

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN080719\  
 Data File : VN057115.D  
 Acq On : 7 Aug 2019 20:08  
 Operator : JC/SP  
 Sample : VSTDICCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

MMDadoda  
 8/8/2019 2:40:29 PM

Quant Time: Aug 08 05:28:44 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N080719W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 04:56:32 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.05  | 168  | 1272038  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.01  | 114  | 1883462  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.90 | 117  | 1680305  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.87 | 152  | 685607   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.44   | 65  | 642620   | 48.81 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.62%  |      |
| 35) Dibromofluoromethane  | 6.99   | 113 | 586767   | 49.47 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.94%  |      |
| 50) Toluene-d8            | 9.56   | 98  | 2249958  | 50.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.62% |      |
| 62) 4-Bromofluorobenzene  | 11.92  | 95  | 739375   | 51.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.80% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.82 | 85  | 468530  | 47.279  | ug/l   | 100    |
| 3) Chloromethane              | 2.00 | 50  | 607727  | 45.825  | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.11 | 62  | 589454  | 46.517  | ug/l   | 100    |
| 5) Bromomethane               | 2.42 | 94  | 400691  | 52.496  | ug/l   | 100    |
| 6) Chloroethane               | 2.55 | 64  | 383816  | 61.547  | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 2.82 | 101 | 861559  | 49.286  | ug/l   | 100    |
| 8) Diethyl Ether              | 3.14 | 74  | 332461  | 46.626  | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.44 | 101 | 515749  | 46.601  | ug/l   | 100    |
| 10) Methyl Iodide             | 3.63 | 142 | 820836  | 61.995  | ug/l   | 100    |
| 11) Tert butyl alcohol        | 4.23 | 59  | 430162  | 300.653 | ug/l   | 100    |
| 12) 1,1-Dichloroethene        | 3.43 | 96  | 514681  | 46.399  | ug/l   | 100    |
| 13) Acrolein                  | 3.31 | 56  | 267946  | 223.498 | ug/l   | 100    |
| 14) Allyl chloride            | 3.91 | 41  | 753843  | 45.264  | ug/l   | 100    |
| 15) Acrylonitrile             | 4.45 | 53  | 1250894 | 268.529 | ug/l   | 100    |
| 16) Acetone                   | 3.47 | 43  | 941457  | 233.515 | ug/l   | 100    |
| 17) Carbon Disulfide          | 3.72 | 76  | 1379324 | 50.827  | ug/l   | 100    |
| 18) Methyl Acetate            | 3.89 | 43  | 564752  | 40.484  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 4.49 | 73  | 1574575 | 48.472  | ug/l   | 100    |
| 20) Methylene Chloride        | 4.10 | 84  | 602162  | 47.264  | ug/l   | 100    |
| 21) trans-1,2-Dichloroethene  | 4.51 | 96  | 557195  | 47.675  | ug/l   | 100    |
| 22) Diisopropyl ether         | 5.31 | 45  | 1636781 | 46.805  | ug/l   | 100    |
| 23) Vinyl Acetate             | 5.26 | 43  | 6516338 | 249.528 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 5.25 | 63  | 1002489 | 46.568  | ug/l   | 100    |
| 25) 2-Butanone                | 6.20 | 43  | 1515982 | 263.603 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 6.21 | 77  | 747281  | 45.539  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 6.21 | 96  | 651646  | 47.762  | ug/l   | 100    |
| 28) Bromochloromethane        | 6.58 | 49  | 466887  | 49.013  | ug/l   | 100    |
| 29) Tetrahydrofuran           | 6.60 | 42  | 993977  | 265.665 | ug/l   | 100    |
| 30) Chloroform                | 6.76 | 83  | 1012866 | 46.943  | ug/l   | 100    |
| 31) Cyclohexane               | 7.07 | 56  | 873538  | 45.836  | ug/l   | 100    |
| 32) 1,1,1-Trichloroethane     | 6.98 | 97  | 880182  | 48.929  | ug/l   | 100    |
| 36) 1,1-Dichloropropene       | 7.20 | 75  | 759419  | 46.418  | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.28 | 43  | 620077  | 49.720  | ug/l # | 100    |
| 38) Carbon Tetrachloride      | 7.19 | 117 | 775457  | 49.197  | ug/l   | 100    |

