

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092619\  
 Data File : VU034838.D  
 Acq On : 26 Sep 2019 12:01  
 Operator : JC/SP  
 Sample : K4983-13  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Sep 26 15:54:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Sep 26 15:50:26 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 446863   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 425886   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.46 | 152  | 196938   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |          |
|--------------------------------|---------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 190181   | 41.57    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 83.14%   |
| 7) Chloroethane-d5             | 1.98    | 69    | 124      | 0.04     | ug/L | 0.31     |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 0.08%#   |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 261827   | 33.80    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 67.60%   |
| 21) 2-Butanone-d5              | 4.15    | 46    | 473391   | 135.02   | ug/L | 0.00     |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 135.02%# |
| 24) Chloroform-d               | 4.62    | 84    | 351495   | 52.85    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 105.70%  |
| 26) 1,2-Dichloroethane-d4      | 5.29    | 65    | 246191   | 50.36    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 100.72%  |
| 32) Benzene-d6                 | 5.32    | 84    | 738850   | 55.97    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 111.94%  |
| 36) 1,2-Dichloropropane-d6     | 6.31    | 67    | 264986   | 57.43    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 114.86%  |
| 41) Toluene-d8                 | 7.54    | 98    | 704293   | 56.08    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 112.16%  |
| 43) trans-1,3-Dichloropropene- | 7.83    | 79    | 113697   | 51.45    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 102.90%  |
| 47) 2-Hexanone-d5              | 8.29    | 63    | 320407   | 138.27   | ug/L | 0.00     |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 138.27%# |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41   | 84    | 374116   | 58.44    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 116.88%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.84   | 152   | 256892   | 62.21    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 124.42%# |

## Target Compounds

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.26  | 101  | 2205     | 0.724  | ug/L # | 26     |
| 13) Acetone                    | 2.31  | 43   | 149848   | 36.741 | ug/L   | 94     |
| 16) Methylene chloride         | 2.68  | 84   | 45120    | 12.183 | ug/L   | 97     |
| 33) Benzene                    | 5.37  | 78   | 81507    | 5.518  | ug/L   | 100    |
| 34) Trichloroethene            | 6.17  | 95   | 5210     | 1.428  | ug/L   | 97     |
| 40) 4-Methyl-2-pentanone       | 7.44  | 43   | 19710    | 2.347  | ug/L # | 85     |
| 42) Toluene                    | 7.62  | 91   | 119905   | 7.511  | ug/L   | 98     |
| 44) trans-1,3-Dichloropropene  | 7.83  | 75   | 5860     | 0.984  | ug/L   | 90     |
| 48) 2-Hexanone                 | 8.40  | 43   | 75719    | 11.546 | ug/L # | 1      |
| 51) Chlorobenzene              | 9.10  | 112  | 23818    | 2.454  | ug/L   | 96     |
| 52) Ethylbenzene               | 9.23  | 91   | 112653   | 6.267  | ug/L   | 97     |
| 53) m,p-Xylene                 | 9.35  | 106  | 85334    | 13.403 | ug/L   | 100    |
| 54) o-xylene                   | 9.76  | 106  | 63504    | 10.084 | ug/L   | 90     |
| 56) Isopropylbenzene           | 10.14 | 105  | 44099    | 2.597  | ug/L   | 98     |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 8910     | 1.282  | ug/L   | 94     |
| 65) 1,2-Dichlorobenzene        | 11.85 | 146  | 59588    | 8.647  | ug/L   | 99     |
| 69) Naphthalene                | 13.72 | 128  | 241468   | 19.411 | ug/L   | 99     |

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Sample : K4983-13  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :

Quant Time: Sep 26 15:54:55 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis  
QLast Update : Thu Sep 26 15:50:26 2019  
Response via : Initial Calibration

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

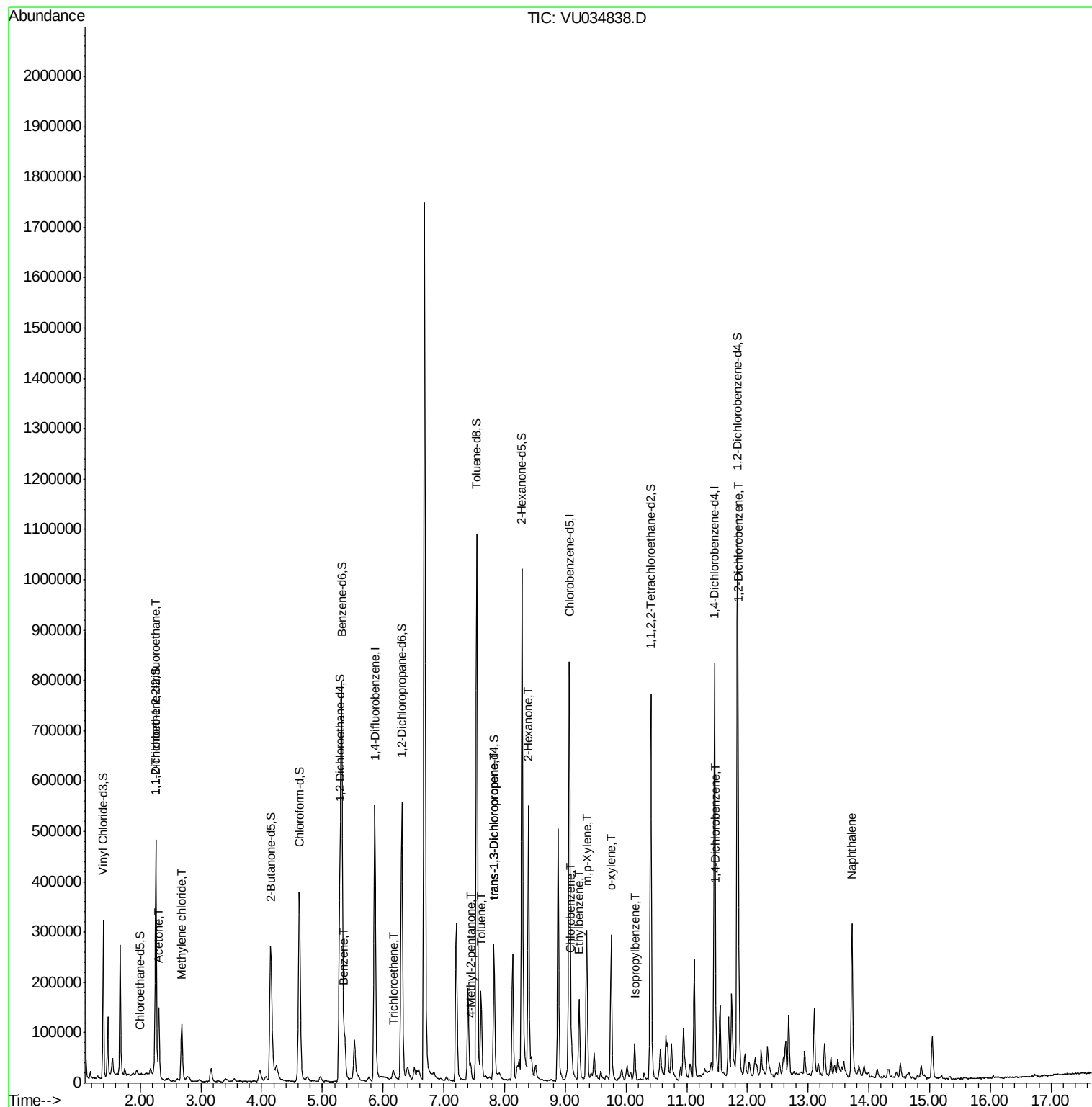
|       |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|
| ----- |  |  |  |  |  |  |
| ----- |  |  |  |  |  |  |

