

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU111418\  
 Data File : VU028152.D  
 Acq On : 15 Nov 2018 04:28  
 Operator : MD/SY  
 Sample : J5943-14MSD  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 46 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Nov 15 06:19:45 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR111418WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Nov 15 06:14:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 130735   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 124738   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 57550    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40   | 65    | 51264    | 4.73     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 94.60%  |
| 7) Chloroethane-d5             | 1.68   | 69    | 37887    | 4.40     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 88.00%  |
| 11) 1,1-Dichloroethene-d2      | 2.28   | 63    | 92694    | 4.57     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 91.40%  |
| 20) 2-Butanone-d5              | 4.21   | 46    | 169444   | 53.85    | ug/L | 0.02    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 107.70% |
| 24) Chloroform-d               | 4.65   | 84    | 79239    | 4.59     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 91.80%  |
| 26) 1,2-Dichloroethane-d4      | 5.31   | 65    | 46089    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 95.60%  |
| 32) Benzene-d6                 | 5.34   | 84    | 164818   | 4.60     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 92.00%  |
| 36) 1,2-Dichloropropane-d6     | 6.33   | 67    | 61903    | 4.83     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 96.60%  |
| 41) Toluene-d8                 | 7.57   | 98    | 145544   | 4.37     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 87.40%  |
| 43) trans-1,3-Dichloropropene- | 7.85   | 79    | 18098    | 3.96     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 79.20%  |
| 46) 2-Hexanone-d5              | 8.32   | 63    | 129804   | 49.74    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 99.48%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43  | 84    | 43401    | 4.79     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 95.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86  | 152   | 51146    | 4.76     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 95.20%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 3) Chloromethane               | 1.40 | 50   | 5514     | 0.374  | ug/L # | 46     |
| 5) Vinyl chloride              | 1.40 | 62   | 814188   | 58.143 | ug/L   | 98     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101  | 754      | 0.088  | ug/L # | 23     |
| 12) 1,1-Dichloroethene         | 2.29 | 96   | 45420    | 5.225  | ug/L   | 93     |
| 18) trans-1,2-Dichloroethene   | 2.98 | 96   | 77058    | 8.338  | ug/L   | 97     |
| 19) 1,1-Dichloroethane         | 3.45 | 63   | 144158   | 7.417  | ug/L   | 100    |
| 22) cis-1,2-Dichloroethene     | 4.23 | 96   | 348727   | 34.224 | ug/L   | 97     |
| 27) 1,2-Dichloroethane         | 5.39 | 62   | 2444     | 0.213  | ug/L # | 76     |
| 30) Cyclohexane                | 5.00 | 56   | 1667     | 0.084  | ug/L # | 87     |
| 33) Benzene                    | 5.39 | 78   | 237143   | 5.643  | ug/L   | 100    |
| 34) Trichloroethene            | 6.19 | 95   | 57249    | 5.512  | ug/L   | 97     |
| 37) 1,2-Dichloropropane        | 6.44 | 63   | 1134     | 0.098  | ug/L # | 92     |
| 39) cis-1,3-Dichloropropene    | 7.23 | 75   | 1391     | 0.089  | ug/L # | 77     |
| 42) Toluene                    | 7.64 | 91   | 215558   | 4.975  | ug/L   | 97     |
| 47) Tetrachloroethene          | 8.23 | 164  | 607      | 0.072  | ug/L   | 80     |
| 48) 2-Hexanone                 | 8.32 | 43   | 15625    | 2.744  | ug/L # | 65     |
| 49) Dibromochloromethane       | 8.22 | 129  | 717      | 0.096  | ug/L # | 11     |

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ALS Vial : 46 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :

Quant Time: Nov 15 06:19:45 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR111418WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu Nov 15 06:14:20 2018  
Response via : Initial Calibration

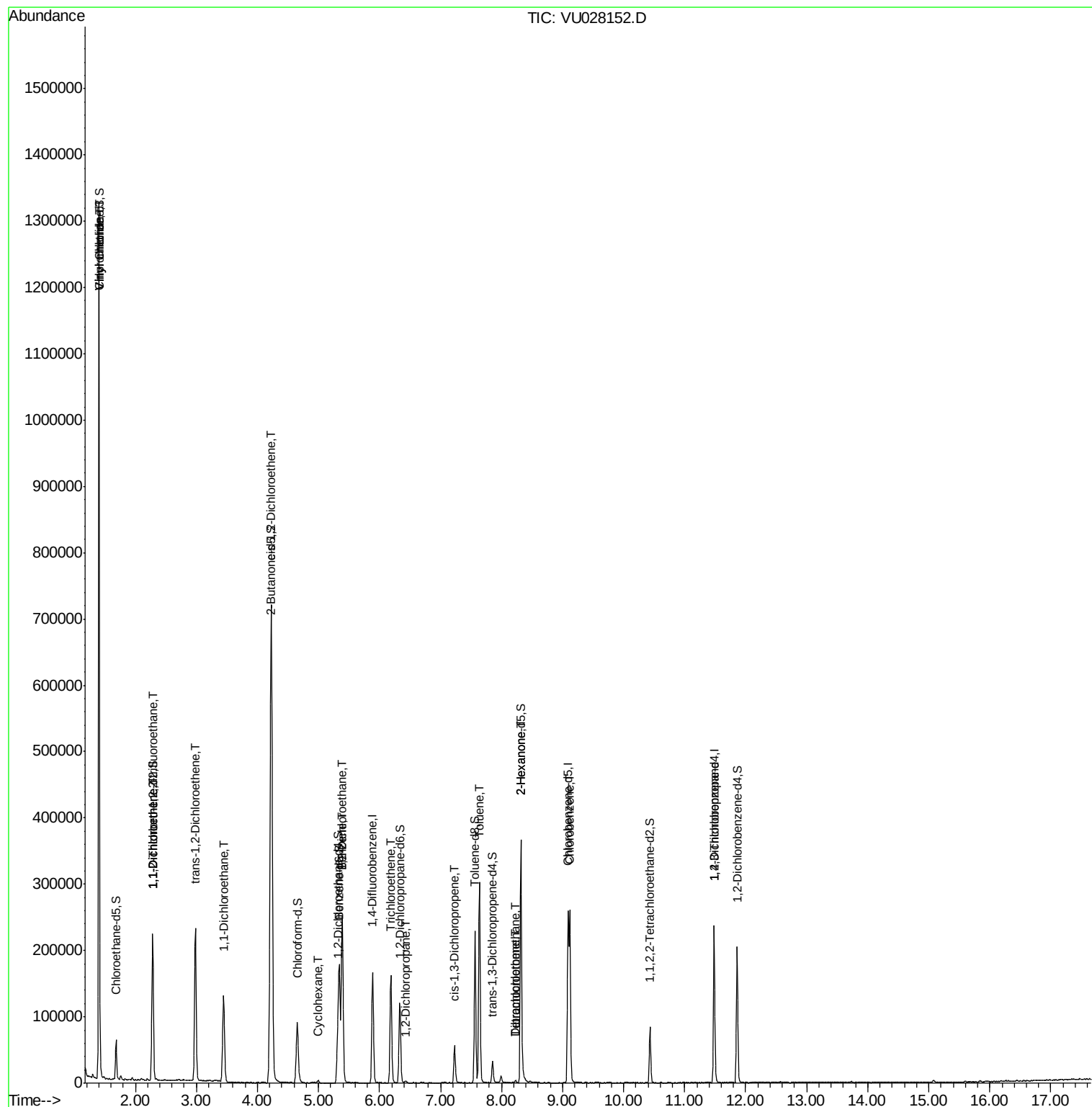
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 51) Chlorobenzene          | 9.12  | 112  | 124886   | 4.929 | ug/L  | 96       |
| 59) 1,2,3-Trichloropropane | 11.48 | 75   | 8575     | 1.314 | ug/L  | 95       |

