

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN011819\  
 Data File : VN053492.D  
 Acq On : 19 Jan 2019 00:12  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 35 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 1/21/2019 10:48:44 AM

Quant Time: Jan 19 02:11:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011519W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 16 03:10:53 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 732466   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1120679  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1020476  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 514016   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 377756   | 52.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.36% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 334399   | 52.28 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.56% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1342616  | 49.64 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.28%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 471494   | 49.71 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.42%  |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 278835  | 47.348  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 394145  | 46.811  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 383179  | 47.211  | ug/l | 100    |
| 5) Bromomethane               | 2.56 | 94  | 266553  | 47.864  | ug/l | 97     |
| 6) Chloroethane               | 2.71 | 64  | 232002  | 47.279  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 526201  | 49.566  | ug/l | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 213973  | 53.664  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 329636  | 49.028  | ug/l | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 504848  | 49.137  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.77 | 59  | 129912  | 366.720 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 325068  | 49.847  | ug/l | 98     |
| 13) Acrolein                  | 3.61 | 56  | 145100  | 213.552 | ug/l | 100    |
| 14) Allyl chloride            | 4.33 | 41  | 533525  | 50.368  | ug/l | 100    |
| 15) Acrylonitrile             | 4.99 | 53  | 690163  | 296.032 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 448025  | 263.766 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.06 | 76  | 916330  | 46.465  | ug/l | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 338366  | 59.126  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 964418  | 55.659  | ug/l | 99     |
| 20) Methylene Chloride        | 4.55 | 84  | 387131  | 49.921  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 351292  | 50.387  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1153330 | 52.156  | ug/l | 97     |
| 23) Vinyl Acetate             | 5.90 | 43  | 3872772 | 284.905 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 667796  | 51.084  | ug/l | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 759393  | 290.120 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 414198  | 41.965  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 410876  | 51.536  | ug/l | 97     |
| 28) Bromochloromethane        | 7.20 | 49  | 306102  | 53.152  | ug/l | 100    |
| 29) Tetrahydrofuran           | 7.21 | 42  | 518470  | 304.265 | ug/l | 99     |
| 30) Chloroform                | 7.37 | 83  | 655873  | 51.495  | ug/l | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 599792  | 47.134  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 553466  | 51.226  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 499890  | 48.979  | ug/l | 100    |
| 37) Ethyl Acetate             | 6.93 | 43  | 341901  | 58.227  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 480411  | 49.719  | ug/l | 99     |

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 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 35 Sample Multiplier: 28

Instrument :  
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 ClientSampleID :  
 VSTDCCC050EC

Manual Integrations  
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MMDadoda  
 1/21/2019 10:48:44 AM

Quant Time: Jan 19 02:11:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011519W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 16 03:10:53 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 602244   | 47.741   | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 1544167  | 49.788   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.18  | 41   | 193567   | 55.404   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 462844   | 51.225   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 620875   | 58.804   | ug/l   | 99       |
| 44) Trichloroethene            | 8.84  | 130  | 429750   | 49.966   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 410571   | 49.979   | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 244505   | 51.805   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 504269   | 50.805   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 306343   | 56.194   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 78606    | 1476.417 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 1742813  | 302.375  | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 953518   | 49.522   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 515061   | 51.196   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 596762   | 50.601   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 359092   | 54.094   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 488404   | 51.767   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 603334   | 52.539   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 1272062  | 273.912  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1211530  | 299.432  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 398972   | 52.990   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 362092   | 53.934   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 473973   | 49.286   | ug/l   | 100      |
| 65) Chlorobenzene              | 11.43 | 112  | 1065687  | 49.337   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 381115   | 50.718   | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 1829561  | 49.700   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 1416269  | 101.901  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 687176   | 50.883   | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 1146253  | 52.296   | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 287435   | 55.562   | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 1835010  | 48.749   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 570814   | 56.886   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 414750   | 52.537   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 383139m  | 56.562   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 487841   | 49.184   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 2127424  | 49.237   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1241175  | 48.462   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1526197  | 49.833   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 127237   | 47.662   | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1281012  | 49.047   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1324644  | 48.970   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1552233  | 50.266   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1818478  | 49.019   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1613955  | 50.105   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 871143   | 49.930   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 859871   | 49.132   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 1362121  | 49.609   | ug/l   | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 259161   | 51.301   | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 855331   | 53.286   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 69441    | 69.372   | ug/l   | 98       |

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Sample : VSTDCCC050  
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ALS Vial : 35 Sample Multiplier: 28

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050EC

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MMDadoda  
1/21/2019 10:48:44 AM

Quant Time: Jan 19 02:11:25 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011519W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 16 03:10:53 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 420365   | 58.836 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 266980   | 53.319 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 795751   | 62.933 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 325006   | 61.722 | ug/l  | 99       |

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

