

Data Path : Z:\voasrv\HPCHEM1\MSVOA U\Data\VU051519\  
 Data File : VU032016.D  
 Acq On : 15 May 2019 09:02  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05046

Quant Time: May 16 04:24:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM051419WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed May 15 04:26:34 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 1061612  | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 1089498  | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 509603   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 388491   | 41.70    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 83.40% |
| 7) Chloroethane-d5             | 1.66    | 69    | 326388   | 43.27    | ug/L | -0.01  |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 86.54% |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 732956   | 43.89    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 87.78% |
| 21) 2-Butanone-d5              | 4.17    | 46    | 575934   | 88.29    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 88.29% |
| 24) Chloroform-d               | 4.64    | 84    | 711326   | 45.62    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 91.24% |
| 26) 1,2-Dichloroethane-d4      | 5.30    | 65    | 433009   | 44.09    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 88.18% |
| 32) Benzene-d6                 | 5.33    | 84    | 1433762  | 45.46    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 90.92% |
| 36) 1,2-Dichloropropane-d6     | 6.32    | 67    | 477100   | 45.85    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 91.70% |
| 41) Toluene-d8                 | 7.56    | 98    | 1298592  | 45.95    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 91.90% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 213844   | 46.58    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 93.16% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 411565   | 97.52    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 97.52% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 734255   | 47.67    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 95.34% |
| 64) 1,2-Dichlorobenzene-d4     | 11.85   | 152   | 497906   | 46.43    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 92.86% |

## Target Compounds

|                                |      |     |         |         | Ovalue     |
|--------------------------------|------|-----|---------|---------|------------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 447947  | 45.831  | ug/L 99    |
| 3) Chloromethane               | 1.32 | 50  | 477741  | 43.768  | ug/L 98    |
| 5) Vinyl chloride              | 1.40 | 62  | 505880  | 44.242  | ug/L 98    |
| 6) Bromomethane                | 1.60 | 94  | 224300  | 37.321  | ug/L 96    |
| 8) Chloroethane                | 1.68 | 64  | 295738  | 43.711  | ug/L 99    |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 581773  | 44.954  | ug/L 99    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 366038  | 46.332  | ug/L 98    |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 362416  | 46.224  | ug/L 93    |
| 13) Acetone                    | 2.32 | 43  | 715219  | 106.648 | ug/L 98    |
| 14) Carbon disulfide           | 2.47 | 76  | 1129472 | 44.598  | ug/L 99    |
| 15) Methyl Acetate             | 2.61 | 43  | 438528  | 43.065  | ug/L # 100 |
| 16) Methylene chloride         | 2.69 | 84  | 427442  | 44.705  | ug/L 99    |
| 17) trans-1,2-Dichloroethene   | 2.97 | 96  | 377245  | 46.252  | ug/L 97    |
| 18) Methyl tert-butyl Ether    | 2.99 | 73  | 1187583 | 47.384  | ug/L 99    |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 740253  | 46.219  | ug/L 99    |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 425168  | 47.127  | ug/L 97    |
| 22) 2-Butanone                 | 4.26 | 43  | 807761  | 104.425 | ug/L 98    |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.54  | 128  | 205174   | 46.402  | ug/L  | 98       |
| 25) Chloroform                 | 4.67  | 83   | 721495   | 45.582  | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 568891   | 46.435  | ug/L  | 99       |
| 29) Cyclohexane                | 4.99  | 56   | 669611   | 50.140  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.91  | 97   | 572357   | 45.306  | ug/L  | 100      |
| 31) Carbon tetrachloride       | 5.13  | 117  | 485049   | 46.023  | ug/L  | 99       |
| 33) Benzene                    | 5.38  | 78   | 1675330  | 46.944  | ug/L  | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 410059   | 46.397  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.41  | 83   | 669013   | 49.366  | ug/L  | 100      |
| 37) 1,2-Dichloropropane        | 6.42  | 63   | 447548   | 46.691  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.75  | 83   | 548578   | 46.835  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.26  | 75   | 662620   | 48.690  | ug/L  | 100      |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 1252125  | 96.278  | ug/L  | 100      |
| 42) Toluene                    | 7.63  | 91   | 1797903  | 49.094  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 575789   | 48.177  | ug/L  | 98       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 416046   | 47.337  | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.22  | 164  | 307216   | 49.234  | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.36  | 43   | 1121603  | 106.257 | ug/L  | 100      |
| 49) Dibromochloromethane       | 8.47  | 129  | 417695   | 47.378  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 434877   | 46.755  | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 1095876  | 47.130  | ug/L  | 99       |
| 52) Ethylbenzene               | 9.24  | 91   | 1940568  | 49.517  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 745968   | 52.159  | ug/L  | 98       |
| 54) o-xylene                   | 9.77  | 106  | 731596   | 51.808  | ug/L  | 100      |
| 55) Styrene                    | 9.79  | 104  | 1292069  | 53.303  | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.16 | 105  | 1893916  | 52.345  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 748180   | 47.161  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 578684   | 46.284  | ug/L  | 98       |
| 61) Bromoform                  | 9.95  | 173  | 311763   | 45.838  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 820337   | 49.201  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 838556   | 47.548  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 852345   | 48.241  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 147219   | 43.130  | ug/L  | 96       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 605730   | 50.658  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 483857   | 52.537  | ug/L  | 99       |
| 69) Naphthalene                | 13.74 | 128  | 1594197  | 51.989  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 520101   | 51.877  | ug/L  | 99       |

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

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