

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN120418\  
 Data File : VN052663.D  
 Acq On : 4 Dec 2018 19:08  
 Operator : MD\SY  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 20 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 12/5/2018 9:13:15 AM

Quant Time: Dec 05 04:25:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 985352   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1531287  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1372375  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 643870   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 533299   | 49.71 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.42%  |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 476154   | 50.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.88% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1809779  | 49.25 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.50%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 630797   | 51.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.16% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 385330  | 41.765  | ug/l | 98     |
| 3) Chloromethane              | 2.06 | 50  | 528883  | 43.427  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 545593  | 43.611  | ug/l | 99     |
| 5) Bromomethane               | 2.57 | 94  | 324771  | 41.606  | ug/l | 100    |
| 6) Chloroethane               | 2.71 | 64  | 337361  | 44.519  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 708444  | 46.101  | ug/l | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 277265  | 48.858  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 436948  | 45.568  | ug/l | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 685896  | 53.705  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.78 | 59  | 145493  | 270.882 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 428195  | 46.391  | ug/l | 99     |
| 13) Acrolein                  | 3.61 | 56  | 174364  | 186.786 | ug/l | 99     |
| 14) Allyl chloride            | 4.33 | 41  | 746137  | 46.903  | ug/l | 98     |
| 15) Acrylonitrile             | 4.99 | 53  | 860572  | 253.112 | ug/l | 99     |
| 16) Acetone                   | 3.82 | 43  | 609995  | 215.561 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.06 | 76  | 1180390 | 40.637  | ug/l | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 440484  | 54.266  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 1252870 | 51.017  | ug/l | 100    |
| 20) Methylene Chloride        | 4.55 | 84  | 508668  | 45.934  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 462407  | 46.907  | ug/l | 97     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1612139 | 48.245  | ug/l | 100    |
| 23) Vinyl Acetate             | 5.90 | 43  | 5224005 | 250.996 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 911922  | 47.797  | ug/l | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 980794  | 244.529 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 631649  | 47.831  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 553148  | 48.170  | ug/l | 98     |
| 28) Bromochloromethane        | 7.20 | 49  | 415923  | 47.728  | ug/l | 95     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 647986  | 250.474 | ug/l | 98     |
| 30) Chloroform                | 7.37 | 83  | 897501  | 47.149  | ug/l | 98     |
| 31) Cyclohexane               | 7.65 | 56  | 794529  | 42.974  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 742297  | 49.218  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 675596  | 46.721  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 438297  | 49.665  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 631917  | 48.273  | ug/l | 99     |

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 ALS Vial : 20 Sample Multiplier: 28

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 12/5/2018 9:13:15 AM

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 769563   | 43.785   | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 2058787  | 47.774   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 255273   | 52.909   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 644514   | 49.394   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 817004   | 54.705   | ug/l   | 97       |
| 44) Trichloroethene            | 8.84  | 130  | 536682   | 48.618   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 555652   | 48.498   | ug/l   | 98       |
| 46) Dibromomethane             | 9.21  | 93   | 319573   | 50.386   | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 684362   | 49.628   | ug/l   | 96       |
| 48) Methyl methacrylate        | 9.20  | 41   | 401297   | 51.532   | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 89352    | 1105.576 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 2233237  | 266.515  | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 1269105  | 49.566   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 690699   | 52.065   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 805641   | 50.676   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 465391   | 51.673   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 614913   | 49.213   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 793001   | 49.865   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 1693774  | 259.173  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1483805  | 263.842  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 514074   | 52.553   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 461583   | 51.600   | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.63 | 164  | 511279   | 48.051   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 1393747  | 49.252   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 500754   | 50.893   | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 2432391  | 49.084   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 1832119  | 99.312   | ug/l   | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 899757   | 50.224   | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 1483780  | 52.001   | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 351501   | 53.953   | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 2390770  | 47.327   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 679683   | 53.257   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 566863   | 49.330   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 480212m  | 48.365   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 608193   | 48.710   | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 2755303  | 48.012   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1610973  | 47.139   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1948411  | 48.362   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 153580   | 51.656   | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1631143  | 47.358   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1730117  | 48.170   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1965595  | 48.683   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2331657  | 47.663   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2015337  | 48.368   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1051169  | 48.129   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1037172  | 48.211   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 1685671  | 48.645   | ug/l   | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 338016   | 47.911   | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1031892  | 49.452   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 85784    | 52.196   | ug/l   | 97       |

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QLast Update : Mon Dec 03 03:24:02 2018  
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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 533270   | 46.841 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 302788   | 45.105 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 1131425  | 46.901 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 493369   | 47.110 | ug/l  | 100      |

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

