

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\WX121418\  
 Data File : VX006557.D  
 Acq On : 15 Dec 2018 11:00  
 Operator : JC/MD  
 Sample : J6398-02MS  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 52 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PR-MW-04\_121218MS

Manual Integrations  
 APPROVED

MMDadoda  
 12/17/2018 12:12:52 PM

Quant Time: Dec 15 23:59:19 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X112918W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 30 03:55:33 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 507844   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 828840   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 759794   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 391580   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 284768   | 54.93 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.86% |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 269022   | 50.13 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.26% |      |
| 50) Toluene-d8            | 8.71   | 98  | 965792   | 49.48 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.96%  |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 368463   | 50.09 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.18% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 261867  | 52.663  | ug/l | 99     |
| 3) Chloromethane              | 1.33 | 50  | 266475  | 52.149  | ug/l | 96     |
| 4) Vinyl Chloride             | 1.41 | 62  | 298591  | 54.294  | ug/l | 99     |
| 5) Bromomethane               | 1.64 | 94  | 185873  | 48.768  | ug/l | 98     |
| 6) Chloroethane               | 1.71 | 64  | 193548  | 57.399  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 471316  | 55.830  | ug/l | 98     |
| 8) Diethyl Ether              | 2.19 | 74  | 189366  | 59.270  | ug/l | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.38 | 101 | 276799  | 57.663  | ug/l | 99     |
| 10) Methyl Iodide             | 2.51 | 142 | 247172  | 34.167  | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.08 | 59  | 388808  | 274.237 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 265701  | 57.820  | ug/l | 92     |
| 13) Acrolein                  | 2.30 | 56  | 167410  | 216.039 | ug/l | 100    |
| 14) Allyl chloride            | 2.73 | 41  | 424493  | 46.763  | ug/l | 98     |
| 15) Acrylonitrile             | 3.15 | 53  | 840667  | 284.147 | ug/l | 99     |
| 16) Acetone                   | 2.45 | 43  | 707004  | 290.596 | ug/l | 95     |
| 17) Carbon Disulfide          | 2.57 | 76  | 655826  | 46.315  | ug/l | 99     |
| 18) Methyl Acetate            | 2.78 | 43  | 407530  | 50.088  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 915804  | 55.865  | ug/l | 99     |
| 20) Methylene Chloride        | 2.85 | 84  | 297892  | 57.531  | ug/l | 95     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 282162  | 57.619  | ug/l | 92     |
| 22) Diisopropyl ether         | 3.87 | 45  | 837190  | 59.046  | ug/l | 98     |
| 23) Vinyl Acetate             | 3.82 | 43  | 2802188 | 231.715 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 471951  | 58.235  | ug/l | 99     |
| 25) 2-Butanone                | 4.70 | 43  | 1033465 | 297.703 | ug/l | 95     |
| 26) 2,2-Dichloropropane       | 4.58 | 77  | 236197  | 31.580  | ug/l | 95     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 331473  | 60.683  | ug/l | 93     |
| 28) Bromochloromethane        | 5.02 | 49  | 196931  | 55.632  | ug/l | 98     |
| 29) Tetrahydrofuran           | 5.15 | 42  | 698231  | 289.403 | ug/l | 97     |
| 30) Chloroform                | 5.21 | 83  | 526994  | 61.879  | ug/l | 98     |
| 31) Cyclohexane               | 5.57 | 56  | 432587  | 57.759  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 450806  | 55.633  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 375082  | 53.739  | ug/l | 100    |
| 37) Ethyl Acetate             | 4.85 | 43  | 346110  | 44.280  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 393399  | 47.911  | ug/l | 99     |

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 ALS Vial : 52 Sample Multiplier: 1

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 PR-MW-04\_121218MS

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Quant Time: Dec 15 23:59:19 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X112918W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 30 03:55:33 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 468817   | 51.746   | ug/l   | 99       |
| 40) Benzene                    | 6.14  | 78   | 1158792  | 55.432   | ug/l   | 98       |
| 41) Methacrylonitrile          | 5.06  | 41   | 221592   | 51.522   | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 383650   | 56.075   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 6.46  | 43   | 590794   | 45.334   | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 338770   | 53.493   | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 284835   | 53.611   | ug/l   | 98       |
| 46) Dibromomethane             | 7.66  | 93   | 210932   | 54.971   | ug/l   | 95       |
| 47) Bromodichloromethane       | 7.90  | 83   | 359858   | 48.428   | ug/l   | 98       |
| 48) Methyl methacrylate        | 7.77  | 41   | 329969   | 52.046   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 7.75  | 88   | 175965   | 1126.122 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 2055029  | 270.878  | ug/l   | 99       |
| 52) Toluene                    | 8.79  | 92   | 774549   | 56.318   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 376660   | 43.343   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.44  | 75   | 414514   | 45.935   | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 322757   | 57.766   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 470036   | 53.812   | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 505236   | 57.184   | ug/l   | 99       |
| 59) 2-Hexanone                 | 9.49  | 43   | 1541698  | 265.987  | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.59  | 129  | 325779   | 47.285   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 346038   | 55.389   | ug/l   | 100      |
| 64) Tetrachloroethene          | 9.34  | 164  | 309680   | 54.122   | ug/l   | 99       |
| 65) Chlorobenzene              | 10.14 | 112  | 899508   | 55.770   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 317774   | 50.709   | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.25 | 91   | 1471404  | 54.851   | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.36 | 106  | 1185127  | 110.291  | ug/l   | 100      |
| 69) o-Xylene                   | 10.70 | 106  | 587118   | 55.316   | ug/l   | 100      |
| 70) Styrene                    | 10.71 | 104  | 943327   | 54.951   | ug/l   | 99       |
| 71) Bromoform                  | 10.86 | 173  | 240687   | 40.687   | ug/l   | 100      |
| 73) Isopropylbenzene           | 11.02 | 105  | 1541128  | 56.990   | ug/l   | 100      |
| 74) N-amyl acetate             | 10.90 | 43   | 492226   | 42.270   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 472904   | 54.663   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 428004m  | 56.628   | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 417515   | 55.634   | ug/l   | 99       |
| 78) n-propylbenzene            | 11.36 | 91   | 1684024  | 56.022   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 996965   | 55.801   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 1256855  | 55.861   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 109412   | 33.971   | ug/l # | 84       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 1149486  | 55.337   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 1318250  | 54.913   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 1314658  | 56.586   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 1535347  | 56.218   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 1361812  | 55.376   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 740901   | 55.484   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 736591   | 54.347   | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.39 | 91   | 1107879  | 52.798   | ug/l   | 100      |
| 90) Hexachloroethane           | 12.60 | 117  | 219670   | 43.827   | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 728415   | 54.963   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 100677   | 45.397   | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 501979   | 51.918   | ug/l   | 98       |

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ALS Vial : 52 Sample Multiplier: 1

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MSVOA\_X  
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Quant Title : SW846 8260  
QLast Update : Fri Nov 30 03:55:33 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 13.78 | 225  | 210611   | 49.255 | ug/l  | 99       |
| 95) Naphthalene            | 13.83 | 128  | 1684543  | 56.010 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 518866   | 54.180 | ug/l  | 98       |

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

