

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU081318\  
 Data File : VU026090.D  
 Acq On : 14 Aug 2018 00:19  
 Operator : MD/SY  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05055

Quant Time: Aug 14 02:21:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080918WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Aug 14 02:18:47 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 297523   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 283421   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 144153   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 90965    | 41.83    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 83.66% |
| 7) Chloroethane-d5             | 1.67    | 69    | 75819    | 43.97    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 87.94% |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 184103   | 44.55    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 89.10% |
| 21) 2-Butanone-d5              | 4.18    | 46    | 149942   | 82.72    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 82.72% |
| 24) Chloroform-d               | 4.65    | 84    | 206908   | 44.87    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 89.74% |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 133941   | 42.99    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 85.98% |
| 32) Benzene-d6                 | 5.35    | 84    | 390670   | 44.39    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 88.78% |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 125502   | 44.07    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 88.14% |
| 41) Toluene-d8                 | 7.57    | 98    | 373684   | 44.38    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 88.76% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 61720    | 43.02    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 86.04% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 107346   | 82.99    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 82.99% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 184856   | 44.39    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 88.78% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 157122   | 44.22    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 88.44% |

## Target Compounds

|                                |      |     |        |       |      | Ovalue |
|--------------------------------|------|-----|--------|-------|------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 127603 | 49.23 | ug/L | 100    |
| 3) Chloromethane               | 1.33 | 50  | 114300 | 49.14 | ug/L | 98     |
| 5) Vinyl chloride              | 1.40 | 62  | 113278 | 50.47 | ug/L | 99     |
| 6) Bromomethane                | 1.62 | 94  | 62938  | 52.45 | ug/L | 96     |
| 8) Chloroethane                | 1.70 | 64  | 67582  | 50.11 | ug/L | 94     |
| 9) Trichlorofluoromethane      | 1.89 | 101 | 162359 | 50.56 | ug/L | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.29 | 101 | 95773  | 51.28 | ug/L | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 87479  | 50.93 | ug/L | 89     |
| 13) Acetone                    | 2.32 | 43  | 100375 | 89.14 | ug/L | 98     |
| 14) Carbon disulfide           | 2.48 | 76  | 279787 | 49.51 | ug/L | 100    |
| 15) Methyl Acetate             | 2.62 | 43  | 112657 | 47.77 | ug/L | 99     |
| 16) Methylene chloride         | 2.70 | 84  | 108626 | 49.53 | ug/L | 99     |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 97641  | 51.02 | ug/L | 96     |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 319016 | 50.72 | ug/L | 99     |
| 19) 1,1-Dichloroethane         | 3.45 | 63  | 192671 | 51.90 | ug/L | 99     |
| 20) cis-1,2-Dichloroethene     | 4.23 | 96  | 111131 | 50.46 | ug/L | 100    |
| 22) 2-Butanone                 | 4.26 | 43  | 153744 | 94.37 | ug/L | 100    |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU081318\  
 Data File : VU026090.D  
 Acq On : 14 Aug 2018 00:19  
 Operator : MD/SY  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05055

Quant Time: Aug 14 02:21:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080918WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Aug 14 02:18:47 2018  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------------|-------|------|----------|-------|-------|----------|
| 23) Bromochloromethane          | 4.55  | 128  | 60650    | 51.71 | ug/L  | 99       |
| 25) Chloroform                  | 4.68  | 83   | 200249   | 51.80 | ug/L  | 99       |
| 27) 1,2-Dichloroethane          | 5.41  | 62   | 159964   | 50.10 | ug/L  | 98       |
| 29) Cyclohexane                 | 5.00  | 56   | 156091   | 49.28 | ug/L  | 97       |
| 30) 1,1,1-Trichloroethane       | 4.92  | 97   | 181014   | 50.62 | ug/L  | 99       |
| 31) Carbon tetrachloride        | 5.14  | 117  | 166642   | 51.03 | ug/L  | 100      |
| 33) Benzene                     | 5.39  | 78   | 415875   | 51.52 | ug/L  | 100      |
| 34) Trichloroethene             | 6.19  | 95   | 105451   | 50.00 | ug/L  | 97       |
| 35) Methylcyclohexane           | 6.42  | 83   | 165172   | 51.29 | ug/L  | 99       |
| 37) 1,2-Dichloropropane         | 6.44  | 63   | 114117   | 51.67 | ug/L  | 99       |
| 38) Bromodichloromethane        | 6.76  | 83   | 152950   | 51.98 | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.27  | 75   | 168909   | 50.46 | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone        | 7.46  | 43   | 291930   | 96.19 | ug/L  | 99       |
| 42) Toluene                     | 7.64  | 91   | 450048   | 52.52 | ug/L  | 97       |
| 44) trans-1,3-Dichloropropene   | 7.88  | 75   | 162413   | 50.97 | ug/L  | 95       |
| 45) 1,1,2-Trichloroethane       | 8.07  | 97   | 107321   | 50.96 | ug/L  | 96       |
| 46) Tetrachloroethene           | 8.23  | 164  | 90385    | 50.36 | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.36  | 43   | 230085   | 97.31 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.48  | 129  | 133623   | 52.62 | ug/L  | 100      |
| 50) 1,2-Dibromoethane           | 8.59  | 107  | 115936   | 50.55 | ug/L  | 99       |
| 51) Chlorobenzene               | 9.12  | 112  | 295104   | 51.08 | ug/L  | 99       |
| 52) Ethylbenzene                | 9.25  | 91   | 488681   | 52.12 | ug/L  | 99       |
| 53) m,p-Xylene                  | 9.38  | 106  | 192358   | 53.69 | ug/L  | 98       |
| 54) o-xylene                    | 9.78  | 106  | 188625   | 53.05 | ug/L  | 97       |
| 55) Styrene                     | 9.80  | 104  | 323179   | 54.59 | ug/L  | 99       |
| 56) Isopropylbenzene            | 10.17 | 105  | 486186   | 53.08 | ug/L  | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.46 | 83   | 180087   | 50.32 | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane      | 10.50 | 75   | 143142   | 50.25 | ug/L  | 99       |
| 61) Bromoform                   | 9.96  | 173  | 99518    | 50.99 | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene         | 11.42 | 146  | 226164   | 50.40 | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.51 | 146  | 233312   | 49.59 | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene         | 11.88 | 146  | 247687   | 51.85 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.66 | 75   | 39112    | 46.65 | ug/L  | 96       |
| 67) 1,3,5-Trichlorobenzene      | 12.89 | 180  | 169565   | 50.55 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.51 | 180  | 133926   | 47.22 | ug/L  | 100      |
| 69) Naphthalene                 | 13.74 | 128  | 410973   | 44.91 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 13.99 | 180  | 150424   | 49.34 | ug/L  | 99       |

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