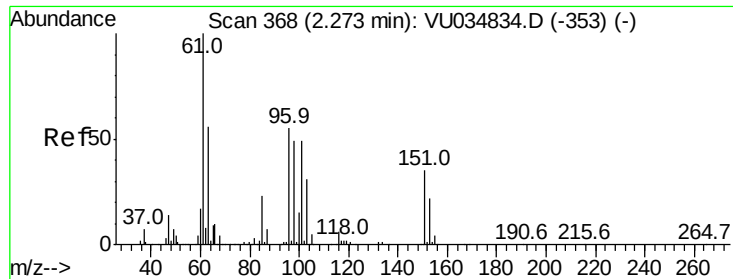
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092619\  
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Quant Time: Sep 26 15:54:55 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis  
QLast Update : Thu Sep 26 15:50:26 2019  
Response via : Initial Calibration





#10

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

Concen: 0.724 ug/L

RT: 2.26 min Scan# 364

Delta R.T. -0.01 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

Instrument :

MSVOA\_U

ClientSampleId :

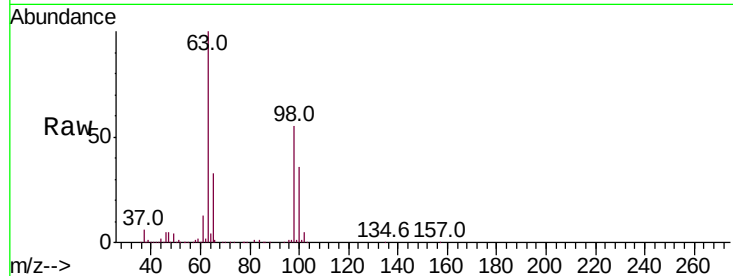
Tot Ion:101 Resp: 2205

Ion Ratio Lower Upper

101 100

85 5.9 39.0 58.4#

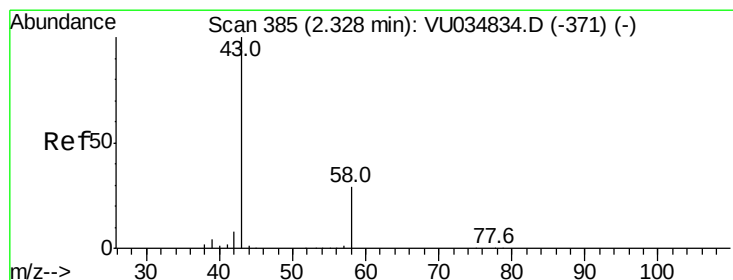
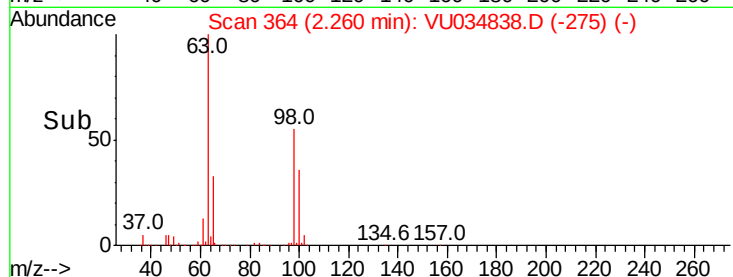
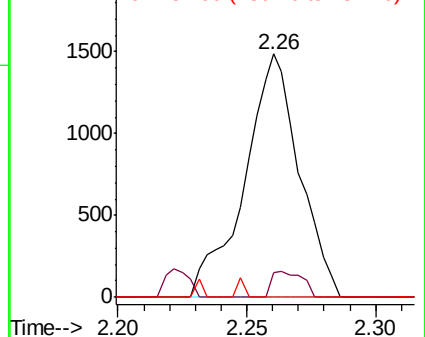
151 0.0 52.8 79.2#



Abundance Ion 101.00 (100.70 to 101.70): V

2000 Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#13

Acetone

Concen: 36.741 ug/L

RT: 2.31 min Scan# 378

Delta R.T. -0.00 min

Lab File: VU034838.D

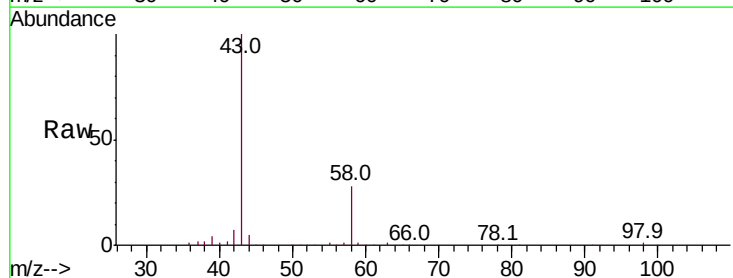
Acq: 26 Sep 2019 12:01

Tgt Ion: 43 Resp: 149848

Ion Ratio Lower Upper

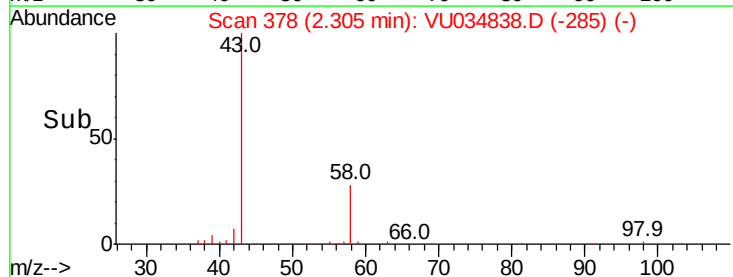
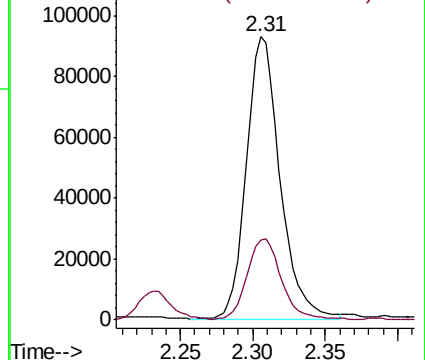
43 100

