

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU091518\  
 Data File : VU026741.D  
 Acq On : 13 Sep 2018 21:22  
 Operator : MD/SY  
 Sample : J4893-11  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C08N5

Quant Time: Sep 14 01:23:37 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Sep 14 01:21:50 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 184906   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 164494   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 72535    | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 60584    | 43.97    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 87.94% |
| 7) Chloroethane-d5             | 1.68    | 69    | 49100    | 44.22    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 88.44% |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 84838    | 34.40    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 68.80% |
| 21) 2-Butanone-d5              | 4.18    | 46    | 82192    | 95.85    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 95.85% |
| 24) Chloroform-d               | 4.65    | 84    | 96155    | 41.97    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 83.94% |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 66051    | 44.05    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 88.10% |
| 32) Benzene-d6                 | 5.34    | 84    | 204376   | 48.01    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 96.02% |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 69747    | 48.82    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 97.64% |
| 41) Toluene-d8                 | 7.57    | 98    | 182840   | 45.77    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 91.54% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 28839    | 43.42    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 86.84% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 57735    | 99.05    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 99.05% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 89255    | 45.63    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 91.26% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 67537    | 46.71    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 93.42% |

## Target Compounds

| Target Compounds              | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|-------------------------------|-------|------|----------|--------|--------|--------|
| 8) Chloroethane               | 1.69  | 64   | 425      | 0.433  | ug/L # | 43     |
| 12) 1,1-Dichloroethene        | 2.27  | 96   | 654      | 0.600  | ug/L # | 1      |
| 13) Acetone                   | 2.32  | 43   | 8231     | 8.428  | ug/L   | 99     |
| 25) Chloroform                | 4.68  | 83   | 2056     | 0.913  | ug/L   | 91     |
| 33) Benzene                   | 5.40  | 78   | 6236     | 1.354  | ug/L   | 100    |
| 35) Methylcyclohexane         | 6.33  | 83   | 15349    | 8.375  | ug/L # | 18     |
| 37) 1,2-Dichloropropane       | 6.33  | 63   | 7201     | 5.596  | ug/L # | 89     |
| 39) cis-1,3-Dichloropropene   | 7.23  | 75   | 1864     | 0.979  | ug/L # | 76     |
| 44) trans-1,3-Dichloropropene | 7.85  | 75   | 1210     | 0.683  | ug/L   | 88     |
| 51) Chlorobenzene             | 9.12  | 112  | 25460    | 8.121  | ug/L   | 98     |
| 59) 1,2,3-Trichloropropane    | 11.49 | 75   | 9495     | 6.236  | ug/L   | 98     |
| 62) 1,3-Dichlorobenzene       | 11.42 | 146  | 1843     | 0.885  | ug/L   | 91     |
| 63) 1,4-Dichlorobenzene       | 11.51 | 146  | 26626    | 12.068 | ug/L   | 99     |
| 65) 1,2-Dichlorobenzene       | 11.88 | 146  | 16731    | 7.601  | ug/L   | 96     |
| 67) 1,3,5-Trichlorobenzene    | 13.51 | 180  | 7326     | 4.434  | ug/L   | 99     |
| 68) 1,2,4-trichlorobenzene    | 13.51 | 180  | 7326     | 5.102  | ug/L   | 97     |
| 70) 1,2,3-Trichlorobenzene    | 13.99 | 180  | 756      | 0.486  | ug/L   | 90     |

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Sample : J4893-11  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
C08N5

Quant Time: Sep 14 01:23:37 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
Quant Title : VOC Analysis  
QLast Update : Fri Sep 14 01:21:50 2018  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

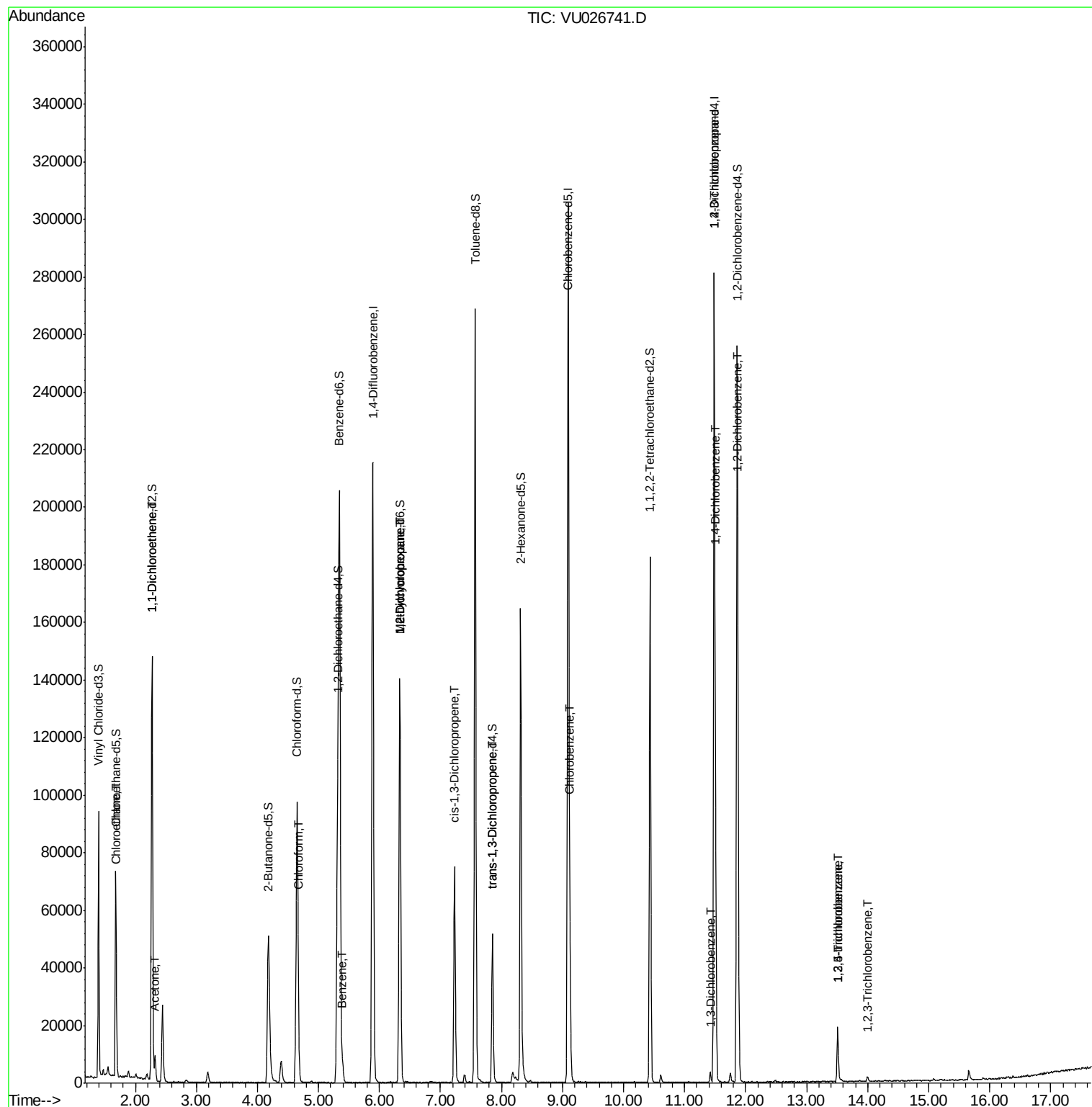
|       |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|
| ----- |  |  |  |  |  |  |
| ----- |  |  |  |  |  |  |

