

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF010919\  
 Data File : VF061318.D  
 Acq On : 10 Jan 2019 1:16  
 Operator : VA/AP  
 Sample : VF0109SBS03  
 Misc : 5.00µg/5mL/MSVOA-F/SOIL  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0109SBS03

Manual Integrations  
 APPROVED

MMDadoda  
 1/10/2019 3:32:05 PM

Quant Time: Jan 10 07:10:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 09 07:13:51 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.89  | 168  | 159540   | 50.00 | ug/l  | 0.01     |
| 34) 1,4-Difluorobenzene    | 5.62  | 114  | 273411   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 9.79  | 117  | 262231   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.56 | 152  | 151817   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 4.86   | 65  | 95859    | 53.98 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.96% |      |
| 35) Dibromofluoromethane  | 4.13   | 113 | 118740   | 56.76 | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 113.52% |      |
| 50) Toluene-d8            | 7.57   | 98  | 308584   | 49.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.68%  |      |
| 62) 4-Bromofluorobenzene  | 11.43  | 95  | 154696   | 57.22 | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 114.44% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 68004  | 23.108  | ug/l   | 98     |
| 3) Chloromethane              | 1.09 | 50  | 56305  | 21.470  | ug/l   | 97     |
| 4) Vinyl Chloride             | 1.14 | 62  | 53314  | 22.762  | ug/l   | 99     |
| 5) Bromomethane               | 1.30 | 94  | 37924  | 21.120  | ug/l   | 92     |
| 6) Chloroethane               | 1.38 | 64  | 26417  | 23.097  | ug/l   | 95     |
| 7) Trichlorofluoromethane     | 1.46 | 101 | 93639  | 23.583  | ug/l   | 98     |
| 8) Diethyl Ether              | 1.63 | 74  | 13047  | 22.377  | ug/l   | 66     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.82 | 101 | 47784  | 22.791  | ug/l   | 97     |
| 10) Methyl Iodide             | 1.85 | 142 | 74390  | 22.648  | ug/l   | 90     |
| 11) Tert butyl alcohol        | 2.57 | 59  | 5813   | 81.760  | ug/l # | 86     |
| 12) 1,1-Dichloroethene        | 1.76 | 96  | 36230  | 21.610  | ug/l   | 95     |
| 13) Acrolein                  | 2.02 | 56  | 9007   | 104.132 | ug/l   | 93     |
| 14) Allyl chloride            | 2.11 | 41  | 65698  | 21.439  | ug/l   | 91     |
| 15) Acrylonitrile             | 2.94 | 53  | 25351  | 100.582 | ug/l   | 97     |
| 16) Acetone                   | 2.24 | 43  | 31907  | 77.240  | ug/l # | 89     |
| 17) Carbon Disulfide          | 1.77 | 76  | 123895 | 22.374  | ug/l   | 99     |
| 18) Methyl Acetate            | 2.35 | 43  | 19180  | 23.599  | ug/l   | 98     |
| 19) Methyl tert-butyl Ether   | 2.44 | 73  | 77888  | 24.380  | ug/l   | 99     |
| 20) Methylene Chloride        | 2.18 | 84  | 40411  | 23.124  | ug/l   | 95     |
| 21) trans-1,2-Dichloroethene  | 2.32 | 96  | 39873  | 22.444  | ug/l   | 93     |
| 22) Diisopropyl ether         | 2.81 | 45  | 122121 | 20.599  | ug/l # | 97     |
| 23) Vinyl Acetate             | 3.20 | 43  | 170032 | 98.070  | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 2.89 | 63  | 76714  | 22.369  | ug/l   | 100    |
| 25) 2-Butanone                | 4.35 | 43  | 66038  | 99.326  | ug/l   | 95     |
| 26) 2,2-Dichloropropane       | 3.62 | 77  | 50904  | 22.213  | ug/l   | 97     |
| 27) cis-1,2-Dichloroethene    | 3.49 | 96  | 56747  | 22.878  | ug/l   | 86     |
| 28) Bromochloromethane        | 3.73 | 49  | 34398  | 22.749  | ug/l # | 98     |
| 29) Tetrahydrofuran           | 4.09 | 42  | 30336  | 109.128 | ug/l   | 97     |
| 30) Chloroform                | 3.88 | 83  | 100412 | 23.065  | ug/l   | 97     |
| 31) Cyclohexane               | 3.70 | 56  | 85274  | 23.702  | ug/l   | 87     |
| 32) 1,1,1-Trichloroethane     | 4.12 | 97  | 84624  | 24.066  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.30 | 75  | 65236  | 20.432  | ug/l   | 96     |
| 37) Ethyl Acetate             | 4.12 | 43  | 22627  | 19.461  | ug/l # | 57     |
| 38) Carbon Tetrachloride      | 4.01 | 117 | 72286  | 23.905  | ug/l   | 98     |

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 VF0109SBS03

Manual Integrations  
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 1/10/2019 3:32:05 PM

