

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF031219\  
 Data File : VF061906.D  
 Acq On : 12 Mar 2019 15:43  
 Operator : VA/AP  
 Sample : VF0312SBS01  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0312SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/13/2019 4:41:29 PM

Quant Time: Mar 13 02:24:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F030419S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Mar 05 04:50:44 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.85  | 168  | 305492   | 50.00 | ug/l  | -0.03    |
| 34) 1,4-Difluorobenzene    | 5.58  | 114  | 450783   | 50.00 | ug/l  | -0.03    |
| 63) Chlorobenzene-d5       | 9.76  | 117  | 390695   | 50.00 | ug/l  | -0.02    |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 213015   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 4.82   | 65  | 123984   | 55.73 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.46% |       |
| 35) Dibromofluoromethane  | 4.09   | 113 | 170647   | 54.24 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 108.48% |       |
| 50) Toluene-d8            | 7.54   | 98  | 492551   | 52.68 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.36% |       |
| 62) 4-Bromofluorobenzene  | 11.40  | 95  | 203090   | 55.45 | ug/l    | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 110.90% |       |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 83357   | 22.225  | ug/l   | 86     |
| 3) Chloromethane              | 1.10 | 50  | 78890   | 21.704  | ug/l   | 90     |
| 4) Vinyl Chloride             | 1.14 | 62  | 77164   | 22.363  | ug/l   | 98     |
| 5) Bromomethane               | 1.31 | 94  | 52531   | 22.339  | ug/l   | 97     |
| 6) Chloroethane               | 1.37 | 64  | 38615   | 23.543  | ug/l # | 84     |
| 7) Trichlorofluoromethane     | 1.47 | 101 | 100224  | 23.782  | ug/l   | 98     |
| 8) Diethyl Ether              | 1.63 | 74  | 19060   | 19.889  | ug/l   | 90     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.82 | 101 | 65480   | 22.881  | ug/l # | 91     |
| 10) Methyl Iodide             | 1.89 | 142 | 121126m | 22.241  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.56 | 59  | 13465   | 106.633 | ug/l   | 99     |
| 12) 1,1-Dichloroethene        | 1.78 | 96  | 58528   | 22.401  | ug/l   | 92     |
| 13) Acrolein                  | 1.99 | 56  | 14658   | 91.611  | ug/l   | 89     |
| 14) Allyl chloride            | 2.08 | 41  | 84107   | 29.221  | ug/l   | 92     |
| 15) Acrylonitrile             | 2.93 | 53  | 43715   | 108.720 | ug/l   | 98     |
| 16) Acetone                   | 2.23 | 43  | 58380   | 125.274 | ug/l   | 93     |
| 17) Carbon Disulfide          | 1.82 | 76  | 178655  | 21.967  | ug/l   | 98     |
| 18) Methyl Acetate            | 2.34 | 43  | 23742   | 25.749  | ug/l   | 98     |
| 19) Methyl tert-butyl Ether   | 2.42 | 73  | 99892   | 22.601  | ug/l   | 97     |
| 20) Methylene Chloride        | 2.17 | 84  | 58080m  | 19.192  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.30 | 96  | 63623   | 25.874  | ug/l   | 88     |
| 22) Diisopropyl ether         | 2.79 | 45  | 173076  | 23.116  | ug/l   | 99     |
| 23) Vinyl Acetate             | 3.18 | 43  | 351996  | 105.236 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 2.86 | 63  | 103734  | 23.180  | ug/l   | 100    |
| 25) 2-Butanone                | 4.32 | 43  | 104400  | 110.136 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 3.58 | 77  | 52202   | 26.130  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 3.46 | 96  | 78569   | 23.063  | ug/l   | 99     |
| 28) Bromochloromethane        | 3.70 | 49  | 38937   | 19.960  | ug/l # | 85     |
| 29) Tetrahydrofuran           | 4.06 | 42  | 41205   | 100.793 | ug/l   | 98     |
| 30) Chloroform                | 3.85 | 83  | 115742  | 22.643  | ug/l   | 95     |
| 31) Cyclohexane               | 3.68 | 56  | 108501  | 23.148  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane     | 4.07 | 97  | 81090   | 25.737  | ug/l # | 88     |
| 36) 1,1-Dichloropropene       | 4.26 | 75  | 92834   | 21.801  | ug/l   | 92     |
| 37) Ethyl Acetate             | 4.10 | 43  | 36352   | 20.339  | ug/l # | 82     |
| 38) Carbon Tetrachloride      | 3.98 | 117 | 77198   | 25.610  | ug/l   | 95     |

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 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleID :  
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Manual Integrations  
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 3/13/2019 4:41:29 PM