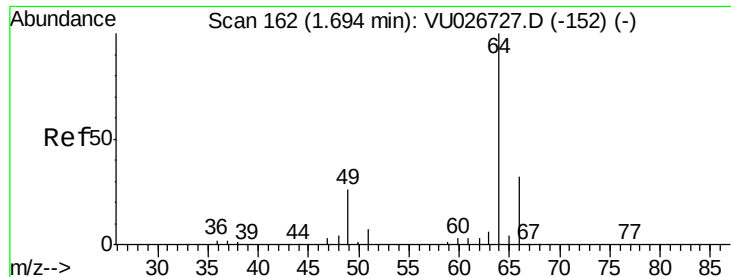
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
Quant Title : VOC Analysis  
QLast Update : Fri Sep 14 01:21:50 2018  
Response via : Initial Calibration





#8

Chloroethane

Concen: 0.433 ug/L

RT: 1.69 min Scan# 162

Delta R.T. -0.00 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

Instrument :

MSVOA\_U

ClientSampleId :

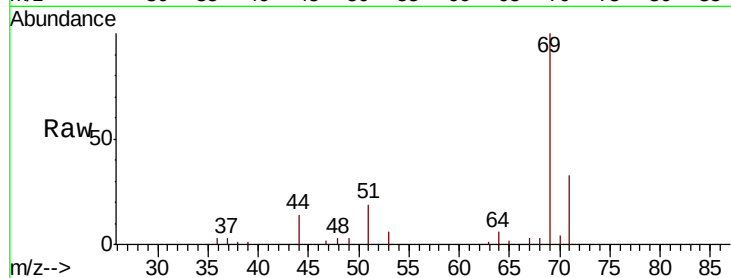
C08N5

Tgt Ion: 64 Resp: 425

Ion Ratio Lower Upper

64 100

66 0.0 22.4 41.6#



Abundance Ion 64.00 (63.70 to 64.70): VU0

Ion 66.00 (65.70 to 66.70): VU0

1.69

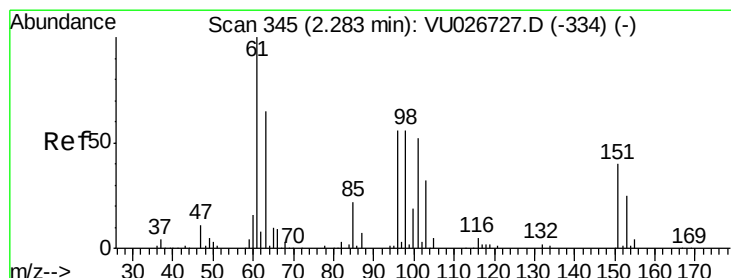
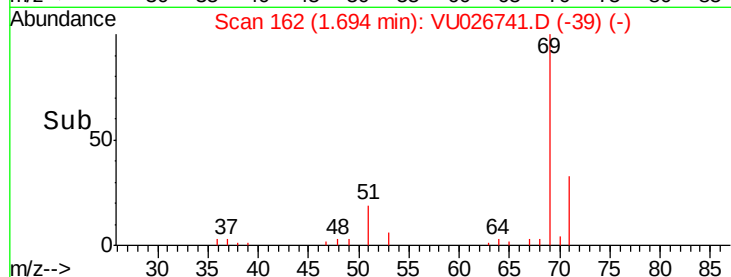
600

400

200

0

Time--> 1.66 1.68 1.70 1.72 1.74



#12

1,1-Dichloroethene

Concen: 0.600 ug/L

RT: 2.27 min Scan# 342

Delta R.T. -0.01 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

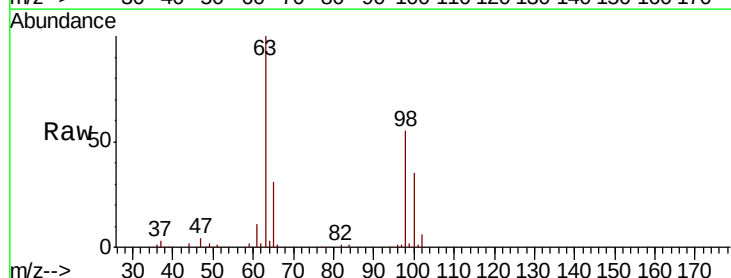
Tgt Ion: 96 Resp: 654

Ion Ratio Lower Upper

96 100

61 1337.9 121.0 224.8#

63 11673.6 89.9 166.9#



Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0

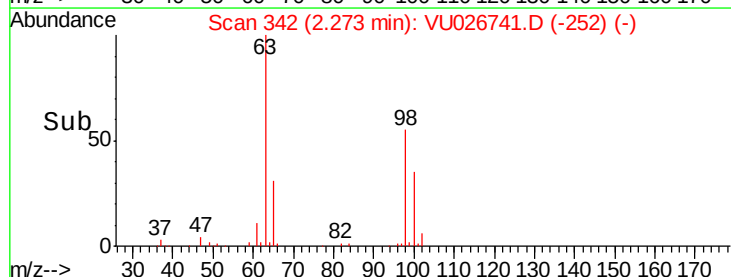
60000

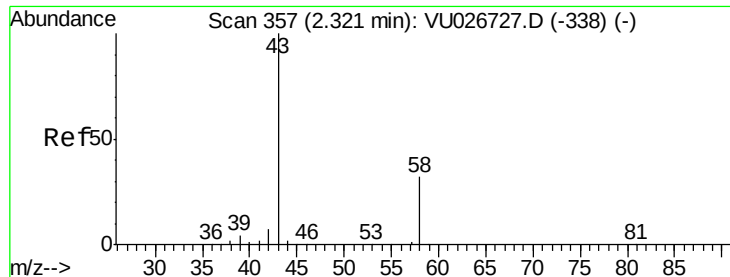
40000

20000

0

Time--> 2.24 2.26 2.28 2.30





#13

Acetone

Concen: 8.428 ug/L

RT: 2.32 min Scan# 357

Delta R.T. 0.00 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

Instrument :

MSVOA\_U

ClientSampled :