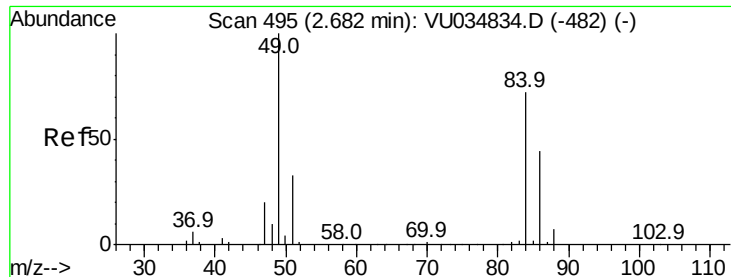
58 29.6 0.0 53.4



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0

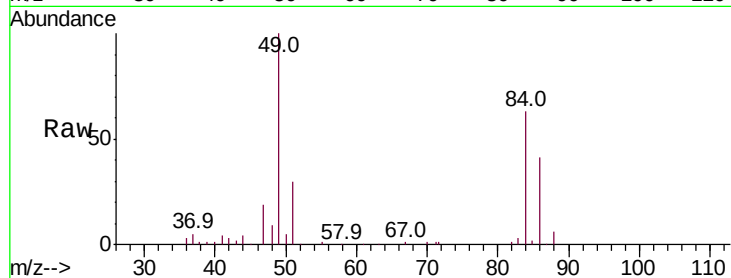




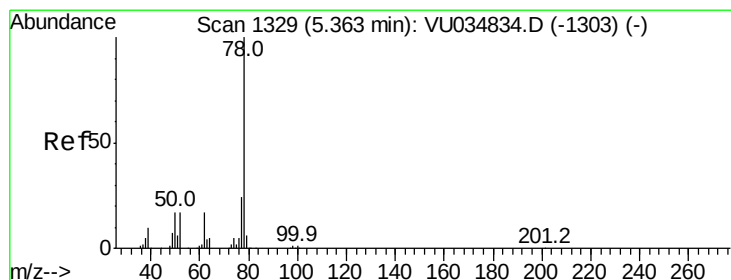
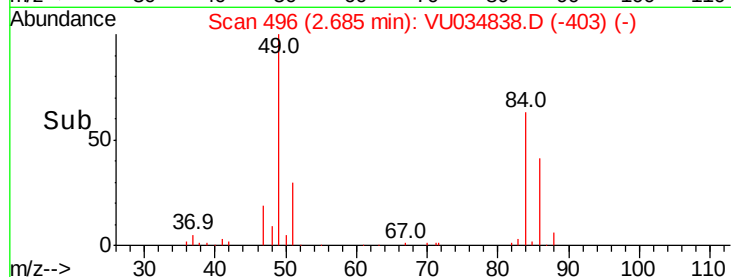
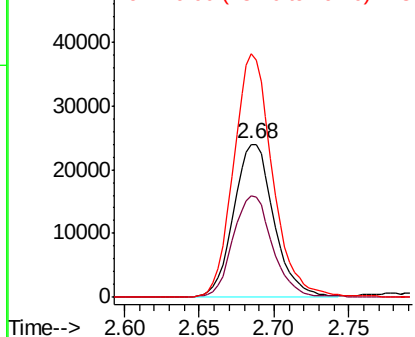
#16  
Methvlene chloride  
Concen: 12.183 ug/L  
RT: 2.68 min Scan# 496  
Delta R.T. -0.00 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01

Instrument :  
MSVOA\_U  
ClientSampleId :

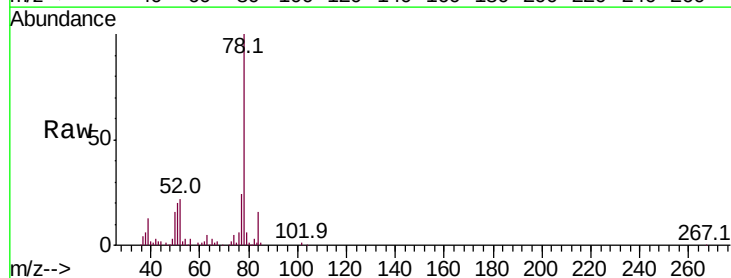
Tot Ion: 84 Resp: 45120  
Ion Ratio Lower Upper  
84 100  
86 66.0 43.0 80.0  
49 159.3 109.7 203.7



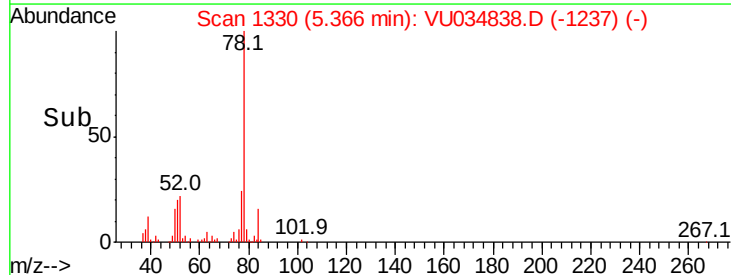
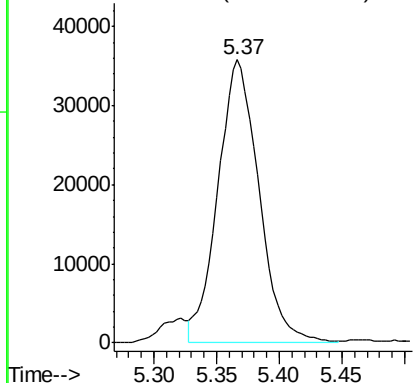
Abundance Ion 84.00 (83.70 to 84.70): VU0  
Ion 86.00 (85.70 to 86.70): VU0  
Ion 49.00 (48.70 to 49.70): VU0

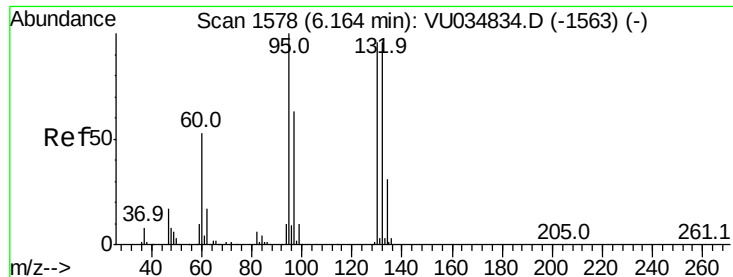


#33  
Benzene  
Concen: 5.518 ug/L  
RT: 5.37 min Scan# 1330  
Delta R.T. -0.00 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01  
Tgt Ion: 78 Resp: 81507



Abundance Ion 78.00 (77.70 to 78.70): VU0





#34

Trichloroethene

Concen: 1.428 ug/L

RT: 6.17 min Scan# 1580

Delta R.T. 0.01 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 95 Resp: 5210

