

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN051719\  
 Data File : VN055603.D  
 Acq On : 17 May 2019 11:26  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 5/20/2019 9:10:16 AM

Quant Time: May 17 23:41:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N051719W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 17 23:16:47 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 321196   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 491976   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 444444   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 219872   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 513831   | 154.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 308.88% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 456246   | 141.24 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 282.48% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1768525  | 152.78 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 305.56% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 648733   | 169.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 338.62% |      |

## Target Compounds

|                               |      |     |         |          |      | Qvalue |
|-------------------------------|------|-----|---------|----------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 339182  | 125.176  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 463819  | 136.981  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 499997  | 136.419  | ug/l | 98     |
| 5) Bromomethane               | 2.53 | 94  | 335125m | 126.251  | ug/l |        |
| 6) Chloroethane               | 2.69 | 64  | 290004  | 123.776  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 645707  | 124.614  | ug/l | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 268250  | 143.145  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 396191  | 125.877  | ug/l | 99     |
| 10) Methyl Iodide             | 3.95 | 142 | 606189  | 132.360  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.77 | 59  | 478734  | 1601.131 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 408103  | 137.599  | ug/l | 98     |
| 13) Acrolein                  | 3.60 | 56  | 253614  | 1509.088 | ug/l | 100    |
| 14) Allyl chloride            | 4.32 | 41  | 700320  | 153.932  | ug/l | 99     |
| 15) Acrylonitrile             | 4.98 | 53  | 1127655 | 1023.952 | ug/l | 100    |
| 16) Acetone                   | 3.81 | 43  | 996817  | 1000.000 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.06 | 76  | 1163119 | 128.736  | ug/l | 100    |
| 18) Methyl Acetate            | 4.32 | 43  | 455570  | 197.405  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 1394993 | 177.875  | ug/l | 99     |
| 20) Methylene Chloride        | 4.55 | 84  | 461124  | 137.256  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 446957  | 143.638  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1378570 | 162.891  | ug/l | 96     |
| 23) Vinyl Acetate             | 5.89 | 43  | 5980998 | 948.225  | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 788947  | 139.314  | ug/l | 100    |
| 25) 2-Butanone                | 6.83 | 43  | 1523941 | 1165.506 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 672558  | 153.413  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 519253  | 148.365  | ug/l | 100    |
| 28) Bromochloromethane        | 7.20 | 49  | 343980  | 139.104  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 978642  | 1161.659 | ug/l | 100    |
| 30) Chloroform                | 7.37 | 83  | 797466  | 140.181  | ug/l | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 728379  | 123.693  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 712971  | 145.577  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 622523  | 138.444  | ug/l | 100    |
| 37) Ethyl Acetate             | 6.93 | 43  | 598935  | 217.863  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 644718  | 133.501  | ug/l | 99     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 758827   | 147.221  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 1856358  | 140.523  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 233825m  | 166.392  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 611499   | 151.890  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.16  | 43   | 1039656  | 199.869  | ug/l   | 100      |
| 44) Trichloroethene            | 8.84  | 130  | 529098   | 142.884  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 489525   | 144.315  | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 326902   | 157.819  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 661931   | 152.257  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 488479   | 218.144  | ug/l   | 100      |
| 49) 1,4-Dioxane                | 9.20  | 88   | 184352   | 5078.892 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 3068406  | 1237.376 | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 1195232  | 153.058  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 777311   | 181.226  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 827172   | 167.208  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 474241   | 162.643  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 782324   | 224.382  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 790124   | 163.601  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 1781960  | 1160.600 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 2287176  | 1342.043 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 569427   | 168.506  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 510784   | 175.882  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.63 | 164  | 491880   | 125.798  | ug/l   | 100      |
| 65) Chlorobenzene              | 11.43 | 112  | 1307524  | 140.963  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 508450   | 148.852  | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 2310296  | 152.740  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 1765164  | 303.369  | ug/l   | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 851438   | 151.687  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 1515321  | 170.425  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 468453   | 185.711  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 2221336  | 142.611  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 922119   | 231.900  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 700397   | 180.074  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 630858m  | 186.748  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 610895   | 146.747  | ug/l   | 100      |
| 78) n-propylbenzene            | 12.59 | 91   | 2557245  | 147.551  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 1525529  | 145.615  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1910032  | 147.877  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 256461   | 234.551  | ug/l   | 100      |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1566746  | 150.335  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1599467  | 138.525  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1919981  | 148.852  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2125878  | 137.512  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1991326  | 147.403  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1052269  | 145.335  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1047424  | 143.892  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 1685000  | 152.119  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 377677   | 143.568  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1010916  | 142.037  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 139009   | 226.535  | ug/l   | 98       |

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|----------------------------|-------|------|----------|---------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 638561   | 171.666 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 325654   | 110.169 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 1774481  | 237.315 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 623988   | 172.062 | ug/l  | 99       |

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

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