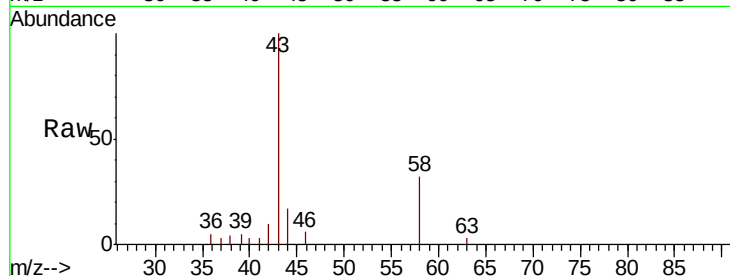
C08N5

Tgt Ion: 43 Resp: 8231

Ion Ratio Lower Upper

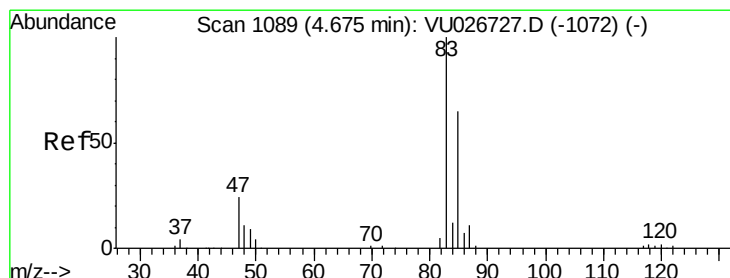
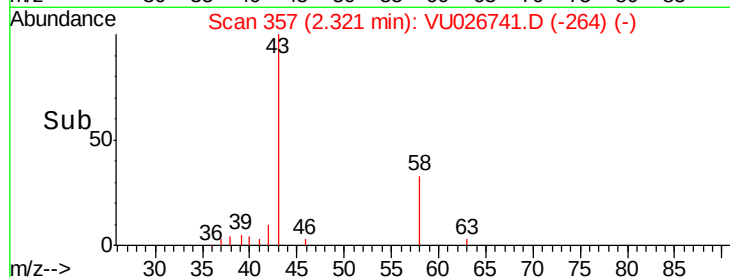
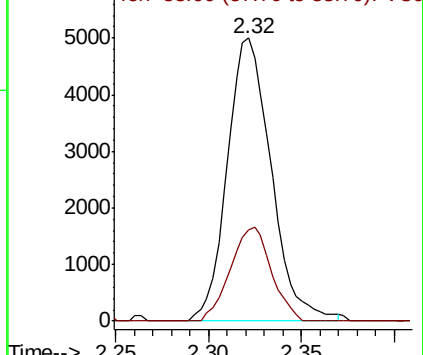
43 100

58 30.8 0.0 62.8



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0



#25

Chloroform

Concen: 0.913 ug/L

RT: 4.68 min Scan# 1090

Delta R.T. 0.00 min

Lab File: VU026741.D

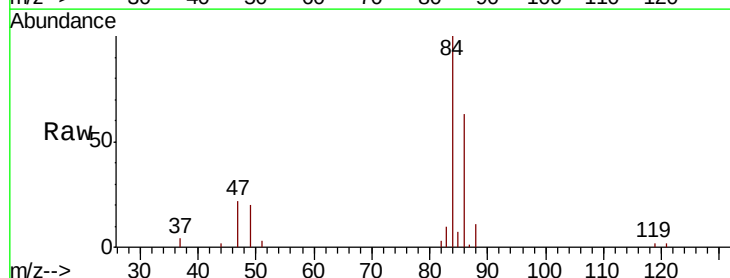
Acq: 13 Sep 2018 21:22

Tgt Ion: 83 Resp: 2056

Ion Ratio Lower Upper

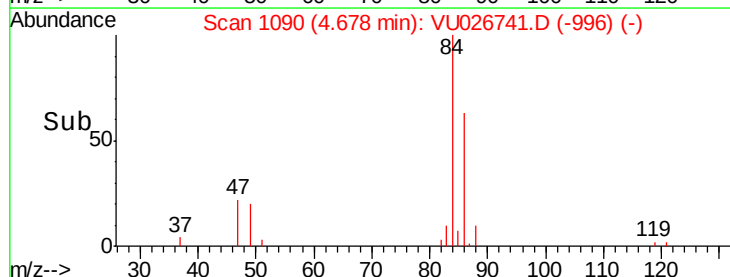
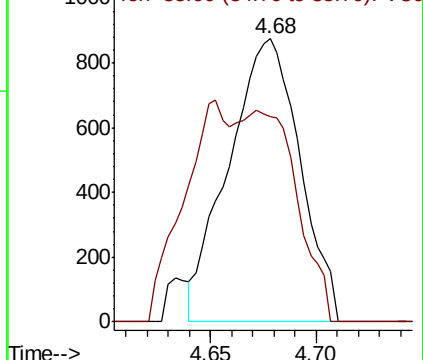
83 100

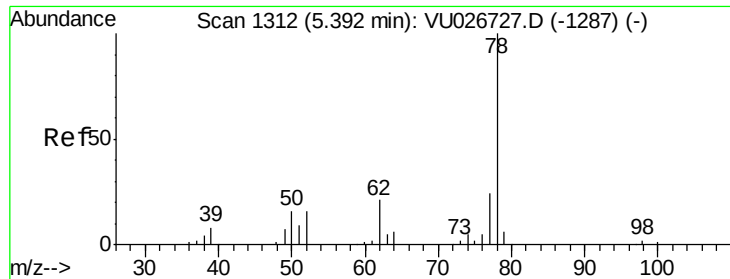
85 72.4 45.6 84.6



Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0





#33

Benzene

Concen: 1.354 ug/L

RT: 5.40 min Scan# 1313

Delta R.T. 0.00 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

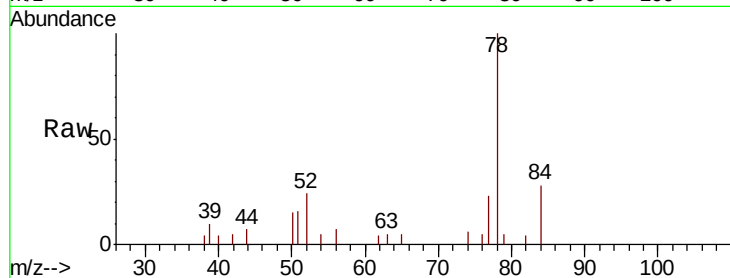
Instrument :