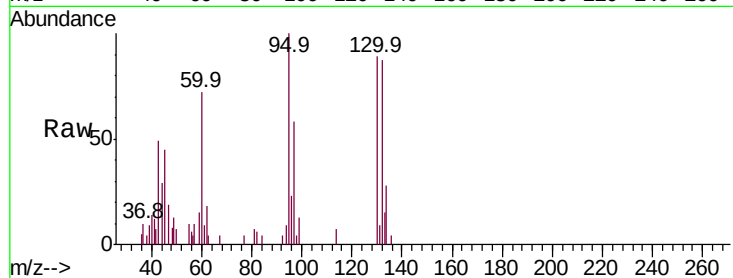
Ion Ratio Lower Upper

95 100

97 58.0 43.7 81.1

132 86.9 61.0 113.2

130 89.3 65.7 121.9

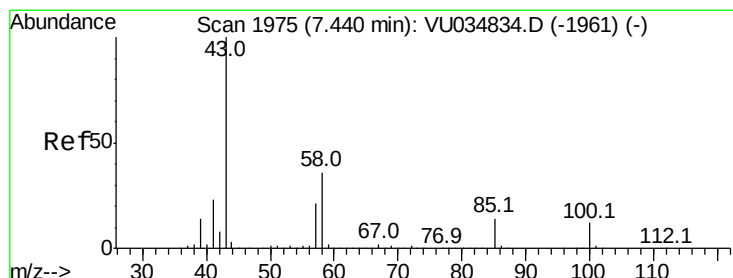
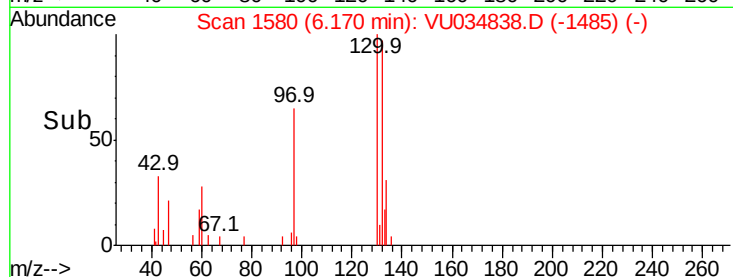
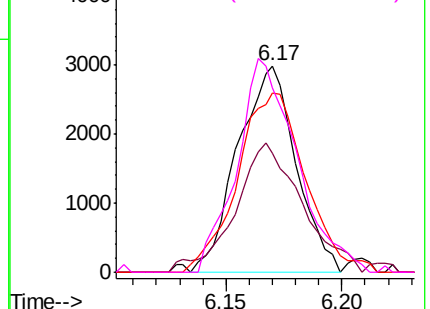


Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 97.00 (96.70 to 97.70): VU0

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#40

4-Methyl-2-pentanone

Concen: 2.347 ug/L

RT: 7.44 min Scan# 1975

Delta R.T. 0.00 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

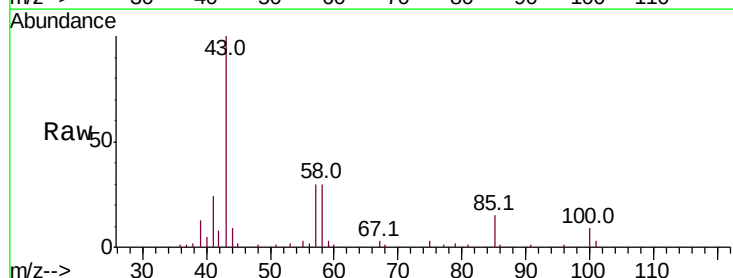
Tgt Ion: 43 Resp: 19710

Ion Ratio Lower Upper

43 100

58 40.6 25.2 37.8#

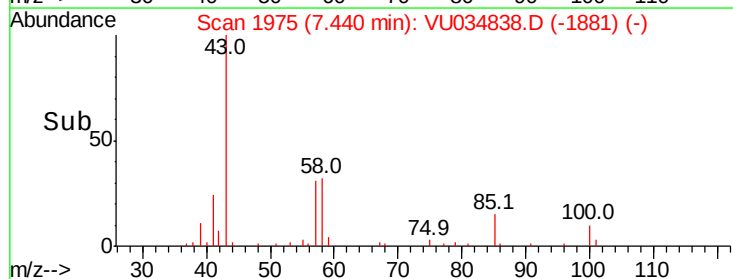
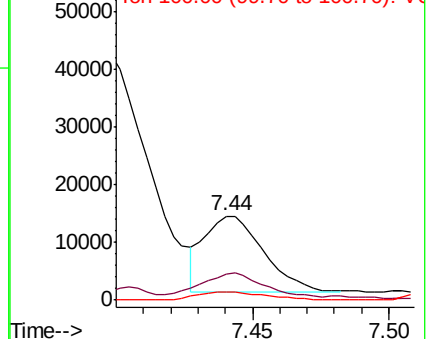
100 12.7 7.7 11.5#

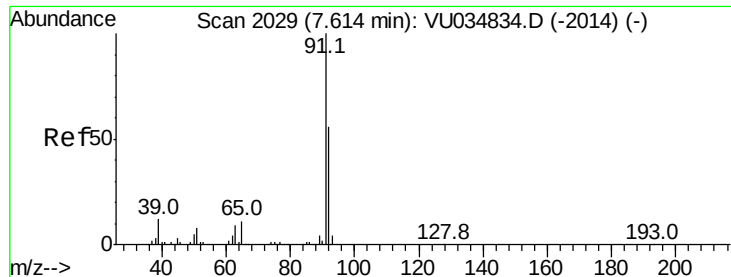


Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0

Ion 100.00 (99.70 to 100.70): VU





#42

Toluene

Concen: 7.511 ug/L

RT: 7.62 min Scan# 2030

Delta R.T. 0.00 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

Instrument :

MSVOA\_U

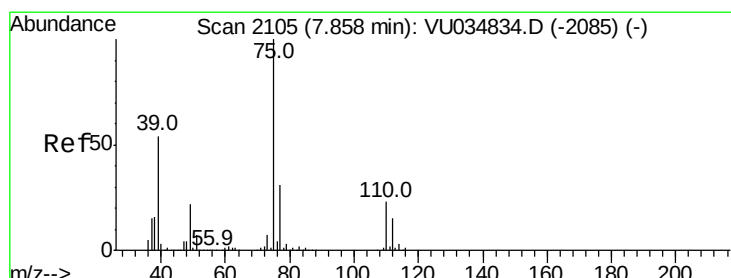
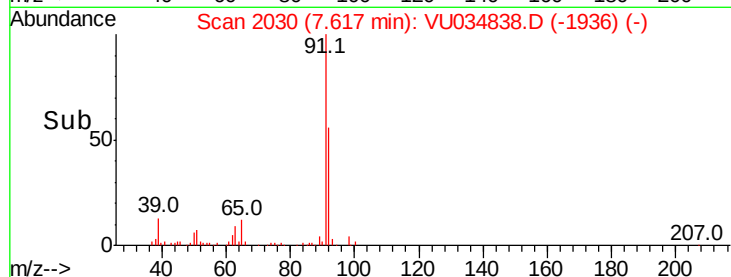
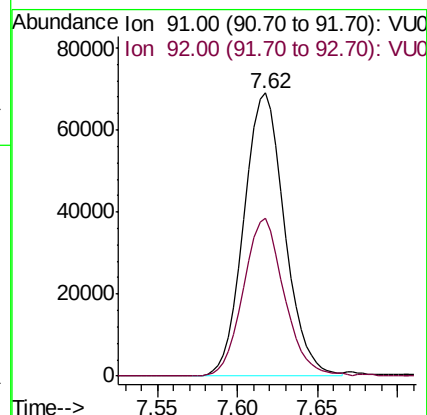
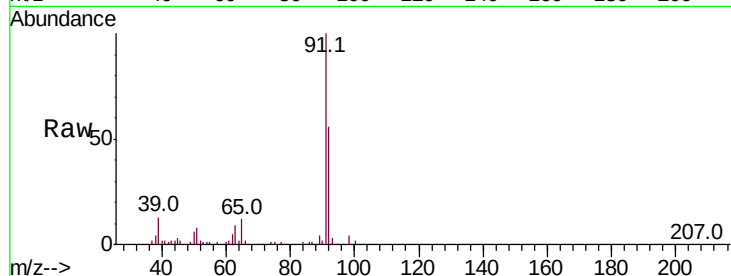
ClientSampleId :

