

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN041619\  
 Data File : VN055079.D  
 Acq On : 16 Apr 2019 15:33  
 Operator : JC/SP  
 Sample : VN0416WBS02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0416WBS02

Manual Integrations  
 APPROVED

MMDadoda  
 4/17/2019 4:23:08 AM

Quant Time: Apr 17 02:22:52 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N041519W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Apr 15 12:28:28 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc    | Units   | Dev(Min) |
|-------------------------------|-------|------|----------|---------|---------|----------|
| 1) Pentafluorobenzene         | 7.66  | 168  | 403549   | 50.00   | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.59  | 114  | 670611   | 50.00   | ug/l    | 0.00     |
| 63) Chlorobenzene-d5          | 11.41 | 117  | 572933   | 50.00   | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.34 | 152  | 218204   | 50.00   | ug/l    | 0.00     |
| System Monitoring Compounds   |       |      |          |         |         |          |
| 33) 1,2-Dichloroethane-d4     | 8.03  | 65   | 270981   | 50.52   | ug/l    | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =       | 101.04% |          |
| 35) Dibromofluoromethane      | 7.59  | 113  | 221462   | 49.41   | ug/l    | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =       | 98.82%  |          |
| 50) Toluene-d8                | 10.09 | 98   | 804554   | 50.16   | ug/l    | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =       | 100.32% |          |
| 62) 4-Bromofluorobenzene      | 12.40 | 95   | 255462   | 48.99   | ug/l    | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =       | 97.98%  |          |
| Target Compounds              |       |      |          |         |         |          |
|                               |       |      |          |         | Qvalue  |          |
| 2) Dichlorodifluoromethane    | 1.85  | 85   | 91347    | 19.918  | ug/l    | 100      |
| 3) Chloromethane              | 2.06  | 50   | 117871   | 19.705  | ug/l    | 95       |
| 4) Vinyl Chloride             | 2.19  | 62   | 98172    | 19.526  | ug/l    | 98       |
| 5) Bromomethane               | 2.56  | 94   | 57332    | 20.157  | ug/l    | 96       |
| 6) Chloroethane               | 2.71  | 64   | 55345    | 20.412  | ug/l    | 97       |
| 7) Trichlorofluoromethane     | 3.02  | 101  | 126855   | 20.175  | ug/l    | 97       |
| 8) Diethyl Ether              | 3.41  | 74   | 39994    | 19.926  | ug/l    | 93       |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75  | 101  | 62673    | 19.046  | ug/l    | 98       |
| 10) Methyl Iodide             | 3.94  | 142  | 118025   | 23.113  | ug/l    | 95       |
| 11) Tert butyl alcohol        | 4.82  | 59   | 29306    | 99.670  | ug/l #  | 72       |
| 12) 1,1-Dichloroethene        | 3.73  | 96   | 62974    | 19.661  | ug/l    | 93       |
| 13) Acrolein                  | 3.61  | 56   | 30100    | 82.821  | ug/l    | 98       |
| 14) Allyl chloride            | 4.32  | 41   | 155438   | 19.826  | ug/l    | 99       |
| 15) Acrylonitrile             | 5.00  | 53   | 175681   | 99.865  | ug/l    | 99       |
| 16) Acetone                   | 3.82  | 43   | 117064   | 80.405  | ug/l    | 97       |
| 17) Carbon Disulfide          | 4.04  | 76   | 192488   | 18.617  | ug/l    | 99       |
| 18) Methyl Acetate            | 4.33  | 43   | 84404    | 19.851  | ug/l    | 98       |
| 19) Methyl tert-butyl Ether   | 5.05  | 73   | 231241   | 20.182  | ug/l    | 98       |
| 20) Methylene Chloride        | 4.55  | 84   | 98526    | 19.251  | ug/l    | 99       |
| 21) trans-1,2-Dichloroethene  | 5.04  | 96   | 83775    | 19.339  | ug/l    | 90       |
| 22) Diisopropyl ether         | 5.96  | 45   | 334767   | 20.771  | ug/l    | 100      |
| 23) Vinyl Acetate             | 5.90  | 43   | 1117146  | 104.864 | ug/l    | 100      |
| 24) 1,1-Dichloroethane        | 5.85  | 63   | 175881   | 20.492  | ug/l    | 99       |
| 25) 2-Butanone                | 6.84  | 43   | 202959   | 93.402  | ug/l    | 99       |
| 26) 2,2-Dichloropropane       | 6.82  | 77   | 106134   | 19.592  | ug/l    | 99       |
| 27) cis-1,2-Dichloroethene    | 6.83  | 96   | 100408   | 20.487  | ug/l    | 99       |
| 28) Bromochloromethane        | 7.19  | 49   | 86076    | 20.805  | ug/l    | 99       |
| 29) Tetrahydrofuran           | 7.22  | 42   | 138650   | 97.301  | ug/l    | 100      |
| 30) Chloroform                | 7.37  | 83   | 170195   | 20.415  | ug/l    | 98       |
| 31) Cyclohexane               | 7.65  | 56   | 159079   | 20.220  | ug/l    | 95       |
| 32) 1,1,1-Trichloroethane     | 7.57  | 97   | 132512   | 20.062  | ug/l    | 99       |
| 36) 1,1-Dichloropropene       | 7.79  | 75   | 118625   | 18.765  | ug/l    | 98       |
| 37) Ethyl Acetate             | 6.94  | 43   | 95026    | 18.464  | ug/l    | 98       |
| 38) Carbon Tetrachloride      | 7.77  | 117  | 111751   | 18.580  | ug/l    | 100      |

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 ALS Vial : 14 Sample Multiplier: 1

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 128544   | 18.764  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 374233   | 19.642  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 49023    | 17.159  | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 130677   | 19.754  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 153587   | 19.367  | ug/l   | 98       |
| 44) Trichloroethene            | 8.83  | 130  | 90408    | 18.944  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 106989   | 20.135  | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 60201    | 19.905  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 120080   | 19.257  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 75848    | 19.296  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 15812    | 429.371 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 442691   | 96.625  | ug/l   | 98       |
| 52) Toluene                    | 10.15 | 92   | 218234   | 19.999  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 105309   | 19.325  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 134184   | 19.840  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 81642    | 19.419  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 103263   | 20.466  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 143336   | 20.024  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 179895   | 88.424  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 269528   | 93.663  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 81168    | 19.771  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 77986    | 20.153  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 89544    | 19.220  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 225249   | 19.531  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 84194    | 19.849  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 401111   | 19.476  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 289385   | 38.803  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 142905   | 19.784  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 234996   | 20.098  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 47539    | 19.553  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 374937   | 19.364  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 111534   | 20.463  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 98718    | 19.053  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 89304m   | 22.759  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 91738    | 19.004  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 404376   | 19.330  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 257937   | 19.768  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 301831   | 19.316  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 19014    | 19.378  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 239138   | 19.643  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 259416   | 19.658  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 294809   | 19.908  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 324551   | 19.301  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 276394   | 19.159  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 144970   | 19.758  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 136644   | 19.529  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.61 | 91   | 206356   | 19.269  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 45457    | 19.365  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 146676   | 19.869  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.26 | 75   | 12602    | 19.752  | ug/l   | 95       |

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Sample : VN0416WBS02  
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ALS Vial : 14 Sample Multiplier: 1

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QLast Update : Mon Apr 15 12:28:28 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 55245    | 18.302 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 44129    | 19.353 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 119578   | 17.413 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 56670    | 19.899 | ug/l  | 98       |

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