MSVOA\_U

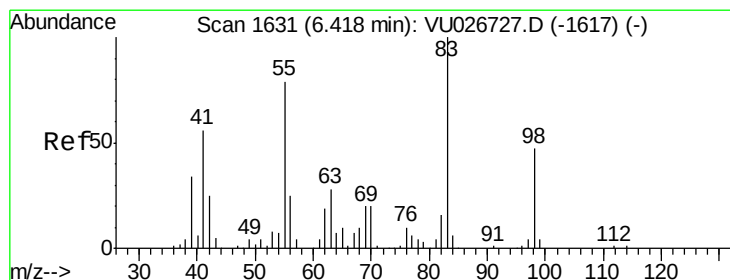
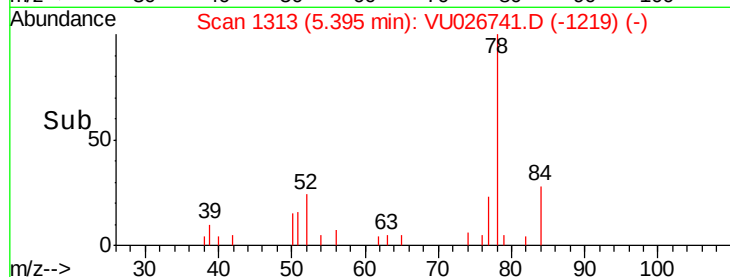
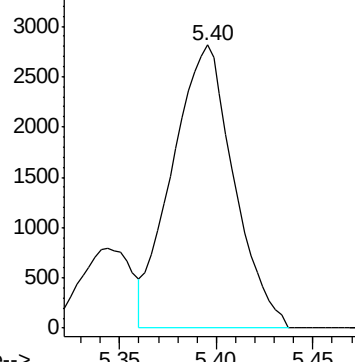
ClientSampleId :

C08N5

Tgt Ion: 78 Resp: 6236



Abundance Ion 78.00 (77.70 to 78.70): VU0



#35

Methylcyclohexane

Concen: 8.375 ug/L

RT: 6.33 min Scan# 1605

Delta R.T. -0.08 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

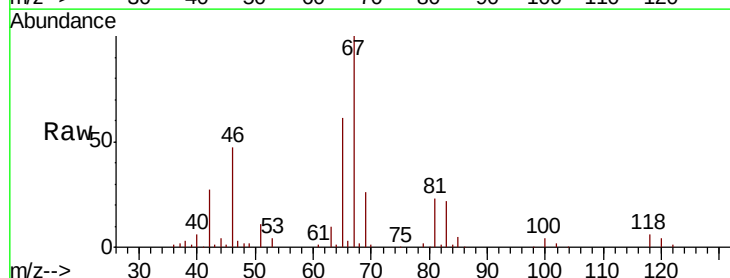
Tgt Ion: 83 Resp: 15349

Ion Ratio Lower Upper

83 100

55 0.0 62.9 94.3#

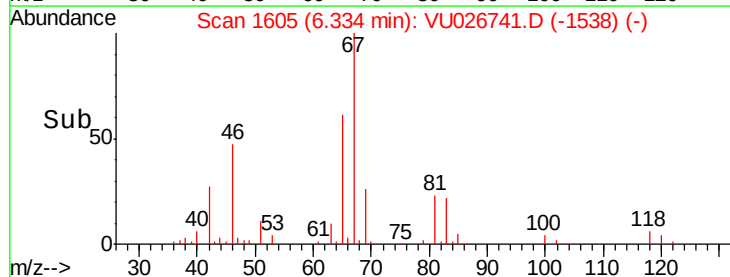
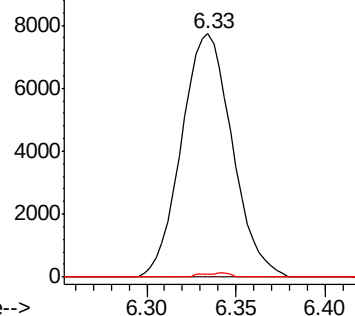
98 0.5 37.0 55.4#

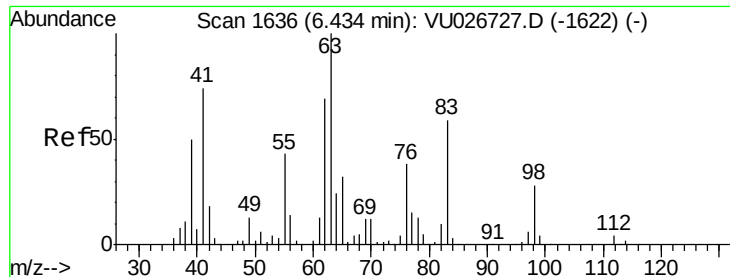


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0

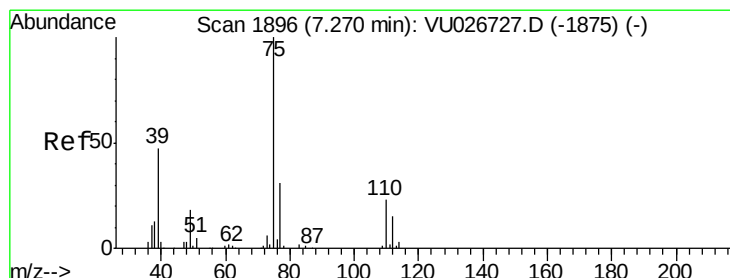
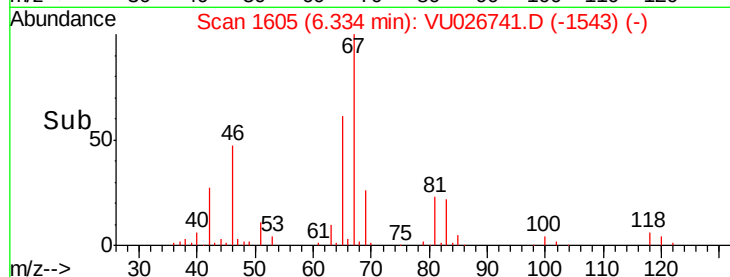
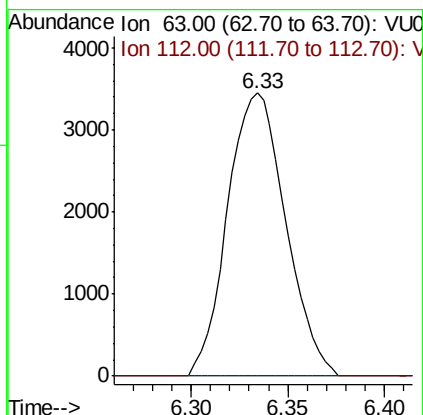
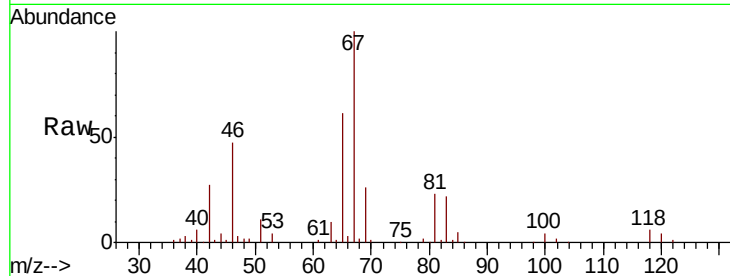