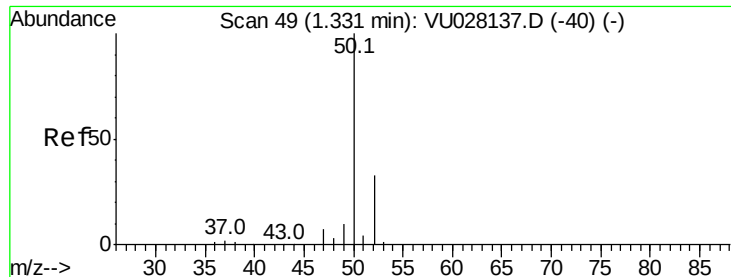
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Nov 15 06:19:45 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR111418WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu Nov 15 06:14:20 2018  
Response via : Initial Calibration





#3

Chloromethane

Concen: 0.374 ug/L

RT: 1.40 min Scan# 71

Delta R.T. 0.07 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :

MSVOA\_U

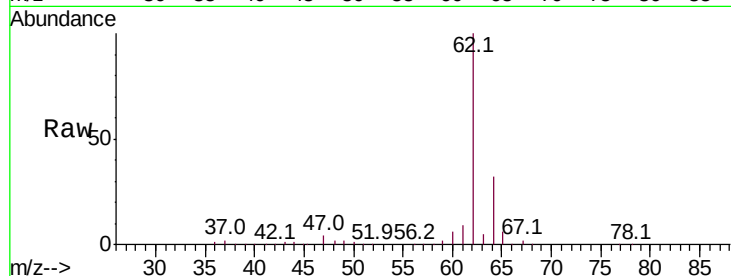
ClientSampleId :

Tot Ion: 50 Resp: 5514

Ion Ratio Lower Upper

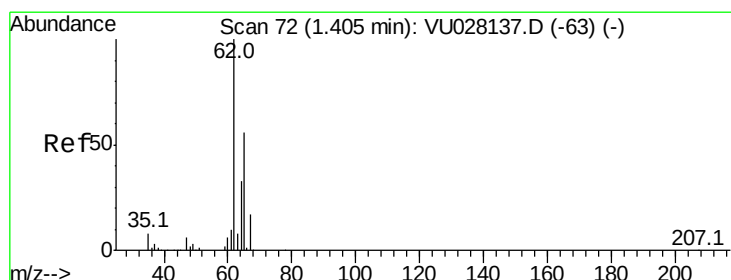
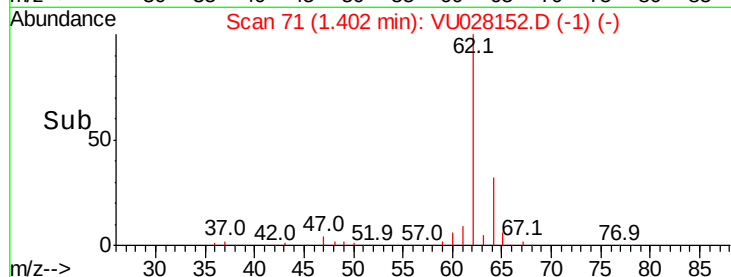
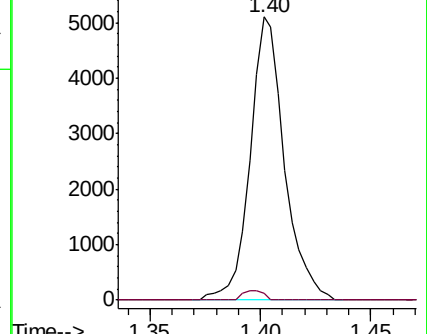
50 100

52 2.4 23.0 42.6#



Abundance Ion 50.05 (49.75 to 50.75): VU0

Ion 52.05 (51.75 to 52.75): VU0



#5

Vinyl chloride

Concen: 58.143 ug/L

RT: 1.40 min Scan# 72

Delta R.T. -0.00 min

Lab File: VU028152.D

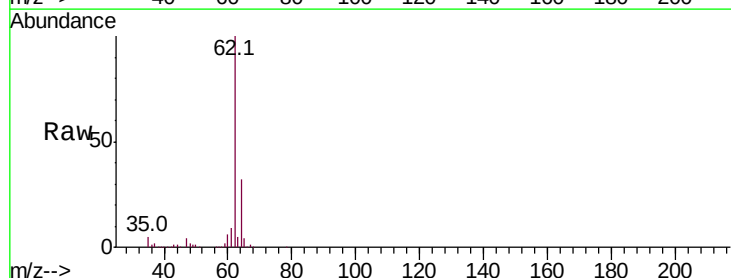
Acq: 15 Nov 2018 04:28

Tgt Ion: 62 Resp: 814188

Ion Ratio Lower Upper

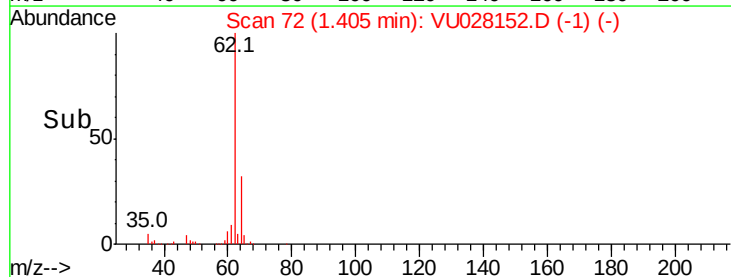
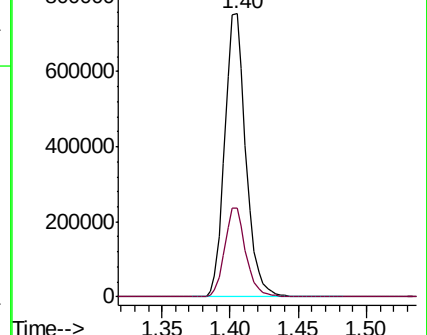
62 100

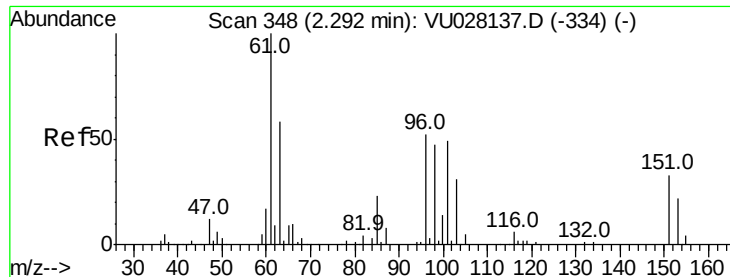
64 31.6 22.7 42.3



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.10 (63.80 to 64.80): VU0





#10

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

Concen: 0.088 ug/L

RT: 2.28 min Scan# 344

Delta R.T. -0.01 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :

MSVOA\_U

ClientSampled :