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Quant Time: Aug 08 05:28:44 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N080719W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 04:56:32 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 8.52  | 83   | 899492   | 47.503   | ug/l  | 100      |
| 40) Benzene                    | 7.46  | 78   | 2348605  | 46.512   | ug/l  | 100      |
| 41) Methacrylonitrile          | 6.55  | 41   | 329087   | 62.713   | ug/l  | 100      |
| 42) 1,2-Dichloroethane         | 7.54  | 62   | 750059   | 47.451   | ug/l  | 100      |
| 43) Isopropyl Acetate          | 7.56  | 43   | 1049915  | 46.158   | ug/l  | 100      |
| 44) Trichloroethene            | 8.27  | 130  | 655903   | 47.543   | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 8.56  | 63   | 607113   | 46.493   | ug/l  | 100      |
| 46) Dibromomethane             | 8.65  | 93   | 394355   | 48.499   | ug/l  | 100      |
| 47) Bromodichloromethane       | 8.85  | 83   | 783509   | 50.230   | ug/l  | 100      |
| 48) Methyl methacrylate        | 8.63  | 41   | 494482   | 49.402   | ug/l  | 100      |
| 49) 1,4-Dioxane                | 8.64  | 88   | 211029   | 1037.638 | ug/l  | 100      |
| 51) 4-Methyl-2-Pentanone       | 9.45  | 43   | 3127785  | 275.319  | ug/l  | 100      |
| 52) Toluene                    | 9.62  | 92   | 1477302  | 48.189   | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 9.85  | 75   | 824798   | 50.407   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 9.30  | 75   | 941443   | 49.069   | ug/l  | 100      |
| 55) 1,1,2-Trichloroethane      | 10.04 | 97   | 570008   | 48.721   | ug/l  | 100      |
| 56) Ethyl methacrylate         | 9.90  | 69   | 837156   | 52.227   | ug/l  | 100      |
| 57) 1,3-Dichloropropane        | 10.19 | 76   | 945832   | 48.695   | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.15  | 63   | 1551310  | 268.251  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.24 | 43   | 2157568  | 264.716  | ug/l  | 100      |
| 60) Dibromochloromethane       | 10.39 | 129  | 630176   | 51.767   | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 10.50 | 107  | 597239   | 49.980   | ug/l  | 100      |
| 64) Tetrachloroethene          | 10.11 | 164  | 666362   | 47.139   | ug/l  | 100      |
| 65) Chlorobenzene              | 10.93 | 112  | 1624249  | 47.880   | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.01 | 131  | 613440   | 49.078   | ug/l  | 100      |
| 67) Ethyl Benzene              | 11.01 | 91   | 2840404  | 48.643   | ug/l  | 100      |
| 68) m/p-Xylenes                | 11.13 | 106  | 2140485  | 97.317   | ug/l  | 100      |
| 69) o-Xylene                   | 11.46 | 106  | 1035315  | 47.914   | ug/l  | 100      |
| 70) Styrene                    | 11.47 | 104  | 1711822  | 49.679   | ug/l  | 100      |
| 71) Bromoform                  | 11.64 | 173  | 465873   | 52.767   | ug/l  | 100      |
| 73) Isopropylbenzene           | 11.76 | 105  | 2793744  | 50.160   | ug/l  | 100      |
| 74) N-amyl acetate             | 11.58 | 43   | 814478   | 49.829   | ug/l  | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.02 | 83   | 769783   | 49.135   | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 12.08 | 75   | 674967m  | 52.147   | ug/l  |          |
| 77) Bromobenzene               | 12.04 | 156  | 723983   | 48.811   | ug/l  | 100      |
| 78) n-propylbenzene            | 12.11 | 91   | 2986801  | 52.290   | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.19 | 91   | 1811777  | 49.576   | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.26 | 105  | 2337923  | 50.258   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.82 | 75   | 218753   | 53.317   | ug/l  | 100      |
| 82) 4-Chlorotoluene            | 12.29 | 91   | 1721028  | 50.218   | ug/l  | 100      |
| 83) tert-Butylbenzene          | 12.52 | 119  | 2037779  | 49.564   | ug/l  | 100      |
| 84) 1,2,4-Trimethylbenzene     | 12.57 | 105  | 2247643  | 50.536   | ug/l  | 100      |
| 85) sec-Butylbenzene           | 12.70 | 105  | 2615255  | 51.530   | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 12.82 | 119  | 2329805  | 51.939   | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 12.81 | 146  | 1103239  | 48.164   | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 12.89 | 146  | 1049722  | 47.653   | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.15 | 91   | 1719380  | 50.152   | ug/l  | 100      |
| 90) Hexachloroethane           | 13.41 | 117  | 401762   | 51.690   | ug/l  | 100      |
| 91) 1,2-Dichlorobenzene        | 13.18 | 146  | 1081791  | 47.566   | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 13.81 | 75   | 108802   | 48.904   | ug/l  | 100      |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.45 | 180  | 408161   | 39.922 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 14.55 | 225  | 427873   | 47.050 | ug/l  | 100      |
| 95) Naphthalene            | 14.67 | 128  | 902605   | 43.376 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.83 | 180  | 406869   | 38.857 | ug/l  | 100      |

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

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