

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN060719\  
 Data File : VN056056.D  
 Acq On : 6 Jun 2019 19:32  
 Operator : JC/SP  
 Sample : K3203-14MSD  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 27 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 LF015RW050-190604MSD

Manual Integrations  
 APPROVED

MMDadoda  
 6/7/2019 9:37:05 AM

Quant Time: Jun 07 06:35:03 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N060419W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 04 11:02:09 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 289505   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 440237   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 396773   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 179460   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.02   | 65  | 157299   | 54.72 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.44% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 140997   | 52.20 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.40% |      |
| 50) Toluene-d8            | 10.09  | 98  | 541127   | 52.06 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.12% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 184606   | 52.23 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.46% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 162223  | 50.998  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 170116  | 54.207  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 180310  | 57.279  | ug/l | 99     |
| 5) Bromomethane               | 2.52 | 94  | 99102   | 49.837  | ug/l | 98     |
| 6) Chloroethane               | 2.68 | 64  | 85379   | 46.779  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 206070  | 51.278  | ug/l | 100    |
| 8) Diethyl Ether              | 3.40 | 74  | 85407   | 51.679  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 127116  | 52.071  | ug/l | 99     |
| 10) Methyl Iodide             | 3.94 | 142 | 187646  | 48.370  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.82 | 59  | 125607  | 251.097 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 127953  | 52.648  | ug/l | 97     |
| 13) Acrolein                  | 3.60 | 56  | 34815   | 241.317 | ug/l | 99     |
| 14) Allyl chloride            | 4.31 | 41  | 192699  | 50.213  | ug/l | 98     |
| 15) Acrylonitrile             | 4.99 | 53  | 359436  | 295.174 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 282863  | 205.748 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.04 | 76  | 291442  | 50.083  | ug/l | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 157482  | 58.413  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 417865  | 53.940  | ug/l | 100    |
| 20) Methylene Chloride        | 4.54 | 84  | 150706  | 53.207  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.03 | 96  | 138170  | 53.060  | ug/l | 95     |
| 22) Diisopropyl ether         | 5.95 | 45  | 430152  | 54.223  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1789669 | 286.473 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.84 | 63  | 245151  | 53.573  | ug/l | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 469422  | 270.246 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 137854  | 38.606  | ug/l | 96     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 164876  | 53.864  | ug/l | 96     |
| 28) Bromochloromethane        | 7.19 | 49  | 118601  | 54.806  | ug/l | 99     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 315201  | 293.559 | ug/l | 100    |
| 30) Chloroform                | 7.37 | 83  | 246965  | 53.649  | ug/l | 99     |
| 31) Cyclohexane               | 7.65 | 56  | 226624  | 49.684  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 202590  | 52.701  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 182699  | 48.264  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 190965  | 56.698  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 170647  | 48.897  | ug/l | 97     |

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Quant Time: Jun 07 06:35:03 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N060419W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 04 11:02:09 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 222539   | 47.193   | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 623490   | 54.230   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.18  | 41   | 89246    | 57.591   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 185983   | 50.289   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 294788   | 54.011   | ug/l   | 93       |
| 44) Trichloroethene            | 8.83  | 130  | 162048   | 49.051   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 153513   | 52.128   | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 100230   | 52.047   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 180816   | 51.806   | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 147184   | 55.122   | ug/l   | 96       |
| 49) 1,4-Dioxane                | 9.21  | 88   | 61434    | 1065.716 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 939054   | 275.132  | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 370915   | 51.845   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 186479   | 45.783   | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 218576   | 52.100   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 149629   | 52.799   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 225673   | 54.585   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 243606   | 52.878   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 402090   | 245.574  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 655644   | 265.041  | ug/l   | 100      |
| 60) Dibromochloromethane       | 10.90 | 129  | 146601   | 47.056   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 156038   | 53.860   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 156434   | 45.548   | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 774813   | 98.120   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 142911   | 52.414   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 686113   | 49.969   | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.62 | 106  | 525770   | 100.236  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 260409   | 50.470   | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 433037   | 52.823   | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 103922   | 45.650   | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 675940   | 52.986   | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 244390   | 51.087   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 207420   | 49.788   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 167565m  | 50.744   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 183878   | 47.857   | ug/l   | 97       |
| 78) n-propylbenzene            | 12.59 | 91   | 724471   | 47.718   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 447779   | 53.328   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 560246   | 46.431   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 46629    | 47.025   | ug/l   | 91       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 434791   | 48.950   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 488902   | 52.350   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 553439   | 48.368   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 632749   | 47.061   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 573866   | 47.691   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 300916   | 50.603   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 309654   | 54.132   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.61 | 91   | 427983   | 48.013   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 87546    | 48.243   | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 321734   | 53.589   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 32957    | 55.309   | ug/l   | 97       |

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QLast Update : Tue Jun 04 11:02:09 2019  
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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 152576   | 46.449 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 101551   | 49.287 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 423707   | 49.411 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 167269   | 49.633 | ug/l  | 99       |

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

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