

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW081919\  
 Data File : VW011996.D  
 Acq On : 19 Aug 2019 17:52  
 Operator : SY/VA  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 8/20/2019 9:55:47 AM

Quant Time: Aug 20 05:47:49 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 27 00:23:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 264507   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 423559   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 369402   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 179852   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 153884   | 50.67 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.34% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 128065   | 53.89 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.78% |      |
| 50) Toluene-d8            | 10.32  | 98  | 519389   | 53.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.78% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 186510   | 53.77 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.54% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 68477   | 46.452  | ug/l | 93     |
| 3) Chloromethane              | 2.21 | 50  | 114257  | 44.698  | ug/l | 97     |
| 4) Vinyl Chloride             | 2.36 | 62  | 148603  | 48.288  | ug/l | 100    |
| 5) Bromomethane               | 2.78 | 94  | 79660   | 46.765  | ug/l | 98     |
| 6) Chloroethane               | 2.92 | 64  | 87385   | 49.710  | ug/l | 94     |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 75803   | 55.115  | ug/l | 98     |
| 8) Diethyl Ether              | 3.68 | 74  | 77278   | 49.556  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 136861  | 52.457  | ug/l | 99     |
| 10) Methyl Iodide             | 4.27 | 142 | 185693  | 50.364  | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.17 | 59  | 54604   | 243.112 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 137400  | 49.878  | ug/l | 96     |
| 13) Acrolein                  | 3.89 | 56  | 46985   | 215.593 | ug/l | 99     |
| 14) Allyl chloride            | 4.67 | 41  | 297918  | 50.848  | ug/l | 99     |
| 15) Acrylonitrile             | 5.37 | 53  | 197214  | 253.347 | ug/l | 98     |
| 16) Acetone                   | 4.12 | 43  | 220242  | 227.958 | ug/l | 97     |
| 17) Carbon Disulfide          | 4.38 | 76  | 403275  | 46.774  | ug/l | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 105102  | 48.424  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 226401  | 51.791  | ug/l | 99     |
| 20) Methylene Chloride        | 4.92 | 84  | 152613  | 45.801  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.42 | 96  | 146373  | 49.285  | ug/l | 96     |
| 22) Diisopropyl ether         | 6.31 | 45  | 563621  | 51.023  | ug/l | 99     |
| 23) Vinyl Acetate             | 6.25 | 43  | 1769924 | 254.992 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 295727  | 49.987  | ug/l | 100    |
| 25) 2-Butanone                | 7.17 | 43  | 293561  | 232.204 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 170585  | 46.885  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 163145  | 49.912  | ug/l | 98     |
| 28) Bromochloromethane        | 7.51 | 49  | 137030  | 52.183  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.52 | 42  | 182524  | 252.576 | ug/l | 100    |
| 30) Chloroform                | 7.68 | 83  | 268906  | 49.268  | ug/l | 98     |
| 31) Cyclohexane               | 7.95 | 56  | 274862  | 48.400  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 215964  | 51.956  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 227773  | 51.717  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.25 | 43  | 127446  | 50.297  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 196319  | 52.069  | ug/l | 98     |

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 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 22 Sample Multiplier: 1

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 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
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MMDadoda  
 8/20/2019 9:55:47 AM

Quant Time: Aug 20 05:47:49 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 27 00:23:30 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 257999   | 53.200   | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 628133   | 50.916   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.48  | 41   | 76828    | 50.722   | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 194033   | 50.236   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.42  | 43   | 240673   | 51.647   | ug/l   | 100      |
| 44) Trichloroethene            | 9.09  | 130  | 155782   | 52.539   | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 170481   | 51.648   | ug/l   | 100      |
| 46) Dibromomethane             | 9.46  | 93   | 76539    | 50.804   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 205494   | 51.999   | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.43  | 41   | 116462   | 52.027   | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 24852    | 1139.262 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 621912   | 256.576  | ug/l   | 99       |
| 52) Toluene                    | 10.39 | 92   | 384537   | 51.616   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 215819   | 52.279   | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 256642   | 52.286   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 110210   | 51.558   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 168563   | 53.889   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 206556   | 51.076   | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 439723   | 309.614  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.97 | 43   | 442877   | 258.777  | ug/l   | 98       |
| 60) Dibromochloromethane       | 11.13 | 129  | 124479   | 52.461   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 103981   | 51.402   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.86 | 164  | 125457   | 52.161   | ug/l   | 98       |
| 65) Chlorobenzene              | 11.66 | 112  | 386368   | 52.024   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 138425   | 53.510   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.73 | 91   | 750304   | 53.046   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.84 | 106  | 544449   | 105.843  | ug/l   | 99       |
| 69) o-Xylene                   | 12.17 | 106  | 256061   | 53.569   | ug/l   | 99       |
| 70) Styrene                    | 12.18 | 104  | 442104   | 53.493   | ug/l   | 100      |
| 71) Bromoform                  | 12.35 | 173  | 71483    | 54.196   | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.46 | 105  | 715031   | 53.291   | ug/l   | 100      |
| 74) N-amyl acetate             | 12.27 | 43   | 228019   | 54.282   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 131401   | 52.065   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 94508m   | 49.662   | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 154926   | 52.240   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.80 | 91   | 870554   | 53.313   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.89 | 91   | 491725   | 52.271   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 600378   | 53.381   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 45397    | 54.977   | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 510460   | 51.718   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 513287   | 54.574   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 599208   | 52.887   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.38 | 105  | 736782   | 54.901   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 662071   | 54.373   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 301035   | 51.769   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 301694   | 52.155   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.82 | 91   | 662724   | 54.539   | ug/l   | 100      |
| 90) Hexachloroethane           | 14.10 | 117  | 118092   | 54.847   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 269080   | 52.319   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 22569    | 52.440   | ug/l   | 99       |

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ALS Vial : 22 Sample Multiplier: 1

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8/20/2019 9:55:47 AM

Quant Time: Aug 20 05:47:49 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
Quant Title : SW846 8260  
QLast Update : Sat Jul 27 00:23:30 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.13 | 180  | 193998   | 53.521 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 124571   | 55.110 | ug/l  | 98       |
| 95) Naphthalene            | 15.37 | 128  | 357680   | 50.360 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.56 | 180  | 169147   | 53.237 | ug/l  | 99       |

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

