

Data Path : W:\HPCHEM1\MSVOA W\DATA\VW051518\  
 Data File : VW002530.D  
 Acq On : 14 May 2018 23:21  
 Operator : JC/SY  
 Sample : VSTDICC150  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

apatel  
 5/15/2018 6:12:07 PM

Quant Time: May 15 03:25:30 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_W\METHOD\82W051518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 15 02:22:37 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 249772   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 373331   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 351731   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 190926   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 403260   | 153.19 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 306.38% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 367332   | 154.54 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 309.08% |      |
| 50) Toluene-d8            | 10.33  | 98  | 1441478  | 158.65 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 317.30% |      |
| 62) 4-Bromofluorobenzene  | 12.63  | 95  | 536851   | 163.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 326.80% |      |

## Target Compounds

|                               |      |     |         |        |      | Qvalue |
|-------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 156639  | 166.99 | ug/l | 98     |
| 3) Chloromethane              | 2.21 | 50  | 261252  | 138.42 | ug/l | 98     |
| 4) Vinyl Chloride             | 2.36 | 62  | 453163  | 146.40 | ug/l | 97     |
| 5) Bromomethane               | 2.76 | 94  | 368501  | 146.90 | ug/l | 96     |
| 6) Chloroethane               | 2.91 | 64  | 310441  | 147.24 | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.24 | 101 | 190804  | 147.96 | ug/l | 99     |
| 8) Diethyl Ether              | 3.67 | 74  | 204831  | 140.98 | ug/l | 95     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.04 | 101 | 304027  | 134.96 | ug/l | 100    |
| 10) Methyl Iodide             | 4.26 | 142 | 487956  | 134.60 | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.18 | 59  | 141569  | 718.83 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 4.03 | 96  | 301227  | 135.57 | ug/l | 99     |
| 13) Acrolein                  | 3.89 | 56  | 140166  | 832.04 | ug/l | 99     |
| 14) Allyl chloride            | 4.65 | 41  | 471926  | 143.98 | ug/l | 99     |
| 15) Acrylonitrile             | 5.37 | 53  | 408977  | 719.94 | ug/l | 100    |
| 16) Acetone                   | 4.12 | 43  | 358482  | 682.18 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.37 | 76  | 820143  | 128.09 | ug/l | 99     |
| 18) Methyl Acetate            | 4.67 | 43  | 232605  | 148.05 | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 575765  | 146.06 | ug/l | 98     |
| 20) Methylene Chloride        | 4.90 | 84  | 313534  | 127.06 | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.41 | 96  | 331370  | 137.95 | ug/l | 98     |
| 22) Diisopropyl ether         | 6.31 | 45  | 1069489 | 148.32 | ug/l | 99     |
| 23) Vinyl Acetate             | 6.25 | 43  | 3382548 | 779.98 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 610478  | 140.00 | ug/l | 99     |
| 25) 2-Butanone                | 7.17 | 43  | 569458  | 734.13 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 322916  | 146.11 | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 381338  | 140.30 | ug/l | 100    |
| 28) Bromochloromethane        | 7.51 | 49  | 277673  | 139.95 | ug/l | 97     |
| 29) Tetrahydrofuran           | 7.53 | 42  | 370069  | 731.19 | ug/l | 99     |
| 30) Chloroform                | 7.67 | 83  | 646440  | 141.26 | ug/l | 98     |
| 31) Cyclohexane               | 7.95 | 56  | 499772  | 128.72 | ug/l | 95     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 495906  | 143.61 | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 486290  | 144.42 | ug/l | 100    |
| 37) Ethyl Acetate             | 7.26 | 43  | 244339  | 147.53 | ug/l | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 492698  | 150.80 | ug/l | 96     |