Tot Ion: 91 Resp: 119905

Ion Ratio Lower Upper

91 100

92 55.7 38.2 71.0



#44

trans-1,3-Dichloropropene

Concen: 0.984 ug/L

RT: 7.83 min Scan# 2095

Delta R.T. -0.03 min

Lab File: VU034838.D

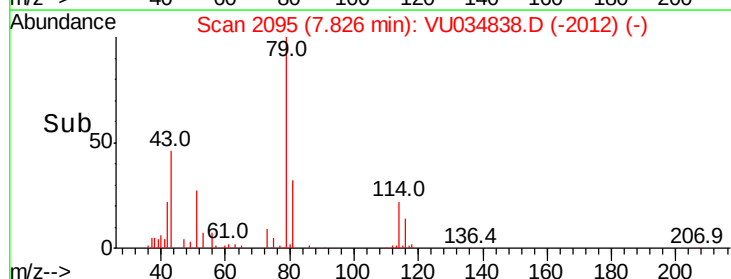
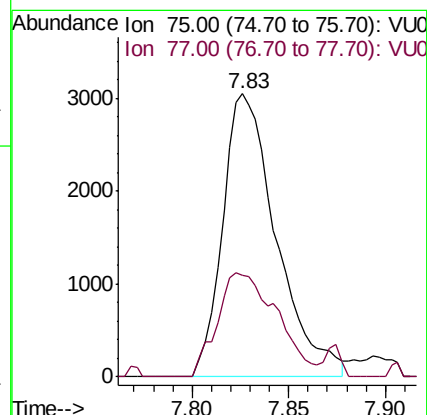
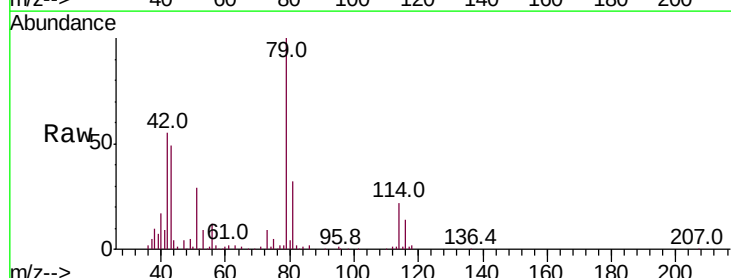
Acq: 26 Sep 2019 12:01

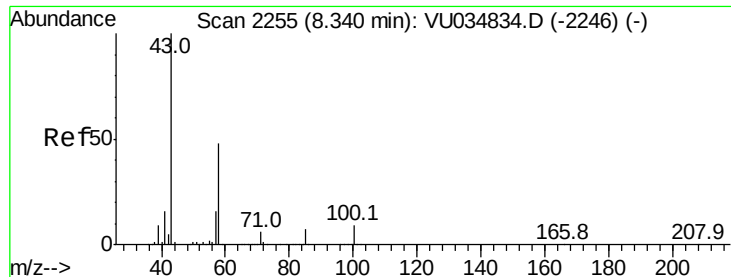
Tgt Ion: 75 Resp: 5860

Ion Ratio Lower Upper

75 100

77 36.1 21.4 39.8

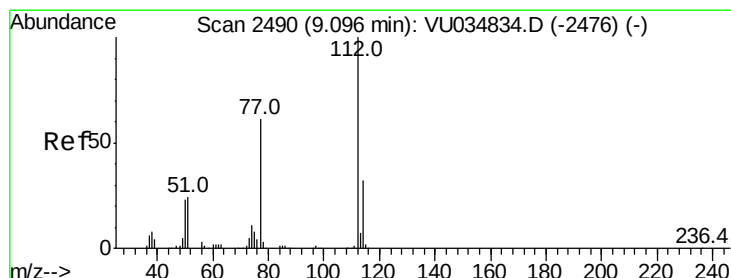
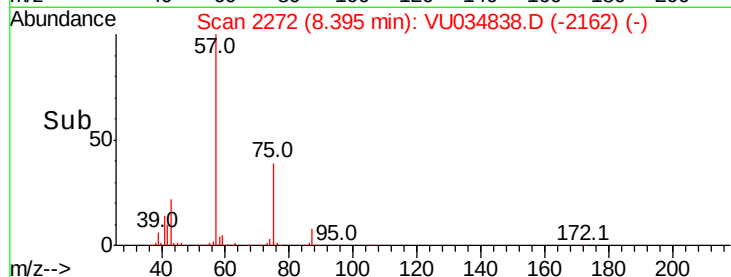
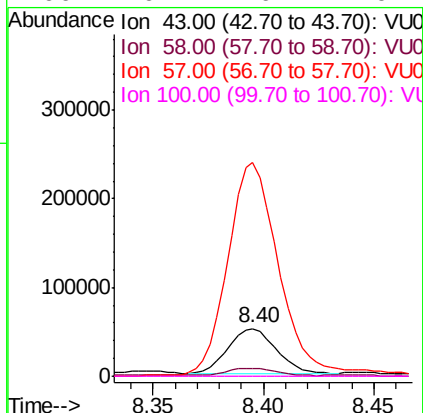
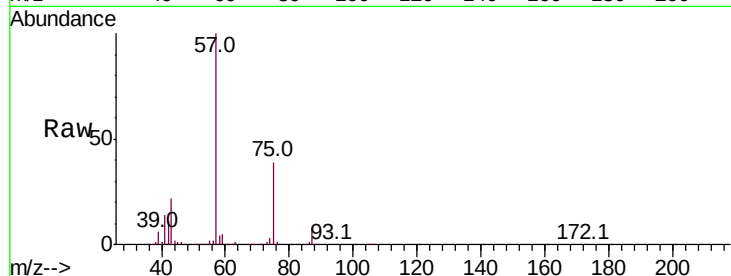




#48  
2-Hexanone  
Concen: 11.546 ug/L  
RT: 8.40 min Scan# 2272  
Delta R.T. 0.05 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01

