

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092418\  
 Data File : VU027095.D  
 Acq On : 24 Sep 2018 09:57  
 Operator : MD/SY  
 Sample : VU0924WBS01  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VU0924WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 9/25/2018 11:34:13 AM

Quant Time: Sep 25 01:46:00 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U092218W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Sep 22 01:31:57 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.98  | 168  | 84129    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 143399   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 137972   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 72840    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 83121    | 49.09 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.18% |      |
| 35) Dibromofluoromethane  | 4.88   | 113 | 57446    | 46.22 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.44% |      |
| 50) Toluene-d8            | 7.57   | 98  | 224691   | 47.43 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.86% |      |
| 62) 4-Bromofluorobenzene  | 10.31  | 95  | 79230    | 48.74 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.48% |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.21 | 85  | 19188  | 17.469  | ug/l | 98     |
| 3) Chloromethane              | 1.33 | 50  | 32783  | 17.311  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.40 | 62  | 31148  | 17.620  | ug/l | 99     |
| 5) Bromomethane               | 1.62 | 94  | 17633  | 17.516  | ug/l | 98     |
| 6) Chloroethane               | 1.70 | 64  | 20435  | 18.092  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 1.89 | 101 | 36698  | 18.278  | ug/l | 100    |
| 8) Diethyl Ether              | 2.11 | 74  | 17810  | 18.429  | ug/l | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.29 | 101 | 21761  | 17.627  | ug/l | 97     |
| 10) Methyl Iodide             | 2.41 | 142 | 20948  | 13.682  | ug/l | 98     |
| 11) Tert butyl alcohol        | 2.82 | 59  | 36019  | 92.808  | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 2.29 | 96  | 20769  | 17.874  | ug/l | 99     |
| 13) Acrolein                  | 2.19 | 56  | 18671  | 89.244  | ug/l | 96     |
| 14) Allyl chloride            | 2.59 | 41  | 48121  | 20.419  | ug/l | 98     |
| 15) Acrylonitrile             | 2.93 | 53  | 91327  | 93.366  | ug/l | 99     |
| 16) Acetone                   | 2.32 | 43  | 101057 | 102.573 | ug/l | 98     |
| 17) Carbon Disulfide          | 2.48 | 76  | 67178  | 17.747  | ug/l | 100    |
| 18) Methyl Acetate            | 2.61 | 43  | 47752  | 19.814  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 3.00 | 73  | 83428  | 19.539  | ug/l | 98     |
| 20) Methylene Chloride        | 2.70 | 84  | 26483  | 17.464  | ug/l | 96     |
| 21) trans-1,2-Dichloroethene  | 2.98 | 96  | 23357  | 18.828  | ug/l | 98     |
| 22) Diisopropyl ether         | 3.57 | 45  | 106203 | 21.069  | ug/l | 98     |
| 23) Vinyl Acetate             | 3.52 | 43  | 438678 | 102.092 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.45 | 63  | 53939  | 19.429  | ug/l | 98     |
| 25) 2-Butanone                | 4.26 | 43  | 136988 | 96.269  | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 4.22 | 77  | 42625  | 19.687  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 4.22 | 96  | 26812  | 19.138  | ug/l | 96     |
| 28) Bromochloromethane        | 4.55 | 49  | 29724  | 22.210  | ug/l | 94     |
| 29) Tetrahydrofuran           | 4.64 | 42  | 85284  | 99.075  | ug/l | 97     |
| 30) Chloroform                | 4.68 | 83  | 48463  | 18.806  | ug/l | 96     |
| 31) Cyclohexane               | 5.00 | 56  | 50141  | 19.518  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 4.92 | 97  | 40091  | 19.485  | ug/l | 97     |
| 36) 1,1-Dichloropropene       | 5.14 | 75  | 35397  | 18.495  | ug/l | 98     |
| 37) Ethyl Acetate             | 4.38 | 43  | 46830  | 18.075  | ug/l | 97     |
| 38) Carbon Tetrachloride      | 5.13 | 117 | 33903  | 18.615  | ug/l | 99     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U092218W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Sep 22 01:31:57 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 6.42  | 83   | 40495    | 19.471  | ug/l   | 98       |
| 40) Benzene                    | 5.39  | 78   | 108837   | 18.707  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.54  | 41   | 27234    | 20.240  | ug/l   | 96       |
