

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101419\  
 Data File : VN058753.D  
 Acq On : 14 Oct 2019 16:55  
 Operator : JC/SP  
 Sample : K5111-07 2.5PPB LOD  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 LOD-MDL-WATER-01-QT4-2019

Manual Integrations  
 APPROVED

MMDadoda  
 10/16/2019 12:57:08 AM

Quant Time: Oct 15 03:58:50 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  | 378417   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 626040   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 571076   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 249491   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.01  | 65   | 289619   | 54.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 109.34% |          |
| 35) Dibromofluoromethane    | 7.57  | 113  | 205531   | 53.15 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.30% |          |
| 50) Toluene-d8              | 10.08 | 98   | 770336   | 49.82 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.64%  |          |
| 62) 4-Bromofluorobenzene    | 12.41 | 95   | 269204   | 45.99 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.98%  |          |

| Target Compounds              | R.T. | QIon | Response | Conc   | Units  | Qvalue |
|-------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85   | 12621    | 2.678  | ug/l   | 96     |
| 3) Chloromethane              | 2.04 | 50   | 16070    | 2.867  | ug/l   | 95     |
| 4) Vinyl Chloride             | 2.17 | 62   | 15433    | 2.765  | ug/l   | 95     |
| 5) Bromomethane               | 2.54 | 94   | 9965     | 2.935  | ug/l   | 89     |
| 6) Chloroethane               | 2.68 | 64   | 9666     | 2.808  | ug/l   | 93     |
| 7) Trichlorofluoromethane     | 3.00 | 101  | 19042    | 2.851  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.39 | 74   | 6240     | 2.528  | ug/l   | 93     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101  | 9864m    | 2.590  | ug/l   |        |
| 10) Methyl Iodide             | 3.93 | 142  | 12086    | 2.325  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.76 | 59   | 12667    | 14.764 | ug/l # | 89     |
| 12) 1,1-Dichloroethene        | 3.72 | 96   | 10324    | 2.841  | ug/l   | 92     |
| 13) Acrolein                  | 3.59 | 56   | 7413     | 10.743 | ug/l   | 94     |
| 14) Allyl chloride            | 4.30 | 41   | 18002    | 2.455  | ug/l   | 93     |
| 15) Acrylonitrile             | 4.97 | 53   | 27545    | 12.731 | ug/l   | 99     |
| 16) Acetone                   | 3.80 | 43   | 26775    | 12.208 | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.03 | 76   | 31474    | 2.709  | ug/l   | 99     |
| 18) Methyl Acetate            | 4.31 | 43   | 17495    | 3.145  | ug/l   | 97     |
| 19) Methyl tert-butyl Ether   | 5.02 | 73   | 33565    | 2.587  | ug/l   | 96     |
| 20) Methylene Chloride        | 4.53 | 84   | 13469    | 2.938  | ug/l   | 90     |
| 21) trans-1,2-Dichloroethene  | 5.02 | 96   | 10642    | 2.618  | ug/l   | 95     |
| 22) Diisopropyl ether         | 5.93 | 45   | 36364    | 2.550  | ug/l # | 91     |
| 23) Vinyl Acetate             | 5.88 | 43   | 139643   | 12.136 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.83 | 63   | 22116    | 2.723  | ug/l   | 96     |
| 25) 2-Butanone                | 6.82 | 43   | 38418    | 12.119 | ug/l   | 96     |
| 26) 2,2-Dichloropropane       | 6.80 | 77   | 18595    | 2.508  | ug/l # | 74     |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96   | 12462    | 2.629  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.18 | 49   | 7312     | 2.588  | ug/l # | 98     |
| 29) Tetrahydrofuran           | 7.20 | 42   | 25877    | 12.631 | ug/l   | 98     |
| 30) Chloroform                | 7.35 | 83   | 22787    | 2.793  | ug/l   | 99     |
| 31) Cyclohexane               | 7.64 | 56   | 26907    | 3.463  | ug/l # | 61     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97   | 18399    | 2.644  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 7.77 | 75   | 16006    | 2.529  | ug/l   | 96     |
| 37) Ethyl Acetate             | 6.92 | 43   | 12907    | 2.016  | ug/l # | 91     |
| 38) Carbon Tetrachloride      | 7.76 | 117  | 16950    | 2.748  | ug/l   | 99     |

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Quant Time: Oct 15 03:58:50 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) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| -----                          |       |      |          |        |        |          |
| 39) Methylcyclohexane          | 9.07  | 83   | 17121    | 2.331  | ug/l   | 97       |
| 40) Benzene                    | 8.02  | 78   | 47344    | 2.604  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 7822m    | 2.610  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.11  | 62   | 18908    | 2.707  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.15  | 43   | 28939    | 2.654  | ug/l   | 97       |
| 44) Trichloroethene            | 8.82  | 130  | 12117    | 2.684  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 12926    | 2.656  | ug/l   | 99       |
| 46) Dibromomethane             | 9.20  | 93   | 8766     | 2.841  | ug/l   | 95       |
| 47) Bromodichloromethane       | 9.40  | 83   | 17182    | 2.735  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.19  | 41   | 12028    | 2.433  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 4572     | 59.785 | ug/l # | 88       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 78371    | 12.796 | ug/l   | 96       |
| 52) Toluene                    | 10.15 | 92   | 29073    | 2.615  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 17309    | 2.402  | ug/l   | 89       |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 18457    | 2.412  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 11505    | 2.528  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 14287    | 2.149  | ug/l # | 86       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 20061    | 2.587  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 32899    | 10.268 | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.75 | 43   | 54840    | 11.587 | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 11087    | 2.362  | ug/l   | 96       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 10989    | 2.410  | ug/l   | 96       |
| 64) Tetrachloroethene          | 10.63 | 164  | 10625    | 2.659  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 30156    | 2.600  | ug/l   | 95       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 10401    | 2.425  | ug/l   | 87       |
| 67) Ethyl Benzene              | 11.51 | 91   | 51395    | 2.486  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.62 | 106  | 36471    | 4.701  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 17986    | 2.396  | ug/l   | 97       |
| 70) Styrene                    | 11.97 | 104  | 25613    | 2.082  | ug/l   | 91       |
| 71) Bromoform                  | 12.13 | 173  | 7511     | 2.389  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.25 | 105  | 46220    | 2.558  | ug/l   | 97       |
| 74) N-amyl acetate             | 12.07 | 43   | 18562    | 2.287  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 17420    | 2.927  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 15751m   | 2.878  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 11753    | 2.674  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.60 | 91   | 57082    | 2.711  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 34836    | 2.666  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.74 | 105  | 37639    | 2.440  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 5037     | 2.465  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 33444    | 2.494  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.00 | 119  | 33187    | 2.511  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.05 | 105  | 36602    | 2.390  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.18 | 105  | 43168    | 2.479  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 35458    | 2.240  | ug/l   | 95       |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 20047    | 2.473  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 20864    | 2.532  | ug/l   | 86       |
| 89) n-Butylbenzene             | 13.62 | 91   | 33220    | 2.270  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.88 | 117  | 7643     | 2.699  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 20177    | 2.554  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 4066     | 2.924  | ug/l   | 80       |

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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) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.92 | 180  | 10705    | 2.221 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 6316     | 2.489 | ug/l  | 97       |
| 95) Naphthalene            | 15.13 | 128  | 26733    | 1.930 | ug/l  | 97       |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 9802     | 2.083 | ug/l  | 98       |

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