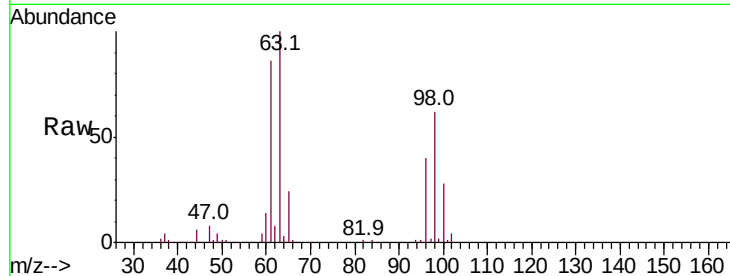
Tot Ion:101 Resp: 754

Ion Ratio Lower Upper

101 100

85 5.4 37.6 56.4#

151 0.0 58.2 87.2#



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

2.28

400

300

200

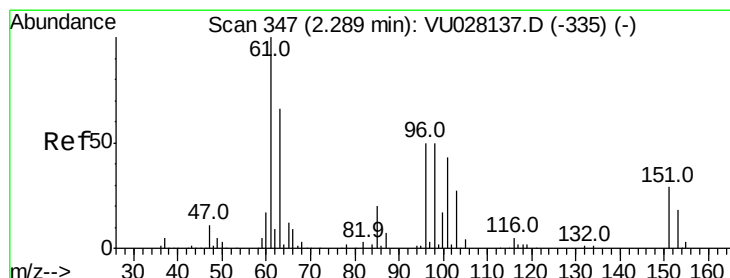
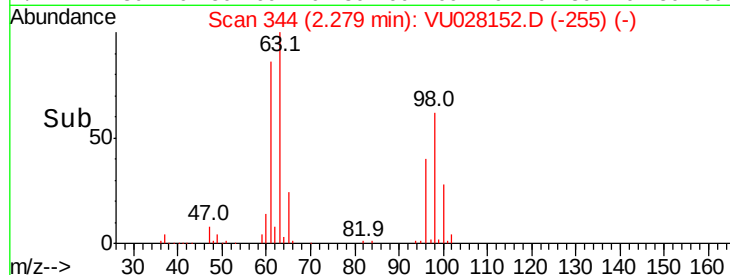
100

0

2.25

2.30

Time-->



#12

1,1-Dichloroethene

Concen: 5.225 ug/L

RT: 2.29 min Scan# 347

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

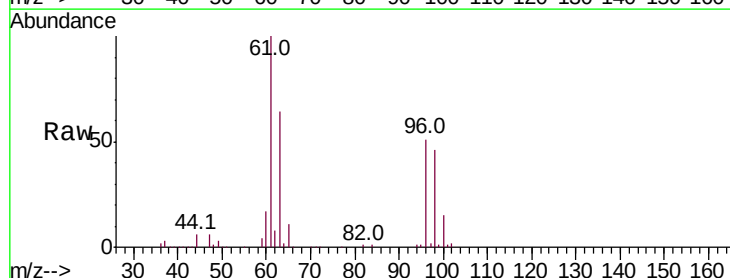
Tgt Ion: 96 Resp: 45420

Ion Ratio Lower Upper

96 100

61 195.3 134.8 250.3

63 125.4 100.1 185.9



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

80000

60000

40000

20000

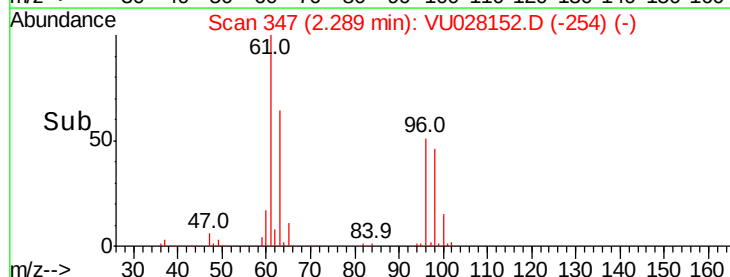
0

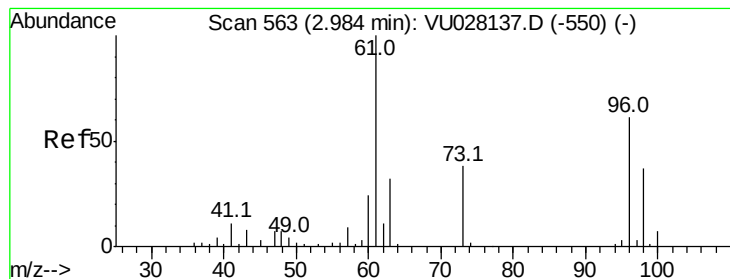
2.25

2.30

2.35

Time-->





#18

trans-1,2-Dichloroethene

Concen: 8.338 ug/L

RT: 2.98 min Scan# 563

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :  
MSVOA\_U  
ClientSampled :

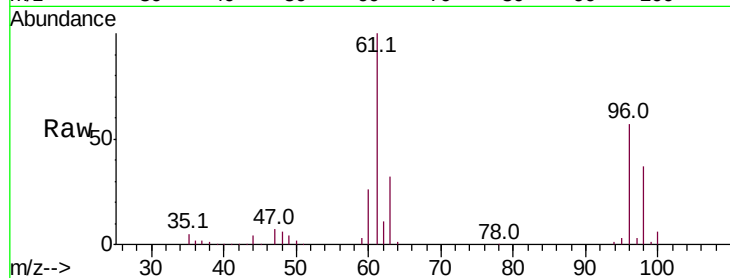
Tot Ion: 96 Resp: 77058

Ion Ratio Lower Upper

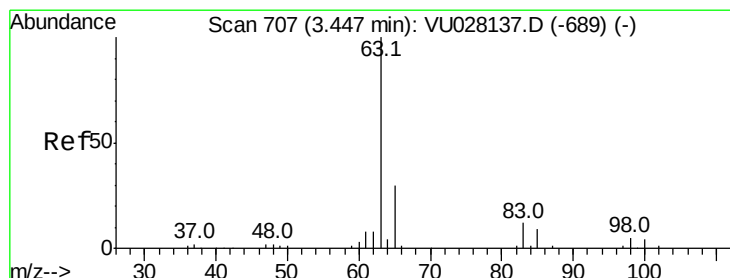
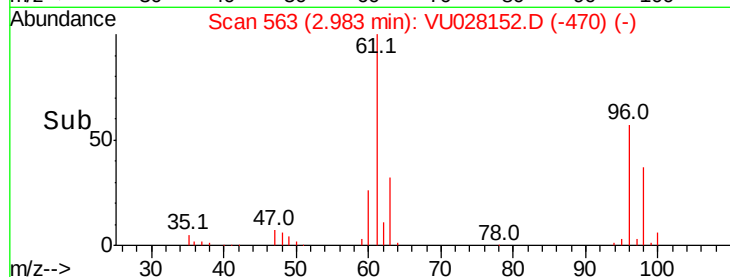
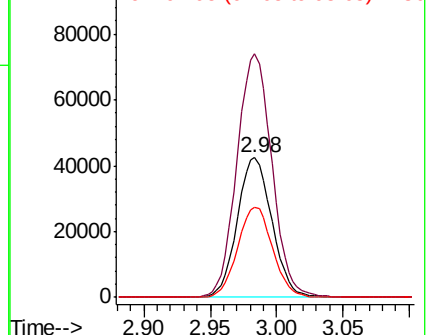
96 100

