

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN122118\  
 Data File : VN053122.D  
 Acq On : 22 Dec 2018 00:17  
 Operator : MD\SY  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 32 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 12/22/2018 10:50:21 AM

Quant Time: Dec 22 03:35:15 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 18 13:03:37 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 1013826  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1569885  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1426065  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 643624   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 554347   | 53.88 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.76% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 445183   | 62.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 124.16% |      |
| 50) Toluene-d8            | 10.09  | 98  | 2000463  | 51.96 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.92% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 700651   | 51.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.68% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 475469  | 46.339  | ug/l | 100    |
| 3) Chloromethane              | 2.06 | 50  | 591068  | 47.537  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 603335  | 47.912  | ug/l | 99     |
| 5) Bromomethane               | 2.57 | 94  | 364059  | 41.728  | ug/l | 99     |
| 6) Chloroethane               | 2.71 | 64  | 363265  | 48.708  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 765500  | 48.798  | ug/l | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 315596  | 53.328  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.77 | 101 | 480871  | 48.078  | ug/l | 98     |
| 10) Methyl Iodide             | 3.96 | 142 | 672850  | 47.903  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.78 | 59  | 185167  | 294.965 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 471974  | 48.843  | ug/l | 99     |
| 13) Acrolein                  | 3.61 | 56  | 176350  | 309.813 | ug/l | 98     |
| 14) Allyl chloride            | 4.33 | 41  | 728728  | 48.686  | ug/l | 98     |
| 15) Acrylonitrile             | 4.99 | 53  | 993278  | 284.810 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 635573  | 315.071 | ug/l | 97     |
| 17) Carbon Disulfide          | 4.06 | 76  | 1289208 | 40.910  | ug/l | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 524297  | 57.121  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 1425082 | 55.109  | ug/l | 98     |
| 20) Methylene Chloride        | 4.56 | 84  | 553988  | 50.345  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 507527  | 48.885  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1719335 | 53.815  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.90 | 43  | 5069857 | 275.961 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 973481  | 51.276  | ug/l | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 1063626 | 314.179 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 567973  | 39.191  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 596281  | 50.731  | ug/l | 98     |
| 28) Bromochloromethane        | 7.20 | 49  | 433993  | 52.755  | ug/l | 96     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 742197  | 293.537 | ug/l | 97     |
| 30) Chloroform                | 7.37 | 83  | 949579  | 50.916  | ug/l | 99     |
| 31) Cyclohexane               | 7.66 | 56  | 876342  | 49.200  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 795254  | 50.056  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 727005  | 48.248  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 487808  | 57.991  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 668219  | 48.382  | ug/l | 99     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 18 13:03:37 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 834249   | 45.575   | ug/l  | 99       |
| 40) Benzene                    | 8.04  | 78   | 2255299  | 50.319   | ug/l  | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 273601   | 56.293   | ug/l  | 98       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 674173   | 50.917   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 899497   | 55.369   | ug/l  | 98       |
| 44) Trichloroethene            | 8.84  | 130  | 617798   | 47.656   | ug/l  | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 599575   | 51.358   | ug/l  | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 347961   | 51.165   | ug/l  | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 729199   | 50.442   | ug/l  | 100      |
| 48) Methyl methacrylate        | 9.20  | 41   | 454485   | 55.679   | ug/l  | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 108187   | 1047.788 | ug/l  | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 2458662  | 301.818  | ug/l  | 99       |
| 52) Toluene                    | 10.16 | 92   | 1410897  | 50.787   | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 737662   | 48.526   | ug/l  | 98       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 845972   | 48.484   | ug/l  | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 515376   | 53.176   | ug/l  | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 721253   | 56.225   | ug/l  | 97       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 881608   | 53.046   | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 1952393  | 277.228  | ug/l  | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1677477  | 304.357  | ug/l  | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 567395   | 51.145   | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 517073   | 52.532   | ug/l  | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 702415   | 45.471   | ug/l  | 99       |
| 65) Chlorobenzene              | 11.44 | 112  | 1556283  | 49.231   | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 545868   | 49.656   | ug/l  | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 2708498  | 49.821   | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 2024217  | 97.945   | ug/l  | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 1000555  | 50.453   | ug/l  | 100      |
| 70) Styrene                    | 11.96 | 104  | 1646101  | 50.904   | ug/l  | 99       |
| 71) Bromoform                  | 12.13 | 173  | 395194   | 49.763   | ug/l  | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 2636742  | 52.360   | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 815688   | 58.342   | ug/l  | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 605959   | 61.335   | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 503170m  | 46.440   | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 677260   | 51.738   | ug/l  | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 2937766  | 51.222   | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1732912  | 48.745   | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2063601  | 50.275   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 162747   | 48.414   | ug/l  | 98       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 1765659  | 50.737   | ug/l  | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1803469  | 49.680   | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 2077374  | 50.345   | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2370834  | 48.285   | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2022115  | 47.660   | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1126869  | 48.639   | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1110462  | 47.330   | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 1624423  | 44.503   | ug/l  | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 314810   | 48.351   | ug/l  | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1060092  | 48.618   | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 88765    | 51.963   | ug/l  | 99       |

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Quant Title : SW846 8260  
QLast Update : Tue Dec 18 13:03:37 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 513961   | 44.556 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 294271   | 49.149 | ug/l  | 100      |
| 95) Naphthalene            | 15.14 | 128  | 1218010  | 48.175 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 475404   | 45.743 | ug/l  | 100      |

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

