

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U122718\  
 Data File : VU028964.D  
 Acq On : 27 Dec 2018 13:55  
 Operator : MD/SY  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05049

Quant Time: Dec 28 00:51:28 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM122018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Dec 28 00:46:50 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 295051   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 277976   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 136383   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 99558    | 42.09    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 84.18%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 83774    | 45.85    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 91.70%  |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 188378   | 47.36    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 94.72%  |
| 21) 2-Butanone-d5              | 4.17    | 46    | 147732   | 89.14    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 89.14%  |
| 24) Chloroform-d               | 4.64    | 84    | 181707   | 48.85    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 97.70%  |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 108876   | 47.49    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.98%  |
| 32) Benzene-d6                 | 5.34    | 84    | 374353   | 47.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 95.34%  |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 125148   | 46.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 93.82%  |
| 41) Toluene-d8                 | 7.56    | 98    | 350776   | 49.29    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 98.58%  |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 60121    | 50.29    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 100.58% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 124577   | 98.32    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 98.32%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 175928   | 47.53    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 95.06%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 139476   | 50.56    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 101.12% |

## Target Compounds

|                                |      |     |        |        | Ovalue    |
|--------------------------------|------|-----|--------|--------|-----------|
| 2) Dichlorodifluoromethane     | 1.21 | 85  | 126647 | 52.640 | ug/L 100  |
| 3) Chloromethane               | 1.33 | 50  | 143306 | 43.804 | ug/L 97   |
| 5) Vinyl chloride              | 1.40 | 62  | 152253 | 52.681 | ug/L 99   |
| 6) Bromomethane                | 1.61 | 94  | 68523  | 55.661 | ug/L 99   |
| 8) Chloroethane                | 1.69 | 64  | 91423  | 55.419 | ug/L 98   |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 178704 | 60.466 | ug/L 99   |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.29 | 101 | 111013 | 58.056 | ug/L 98   |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 108334 | 57.265 | ug/L # 78 |
| 13) Acetone                    | 2.32 | 43  | 132630 | 78.531 | ug/L 99   |
| 14) Carbon disulfide           | 2.48 | 76  | 330752 | 50.066 | ug/L 99   |
| 15) Methyl Acetate             | 2.61 | 43  | 121898 | 46.295 | ug/L 95   |
| 16) Methylene chloride         | 2.70 | 84  | 127548 | 54.672 | ug/L 93   |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 114450 | 55.841 | ug/L 97   |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 367301 | 58.279 | ug/L 97   |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 212293 | 53.284 | ug/L 99   |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 133765 | 57.614 | ug/L 93   |
| 22) 2-Butanone                 | 4.26 | 43  | 177434 | 86.274 | ug/L 94   |

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 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05049

Quant Time: Dec 28 00:51:28 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM122018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Dec 28 00:46:50 2018  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 4.55  | 128  | 65429    | 59.115 | ug/L  | 86       |
| 25) Chloroform                  | 4.67  | 83   | 211445   | 55.759 | ug/L  | 97       |
| 27) 1,2-Dichloroethane          | 5.40  | 62   | 155952   | 55.337 | ug/L  | 98       |
| 29) Cyclohexane                 | 4.99  | 56   | 193041   | 52.177 | ug/L  | 93       |
| 30) 1,1,1-Trichloroethane       | 4.91  | 97   | 172525   | 58.639 | ug/L  | 98       |
| 31) Carbon tetrachloride        | 5.13  | 117  | 138553   | 58.398 | ug/L  | 100      |
| 33) Benzene                     | 5.39  | 78   | 493805   | 55.799 | ug/L  | 100      |
| 34) Trichloroethene             | 6.18  | 95   | 122136   | 57.165 | ug/L  | 92       |
| 35) Methylcyclohexane           | 6.41  | 83   | 199305   | 56.009 | ug/L  | 94       |
| 37) 1,2-Dichloropropane         | 6.43  | 63   | 131839   | 53.294 | ug/L  | 98       |
| 38) Bromodichloromethane        | 6.75  | 83   | 154764   | 56.493 | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.27  | 75   | 200260   | 56.782 | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone        | 7.46  | 43   | 325694   | 97.951 | ug/L  | 96       |
| 42) Toluene                     | 7.63  | 91   | 528037   | 58.861 | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene   | 7.88  | 75   | 180114   | 57.292 | ug/L  | 98       |
| 45) 1,1,2-Trichloroethane       | 8.06  | 97   | 123143   | 58.220 | ug/L  | 97       |
| 46) Tetrachloroethene           | 8.22  | 164  | 99520    | 60.480 | ug/L  | 97       |
| 48) 2-Hexanone                  | 8.36  | 43   | 250264   | 91.703 | ug/L  | 95       |
| 49) Dibromochloromethane        | 8.48  | 129  | 121268   | 57.560 | ug/L  | 98       |
| 50) 1,2-Dibromoethane           | 8.58  | 107  | 129456   | 58.826 | ug/L  | 99       |
| 51) Chlorobenzene               | 9.12  | 112  | 335282   | 59.302 | ug/L  | 98       |
| 52) Ethylbenzene                | 9.25  | 91   | 566601   | 58.780 | ug/L  | 98       |
| 53) m,p-Xylene                  | 9.37  | 106  | 218388   | 61.267 | ug/L  | 96       |
| 54) o-xylene                    | 9.78  | 106  | 214854   | 60.140 | ug/L  | 100      |
| 55) Styrene                     | 9.79  | 104  | 367464   | 60.732 | ug/L  | 100      |
| 56) Isopropylbenzene            | 10.16 | 105  | 551667   | 60.872 | ug/L  | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.46 | 83   | 206309   | 53.691 | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane      | 10.49 | 75   | 158730   | 53.768 | ug/L  | 99       |
| 61) Bromoform                   | 9.96  | 173  | 92788    | 54.883 | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene         | 11.41 | 146  | 258728   | 59.719 | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene         | 11.51 | 146  | 259334   | 58.100 | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 11.88 | 146  | 260761   | 57.698 | ug/L  | 97       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.66 | 75   | 39321    | 50.440 | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene      | 12.89 | 180  | 192438   | 60.244 | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene      | 13.50 | 180  | 171249   | 64.020 | ug/L  | 99       |
| 69) Naphthalene                 | 13.74 | 128  | 569094   | 61.279 | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 13.99 | 180  | 175672   | 60.905 | ug/L  | 99       |

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