| 42) 1,2-Dichloroethane         | 5.40  | 62   | 41819    | 19.025  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 5.55  | 43   | 73742    | 19.517  | ug/l   | 99       |
| 44) Trichloroethene            | 6.19  | 130  | 23576    | 19.034  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 6.43  | 63   | 32023    | 19.317  | ug/l   | 98       |
| 46) Dibromomethane             | 6.56  | 93   | 18523    | 18.501  | ug/l   | 99       |
| 47) Bromodichloromethane       | 6.76  | 83   | 37986    | 18.764  | ug/l   | 96       |
| 48) Methyl methacrylate        | 6.62  | 41   | 36263    | 18.288  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 6.61  | 88   | 13967    | 340.844 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 250086   | 98.413  | ug/l   | 98       |
| 52) Toluene                    | 7.64  | 92   | 64976    | 19.484  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 7.88  | 75   | 42527    | 19.552  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 7.27  | 75   | 46773    | 19.557  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.07  | 97   | 26604    | 18.827  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 8.02  | 69   | 40620    | 18.034  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 8.24  | 76   | 51094    | 19.441  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 7.13  | 63   | 124098   | 92.313  | ug/l   | 99       |
| 59) 2-Hexanone                 | 8.36  | 43   | 191173   | 96.106  | ug/l   | 98       |
| 60) Dibromochloromethane       | 8.48  | 129  | 25499    | 18.397  | ug/l   | 96       |
| 61) 1,2-Dibromoethane          | 8.59  | 107  | 26971    | 18.344  | ug/l   | 99       |
| 64) Tetrachloroethene          | 8.23  | 164  | 19296    | 18.149  | ug/l   | 98       |
| 65) Chlorobenzene              | 9.12  | 112  | 65826    | 17.993  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.21  | 131  | 24059    | 19.093  | ug/l   | 98       |
| 67) Ethyl Benzene              | 9.25  | 91   | 117259   | 19.492  | ug/l   | 100      |
| 68) m/p-Xylenes                | 9.38  | 106  | 86784    | 36.588  | ug/l   | 98       |
| 69) o-Xylene                   | 9.78  | 106  | 41074    | 19.270  | ug/l   | 97       |
| 70) Styrene                    | 9.79  | 104  | 67885    | 18.250  | ug/l   | 99       |
| 71) Bromoform                  | 9.96  | 173  | 17871    | 18.340  | ug/l # | 100      |
| 73) Isopropylbenzene           | 10.17 | 105  | 112224   | 20.254  | ug/l   | 99       |
| 74) N-amyl acetate             | 10.02 | 43   | 63301    | 19.737  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 45391    | 17.818  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 10.49 | 75   | 42338m   | 19.133  | ug/l   |          |
| 77) Bromobenzene               | 10.45 | 156  | 25149    | 18.574  | ug/l   | 92       |
| 78) n-propylbenzene            | 10.59 | 91   | 136136   | 20.765  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 10.66 | 91   | 83045    | 20.166  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 10.77 | 105  | 94421    | 20.644  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 10.51 | 75   | 15051m   | 21.766  | ug/l   |          |
| 82) 4-Chlorotoluene            | 10.77 | 91   | 95033    | 20.581  | ug/l   | 97       |
| 83) tert-Butylbenzene          | 11.10 | 119  | 90623    | 20.041  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.15 | 105  | 96130    | 20.652  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.32 | 105  | 112434   | 20.369  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 11.48 | 119  | 95270    | 18.980  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 11.42 | 146  | 46932    | 18.626  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 11.51 | 146  | 48753    | 17.753  | ug/l   | 99       |
| 89) n-Butylbenzene             | 11.89 | 91   | 83796    | 18.283  | ug/l   | 100      |
| 90) Hexachloroethane           | 12.14 | 117  | 18747    | 18.676  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 11.88 | 146  | 48000    | 17.934  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.66 | 75   | 9911     | 19.070  | ug/l   | 92       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.50 | 180  | 27606    | 17.898 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.69 | 225  | 15563    | 19.070 | ug/l  | 98       |
| 95) Naphthalene            | 13.74 | 128  | 95558    | 17.000 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 13.99 | 180  | 29617    | 17.906 | ug/l  | 99       |

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

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