61 174.8 118.5 220.1

98 64.7 44.9 83.5



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: 7.417 ug/L

RT: 3.45 min Scan# 707

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

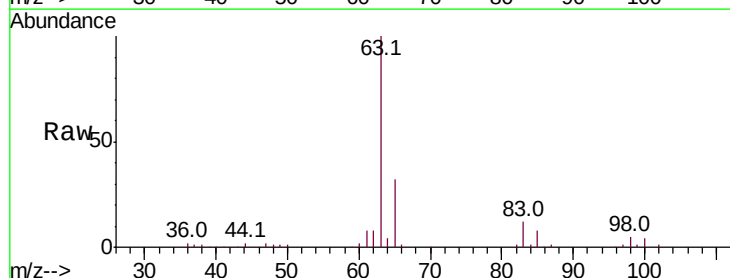
Tgt Ion: 63 Resp: 144158

Ion Ratio Lower Upper

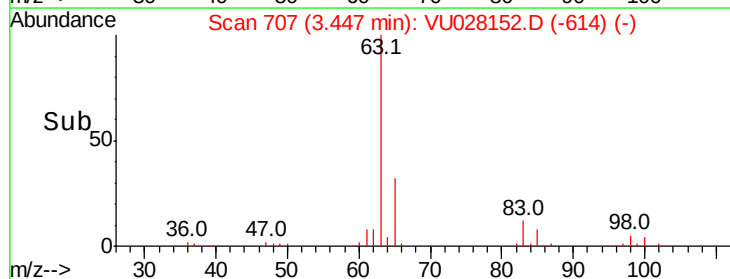
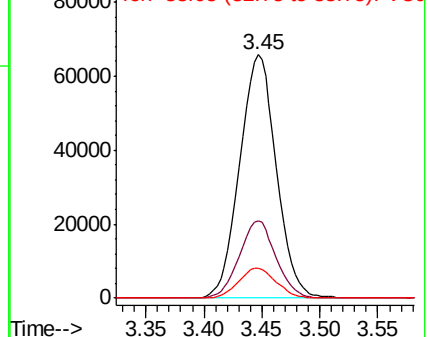
63 100

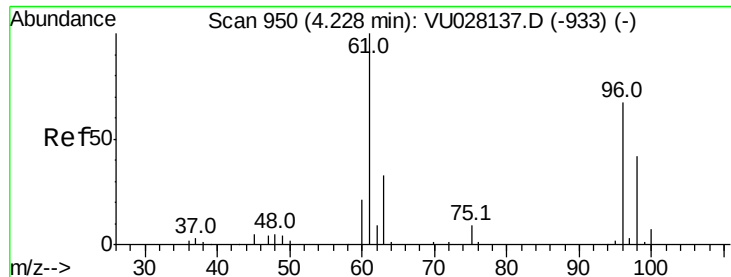
65 31.7 22.2 41.2

83 12.4 8.9 16.5



Abundance Ion 63.10 (62.80 to 63.80): VU0  
Ion 65.10 (64.80 to 65.80): VU0  
Ion 83.05 (82.75 to 83.75): VU0





#22

cis-1,2-Dichloroethene

Concen: 34.224 ug/L

RT: 4.23 min Scan# 950

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :  
MSVOA\_U  
ClientSampled :

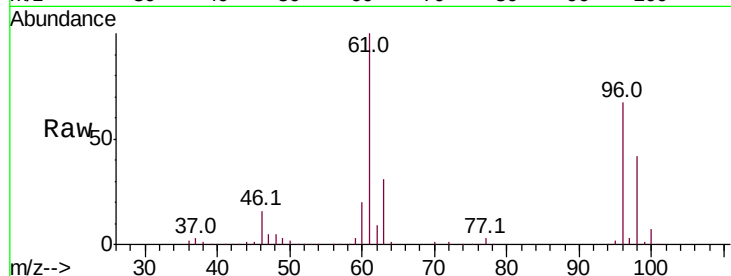
Tot Ion: 96 Resp: 348727

Ion Ratio Lower Upper

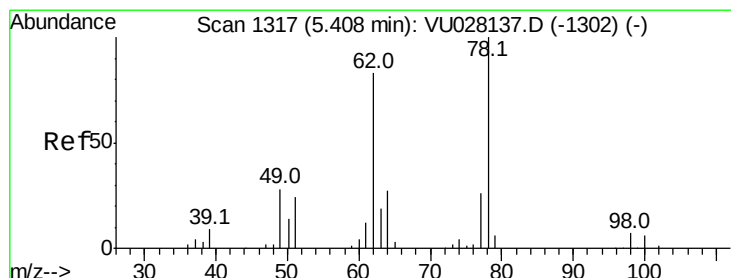
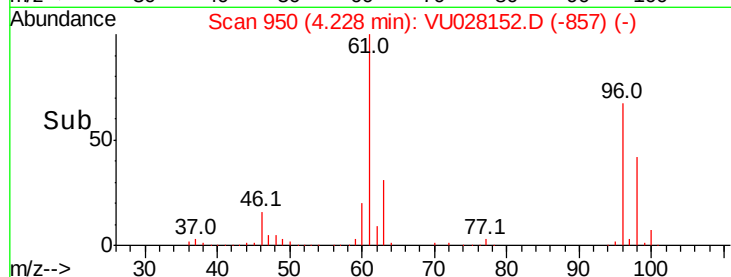
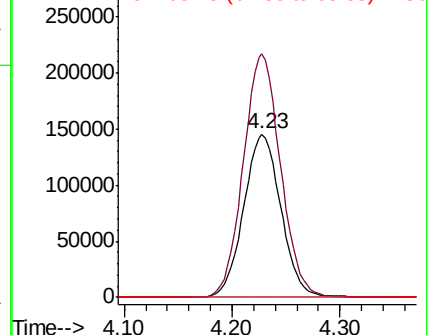
96 100

61 149.4 101.8 189.0

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



#27

1,2-Dichloroethane

Concen: 0.213 ug/L

RT: 5.39 min Scan# 1313

Delta R.T. -0.01 min

Lab File: VU028152.D

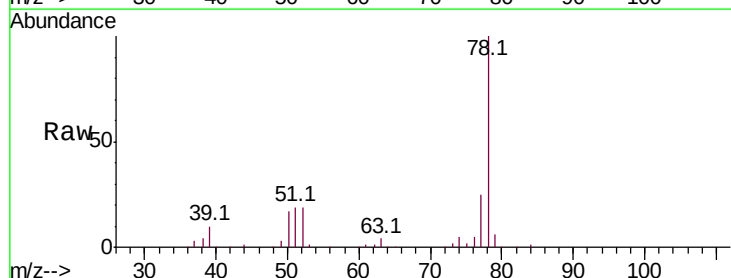
Acq: 15 Nov 2018 04:28

Tgt Ion: 62 Resp: 2444

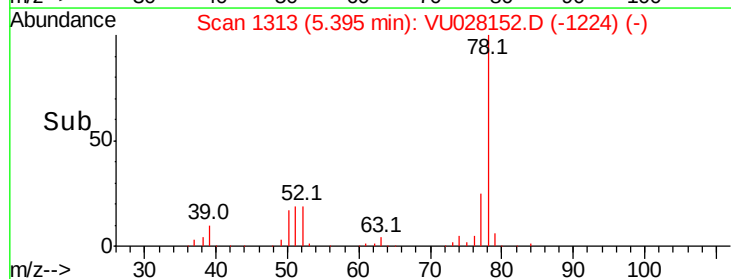
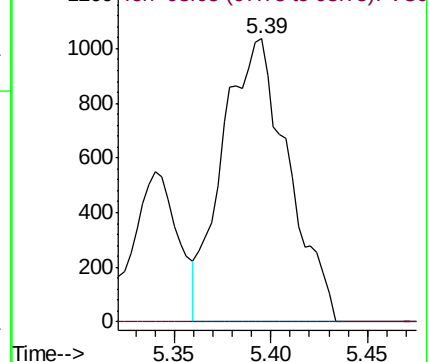
Ion Ratio Lower Upper

