

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN103018\  
 Data File : VN052060.D  
 Acq On : 30 Oct 2018 11:38  
 Operator : MD\SY  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 7 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 11/1/2018 11:48:07 AM

Quant Time: Oct 31 02:44:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N103018W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 31 02:21:45 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 303328   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 565107   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 538482   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 227520   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 658420   | 137.90 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 275.80% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 531180   | 156.82 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 313.64% |      |
| 50) Toluene-d8            | 10.09  | 98  | 2096958  | 152.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 304.42% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 782407   | 153.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 306.10% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 618661  | 176.808 | ug/l   | 98     |
| 3) Chloromethane              | 2.06 | 50  | 676393  | 154.035 | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 691004  | 142.272 | ug/l   | 97     |
| 5) Bromomethane               | 2.55 | 94  | 481421  | 122.869 | ug/l   | 95     |
| 6) Chloroethane               | 2.70 | 64  | 422269  | 134.095 | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 835674  | 152.554 | ug/l   | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 314570  | 154.318 | ug/l   | 91     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 499326  | 159.916 | ug/l   | 98     |
| 10) Methyl Iodide             | 3.96 | 142 | 699335  | 156.136 | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.78 | 59  | 177606  | 819.986 | ug/l # | 91     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 484270  | 163.080 | ug/l   | 98     |
| 13) Acrolein                  | 3.61 | 56  | 196391  | 845.333 | ug/l   | 95     |
| 14) Allyl chloride            | 4.33 | 41  | 895936  | 147.928 | ug/l   | 95     |
| 15) Acrylonitrile             | 4.99 | 53  | 1007453 | 779.970 | ug/l   | 100    |
| 16) Acetone                   | 3.81 | 43  | 717268  | 673.839 | ug/l   | 100    |
| 17) Carbon Disulfide          | 4.06 | 76  | 1573390 | 162.780 | ug/l   | 98     |
| 18) Methyl Acetate            | 4.32 | 43  | 445989  | 134.857 | ug/l   | 98     |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 1549929 | 156.090 | ug/l   | 98     |
| 20) Methylene Chloride        | 4.55 | 84  | 591009  | 161.421 | ug/l   | 95     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 556398  | 165.121 | ug/l   | 99     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1916703 | 141.785 | ug/l   | 97     |
| 23) Vinyl Acetate             | 5.90 | 43  | 7084651 | 792.313 | ug/l   | 97     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 1092890 | 146.828 | ug/l   | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 1161002 | 772.358 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 908444  | 149.512 | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 635961  | 152.272 | ug/l   | 98     |
| 28) Bromochloromethane        | 7.20 | 49  | 508198  | 124.689 | ug/l   | 93     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 788103  | 734.848 | ug/l   | 98     |
| 30) Chloroform                | 7.37 | 83  | 1113053 | 146.517 | ug/l   | 98     |
| 31) Cyclohexane               | 7.66 | 56  | 1011498 | 85.637  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 960797  | 166.411 | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 848255  | 151.164 | ug/l   | 98     |
| 37) Ethyl Acetate             | 6.93 | 43  | 540618  | 161.601 | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 813212  | 174.527 | ug/l   | 98     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 1028439  | 153.550  | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 2458988  | 154.935  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 292683   | 227.953  | ug/l # | 88       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 841965   | 133.644  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 1033414  | 159.570  | ug/l # | 88       |
| 44) Trichloroethene            | 8.84  | 130  | 586600   | 167.881  | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 659348   | 137.281  | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 410524   | 167.504  | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.40  | 83   | 867736   | 169.596  | ug/l   | 96       |
| 48) Methyl methacrylate        | 9.20  | 41   | 504197   | 154.030  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 91537    | 5633.264 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 2731072  | 777.903  | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 1528413  | 160.385  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 942075   | 171.965  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 1035577  | 174.348  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 549293   | 161.121  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 798520   | 160.085  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 970274   | 154.699  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 2051755  | 802.892  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1877597  | 744.659  | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 604965   | 186.642  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 569217   | 168.222  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 482293   | 155.825  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.43 | 112  | 1664997  | 150.793  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 556682   | 165.280  | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 2990626  | 154.623  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 2222098  | 331.014  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 1083039  | 165.394  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 1796492  | 166.393  | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 355651   | 198.399  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 2937446  | 163.853  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 982523   | 144.216  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 660633   | 146.197  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 683293m  | 177.371  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 615900   | 158.464  | ug/l   | 95       |
| 78) n-propylbenzene            | 12.59 | 91   | 3499749  | 155.315  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 2023325  | 159.895  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2380052  | 159.764  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 221183   | 187.355  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 2132711  | 166.556  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1992672  | 157.186  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 2399764  | 164.777  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2873648  | 160.252  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2400669  | 165.058  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1114015  | 156.797  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1125725  | 155.673  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 2271988  | 161.683  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.87 | 117  | 441261   | 174.041  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1050555  | 161.311  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 103220   | 249.845  | ug/l   | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|----------------------------|-------|------|----------|---------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 451345   | 191.957 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 208838   | 151.654 | ug/l  | 97       |
| 95) Naphthalene            | 15.13 | 128  | 1134223  | 181.975 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 380134   | 178.039 | ug/l  | 99       |

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