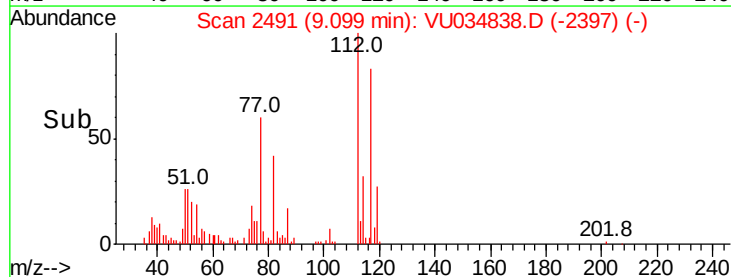
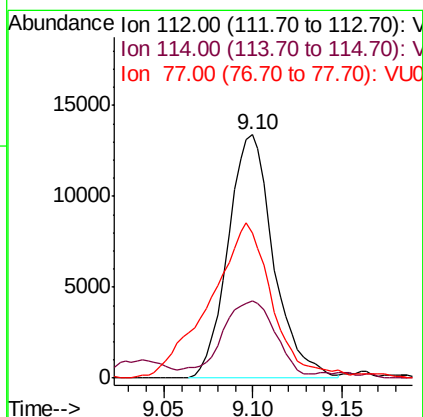
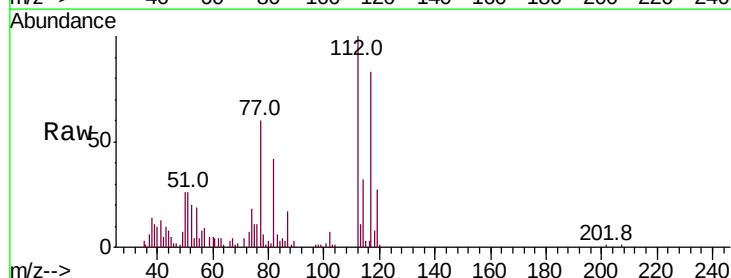
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 75719  
Ion Ratio Lower Upper  
43 100  
58 17.8 35.3 52.9#  
57 517.3 12.1 18.1#  
100 0.1 6.2 9.4#

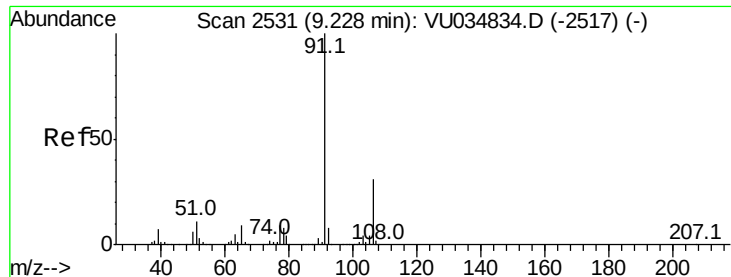


#51  
Chlorobenzene  
Concen: 2.454 ug/L  
RT: 9.10 min Scan# 2491  
Delta R.T. 0.00 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01

Tgt Ion: 112 Resp: 23818  
Ion Ratio Lower Upper  
112 100  
114 31.7 22.8 42.4  
77 59.8 51.5 77.3







#52

Ethylbenzene

Concen: 6.267 ug/L

RT: 9.23 min Scan# 2531

Delta R.T. -0.00 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

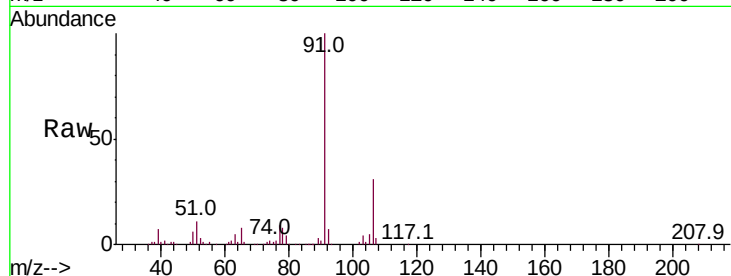
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 112653

Ion Ratio Lower Upper

91 100

106 30.9 20.6 38.4



Abundance Ion 91.00 (90.70 to 91.70): VU034838.D (-2438) (-)

Ion 106.00 (105.70 to 106.70): VU034838.D (-2438) (-)

9.23

80000

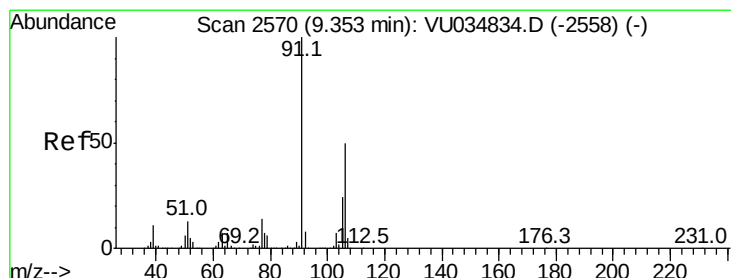
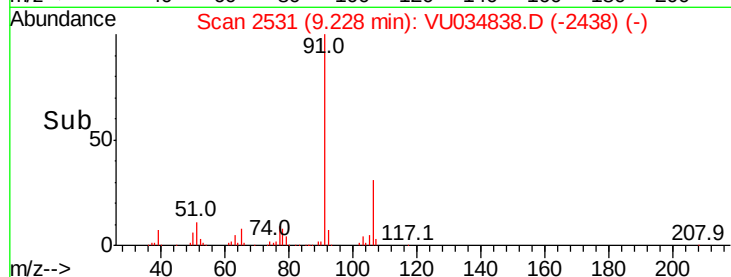
60000

40000

20000

0

Time--> 9.15 9.20 9.25 9.30



#53

m,p-Xylene

Concen: 13.403 ug/L

RT: 9.35 min Scan# 2570

Delta R.T. -0.00 min

Lab File: VU034838.D

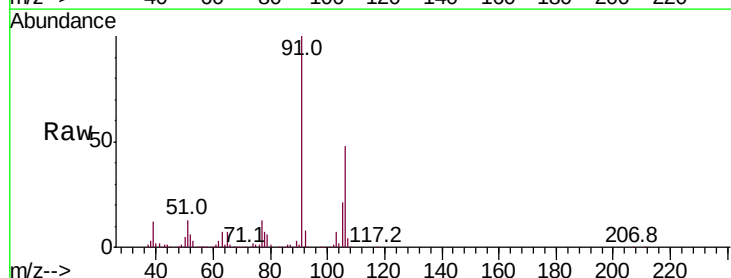
Acq: 26 Sep 2019 12:01

Tgt Ion:106 Resp: 85334

Ion Ratio Lower Upper

106 100

91 210.4 146.9 272.7



Abundance Ion 106.00 (105.70 to 106.70): VU034838.D (-2477) (-)

Ion 91.00 (90.70 to 91.70): VU034838.D (-2477) (-)