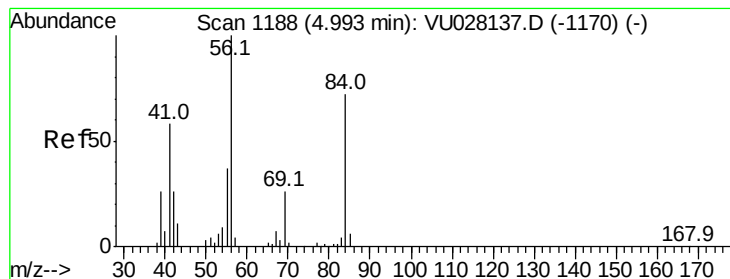
62 100

98 0.0 7.0 10.4#



Abundance Ion 62.00 (61.70 to 62.70): VU0  
Ion 98.05 (97.75 to 98.75): VU0





#30

Cyclohexane

Concen: 0.084 ug/L

RT: 5.00 min Scan# 1190

Delta R.T. 0.01 min

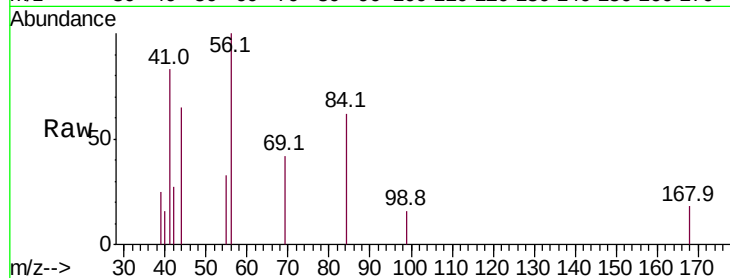
Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

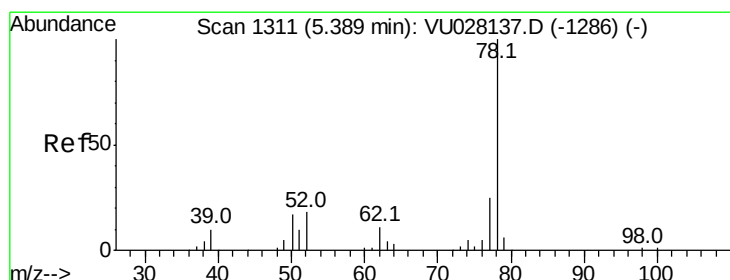
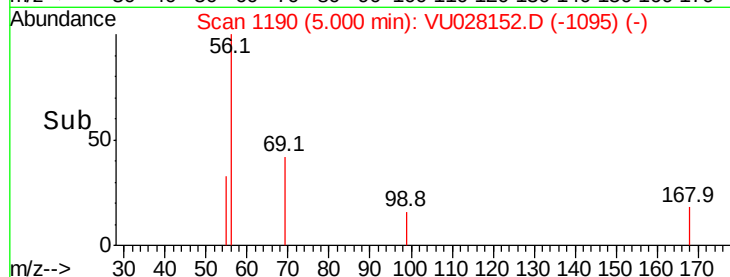
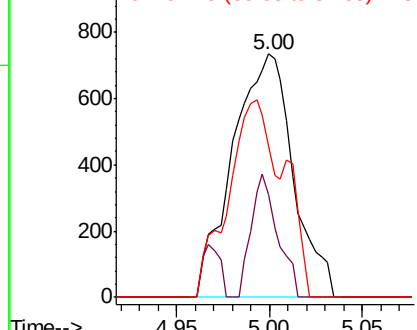
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 56 Resp: 1667

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 56  | 100   |       |       |
| 69  | 22.0  | 22.6  | 33.8# |
| 84  | 60.8  | 57.7  | 86.5  |



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



#33

Benzene

Concen: 5.643 ug/L

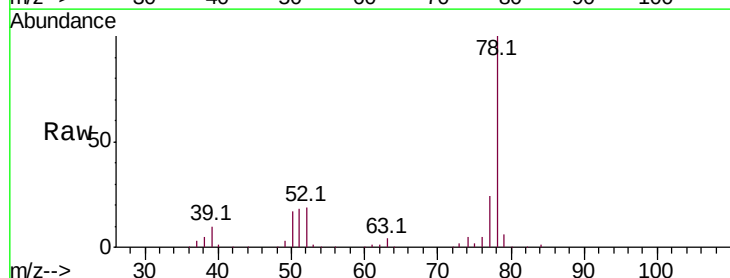
RT: 5.39 min Scan# 1311

Delta R.T. -0.00 min

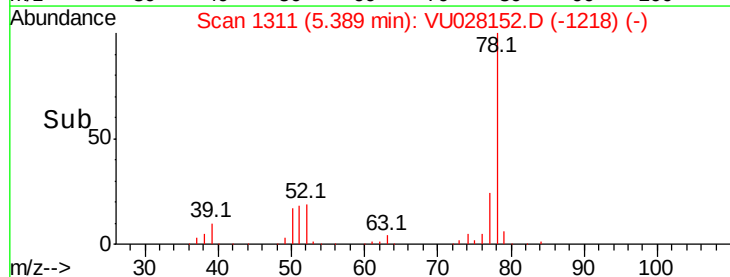
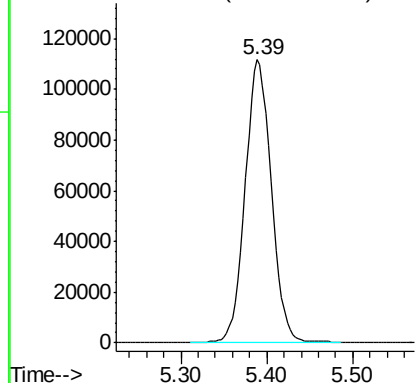
Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

