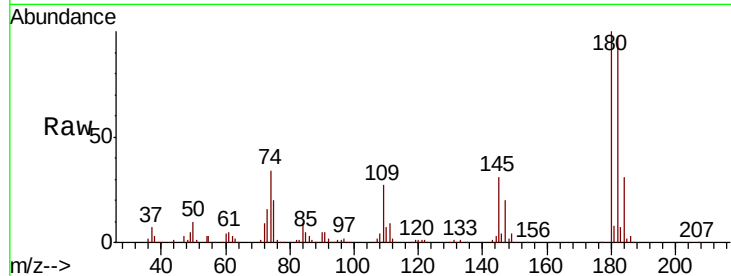




#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.600 ug/L  
 RT: 13.24 min Scan# 3702  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 98.1  | 77.4  | 116.2 |
| 184     | 30.7  | 24.2  | 36.2  |
| 145     | 31.9  | 24.0  | 36.0  |



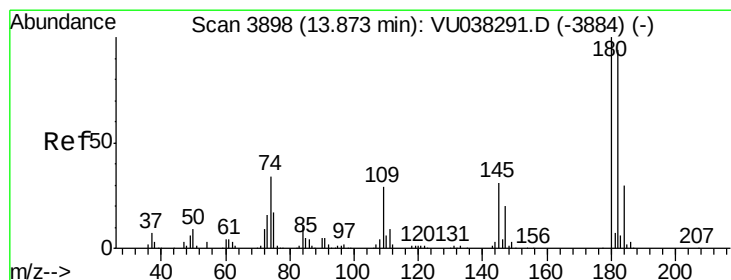
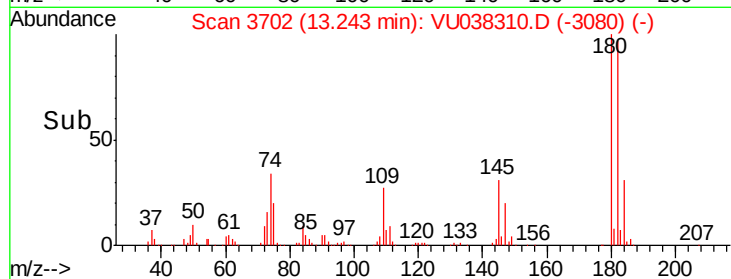
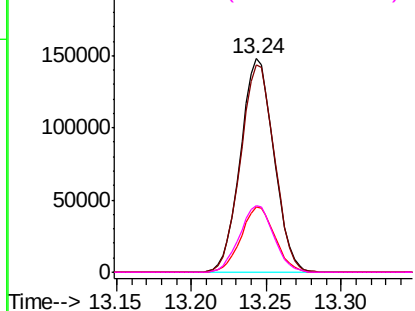
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

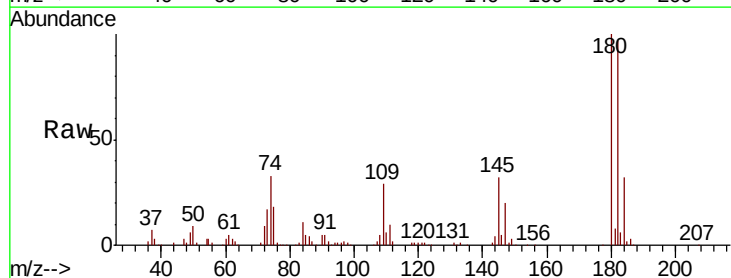
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 5.732 ug/L  
 RT: 13.87 min Scan# 3898  
 Delta R.T. 0.00 min  
 Lab File: VU038310.D  
 Acq: 27 May 2020 10:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.9  | 75.0  | 112.6 |
| 145     | 31.5  | 24.8  | 37.2  |

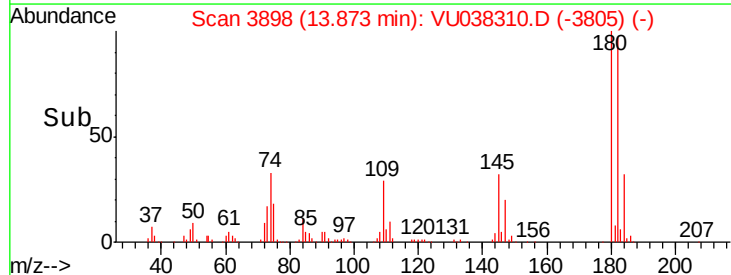
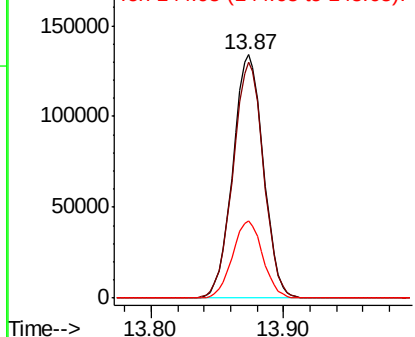