9.35

120000

100000

80000

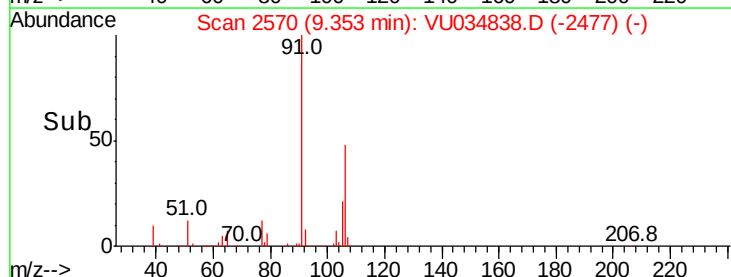
60000

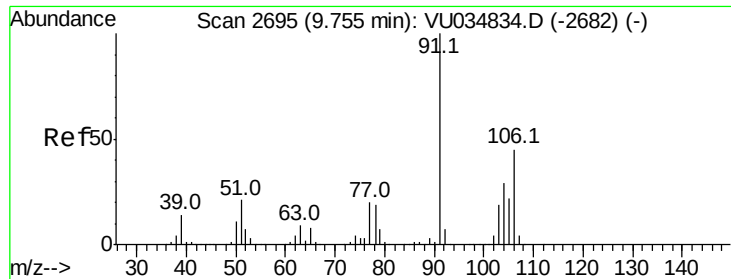
40000

20000

0

Time--> 9.30 9.35 9.40

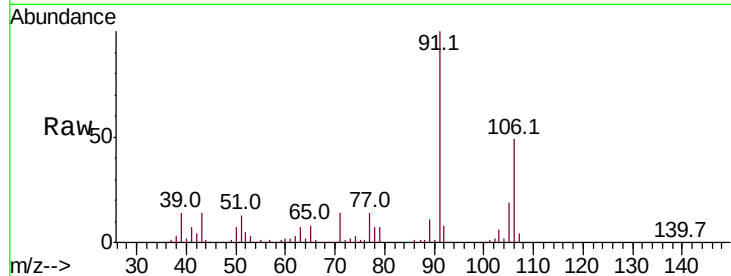




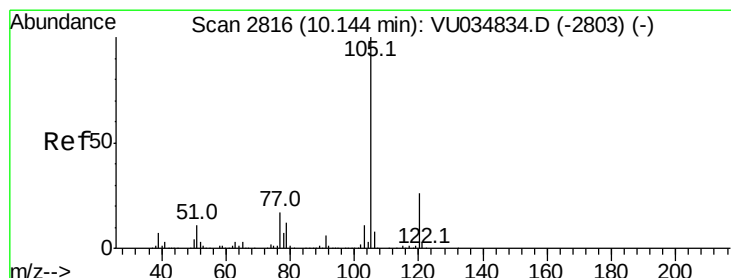
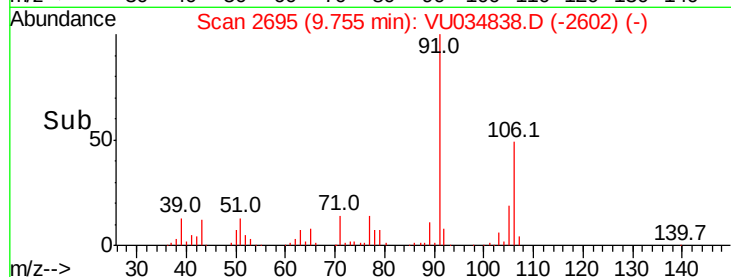
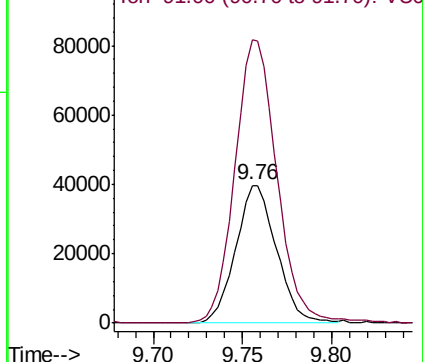
#54  
o-xylene  
Concen: 10.084 ug/L  
RT: 9.76 min Scan# 2695  
Delta R.T. -0.00 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 63504  
Ion Ratio Lower Upper  
106 100  
91 205.5 155.6 289.0

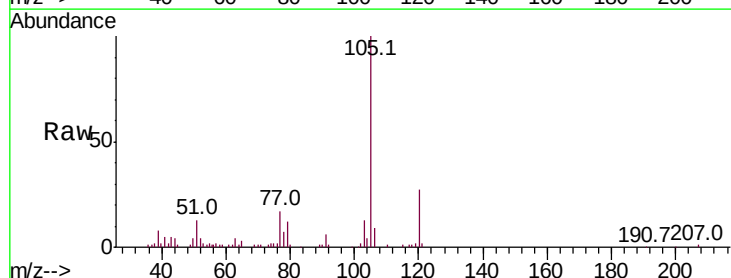


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VU0

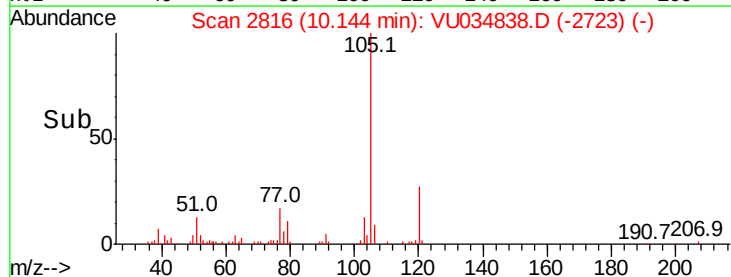
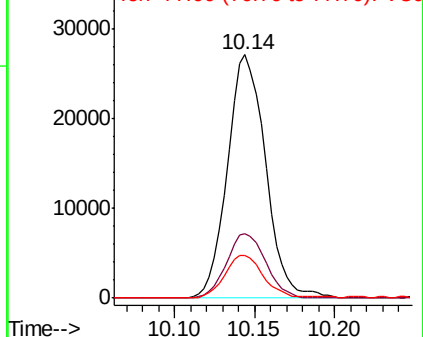


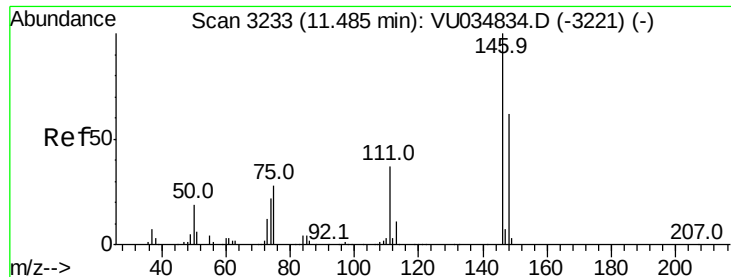
#56  
Isopropylbenzene  
Concen: 2.597 ug/L  
RT: 10.14 min Scan# 2816  
Delta R.T. -0.00 min  
Lab File: VU034838.D  
Acq: 26 Sep 2019 12:01

Tgt Ion:105 Resp: 44099  
Ion Ratio Lower Upper  
105 100  
120 27.1 20.4 30.6  
77 17.6 14.2 21.4



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V  
Ion 77.00 (76.70 to 77.70): VU0