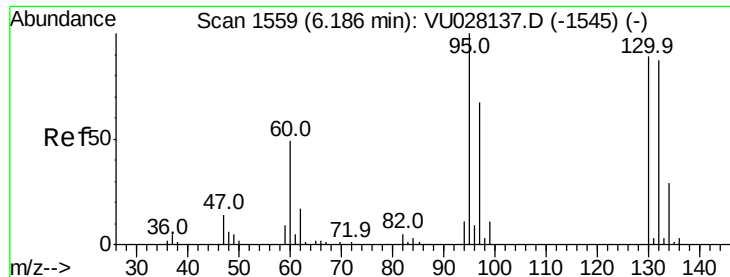
Tgt Ion: 78 Resp: 237143



Abundance Ion 78.10 (77.80 to 78.80): VU0







#34

Trichloroethene

Concen: 5.512 ug/L

RT: 6.19 min Scan# 1559

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 95 Resp: 57249

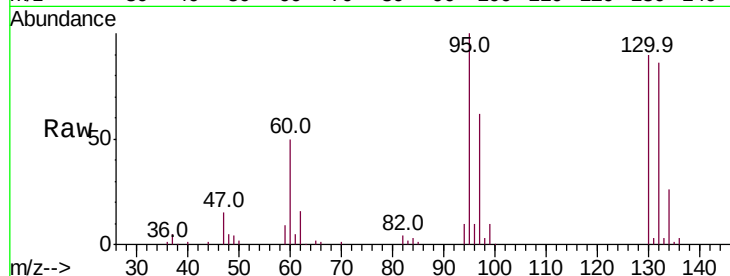
Ion Ratio Lower Upper

95 100

97 62.3 45.3 84.1

132 86.0 63.0 117.0

130 90.2 63.6 118.2

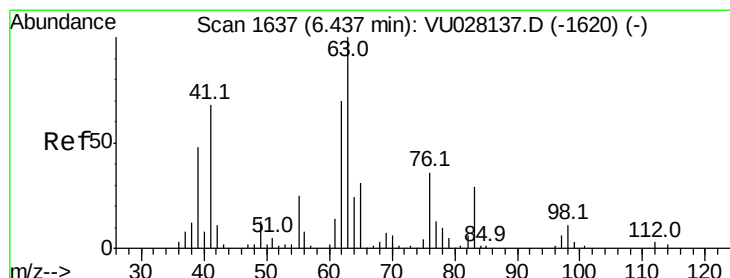
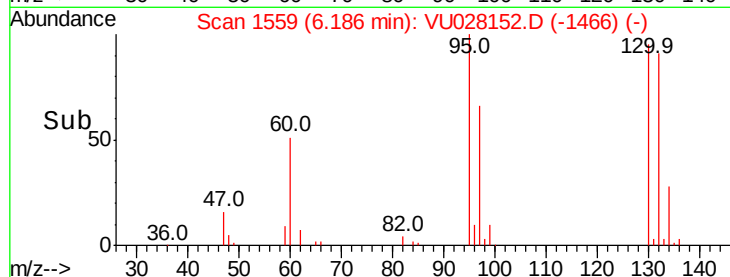
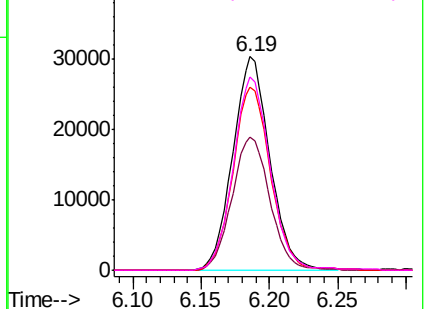


Abundance Ion 95.00 (94.70 to 95.70): VU0

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



#37

1,2-Dichloropropane

Concen: 0.098 ug/L

RT: 6.44 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VU028152.D

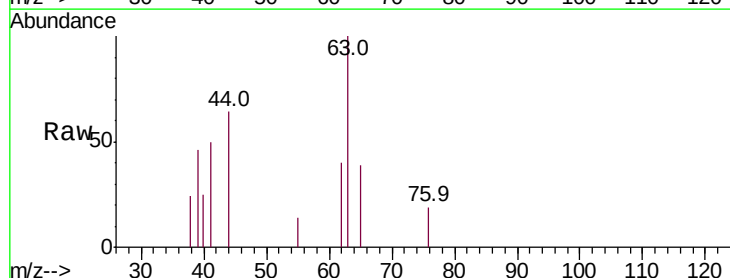
Acq: 15 Nov 2018 04:28

Tgt Ion: 63 Resp: 1134

Ion Ratio Lower Upper

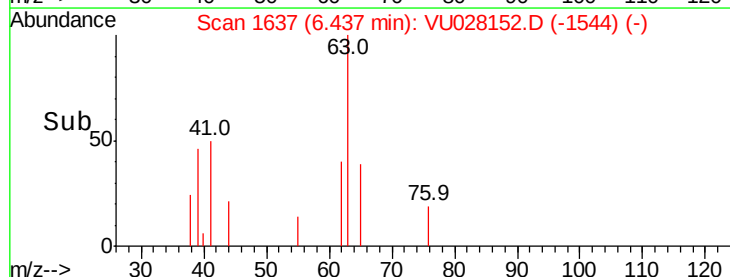
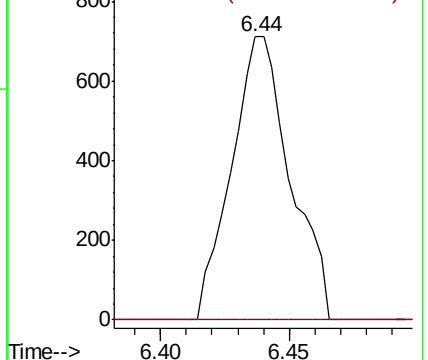
63 100

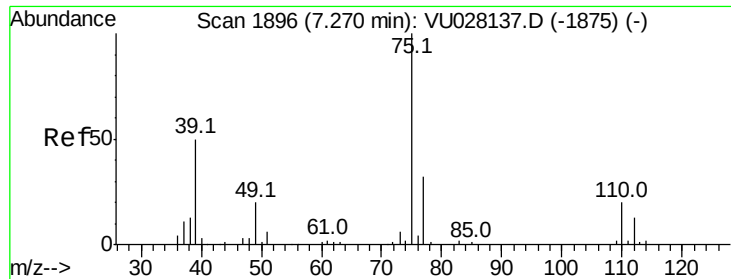
112 0.0 2.2 3.4#



Abundance Ion 63.10 (62.80 to 63.80): VU0

Ion 112.10 (111.80 to 112.80): V

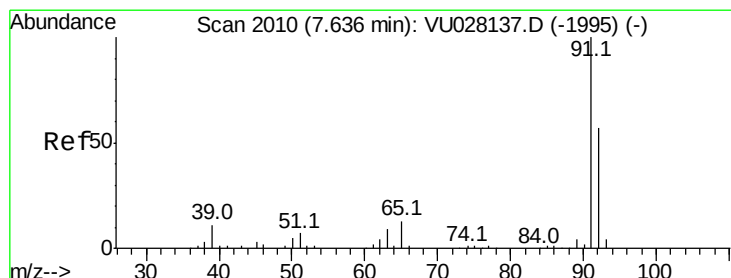
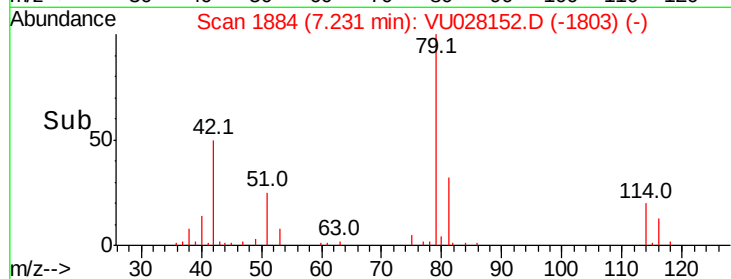
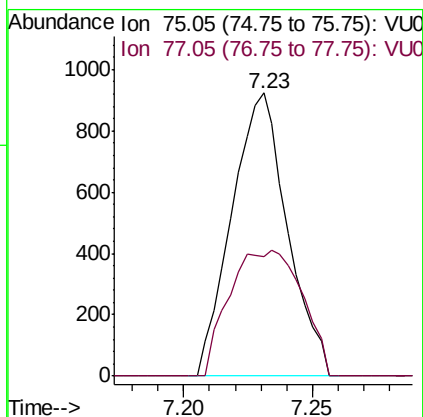
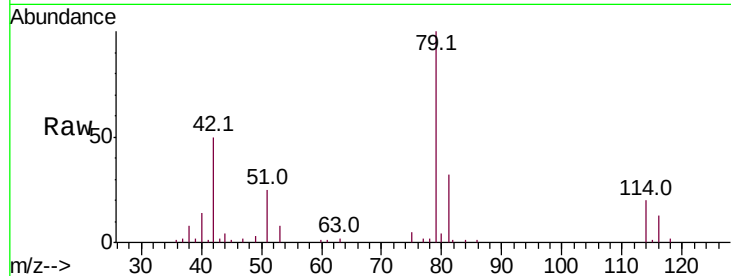




#39  
 cis-1,3-Dichloropropene  
 Concen: 0.089 ug/L  
 RT: 7.23 min Scan# 1884  
 Delta R.T. -0.04 min  
 Lab File: VU028152.D  
 Acq: 15 Nov 2018 04:28