#37  
 1,2-Dichloropropane  
 Concen: 5.596 ug/L  
 RT: 6.33 min Scan# 1605  
 Delta R.T. -0.10 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

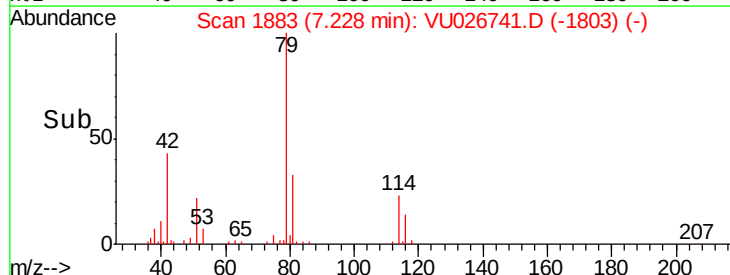
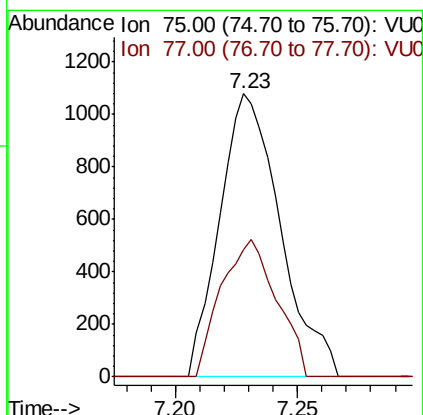
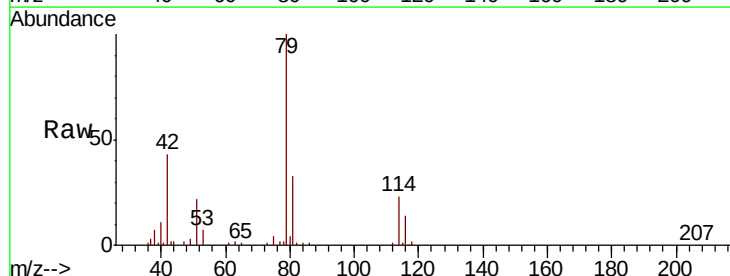
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C08N5

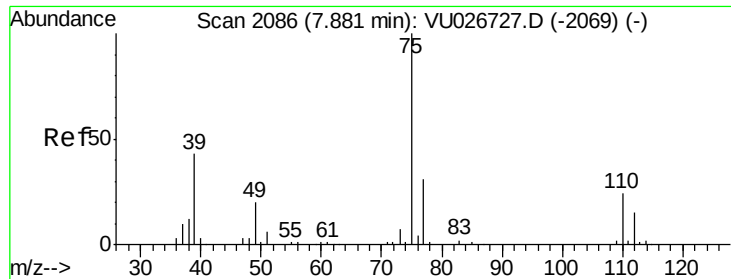
Tgt Ion: 63 Resp: 7201  
 Ion Ratio Lower Upper  
 63 100  
 112 0.0 2.9 4.3#



#39  
 cis-1,3-Dichloropropene  
 Concen: 0.979 ug/L  
 RT: 7.23 min Scan# 1883  
 Delta R.T. -0.04 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

Tgt Ion: 75 Resp: 1864  
 Ion Ratio Lower Upper  
 75 100  
 77 45.2 22.3 41.3#





#44

trans-1,3-Dichloropropene

Concen: 0.683 ug/L

RT: 7.85 min Scan# 2077

Delta R.T. -0.03 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

Instrument :

MSVOA\_U

ClientSampleId :

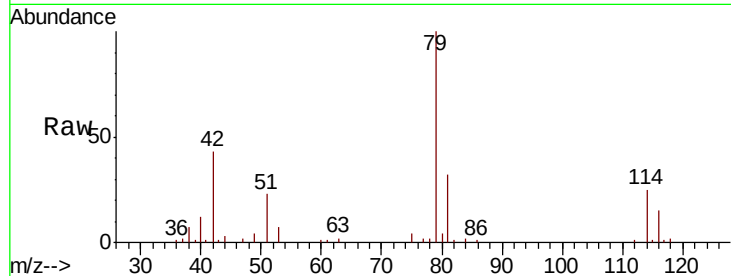
C08N5

Tgt Ion: 75 Resp: 1210

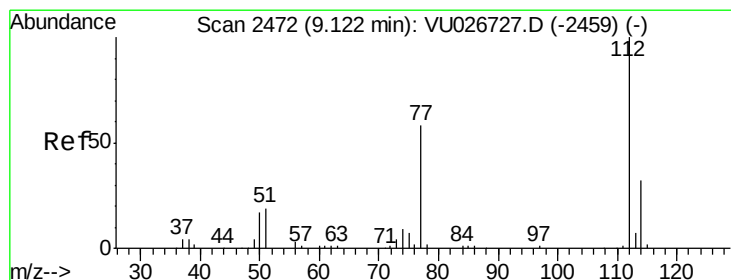
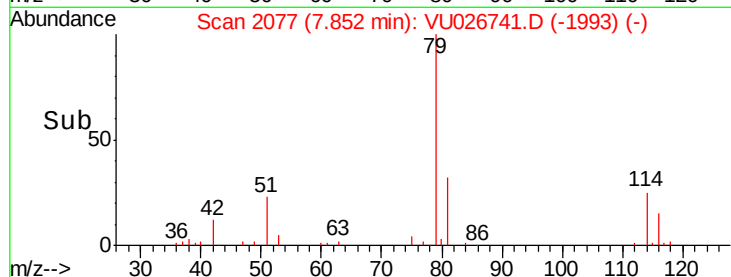
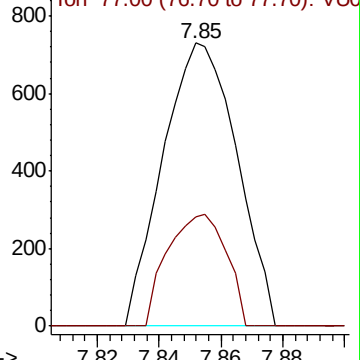
Ion Ratio Lower Upper

75 100

77 38.5 22.4 41.6



Abundance Ion 75.00 (74.70 to 75.70): VU026741.D (-1993) (-)