Quant Time: Mar 13 02:24:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F030419S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Mar 05 04:50:44 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.44  | 83   | 110812   | 22.032  | ug/l   | 97       |
| 40) Benzene                    | 4.62  | 78   | 249293   | 22.398  | ug/l   | 98       |
| 41) Methacrylonitrile          | 4.74  | 41   | 17712    | 18.088  | ug/l # | 94       |
| 42) 1,2-Dichloroethane         | 4.92  | 62   | 61940    | 22.330  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 6.94  | 43   | 43777    | 19.870  | ug/l   | 100      |
| 44) Trichloroethene            | 5.48  | 130  | 73840    | 21.348  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 6.21  | 63   | 58027    | 21.924  | ug/l   | 97       |
| 46) Dibromomethane             | 6.07  | 93   | 35283    | 21.182  | ug/l   | 97       |
| 47) Bromodichloromethane       | 6.37  | 83   | 79011    | 21.470  | ug/l   | 91       |
| 48) Methyl methacrylate        | 6.71  | 41   | 28138    | 20.181  | ug/l   | 94       |
| 49) 1,4-Dioxane                | 6.69  | 88   | 4568     | 358.386 | ug/l   | 91       |
| 51) 4-Methyl-2-Pentanone       | 8.25  | 43   | 164663   | 108.141 | ug/l   | 94       |
| 52) Toluene                    | 7.60  | 92   | 148434   | 22.543  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene      | 8.27  | 75   | 66760    | 21.977  | ug/l   | 92       |
| 54) cis-1,3-Dichloropropene    | 7.29  | 75   | 86507    | 20.646  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.47  | 97   | 41936    | 22.105  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.61  | 69   | 44564    | 20.843  | ug/l # | 86       |
| 57) 1,3-Dichloropropane        | 8.84  | 76   | 66789    | 21.527  | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether  | 7.28  | 63   | 36598    | 108.207 | ug/l   | 95       |
| 59) 2-Hexanone                 | 9.48  | 43   | 122656   | 111.660 | ug/l   | 96       |
| 60) Dibromochloromethane       | 8.70  | 129  | 58773    | 21.736  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 8.97  | 107  | 44237    | 21.204  | ug/l   | 100      |
| 64) Tetrachloroethene          | 8.14  | 164  | 65991    | 21.982  | ug/l   | 97       |
| 65) Chlorobenzene              | 9.78  | 112  | 166337   | 22.160  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.91  | 131  | 68674    | 23.614  | ug/l   | 97       |
| 67) Ethyl Benzene              | 9.88  | 91   | 292505   | 23.511  | ug/l   | 97       |
| 68) m/p-Xylenes                | 10.12 | 106  | 216713   | 45.470  | ug/l   | 99       |
| 69) o-Xylene                   | 10.70 | 106  | 116804   | 22.760  | ug/l   | 93       |
| 70) Styrene                    | 10.78 | 104  | 162962   | 22.563  | ug/l   | 99       |
| 71) Bromoform                  | 10.76 | 173  | 32108    | 20.890  | ug/l # | 95       |
| 73) Isopropylbenzene           | 11.12 | 105  | 329486   | 22.468  | ug/l   | 99       |
| 74) N-amyl acetate             | 11.36 | 43   | 70076    | 20.757  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.69 | 83   | 53016    | 21.751  | ug/l   | 94       |
| 76) 1,2,3-Trichloropropane     | 11.79 | 75   | 37826    | 22.739  | ug/l   | 99       |
| 77) Bromobenzene               | 11.48 | 156  | 76598    | 21.703  | ug/l   | 97       |
| 78) n-propylbenzene            | 11.58 | 91   | 383072   | 23.131  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 11.71 | 91   | 222114   | 23.459  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.82 | 105  | 280406   | 23.815  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.86 | 75   | 16224m   | 21.329  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.88 | 91   | 220185   | 22.736  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.12 | 119  | 289488   | 23.155  | ug/l   | 94       |
| 84) 1,2,4-Trimethylbenzene     | 12.19 | 105  | 262603   | 22.751  | ug/l   | 95       |
| 85) sec-Butylbenzene           | 12.30 | 105  | 382758   | 23.526  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.45 | 119  | 320766   | 23.194  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.47 | 146  | 151912   | 22.668  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 12.56 | 146  | 144897   | 22.414  | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.83 | 91   | 310322   | 23.480  | ug/l   | 93       |
| 90) Hexachloroethane           | 12.91 | 117  | 72820    | 21.876  | ug/l   | 73       |
| 91) 1,2-Dichlorobenzene        | 12.93 | 146  | 143707   | 22.633  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.63 | 75   | 8129     | 21.527  | ug/l   | 73       |

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Operator : VA/AP  
Sample : VF0312SBS01  
Misc : 5.00g/5mL/MSVOA-F/SOIL  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VF0312SBS01

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3/13/2019 4:41:29 PM

Quant Time: Mar 13 02:24:34 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F030419S.M  
Quant Title : SW846 8260  
QLast Update : Tue Mar 05 04:50:44 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.19 | 180  | 95775    | 21.516 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 14.18 | 225  | 64531    | 20.941 | ug/l  | 98       |
| 95) Naphthalene            | 14.45 | 128  | 154232   | 19.454 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.60 | 180  | 90055    | 21.911 | ug/l  | 97       |

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