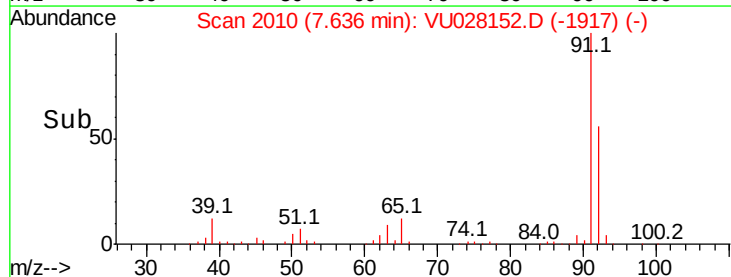
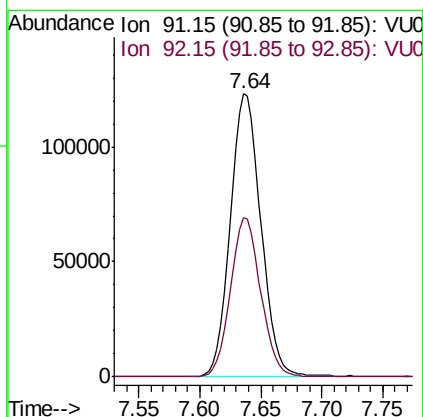
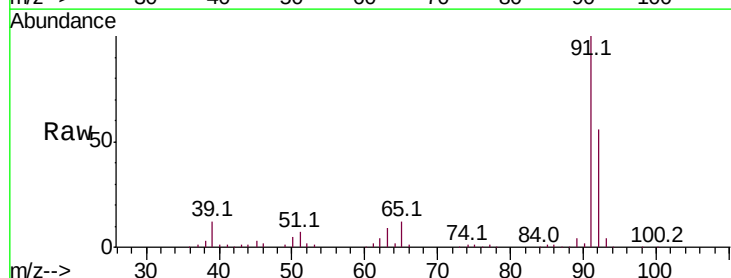
Instrument :  
 MSVOA\_U  
 ClientSampled :

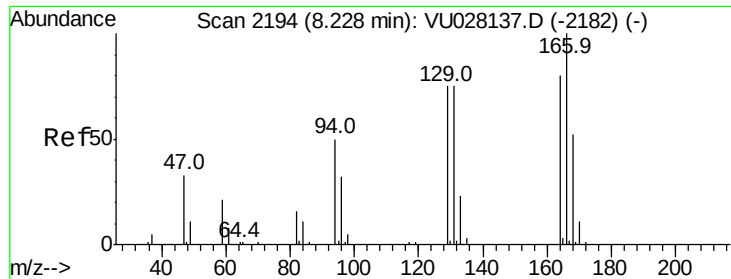
Tot Ion: 75 Resp: 1391  
 Ion Ratio Lower Upper  
 75 100  
 77 42.4 20.9 38.9#



#42  
 Toluene  
 Concen: 4.975 ug/L  
 RT: 7.64 min Scan# 2010  
 Delta R.T. -0.00 min  
 Lab File: VU028152.D  
 Acq: 15 Nov 2018 04:28

Tgt Ion: 91 Resp: 215558  
 Ion Ratio Lower Upper  
 91 100  
 92 56.3 40.7 75.7

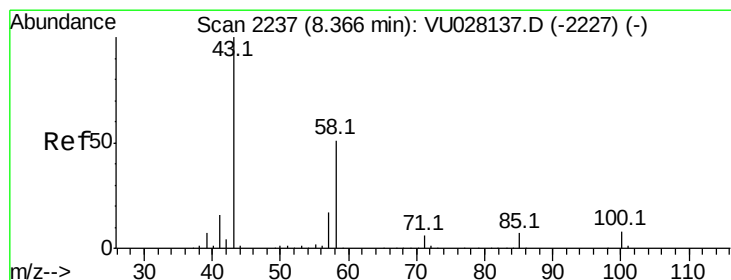
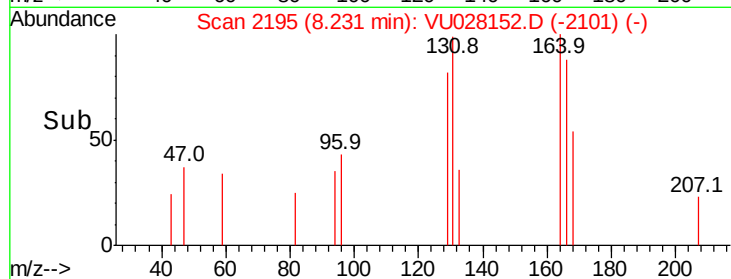
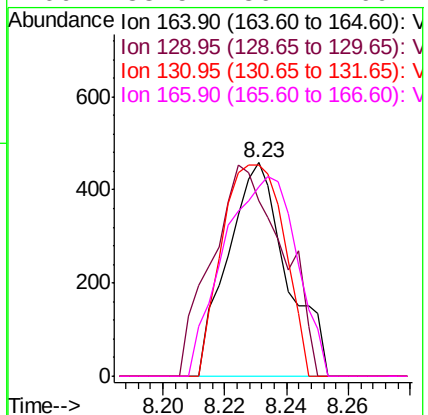
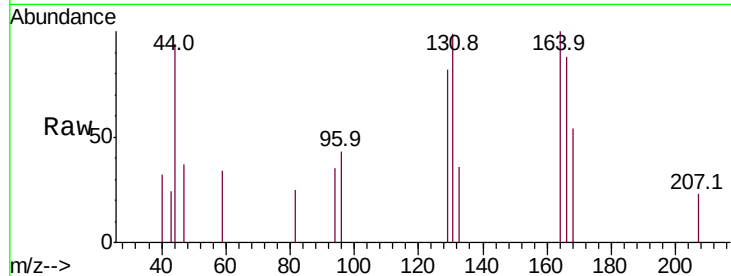




#47  
Tetrachloroethene  
Concen: 0.072 ug/L  
RT: 8.23 min Scan# 2195  
Delta R.T. 0.00 min  
Lab File: VU028152.D  
Acq: 15 Nov 2018 04:28

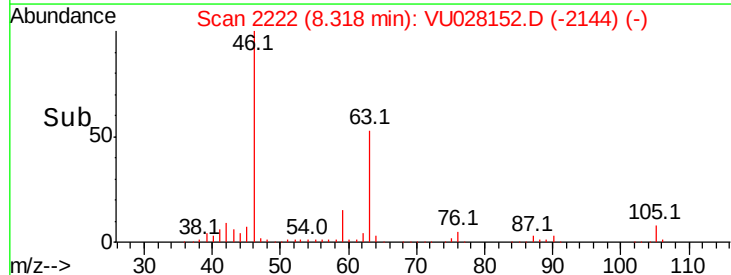
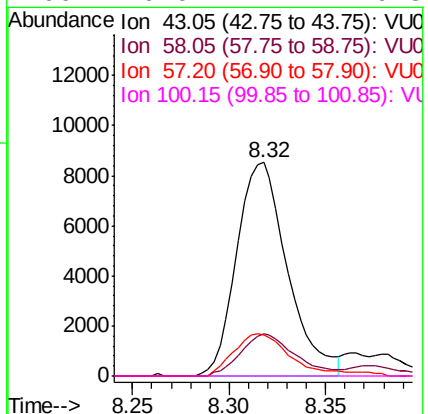
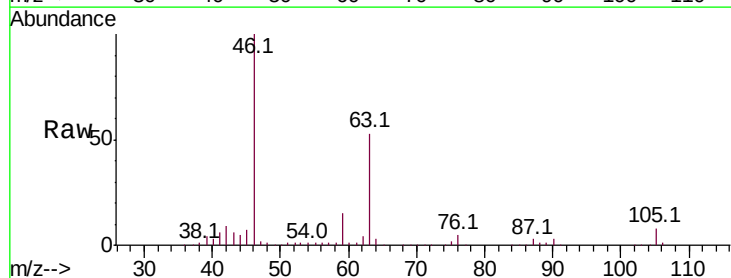
Instrument :  
MSVOA\_U  
ClientSampleId :