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 Quant Method : W:\HPCHEM1\MSVOA\_W\METHOD\82W051518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 15 02:22:37 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 571206   | 145.82  | ug/l  | 99       |
| 40) Benzene                    | 8.32  | 78   | 1399368  | 142.88  | ug/l  | 99       |
| 41) Methacrylonitrile          | 7.49  | 41   | 142030   | 152.75  | ug/l  | 99       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 445971   | 145.15  | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.43  | 43   | 491824   | 156.56  | ug/l  | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 378425   | 141.33  | ug/l  | 99       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 357592   | 144.97  | ug/l  | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 202864   | 146.71  | ug/l  | 100      |
| 47) Bromodichloromethane       | 9.65  | 83   | 492486   | 151.23  | ug/l  | 100      |
| 48) Methyl methacrylate        | 9.44  | 41   | 243436   | 159.86  | ug/l  | 98       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 67937    | 3044.83 | ug/l  | 98       |
| 51) 4-Methyl-2-Pentanone       | 10.22 | 43   | 1353817  | 777.96  | ug/l  | 100      |
| 52) Toluene                    | 10.39 | 92   | 915285   | 147.15  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 512042   | 158.64  | ug/l  | 97       |
| 54) cis-1,3-Dichloropropene    | 10.08 | 75   | 565866   | 154.33  | ug/l  | 99       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 282493   | 144.93  | ug/l  | 98       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 388159   | 160.86  | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 480313   | 145.21  | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 955620   | 814.69  | ug/l  | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 943214   | 791.03  | ug/l  | 99       |
| 60) Dibromochloromethane       | 11.13 | 129  | 355374   | 154.30  | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 277784   | 146.29  | ug/l  | 100      |
| 64) Tetrachloroethene          | 10.87 | 164  | 362836   | 135.89  | ug/l  | 98       |
| 65) Chlorobenzene              | 11.66 | 112  | 1028819  | 143.93  | ug/l  | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 385490   | 150.93  | ug/l  | 99       |
| 67) Ethyl Benzene              | 11.74 | 91   | 1852535  | 150.45  | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.85 | 106  | 1422655  | 299.67  | ug/l  | 99       |
| 69) o-Xylene                   | 12.18 | 106  | 695839   | 154.04  | ug/l  | 100      |
| 70) Styrene                    | 12.19 | 104  | 1190657  | 158.90  | ug/l  | 100      |
| 71) Bromoform                  | 12.36 | 173  | 235873   | 159.79  | ug/l  | # 100    |
| 73) Isopropylbenzene           | 12.48 | 105  | 1898891  | 153.68  | ug/l  | 100      |
| 74) N-amyl acetate             | 12.28 | 43   | 511322   | 163.97  | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.73 | 83   | 353432   | 146.36  | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.78 | 75   | 274381m  | 155.51  | ug/l  |          |
| 77) Bromobenzene               | 12.76 | 156  | 458856   | 147.16  | ug/l  | 99       |
| 78) n-propylbenzene            | 12.82 | 91   | 2250015  | 153.59  | ug/l  | 99       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 1274896  | 151.41  | ug/l  | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.96 | 105  | 1588622  | 152.73  | ug/l  | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 111321   | 171.45  | ug/l  | 97       |
| 82) 4-Chlorotoluene            | 13.00 | 91   | 1370335  | 152.77  | ug/l  | 98       |
| 83) tert-Butylbenzene          | 13.22 | 119  | 1383161  | 154.69  | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 1645821  | 152.54  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.40 | 105  | 1944194  | 151.85  | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 1797672  | 156.70  | ug/l  | 99       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 914669   | 148.24  | ug/l  | 99       |
| 88) 1,4-Dichlorobenzene        | 13.59 | 146  | 889146   | 144.23  | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.83 | 91   | 1672574  | 155.89  | ug/l  | 100      |
| 90) Hexachloroethane           | 14.10 | 117  | 314161   | 153.27  | ug/l  | 98       |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 810051   | 144.18  | ug/l  | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.50 | 75   | 61351    | 146.85  | ug/l  | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.15 | 180  | 585848   | 145.47 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.26 | 225  | 315184   | 140.56 | ug/l  | 99       |
| 95) Naphthalene            | 15.38 | 128  | 1125711  | 151.41 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 514558   | 142.39 | ug/l  | 99       |

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

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