

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101519\  
 Data File : VN058790.D  
 Acq On : 15 Oct 2019 18:06  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 10/18/2019 12:42:41 AM

Quant Time: Oct 16 05:24:16 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N101319W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Oct 12 00:00:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 408097   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 653303   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 610125   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 302802   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.01   | 65  | 291406   | 51.00 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.00% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 210553   | 52.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.36% |      |
| 50) Toluene-d8            | 10.09  | 98  | 819247   | 50.77 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.54% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 308523   | 50.51 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.02% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 259481  | 51.053  | ug/l | 99     |
| 3) Chloromethane              | 2.04 | 50  | 292574  | 48.409  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.17 | 62  | 301223  | 50.041  | ug/l | 99     |
| 5) Bromomethane               | 2.54 | 94  | 182514  | 49.842  | ug/l | 99     |
| 6) Chloroethane               | 2.68 | 64  | 189520  | 51.043  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 364577  | 50.607  | ug/l | 98     |
| 8) Diethyl Ether              | 3.39 | 74  | 129215  | 48.545  | ug/l | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 206260  | 50.213  | ug/l | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 278914  | 49.758  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.76 | 59  | 236687  | 255.801 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 197138  | 50.301  | ug/l | 98     |
| 13) Acrolein                  | 3.58 | 56  | 157928  | 212.224 | ug/l | 100    |
| 14) Allyl chloride            | 4.30 | 41  | 400512  | 50.639  | ug/l | 99     |
| 15) Acrylonitrile             | 4.96 | 53  | 639189  | 273.930 | ug/l | 100    |
| 16) Acetone                   | 3.79 | 43  | 614667  | 259.872 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 593096  | 47.342  | ug/l | 100    |
| 18) Methyl Acetate            | 4.30 | 43  | 323786  | 53.967  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.02 | 73  | 735673  | 52.568  | ug/l | 97     |
| 20) Methylene Chloride        | 4.53 | 84  | 237167  | 47.977  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 217645  | 49.646  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.93 | 45  | 814062  | 52.937  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.87 | 43  | 3524385 | 284.027 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 451368  | 51.536  | ug/l | 99     |
| 25) 2-Butanone                | 6.81 | 43  | 922318  | 269.782 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 383196  | 47.930  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 253985  | 49.683  | ug/l | 100    |
| 28) Bromochloromethane        | 7.18 | 49  | 154714  | 50.777  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.19 | 42  | 598320  | 270.818 | ug/l | 100    |
| 30) Chloroform                | 7.35 | 83  | 440573  | 50.068  | ug/l | 98     |
| 31) Cyclohexane               | 7.64 | 56  | 409340  | 48.847  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 390200  | 51.996  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.78 | 75  | 332525  | 50.342  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.91 | 43  | 375040  | 56.142  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.76 | 117 | 342522  | 53.206  | ug/l | 100    |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N101319W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Oct 12 00:00:30 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 388991   | 50.751   | ug/l   | 99       |
| 40) Benzene                    | 8.03  | 78   | 982901   | 51.812   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.15  | 41   | 165943m  | 53.067   | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.11  | 62   | 377796   | 51.837   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.15  | 43   | 608253   | 53.449   | ug/l   | 99       |
| 44) Trichloroethene            | 8.82  | 130  | 239842   | 50.911   | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.11  | 63   | 271014   | 53.366   | ug/l   | 98       |
| 46) Dibromomethane             | 9.20  | 93   | 170077   | 52.823   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.39  | 83   | 352879   | 53.821   | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.19  | 41   | 284663   | 55.183   | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 84473    | 1058.504 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 1900920  | 297.429  | ug/l   | 100      |
| 52) Toluene                    | 10.15 | 92   | 600741   | 51.776   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 399767   | 53.161   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 424200   | 53.129   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 238911   | 50.308   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 388422   | 55.986   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 427136   | 52.782   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 920803   | 275.402  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1429328  | 289.389  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 267281   | 54.560   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 252329   | 53.037   | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 206918   | 48.460   | ug/l   | 93       |
| 65) Chlorobenzene              | 11.43 | 112  | 634363   | 51.198   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 239166   | 52.201   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1189423  | 53.853   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 879575   | 106.119  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 418448   | 52.180   | ug/l   | 100      |
| 70) Styrene                    | 11.97 | 104  | 703515   | 53.525   | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 184913   | 55.062   | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1153009  | 52.578   | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 537244   | 54.546   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 380524   | 52.673   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 335164m  | 50.456   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 269241   | 50.476   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 1376583  | 53.870   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 807625   | 50.920   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.74 | 105  | 988062   | 52.775   | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 130129   | 52.474   | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 838945   | 51.547   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.00 | 119  | 840969   | 52.433   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 993100   | 53.432   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.18 | 105  | 1145346  | 54.195   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1027416  | 53.490   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 495967   | 50.418   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 489914   | 48.984   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 938514   | 52.843   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 186751   | 54.338   | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 487742   | 50.873   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 85687    | 50.770   | ug/l   | 96       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.92 | 180  | 290507   | 49.672 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 149406   | 48.510 | ug/l  | 98       |
| 95) Naphthalene            | 15.13 | 128  | 928604   | 55.246 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 280427   | 49.111 | ug/l  | 99       |

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

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