

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN031919\  
 Data File : VN054430.D  
 Acq On : 19 Mar 2019 10:17  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 3/20/2019 12:21:23 PM

Quant Time: Mar 20 04:00:46 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031219W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 13 03:33:31 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 1378953  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 2042299  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1770591  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 836233   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 646620   | 44.15 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 88.30% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 640135   | 48.60 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.20% |      |
| 50) Toluene-d8            | 10.09  | 98  | 2350919  | 48.33 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.66% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 809475   | 47.56 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.12% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 634951  | 48.585  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 569116  | 44.831  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 635932  | 43.828  | ug/l | 98     |
| 5) Bromomethane               | 2.57 | 94  | 410866  | 40.885  | ug/l | 97     |
| 6) Chloroethane               | 2.71 | 64  | 374152  | 42.618  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 807068  | 41.836  | ug/l | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 421325  | 47.927  | ug/l | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 693250  | 47.955  | ug/l | 99     |
| 10) Methyl Iodide             | 3.94 | 142 | 973272  | 47.485  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.82 | 59  | 232981  | 232.065 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 647507  | 45.199  | ug/l | 98     |
| 13) Acrolein                  | 3.61 | 56  | 227599  | 239.244 | ug/l | 100    |
| 14) Allyl chloride            | 4.31 | 41  | 881456  | 47.956  | ug/l | 94     |
| 15) Acrylonitrile             | 4.99 | 53  | 1139025 | 276.200 | ug/l | 99     |
| 16) Acetone                   | 3.82 | 43  | 969210  | 231.146 | ug/l | 97     |
| 17) Carbon Disulfide          | 4.04 | 76  | 1471041 | 40.962  | ug/l | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 526499  | 62.063  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 1833937 | 51.647  | ug/l | 100    |
| 20) Methylene Chloride        | 4.54 | 84  | 698374  | 50.724  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.03 | 96  | 676166  | 49.262  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.96 | 45  | 1897481 | 51.725  | ug/l | 95     |
| 23) Vinyl Acetate             | 5.90 | 43  | 6634750 | 245.300 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 5.84 | 63  | 1181411 | 50.157  | ug/l | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 1368423 | 278.057 | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 882739  | 42.616  | ug/l | 97     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 796193  | 51.995  | ug/l | 96     |
| 28) Bromochloromethane        | 7.19 | 49  | 444307  | 46.141  | ug/l | 96     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 827186  | 261.415 | ug/l | 97     |
| 30) Chloroform                | 7.37 | 83  | 1227771 | 49.952  | ug/l | 99     |
| 31) Cyclohexane               | 7.65 | 56  | 1075767 | 48.822  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 1055138 | 47.533  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 931957  | 49.552  | ug/l | 98     |
| 37) Ethyl Acetate             | 6.93 | 43  | 550869  | 50.975  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 927409  | 47.021  | ug/l | 100    |

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 VSTDCCC050

Manual Integrations  
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MMDadoda  
 3/20/2019 12:21:23 PM

Quant Time: Mar 20 04:00:46 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031219W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 13 03:33:31 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 1162781  | 50.248   | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 2809778  | 52.206   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 319001   | 51.699   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 863247   | 47.508   | ug/l   | 97       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 944423   | 49.788   | ug/l   | 96       |
| 44) Trichloroethene            | 8.83  | 130  | 850945   | 50.896   | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 715686   | 53.553   | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 458589   | 50.787   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 907739   | 50.146   | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.20  | 41   | 491264   | 51.033   | ug/l   | 91       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 153373   | 1126.386 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 2685220  | 267.494  | ug/l   | 95       |
| 52) Toluene                    | 10.15 | 92   | 1778165  | 52.106   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 878002   | 42.708   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 1060282  | 50.264   | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 662621   | 53.177   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 815078   | 54.859   | ug/l # | 91       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 1080886  | 53.050   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 1576327  | 244.914  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1766829  | 264.514  | ug/l   | 95       |
| 60) Dibromochloromethane       | 10.90 | 129  | 719280   | 51.285   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 657919   | 51.957   | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 857010   | 50.062   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 2044295  | 52.583   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 730150   | 51.699   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 3345725  | 51.915   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 2671067  | 106.043  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 1302584  | 53.049   | ug/l   | 97       |
| 70) Styrene                    | 11.96 | 104  | 2060573  | 53.508   | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 474295   | 44.335   | ug/l   | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 3418456  | 51.095   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 776254   | 52.271   | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 768508   | 53.914   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 622830m  | 50.648   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 907730   | 51.273   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 3755998  | 51.739   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 2225068  | 50.976   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2808852  | 50.474   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 157447   | 43.768   | ug/l   | 95       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 2222978  | 51.003   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 2563888  | 50.054   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 2845662  | 52.123   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 3277559  | 49.340   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2947917  | 50.584   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1574139  | 52.768   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1531830  | 52.271   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.61 | 91   | 2288568  | 51.684   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 442332   | 45.838   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1526861  | 52.356   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 110483   | 50.089   | ug/l   | 93       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 849805   | 48.354 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 510562   | 45.963 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 1747620  | 47.812 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 822677   | 53.093 | ug/l  | 99       |

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

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