#51

Chlorobenzene

Concen: 8.121 ug/L

RT: 9.12 min Scan# 2472

Delta R.T. 0.00 min

Lab File: VU026741.D

Acq: 13 Sep 2018 21:22

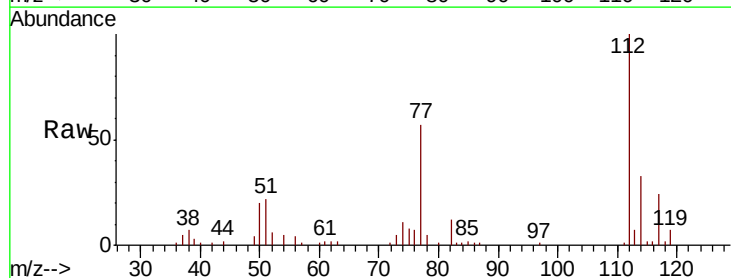
Tgt Ion: 112 Resp: 25460

Ion Ratio Lower Upper

112 100

114 33.3 22.9 42.5

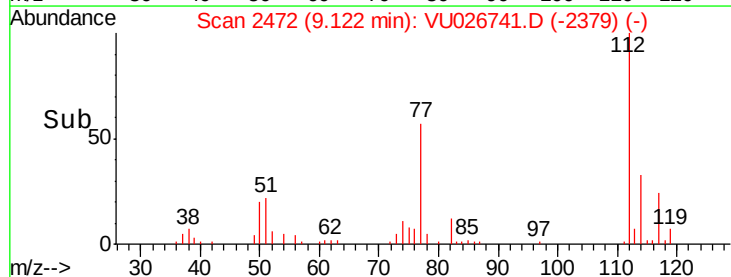
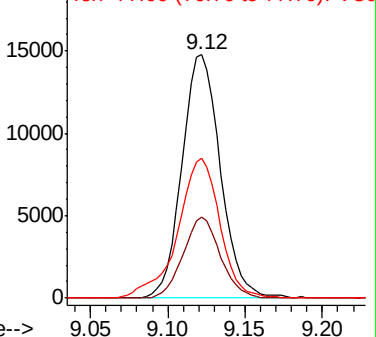
77 57.4 47.2 70.8



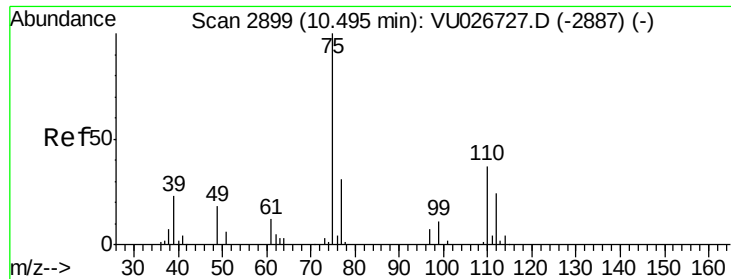
Abundance Ion 112.00 (111.70 to 112.70): VU026741.D (-2379) (-)

Ion 114.00 (113.70 to 114.70): VU026741.D (-2379) (-)

Ion 77.00 (76.70 to 77.70): VU026741.D (-2379) (-)



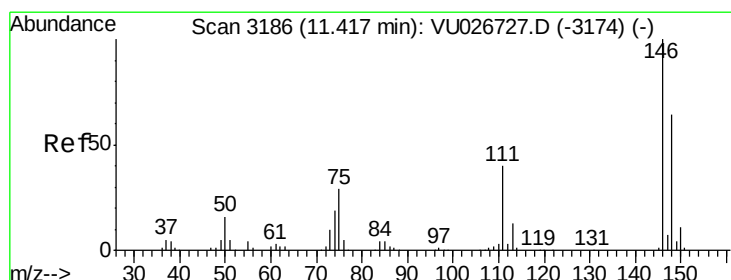
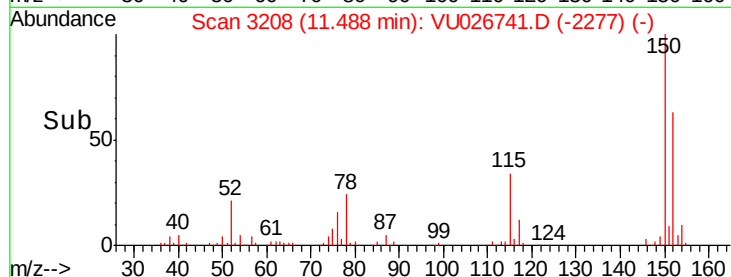
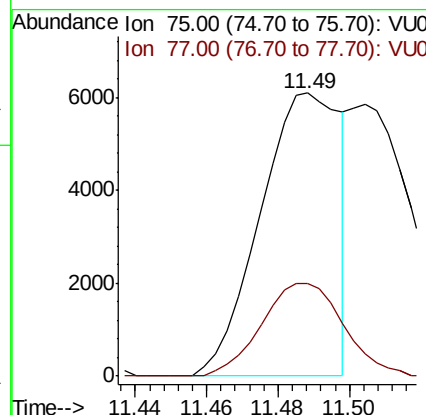
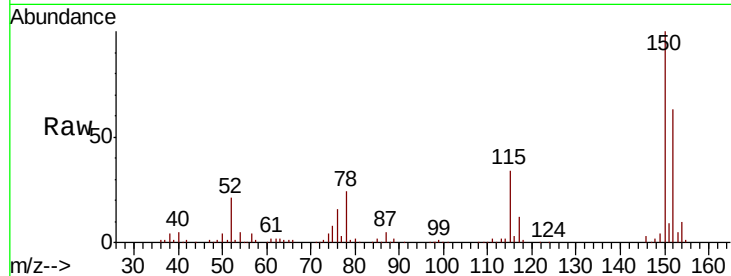




#59  
 1,2,3-Trichloropropane  
 Concen: 6.236 ug/L  
 RT: 11.49 min Scan# 3208  
 Delta R.T. 0.99 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

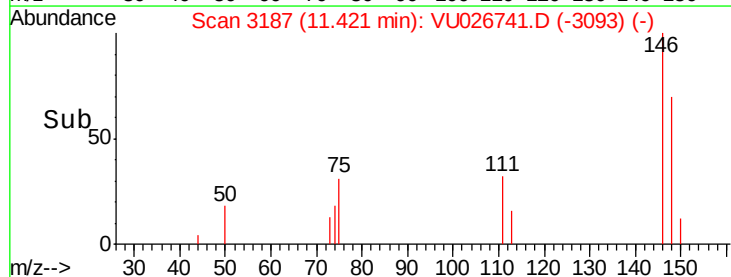
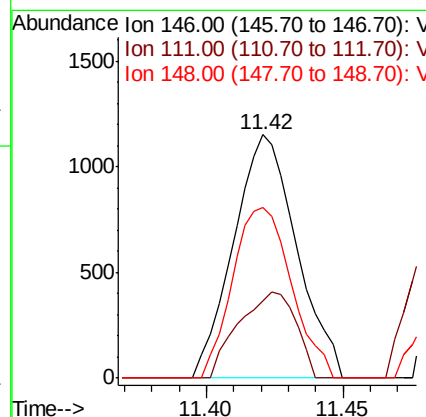
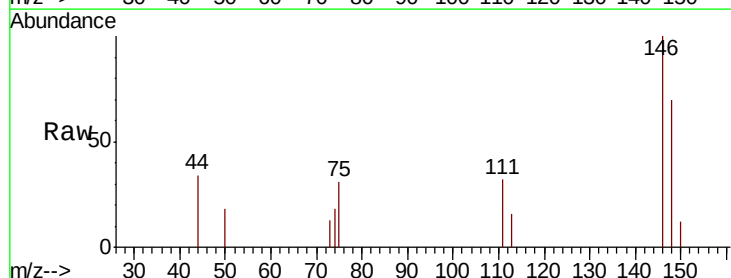
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C08N5