Quant Time: Jan 10 07:10:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 09 07:13:51 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| -----                          |       |      |          |         |        |          |
| 39) Methylcyclohexane          | 5.47  | 83   | 89832    | 22.486  | ug/l   | 96       |
| 40) Benzene                    | 4.65  | 78   | 160128   | 21.482  | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.76  | 41   | 14935    | 23.002  | ug/l   | 91       |
| 42) 1,2-Dichloroethane         | 4.97  | 62   | 50736    | 21.862  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 6.98  | 43   | 31577    | 20.571  | ug/l # | 89       |
| 44) Trichloroethene            | 5.52  | 130  | 46199    | 21.178  | ug/l   | 89       |
| 45) 1,2-Dichloropropane        | 6.26  | 63   | 40013    | 21.109  | ug/l   | 94       |
| 46) Dibromomethane             | 6.10  | 93   | 25574    | 21.974  | ug/l   | 93       |
| 47) Bromodichloromethane       | 6.40  | 83   | 60421    | 20.874  | ug/l   | 99       |
| 48) Methyl methacrylate        | 6.73  | 41   | 23476    | 23.561  | ug/l   | 92       |
| 49) 1,4-Dioxane                | 6.73  | 88   | 2047     | 325.593 | ug/l # | 85       |
| 51) 4-Methyl-2-Pentanone       | 8.27  | 43   | 141685   | 122.286 | ug/l   | 100      |
| 52) Toluene                    | 7.64  | 92   | 101050   | 21.091  | ug/l   | 95       |
| 53) t-1,3-Dichloropropene      | 8.29  | 75   | 49040    | 21.574  | ug/l   | 95       |
| 54) cis-1,3-Dichloropropene    | 7.31  | 75   | 60126    | 19.949  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.51  | 97   | 27815    | 20.747  | ug/l   | 93       |
| 56) Ethyl methacrylate         | 8.64  | 69   | 33461    | 22.331  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 8.87  | 76   | 53116    | 22.386  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 7.31  | 63   | 6432     | 100.729 | ug/l # | 82       |
| 59) 2-Hexanone                 | 9.50  | 43   | 92800    | 113.056 | ug/l   | 97       |
| 60) Dibromochloromethane       | 8.73  | 129  | 41084    | 23.013  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 9.00  | 107  | 28938    | 21.174  | ug/l   | 96       |
| 64) Tetrachloroethene          | 8.17  | 164  | 39253    | 20.559  | ug/l   | 91       |
| 65) Chlorobenzene              | 9.82  | 112  | 103985   | 19.637  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.95  | 131  | 53004    | 24.531  | ug/l   | 94       |
| 67) Ethyl Benzene              | 9.92  | 91   | 224298   | 21.969  | ug/l   | 96       |
| 68) m/p-Xylenes                | 10.15 | 106  | 156656   | 43.987  | ug/l   | 98       |
| 69) o-Xylene                   | 10.73 | 106  | 88133    | 22.153  | ug/l   | 99       |
| 70) Styrene                    | 10.81 | 104  | 112824   | 21.288  | ug/l   | 98       |
| 71) Bromoform                  | 10.79 | 173  | 20485    | 23.198  | ug/l # | 97       |
| 73) Isopropylbenzene           | 11.14 | 105  | 265035   | 19.839  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.39 | 43   | 67005    | 22.065  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.70 | 83   | 49446    | 23.344  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.80 | 75   | 34601    | 22.272  | ug/l   | 89       |
| 77) Bromobenzene               | 11.51 | 156  | 51955    | 19.549  | ug/l   | 90       |
| 78) n-propylbenzene            | 11.61 | 91   | 324500   | 20.373  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.73 | 91   | 177158   | 19.963  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 11.83 | 105  | 223139   | 20.992  | ug/l   | 95       |
| 81) trans-1,4-Dichloro-2-buten | 11.88 | 75   | 12802m   | 18.857  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.91 | 91   | 182784   | 20.270  | ug/l   | 94       |
| 83) tert-Butylbenzene          | 12.14 | 119  | 208724   | 19.709  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 12.22 | 105  | 211211   | 20.013  | ug/l   | 97       |
| 85) sec-Butylbenzene           | 12.32 | 105  | 290412   | 19.259  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.47 | 119  | 244901   | 19.967  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.48 | 146  | 109908   | 21.176  | ug/l   | 94       |
| 88) 1,4-Dichlorobenzene        | 12.57 | 146  | 104384   | 20.920  | ug/l   | 96       |
| 89) n-Butylbenzene             | 12.86 | 91   | 259933   | 20.626  | ug/l   | 94       |
| 90) Hexachloroethane           | 12.93 | 117  | 55547    | 19.798  | ug/l   | 92       |
| 91) 1,2-Dichlorobenzene        | 12.96 | 146  | 102172   | 20.624  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.66 | 75   | 7420     | 20.733  | ug/l   | 90       |

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Quant Title : SW846 8260  
QLast Update : Wed Jan 09 07:13:51 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.21 | 180  | 69123    | 20.276 | µg/l  | 93       |
| 94) Hexachlorobutadiene    | 14.20 | 225  | 37990    | 17.310 | µg/l  | 97       |
| 95) Naphthalene            | 14.47 | 128  | 134493   | 20.935 | µg/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 14.61 | 180  | 63040    | 19.631 | µg/l  | 98       |

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

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