

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW093019\  
 Data File : VW013365.D  
 Acq On : 01 Oct 2019 06:50  
 Operator : SY/VA  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 46 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 10/1/2019 11:32:39 AM

Quant Time: Oct 01 07:18:02 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W092019S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 20 15:58:08 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 325527   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 488497   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 414273   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 198729   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 131796   | 49.61 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.22%  |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 136926   | 50.96 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.92% |      |
| 50) Toluene-d8            | 10.32  | 98  | 547411   | 48.68 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.36%  |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 206858   | 53.86 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.72% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 53536   | 28.511  | ug/l | 94     |
| 3) Chloromethane              | 2.21 | 50  | 104523  | 43.302  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.36 | 62  | 136278  | 43.793  | ug/l | 99     |
| 5) Bromomethane               | 2.76 | 94  | 83790   | 42.489  | ug/l | 90     |
| 6) Chloroethane               | 2.91 | 64  | 79615   | 43.404  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 61934   | 34.515  | ug/l | 97     |
| 8) Diethyl Ether              | 3.68 | 74  | 77987   | 50.882  | ug/l | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 135508  | 46.385  | ug/l | 99     |
| 10) Methyl Iodide             | 4.27 | 142 | 235222  | 51.933  | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.20 | 59  | 59356   | 312.899 | ug/l | 96     |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 145735  | 48.174  | ug/l | 95     |
| 13) Acrolein                  | 3.89 | 56  | 22308   | 145.863 | ug/l | 96     |
| 14) Allyl chloride            | 4.67 | 41  | 222309  | 46.174  | ug/l | 98     |
| 15) Acrylonitrile             | 5.36 | 53  | 171220  | 258.820 | ug/l | 98     |
| 16) Acetone                   | 4.12 | 43  | 126312  | 210.825 | ug/l | 94     |
| 17) Carbon Disulfide          | 4.38 | 76  | 390836  | 44.698  | ug/l | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 96394   | 57.236  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 233342  | 50.328  | ug/l | 96     |
| 20) Methylene Chloride        | 4.91 | 84  | 162653  | 53.273  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.42 | 96  | 164570  | 50.332  | ug/l | 98     |
| 22) Diisopropyl ether         | 6.31 | 45  | 459619  | 50.202  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.25 | 43  | 1283360 | 236.284 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 275754  | 49.914  | ug/l | 99     |
| 25) 2-Butanone                | 7.17 | 43  | 214178  | 238.135 | ug/l | 91     |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 137527  | 41.006  | ug/l | 95     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 175054  | 50.732  | ug/l | 97     |
| 28) Bromochloromethane        | 7.51 | 49  | 115224  | 54.342  | ug/l | 93     |
| 29) Tetrahydrofuran           | 7.52 | 42  | 142718  | 258.748 | ug/l | 98     |
| 30) Chloroform                | 7.67 | 83  | 268615  | 49.662  | ug/l | 100    |
| 31) Cyclohexane               | 7.95 | 56  | 258179  | 44.832  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 210581  | 48.070  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 221279  | 46.768  | ug/l | 98     |
| 37) Ethyl Acetate             | 7.25 | 43  | 99319   | 49.391  | ug/l | 97     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 189971  | 44.790  | ug/l | 96     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W092019S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 20 15:58:08 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 286293   | 47.084   | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 646447   | 48.983   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.48  | 41   | 67789    | 56.484   | ug/l # | 90       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 166598   | 46.959   | ug/l   | 96       |
| 43) Isopropyl Acetate          | 8.42  | 43   | 186402   | 48.366   | ug/l   | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 181119   | 48.914   | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 159380   | 49.466   | ug/l   | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 77971    | 49.844   | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.64  | 83   | 192910   | 48.465   | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.43  | 41   | 88571    | 48.874   | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.46  | 88   | 25581    | 1089.432 | ug/l # | 92       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 483825   | 250.415  | ug/l   | 98       |
| 52) Toluene                    | 10.38 | 92   | 415504   | 49.125   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 187335   | 45.809   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 232710   | 46.802   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 117694   | 50.337   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 160669   | 52.507   | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 200601   | 49.166   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 354178   | 250.021  | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.97 | 43   | 315333   | 237.222  | ug/l   | 97       |
| 60) Dibromochloromethane       | 11.13 | 129  | 159069   | 59.915   | ug/l   | 90       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 109822   | 49.401   | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.86 | 164  | 174474   | 55.508   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.66 | 112  | 427282   | 49.392   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 150329   | 50.866   | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.73 | 91   | 783423   | 49.981   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.84 | 106  | 592369   | 99.176   | ug/l   | 100      |
| 69) o-Xylene                   | 12.16 | 106  | 284422   | 51.218   | ug/l   | 96       |
| 70) Styrene                    | 12.18 | 104  | 487054   | 51.088   | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 88932    | 56.958   | ug/l   | 94       |
| 73) Isopropylbenzene           | 12.46 | 105  | 786448   | 53.572   | ug/l   | 98       |
| 74) N-amyl acetate             | 12.27 | 43   | 165530   | 50.814   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 130863   | 53.301   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 80207m   | 45.701   | ug/l   |          |
| 77) Bromobenzene               | 12.74 | 156  | 180103   | 51.771   | ug/l   | 98       |
| 78) n-propylbenzene            | 12.80 | 91   | 845679   | 49.214   | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.89 | 91   | 493992   | 51.313   | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 636157   | 51.551   | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 35819    | 45.797   | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 508323   | 50.071   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.21 | 119  | 593433   | 54.789   | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 611100   | 49.765   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.38 | 105  | 771845   | 51.688   | ug/l   | 97       |
| 86) p-Isopropyltoluene         | 13.49 | 119  | 716144   | 51.706   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 345946   | 51.671   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 339691   | 51.732   | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.82 | 91   | 645745   | 51.060   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.09 | 117  | 121731   | 52.318   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 305153   | 52.683   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.48 | 75   | 19773    | 52.654   | ug/l   | 93       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.13 | 180  | 220528   | 53.132 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.23 | 225  | 136593   | 48.103 | ug/l  | 97       |
| 95) Naphthalene            | 15.36 | 128  | 400172   | 58.950 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.55 | 180  | 194759   | 54.305 | ug/l  | 98       |

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

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