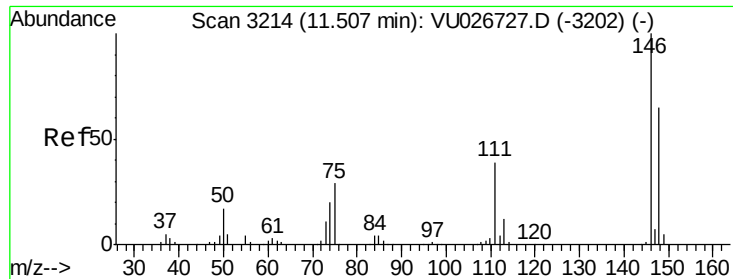
Tgt Ion: 75 Resp: 9495  
 Ion Ratio Lower Upper  
 75 100  
 77 33.6 25.8 38.6



#62  
 1,3-Dichlorobenzene  
 Concen: 0.885 ug/L  
 RT: 11.42 min Scan# 3187  
 Delta R.T. 0.00 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

Tgt Ion: 146 Resp: 1843  
 Ion Ratio Lower Upper  
 146 100  
 111 31.8 26.7 49.5  
 148 69.8 44.2 82.2

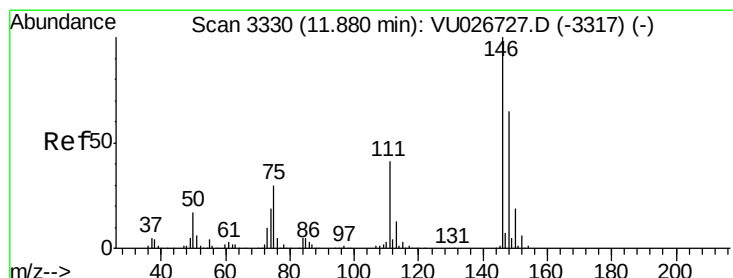
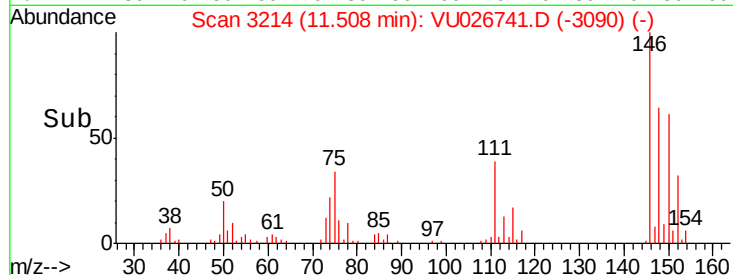
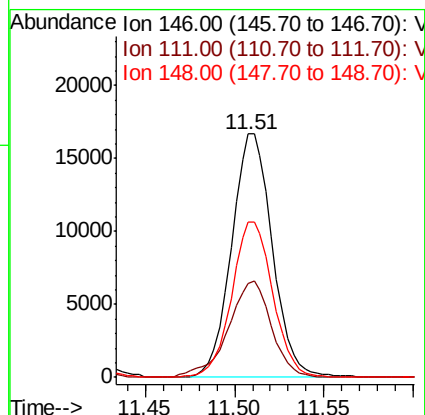
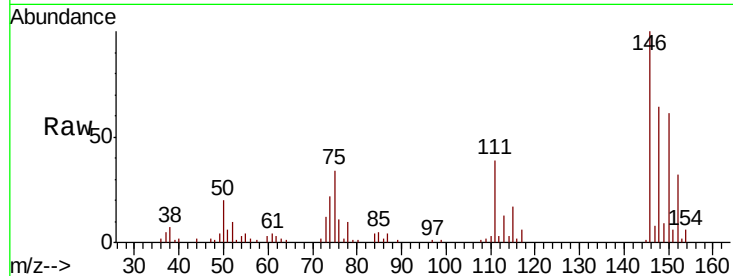




#63  
 1,4-Dichlorobenzene  
 Concen: 12.068 ug/L  
 RT: 11.51 min Scan# 3214  
 Delta R.T. 0.00 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

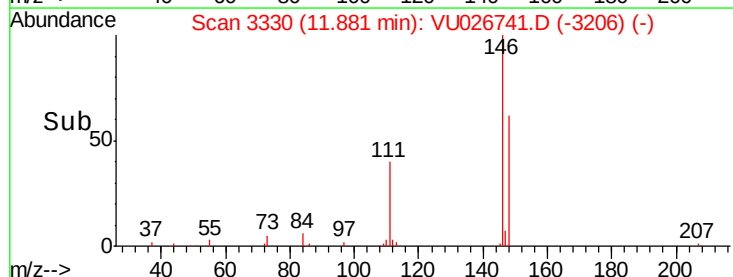
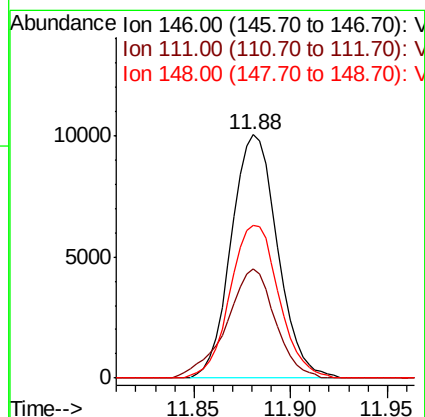
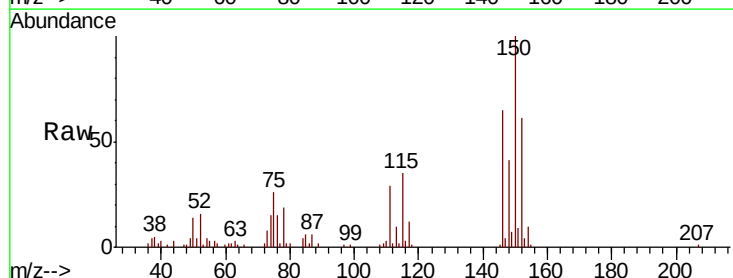
Instrument :  
 MSVOA\_U  
 ClientSampled :  
 C08N5

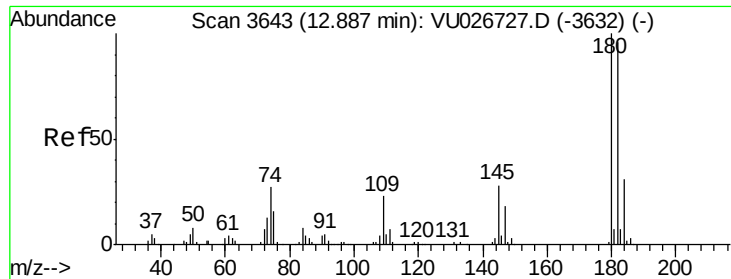
Tgt Ion:146 Resp: 26626  
 Ion Ratio Lower Upper  
 146 100  
 111 38.8 26.5 49.3  
 148 63.6 45.2 84.0



