

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN121118\  
 Data File : VN052794.D  
 Acq On : 11 Dec 2018 11:17  
 Operator : MD\SY  
 Sample : VN1211WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN1211WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 12/12/2018 11:33:17 AM

Quant Time: Dec 12 00:49:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 925869   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1423003  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1260544  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 595351   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 524190   | 52.00 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.00% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 427125   | 48.69 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.38%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 1812919  | 53.09 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.18% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 628046   | 54.73 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.46% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 139332  | 16.072  | ug/l   | 99     |
| 3) Chloromethane              | 2.06 | 50  | 185581  | 16.217  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 197654  | 16.814  | ug/l   | 100    |
| 5) Bromomethane               | 2.58 | 94  | 120082  | 16.372  | ug/l   | 98     |
| 6) Chloroethane               | 2.71 | 64  | 125633  | 17.644  | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 3.03 | 101 | 266172  | 18.433  | ug/l   | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 107294  | 20.121  | ug/l   | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.77 | 101 | 171226  | 19.004  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 207281  | 17.273  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.78 | 59  | 54651   | 108.288 | ug/l # | 87     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 159437  | 18.383  | ug/l   | 98     |
| 13) Acrolein                  | 3.61 | 56  | 43157   | 49.202  | ug/l   | 96     |
| 14) Allyl chloride            | 4.33 | 41  | 260592  | 17.433  | ug/l   | 97     |
| 15) Acrylonitrile             | 4.99 | 53  | 325308  | 101.827 | ug/l   | 99     |
| 16) Acetone                   | 3.81 | 43  | 238396  | 89.657  | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.06 | 76  | 400827  | 14.686  | ug/l   | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 161536  | 21.179  | ug/l   | 96     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 479886  | 20.796  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.55 | 84  | 193462  | 18.593  | ug/l   | 99     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 171234  | 18.486  | ug/l   | 94     |
| 22) Diisopropyl ether         | 5.95 | 45  | 608737  | 19.387  | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1823120 | 93.223  | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 347000  | 19.356  | ug/l   | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 374136  | 99.272  | ug/l   | 96     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 256497  | 20.671  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 208201  | 19.296  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.20 | 49  | 155518  | 18.993  | ug/l   | 96     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 238848  | 98.256  | ug/l   | 97     |
| 30) Chloroform                | 7.37 | 83  | 346115  | 19.351  | ug/l   | 98     |
| 31) Cyclohexane               | 7.65 | 56  | 300872  | 17.099  | ug/l   | 95     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 282302  | 19.921  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 254141  | 18.912  | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.93 | 43  | 162289  | 19.789  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 239886  | 19.720  | ug/l   | 98     |

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 ALS Vial : 5 Sample Multiplier: 28

Instrument :  
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Manual Integrations  
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 12/12/2018 11:33:17 AM

Quant Time: Dec 12 00:49:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 289545   | 17.727  | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 778580   | 19.442  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 92678    | 20.671  | ug/l   | 94       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 243730   | 20.100  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 313988   | 22.624  | ug/l   | 96       |
| 44) Trichloroethene            | 8.84  | 130  | 209768   | 20.449  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 212157   | 19.926  | ug/l   | 98       |
| 46) Dibromomethane             | 9.21  | 93   | 122252   | 20.742  | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.40  | 83   | 258167   | 20.146  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 148638   | 20.540  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 32067    | 426.966 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 827060   | 106.212 | ug/l   | 98       |
| 52) Toluene                    | 10.16 | 92   | 476581   | 20.030  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 258301   | 20.952  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 303356   | 20.534  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 178845   | 21.369  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 230871   | 21.488  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 307179   | 20.786  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 639044   | 105.224 | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 574187   | 109.868 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 194998   | 21.451  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 174264   | 20.963  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 223055   | 22.823  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 531378   | 20.444  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 190019   | 21.025  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 913867   | 20.077  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 690121   | 40.727  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 341971   | 20.782  | ug/l   | 98       |
| 70) Styrene                    | 11.96 | 104  | 555556   | 21.197  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 129403   | 21.625  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 904241   | 19.359  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 254638   | 21.579  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 205680   | 19.358  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 179218m  | 19.521  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 233670   | 20.240  | ug/l   | 96       |
| 78) n-propylbenzene            | 12.59 | 91   | 1026928  | 19.353  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 617118   | 19.529  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 731068   | 19.625  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 54385    | 19.783  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 627450   | 19.702  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 652464   | 19.646  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 743366   | 19.912  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 881520   | 19.488  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 755565   | 19.611  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 404950   | 20.052  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 398736   | 20.045  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.62 | 91   | 626399   | 19.550  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 123862   | 18.987  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 393740   | 20.407  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 32610    | 21.459  | ug/l   | 99       |

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ALS Vial : 5 Sample Multiplier: 28

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN1211WBSD01

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12/12/2018 11:33:17 AM

Quant Time: Dec 12 00:49:10 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
Quant Title : SW846 8260  
QLast Update : Mon Dec 03 03:24:02 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 213808   | 21.914 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 127683   | 20.571 | ug/l  | 97       |
| 95) Naphthalene            | 15.14 | 128  | 452489   | 22.231 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 199571   | 22.143 | ug/l  | 100      |

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

