

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW120518\  
 Data File : VW007253.D  
 Acq On : 06 Dec 2018 00:42  
 Operator : SY/AP  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

apatel  
 12/6/2018 12:56:14 PM

Quant Time: Dec 06 07:21:51 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W120418S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 05 01:35:23 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 94414    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 151060   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 138186   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 67775    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 45331    | 51.57 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.14% |      |
| 35) Dibromofluoromethane  | 7.89   | 113 | 44463    | 51.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.80% |      |
| 50) Toluene-d8            | 10.33  | 98  | 196055   | 51.46 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.92% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 72466    | 50.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.78% |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 48696  | 47.142  | ug/l | 100    |
| 3) Chloromethane              | 2.22 | 50  | 59152  | 45.219  | ug/l | 97     |
| 4) Vinyl Chloride             | 2.36 | 62  | 41235  | 50.346  | ug/l | 99     |
| 5) Bromomethane               | 2.76 | 94  | 26347  | 64.195  | ug/l | 94     |
| 6) Chloroethane               | 2.92 | 64  | 24673  | 53.689  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.26 | 101 | 79696  | 49.909  | ug/l | 98     |
| 8) Diethyl Ether              | 3.69 | 74  | 23675  | 53.190  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 4.07 | 101 | 47929  | 49.687  | ug/l | 98     |
| 10) Methyl Iodide             | 4.27 | 142 | 42620  | 51.866  | ug/l | 100    |
| 11) Tert butyl alcohol        | 5.17 | 59  | 18058  | 212.370 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 45695  | 50.548  | ug/l | 97     |
| 13) Acrolein                  | 3.90 | 56  | 14780  | 239.961 | ug/l | 99     |
| 14) Allyl chloride            | 4.68 | 41  | 73424  | 50.672  | ug/l | 97     |
| 15) Acrylonitrile             | 5.38 | 53  | 49762  | 267.429 | ug/l | 99     |
| 16) Acetone                   | 4.12 | 43  | 43573  | 209.388 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.38 | 76  | 148144 | 49.716  | ug/l | 99     |
| 18) Methyl Acetate            | 4.68 | 43  | 24107  | 50.751  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 116025 | 54.513  | ug/l | 99     |
| 20) Methylene Chloride        | 4.93 | 84  | 58439  | 56.436  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.43 | 96  | 53003  | 52.510  | ug/l | 95     |
| 22) Diisopropyl ether         | 6.32 | 45  | 146224 | 56.214  | ug/l | 96     |
| 23) Vinyl Acetate             | 6.26 | 43  | 382015 | 269.151 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 6.23 | 63  | 89651  | 53.773  | ug/l | 99     |
| 25) 2-Butanone                | 7.17 | 43  | 58220  | 241.349 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 78461  | 48.972  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 58665  | 54.216  | ug/l | 100    |
| 28) Bromochloromethane        | 7.52 | 49  | 32354  | 53.819  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.53 | 42  | 38540  | 258.540 | ug/l | 100    |
| 30) Chloroform                | 7.68 | 83  | 96554  | 55.725  | ug/l | 99     |
| 31) Cyclohexane               | 7.96 | 56  | 83570  | 47.908  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.88 | 97  | 89740  | 55.035  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 76110  | 51.781  | ug/l | 100    |
| 37) Ethyl Acetate             | 7.26 | 43  | 26805  | 50.416  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 78045  | 52.022  | ug/l | 99     |

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 Quant Title : SW846 8260  
 QLast Update : Wed Dec 05 01:35:23 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 96611    | 49.100   | ug/l   | 97       |
| 40) Benzene                    | 8.33  | 78   | 221668   | 54.998   | ug/l   | 98       |
| 41) Methacrylonitrile          | 7.49  | 41   | 16171    | 50.778   | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 60156    | 53.404   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 54167    | 52.456   | ug/l   | 99       |
| 44) Trichloroethene            | 9.10  | 130  | 60875    | 53.732   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 49622    | 52.906   | ug/l   | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 25747    | 52.828   | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.65  | 83   | 70053    | 54.643   | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.44  | 41   | 28132    | 52.491   | ug/l   | 96       |
| 49) 1,4-Dioxane                | 9.44  | 88   | 9561     | 1122.986 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 138143   | 271.464  | ug/l   | 99       |
| 52) Toluene                    | 10.39 | 92   | 151530   | 54.047   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 68854    | 53.420   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 79664    | 52.740   | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 36520    | 52.679   | ug/l   | 93       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 50322    | 55.647   | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 60093    | 51.343   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 94007    | 258.812  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.97 | 43   | 95894    | 259.949  | ug/l   | 100      |
| 60) Dibromochloromethane       | 11.13 | 129  | 46017    | 54.008   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 37299    | 56.095   | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.87 | 164  | 56726    | 56.186   | ug/l   | 97       |
| 65) Chlorobenzene              | 11.66 | 112  | 168504   | 54.599   | ug/l   | 95       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 52399    | 54.976   | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.74 | 91   | 290178   | 51.588   | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.84 | 106  | 226168   | 102.493  | ug/l   | 94       |
| 69) o-Xylene                   | 12.17 | 106  | 111791   | 54.223   | ug/l   | 100      |
| 70) Styrene                    | 12.19 | 104  | 178170   | 52.793   | ug/l   | 96       |
| 71) Bromoform                  | 12.35 | 173  | 26098    | 54.698   | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.47 | 105  | 305290   | 55.383   | ug/l   | 98       |
| 74) N-amyl acetate             | 12.27 | 43   | 54948    | 56.222   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 38117    | 53.243   | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 25721m   | 49.012   | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 67042    | 56.344   | ug/l   | 97       |
| 78) n-propylbenzene            | 12.81 | 91   | 353888   | 53.886   | ug/l   | 96       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 197616   | 53.286   | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 246736   | 52.322   | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 12879    | 52.895   | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 212503   | 53.862   | ug/l   | 97       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 223283   | 54.181   | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 251297   | 52.205   | ug/l   | 94       |
| 85) sec-Butylbenzene           | 13.39 | 105  | 312219   | 53.069   | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 275357   | 52.577   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 134883   | 55.221   | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 130902   | 53.054   | ug/l   | 97       |
| 89) n-Butylbenzene             | 13.83 | 91   | 243996   | 49.856   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 42572    | 53.342   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 114455   | 54.127   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 7510     | 54.152   | ug/l   | 97       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 79335    | 54.138 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 44291    | 56.048 | ug/l  | 96       |
| 95) Naphthalene            | 15.38 | 128  | 140087   | 53.339 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 66189    | 53.565 | ug/l  | 99       |

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

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