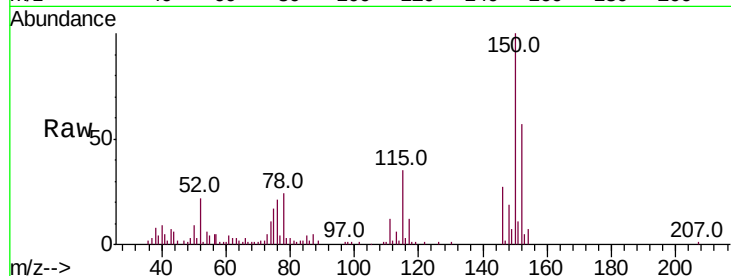




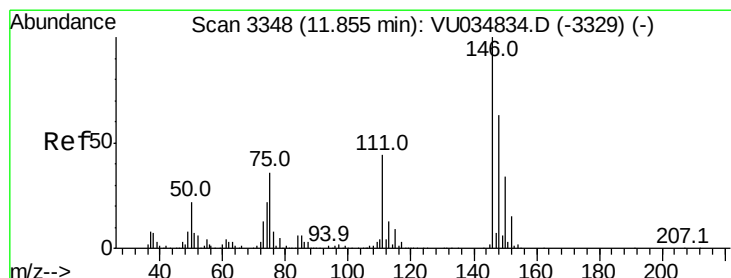
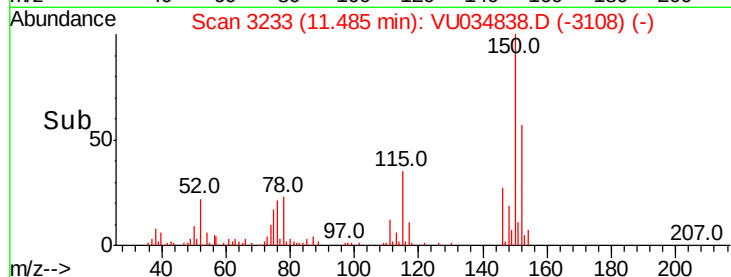
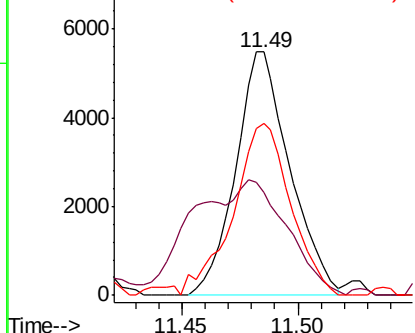
#63  
 1,4-Dichlorobenzene  
 Concen: 1.282 ug/L  
 RT: 11.49 min Scan# 3233  
 Delta R.T. 0.00 min  
 Lab File: VU034838.D  
 Acq: 26 Sep 2019 12:01

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion:146 Resp: 8910  
 Ion Ratio Lower Upper  
 146 100  
 111 42.3 29.5 54.9  
 148 70.8 44.4 82.4

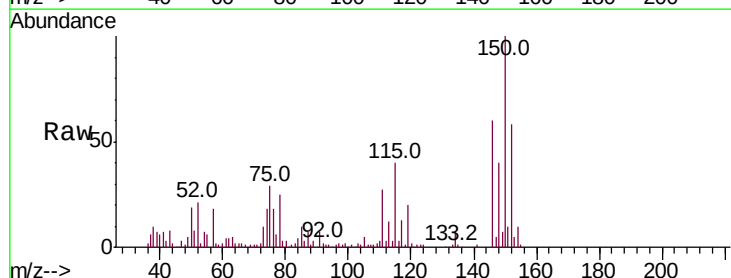


Abundance Ion 146.00 (145.70 to 146.70): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V

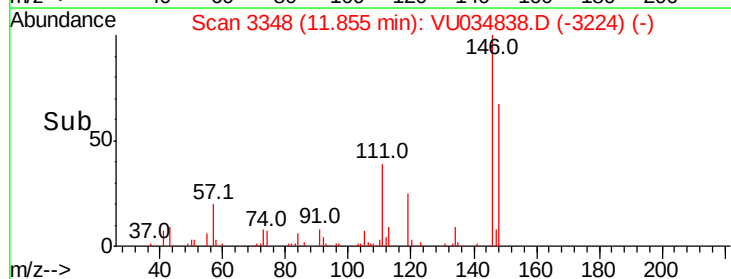
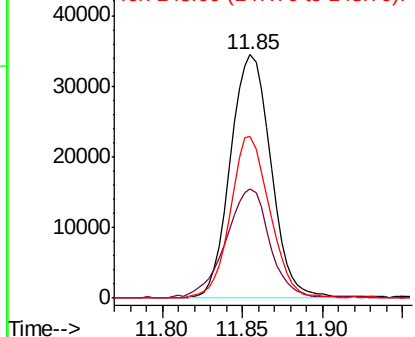


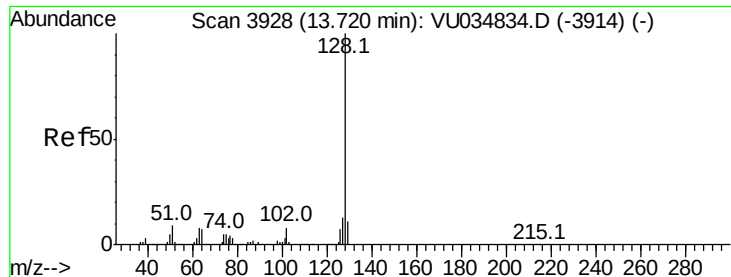
#65  
 1,2-Dichlorobenzene  
 Concen: 8.647 ug/L  
 RT: 11.85 min Scan# 3348  
 Delta R.T. -0.00 min  
 Lab File: VU034838.D  
 Acq: 26 Sep 2019 12:01

Tgt Ion:146 Resp: 59588  
 Ion Ratio Lower Upper  
 146 100  
 111 44.7 35.2 52.8  
 148 66.5 53.0 79.6



Abundance Ion 146.00 (145.70 to 146.70): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V





#69

Naphthalene

Concen: 19.411 ug/L

RT: 13.72 min Scan# 3929

Delta R.T. 0.00 min

Lab File: VU034838.D

Acq: 26 Sep 2019 12:01

Instrument :

MSVOA\_U

ClientSampleId :

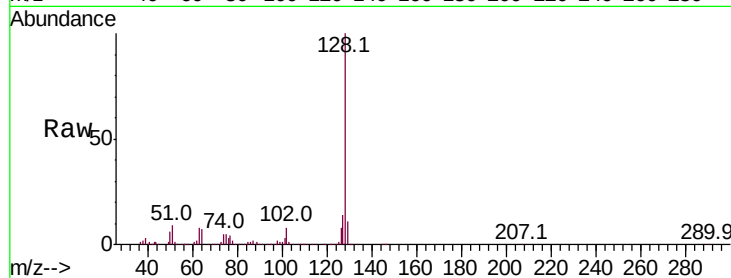
Tot Ion:128 Resp: 241468

Ion Ratio Lower Upper

128 100

127 13.8 10.8 16.2

129 10.5 8.6 12.8



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