#65  
 1,2-Dichlorobenzene  
 Concen: 7.601 ug/L  
 RT: 11.88 min Scan# 3330  
 Delta R.T. 0.00 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

Tgt Ion:146 Resp: 16731  
 Ion Ratio Lower Upper  
 146 100  
 111 44.9 32.8 49.2  
 148 63.0 52.2 78.4

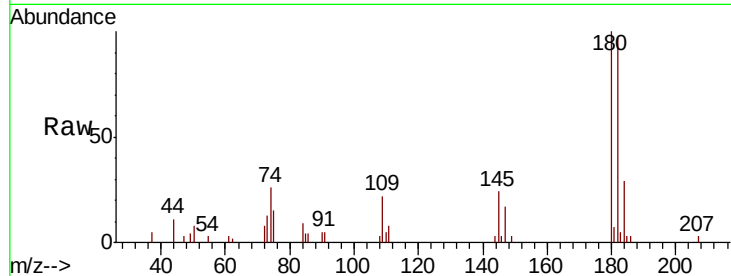




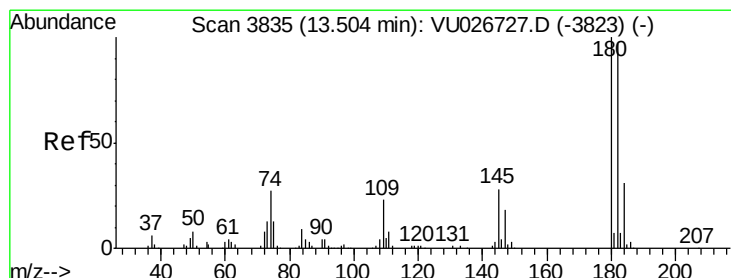
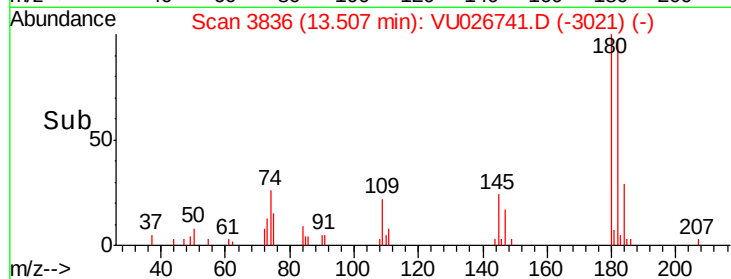
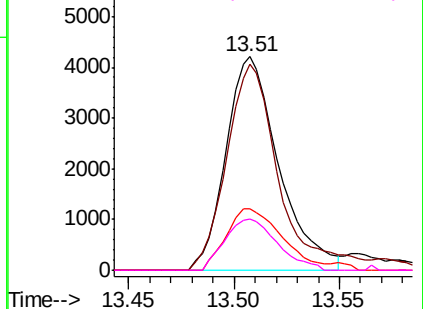
#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.434 ug/L  
 RT: 13.51 min Scan# 3836  
 Delta R.T. 0.62 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C08N5

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 7326  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 95.4  | 76.8  | 115.2 |
| 184      | 30.2  | 24.2  | 36.2  |
| 145      | 23.8  | 21.4  | 32.2  |

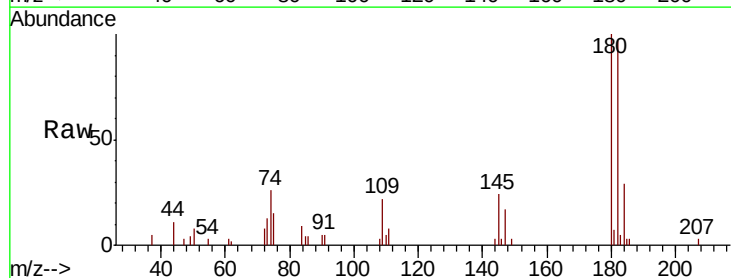


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

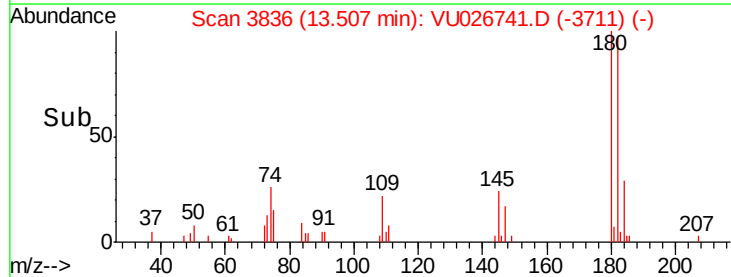
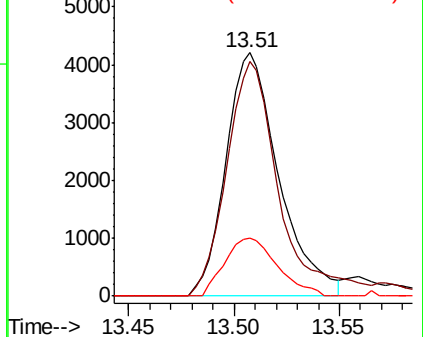


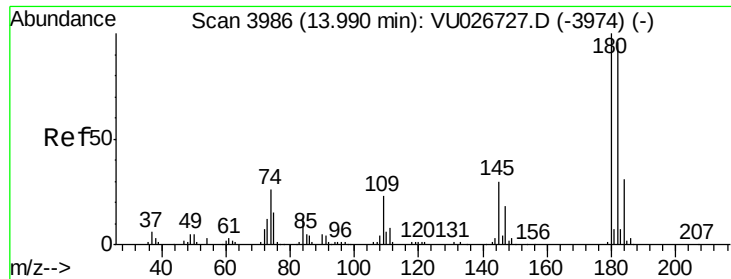
#68  
 1,2,4-trichlorobenzene  
 Concen: 5.102 ug/L  
 RT: 13.51 min Scan# 3836  
 Delta R.T. 0.00 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 7326  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 95.4  | 76.0  | 114.0 |
| 145      | 23.8  | 23.4  | 35.0  |



Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 145.00 (144.70 to 145.70): V





#70  
 1,2,3-Trichlorobenzene  
 Concen: 0.486 ug/L  
 RT: 13.99 min Scan# 3987  
 Delta R.T. 0.01 min  
 Lab File: VU026741.D  
 Acq: 13 Sep 2018 21:22

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 C08N5

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 105.4 | 76.7  | 115.1 |
| 145     | 23.3  | 23.0  | 34.6  |

