

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN031720\  
 Data File : VN060560.D  
 Acq On : 17 Mar 2020 16:34  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 3/18/2020 5:34:51 PM

Quant Time: Mar 18 07:41:56 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022720W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 27 13:52:50 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 209167   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 357741   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 331594   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 159736   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 133317   | 49.68 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.36%  |      |
| 35) Dibromofluoromethane  | 7.56   | 113 | 101011   | 60.83 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 121.66% |      |
| 50) Toluene-d8            | 10.08  | 98  | 394142   | 46.90 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.80%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 152515   | 47.87 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.74%  |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 70315   | 36.666  | ug/l | 99     |
| 3) Chloromethane              | 2.03 | 50  | 141274  | 42.312  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.16 | 62  | 110087  | 38.446  | ug/l | 100    |
| 5) Bromomethane               | 2.54 | 94  | 47262   | 40.551  | ug/l | 97     |
| 6) Chloroethane               | 2.68 | 64  | 69034   | 44.497  | ug/l | 96     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 155732  | 42.568  | ug/l | 99     |
| 8) Diethyl Ether              | 3.38 | 74  | 67543   | 48.898  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 92361   | 44.609  | ug/l | 100    |
| 10) Methyl Iodide             | 3.93 | 142 | 66271   | 35.071  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.73 | 59  | 105592  | 264.983 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 91267   | 45.411  | ug/l | 99     |
| 13) Acrolein                  | 3.58 | 56  | 103857  | 279.372 | ug/l | 100    |
| 14) Allyl chloride            | 4.29 | 41  | 169433  | 45.729  | ug/l | 99     |
| 15) Acrylonitrile             | 4.94 | 53  | 305517  | 290.876 | ug/l | 99     |
| 16) Acetone                   | 3.78 | 43  | 243464  | 280.932 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 211211  | 39.458  | ug/l | 100    |
| 18) Methyl Acetate            | 4.29 | 43  | 159844  | 55.269  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.00 | 73  | 365106  | 50.042  | ug/l | 98     |
| 20) Methylene Chloride        | 4.52 | 84  | 110864  | 46.581  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 97649   | 45.187  | ug/l | 95     |
| 22) Diisopropyl ether         | 5.92 | 45  | 400694  | 53.390  | ug/l | 98     |
| 23) Vinyl Acetate             | 5.86 | 43  | 1601246 | 268.496 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 5.81 | 63  | 211510  | 49.786  | ug/l | 100    |
| 25) 2-Butanone                | 6.80 | 43  | 409391  | 292.461 | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 171114  | 44.243  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 124146  | 44.984  | ug/l | 99     |
| 28) Bromochloromethane        | 7.17 | 49  | 89350   | 51.224  | ug/l | 93     |
| 29) Tetrahydrofuran           | 7.18 | 42  | 275055  | 282.572 | ug/l | 97     |
| 30) Chloroform                | 7.35 | 83  | 207246  | 49.004  | ug/l | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 169387  | 46.632  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 174372  | 46.536  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 145970  | 42.813  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.90 | 43  | 173668  | 53.795  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 137379  | 41.385  | ug/l | 99     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022720W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 27 13:52:50 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 158799   | 39.503  | ug/l   | 95       |
| 40) Benzene                    | 8.02  | 78   | 452265   | 45.576  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.15  | 41   | 83476m   | 56.000  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 162840   | 45.474  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.14  | 43   | 296644   | 52.487  | ug/l   | 99       |
| 44) Trichloroethene            | 8.82  | 130  | 114246   | 41.337  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 130454   | 50.281  | ug/l   | 99       |
| 46) Dibromomethane             | 9.19  | 93   | 76861    | 45.656  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.39  | 83   | 166049   | 48.496  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.18  | 41   | 130259   | 50.542  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 31587    | 871.527 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 885929   | 276.470 | ug/l   | 100      |
| 52) Toluene                    | 10.14 | 92   | 278998   | 44.758  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 190928   | 45.508  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.82  | 75   | 201282   | 46.300  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 116774   | 46.584  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 188537   | 52.352  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 200125   | 48.954  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 469971   | 249.516 | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.74 | 43   | 641223   | 272.540 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.89 | 129  | 122701   | 48.132  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 10.99 | 107  | 114441   | 46.832  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.62 | 164  | 108329   | 41.245  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 295220   | 44.091  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.50 | 131  | 112566   | 45.468  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.50 | 91   | 545558   | 44.742  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 396512   | 86.189  | ug/l   | 98       |
| 69) o-Xylene                   | 11.94 | 106  | 196156   | 44.713  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 328154   | 45.496  | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 90359    | 50.642  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 529658   | 44.737  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.06 | 43   | 261195   | 50.487  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 171587   | 53.317  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 144947m  | 41.359  | ug/l   |          |
| 77) Bromobenzene               | 12.52 | 156  | 130246   | 44.879  | ug/l   | 96       |
| 78) n-propylbenzene            | 12.59 | 91   | 619872   | 44.666  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 368325   | 45.150  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 442951   | 44.436  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 64125    | 50.509  | ug/l # | 83       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 379434   | 44.147  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 377970   | 43.795  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 446111   | 44.339  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 508074   | 43.962  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.28 | 119  | 453022   | 42.351  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 226243   | 45.351  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 224581   | 45.259  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 413051   | 42.064  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 68775    | 44.418  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 221481   | 43.553  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.26 | 75   | 35205    | 48.306  | ug/l   | 98       |

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Quant Title : SW846 8260  
QLast Update : Thu Feb 27 13:52:50 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.90 | 180  | 138459   | 42.862 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 65165    | 43.800 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 432407   | 45.407 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 133506   | 43.849 | ug/l  | 99       |

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