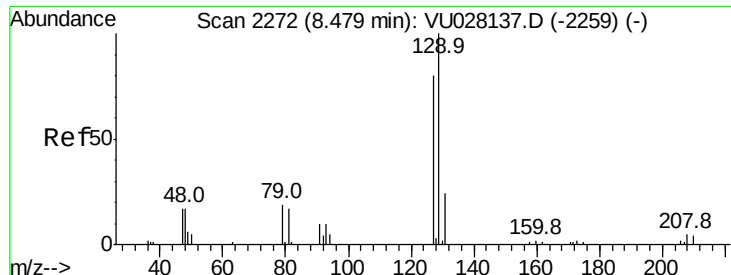
Tot Ion:164 Resp: 607  
Ion Ratio Lower Upper  
164 100  
129 82.1 69.7 129.4  
131 98.9 64.0 118.8  
166 88.5 86.4 160.4



#48  
2-Hexanone  
Concen: 2.744 ug/L  
RT: 8.32 min Scan# 2222  
Delta R.T. -0.05 min  
Lab File: VU028152.D  
Acq: 15 Nov 2018 04:28

Tgt Ion: 43 Resp: 15625  
Ion Ratio Lower Upper  
43 100  
58 21.1 41.7 62.5#  
57 22.6 14.0 21.0#  
100 0.0 7.2 10.8#





#49

Dibromochloromethane

Concen: 0.096 ug/L

RT: 8.22 min Scan# 2193

Delta R.T. -0.25 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :

MSVOA\_U

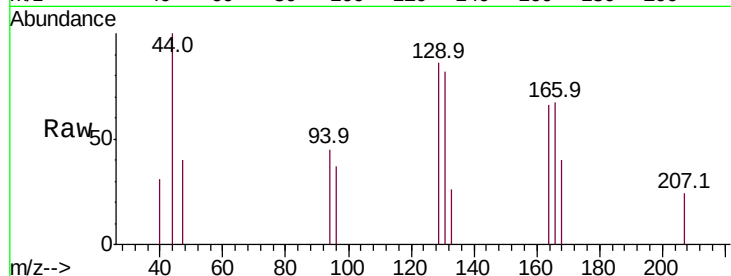
ClientSampled :

Tot Ion:129 Resp: 717

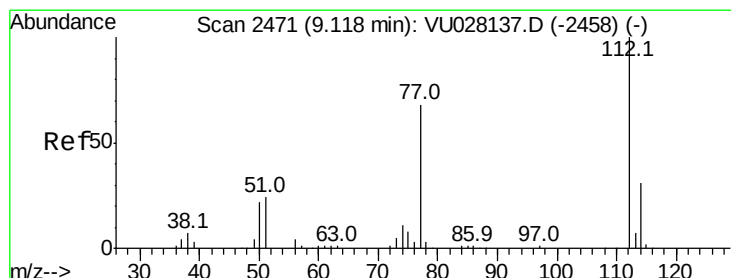
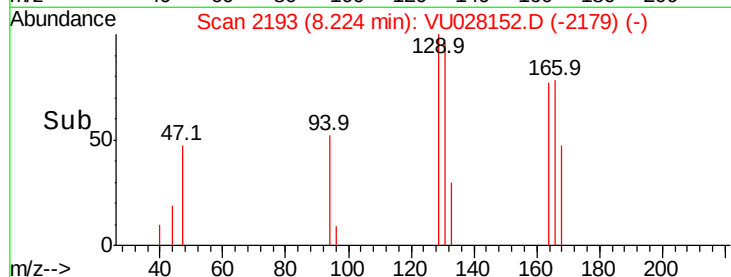
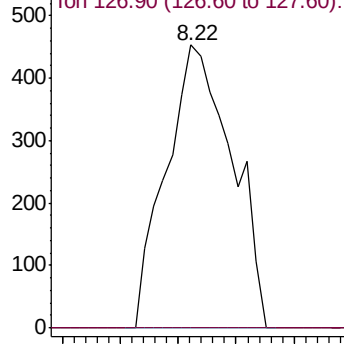
Ion Ratio Lower Upper

129 100

127 0.0 54.1 100.5#



Abundance Ion 128.95 (128.65 to 129.65): V



#51

Chlorobenzene

Concen: 4.929 ug/L

RT: 9.12 min Scan# 2471

Delta R.T. -0.00 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

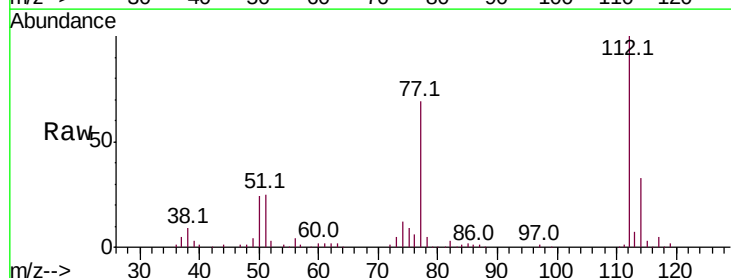
Tgt Ion:112 Resp: 124886

Ion Ratio Lower Upper

112 100

114 32.8 22.5 41.7

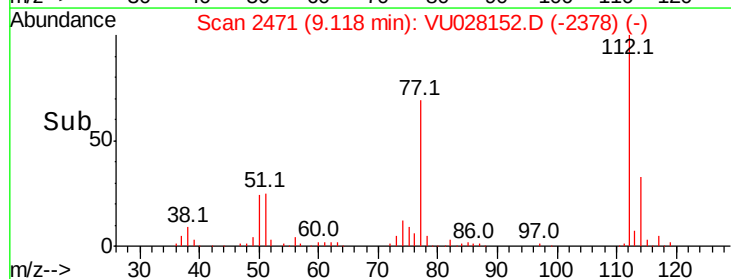
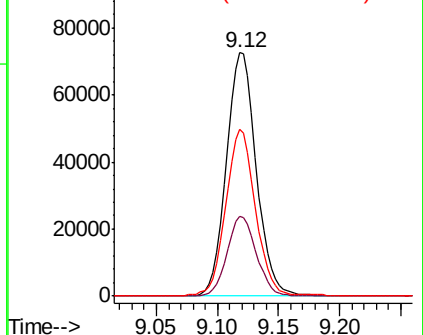
77 68.7 51.3 76.9

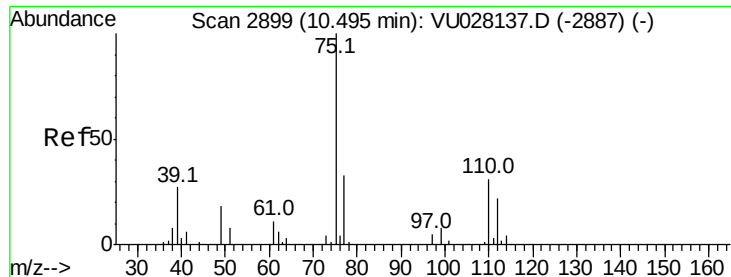


Abundance Ion 112.10 (111.80 to 112.80): V

Ion 114.05 (113.75 to 114.75): V

Ion 77.10 (76.80 to 77.80): VU0





#59

1,2,3-Trichloropropane

Concen: 1.314 ug/L

RT: 11.48 min Scan# 3206

Delta R.T. 0.99 min

Lab File: VU028152.D

Acq: 15 Nov 2018 04:28

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 75 Resp: 8575

Ion Ratio Lower Upper

75 100

77 34.4 25.4 38.0