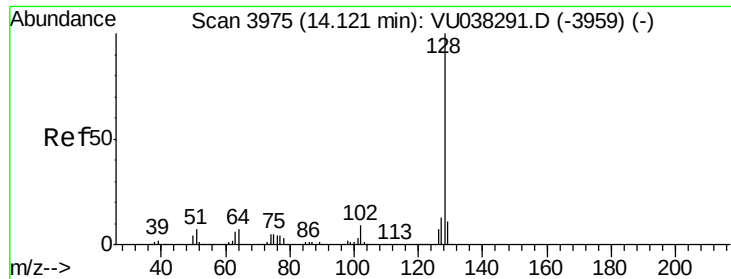
Abundance

Ion 179.90 (179.60 to 180.60): V

Ion 182.00 (181.70 to 182.70): V

Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 5.760 ug/L

RT: 14.12 min Scan# 3975

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

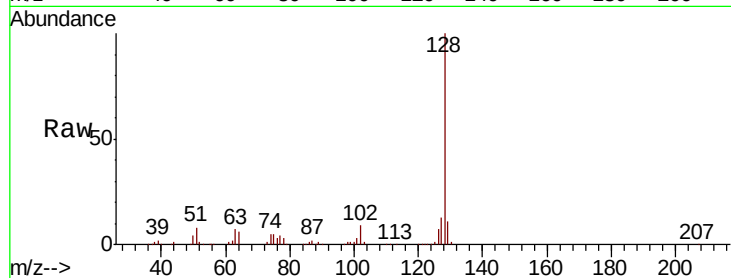
Tot Ion:128 Resp: 452200

Ion Ratio Lower Upper

128 100

129 10.9 8.7 13.1

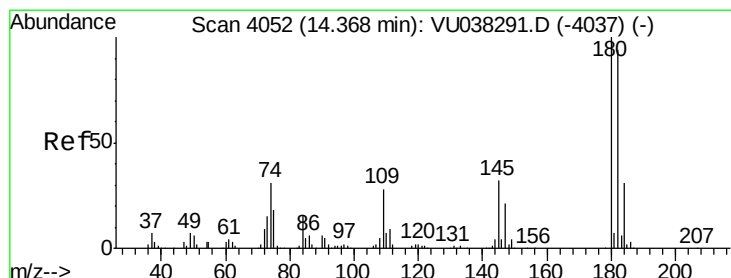
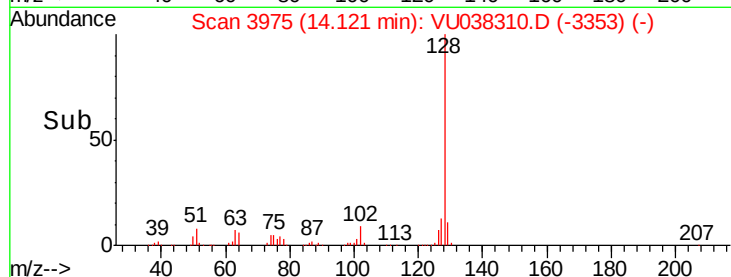
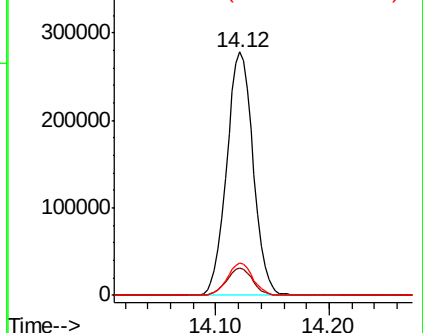
127 12.8 10.2 15.4



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 5.696 ug/L

RT: 14.37 min Scan# 4052

Delta R.T. 0.00 min

Lab File: VU038310.D

Acq: 27 May 2020 10:10

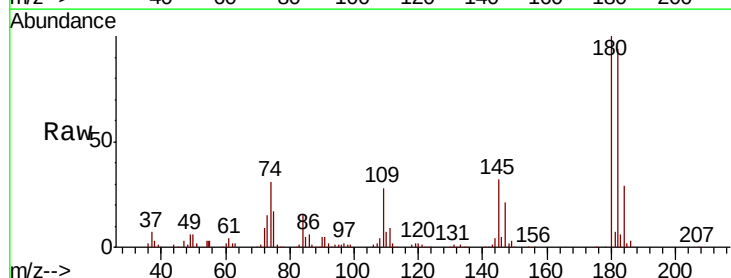
Tgt Ion:180 Resp: 197439

Ion Ratio Lower Upper

180 100

182 94.3 76.3 114.5

145 33.4 26.1 39.1



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

