

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW022719\  
 Data File : VW008848.D  
 Acq On : 27 Feb 2019 12:20  
 Operator : SY/VA  
 Sample : VW0227SBS01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VW0227SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/1/2019 12:09:41 AM

Quant Time: Feb 28 07:16:18 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W022119S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Feb 22 00:38:32 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 332074   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 472798   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 446878   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 240339   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.30   | 65  | 150544   | 48.34 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.68%  |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 144073   | 50.75 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.50% |      |
| 50) Toluene-d8            | 10.32  | 98  | 562227   | 51.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.62% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 212473   | 49.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.04%  |      |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 62410  | 18.764 | ug/l   | 98     |
| 3) Chloromethane              | 2.21 | 50  | 77707  | 19.193 | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.35 | 62  | 80167  | 18.702 | ug/l   | 99     |
| 5) Bromomethane               | 2.76 | 94  | 65997  | 20.728 | ug/l   | 99     |
| 6) Chloroethane               | 2.92 | 64  | 55543  | 18.247 | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 3.26 | 101 | 106728 | 19.686 | ug/l   | 98     |
| 8) Diethyl Ether              | 3.68 | 74  | 30048  | 17.507 | ug/l   | 95     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 66661  | 20.248 | ug/l   | 99     |
| 10) Methyl Iodide             | 4.27 | 142 | 64437  | 15.652 | ug/l   | 98     |
| 11) Tert butyl alcohol        | 5.18 | 59  | 18721  | 67.517 | ug/l # | 84     |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 58950  | 20.275 | ug/l   | 97     |
| 13) Acrolein                  | 3.90 | 56  | 20178  | 83.313 | ug/l   | 96     |
| 14) Allyl chloride            | 4.67 | 41  | 98621  | 19.653 | ug/l   | 95     |
| 15) Acrylonitrile             | 5.37 | 53  | 59899  | 81.317 | ug/l   | 99     |
| 16) Acetone                   | 4.13 | 43  | 58981  | 81.699 | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.38 | 76  | 175949 | 18.239 | ug/l   | 98     |
| 18) Methyl Acetate            | 4.67 | 43  | 26690  | 15.587 | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 140309 | 17.829 | ug/l   | 98     |
| 20) Methylene Chloride        | 4.91 | 84  | 70179  | 16.289 | ug/l   | 94     |
| 21) trans-1,2-Dichloroethene  | 5.42 | 96  | 66027  | 19.632 | ug/l   | 95     |
| 22) Diisopropyl ether         | 6.31 | 45  | 192084 | 19.189 | ug/l   | 98     |
| 23) Vinyl Acetate             | 6.25 | 43  | 567457 | 91.749 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 115371 | 19.889 | ug/l   | 97     |
| 25) 2-Butanone                | 7.17 | 43  | 79444  | 78.712 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 109022 | 20.702 | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 7.16 | 96  | 71001  | 19.735 | ug/l   | 97     |
| 28) Bromochloromethane        | 7.51 | 49  | 46517  | 19.163 | ug/l   | 100    |
| 29) Tetrahydrofuran           | 7.54 | 42  | 51112  | 79.465 | ug/l   | 99     |
| 30) Chloroform                | 7.67 | 83  | 117652 | 19.771 | ug/l   | 99     |
| 31) Cyclohexane               | 7.95 | 56  | 120070 | 20.449 | ug/l   | 95     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 110826 | 20.479 | ug/l   | 98     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 97039  | 21.085 | ug/l   | 98     |
| 37) Ethyl Acetate             | 7.25 | 43  | 36521  | 17.064 | ug/l   | 96     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 101197 | 20.850 | ug/l   | 99     |

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 ALS Vial : 4 Sample Multiplier: 1

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 3/1/2019 12:09:41 AM

Quant Time: Feb 28 07:16:18 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W022119S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Feb 22 00:38:32 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 116682   | 20.326  | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 254859   | 20.282  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.48  | 41   | 22199    | 17.646  | ug/l # | 91       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 76409    | 19.195  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 73351    | 17.172  | ug/l   | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 72763    | 20.555  | ug/l   | 89       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 63466    | 20.438  | ug/l   | 93       |
| 46) Dibromomethane             | 9.46  | 93   | 31273    | 18.106  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.65  | 83   | 84295    | 20.059  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.43  | 41   | 32120    | 15.701  | ug/l   | 94       |
| 49) 1,4-Dioxane                | 9.46  | 88   | 8689     | 314.133 | ug/l # | 87       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 173447   | 79.981  | ug/l   | 100      |
| 52) Toluene                    | 10.39 | 92   | 172573   | 20.236  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 81236    | 18.965  | ug/l   | 93       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 99089    | 20.283  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 44179    | 18.860  | ug/l   | 95       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 49638    | 16.311  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 79228    | 19.157  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 151547   | 99.011  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.97 | 43   | 123172   | 79.790  | ug/l   | 98       |
| 60) Dibromochloromethane       | 11.13 | 129  | 53656    | 18.780  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.23 | 107  | 42001    | 18.115  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.87 | 164  | 64637    | 20.206  | ug/l   | 93       |
| 65) Chlorobenzene              | 11.66 | 112  | 187650   | 19.970  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 61997    | 19.513  | ug/l   | 95       |
| 67) Ethyl Benzene              | 11.73 | 91   | 336506   | 20.033  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.84 | 106  | 271922   | 40.515  | ug/l   | 99       |
| 69) o-Xylene                   | 12.16 | 106  | 127171   | 20.187  | ug/l   | 98       |
| 70) Styrene                    | 12.18 | 104  | 198289   | 19.565  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 28696    | 16.802  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.46 | 105  | 349671   | 21.223  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.27 | 43   | 67167    | 16.184  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 46349    | 17.216  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 32932m   | 16.596  | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 79336    | 20.376  | ug/l   | 97       |
| 78) n-propylbenzene            | 12.80 | 91   | 422754   | 20.976  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 235180   | 20.553  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 291945   | 20.390  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 13165    | 16.129  | ug/l   | 93       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 247330   | 20.511  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 262369   | 21.192  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 294766   | 19.888  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.38 | 105  | 368131   | 20.679  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 329324   | 20.180  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 166146   | 20.567  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 161020   | 20.224  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.83 | 91   | 311345   | 20.364  | ug/l   | 100      |
| 90) Hexachloroethane           | 14.10 | 117  | 53166    | 19.901  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 143343   | 19.915  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 7739     | 15.891  | ug/l   | 97       |

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ALS Vial : 4 Sample Multiplier: 1

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MSVOA\_W  
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Manual Integrations  
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3/1/2019 12:09:41 AM

Quant Time: Feb 28 07:16:18 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W022119S.M  
Quant Title : SW846 8260  
QLast Update : Fri Feb 22 00:38:32 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 100103   | 19.302 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 65879    | 21.566 | ug/l  | 100      |
| 95) Naphthalene            | 15.37 | 128  | 150131   | 17.002 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.56 | 180  | 84678    | 18.884 | ug/l  | 96       |

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

