

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF111218\  
 Data File : VF060704.D  
 Acq On : 12 Nov 2018 00:48  
 Operator : VA/AP  
 Sample : VF1112SBSD01  
 Misc : 5.00µg/5mL/MSVOA-F/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF1112SBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 11/13/2018 2:11:11 PM

Quant Time: Nov 13 05:04:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F110218S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 03 05:29:31 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.87  | 168  | 184549   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.59  | 114  | 314517   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.77  | 117  | 300212   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 165065   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 4.84   | 65  | 112025   | 60.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 120.16% |      |
| 35) Dibromofluoromethane  | 4.11   | 113 | 135204   | 55.64 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.28% |      |
| 50) Toluene-d8            | 7.55   | 98  | 355088   | 49.33 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.66%  |      |
| 62) 4-Bromofluorobenzene  | 11.41  | 95  | 166157   | 52.77 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.54% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 80872  | 41.237  | ug/l   | 97     |
| 3) Chloromethane              | 1.10 | 50  | 44807  | 27.741  | ug/l # | 86     |
| 4) Vinyl Chloride             | 1.15 | 62  | 41247  | 27.714  | ug/l   | 91     |
| 5) Bromomethane               | 1.32 | 94  | 25837  | 30.927  | ug/l   | 82     |
| 6) Chloroethane               | 1.38 | 64  | 16108  | 28.092  | ug/l   | 93     |
| 7) Trichlorofluoromethane     | 1.49 | 101 | 90281m | 32.410  | ug/l   |        |
| 8) Diethyl Ether              | 1.62 | 74  | 11112  | 21.523  | ug/l   | 80     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.81 | 101 | 48233  | 30.301  | ug/l   | 97     |
| 10) Methyl Iodide             | 1.89 | 142 | 70663m | 26.976  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.57 | 59  | 10890  | 107.660 | ug/l   | 94     |
| 12) 1,1-Dichloroethene        | 1.78 | 96  | 35294  | 26.325  | ug/l # | 68     |
| 13) Acrolein                  | 2.00 | 56  | 6495   | 83.794  | ug/l   | 88     |
| 14) Allyl chloride            | 2.09 | 41  | 58944  | 26.926  | ug/l   | 90     |
| 15) Acrylonitrile             | 2.94 | 53  | 23763  | 106.932 | ug/l   | 94     |
| 16) Acetone                   | 2.24 | 43  | 52031  | 118.419 | ug/l # | 90     |
| 17) Carbon Disulfide          | 1.83 | 76  | 92415m | 24.471  | ug/l   |        |
| 18) Methyl Acetate            | 2.33 | 43  | 17270  | 25.541  | ug/l   | 94     |
| 19) Methyl tert-butyl Ether   | 2.42 | 73  | 85168  | 27.175  | ug/l   | 93     |
| 20) Methylene Chloride        | 2.18 | 84  | 37296m | 26.006  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.30 | 96  | 35477  | 25.223  | ug/l   | 98     |
| 22) Diisopropyl ether         | 2.80 | 45  | 114401 | 24.665  | ug/l   | 93     |
| 23) Vinyl Acetate             | 3.18 | 43  | 279976 | 100.467 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 2.87 | 63  | 77193  | 28.757  | ug/l   | 100    |
| 25) 2-Butanone                | 4.33 | 43  | 84898  | 81.069  | ug/l   | 93     |
| 26) 2,2-Dichloropropane       | 3.59 | 77  | 56013  | 27.888  | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene    | 3.47 | 96  | 63456  | 23.633  | ug/l   | 92     |
| 28) Bromochloromethane        | 3.71 | 49  | 39476  | 23.434  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 4.07 | 42  | 37121  | 107.896 | ug/l   | 95     |
| 30) Chloroform                | 3.85 | 83  | 112892 | 26.583  | ug/l   | 98     |
| 31) Cyclohexane               | 3.69 | 56  | 84408  | 22.787  | ug/l   | 94     |
| 32) 1,1,1-Trichloroethane     | 4.09 | 97  | 92332  | 31.129  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 4.27 | 75  | 82373  | 23.786  | ug/l   | 95     |
| 37) Ethyl Acetate             | 4.11 | 43  | 32526  | 19.566  | ug/l # | 86     |
| 38) Carbon Tetrachloride      | 3.97 | 117 | 80241  | 27.116  | ug/l   | 95     |

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 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleID :  
 VF1112SBSD01

Manual Integrations  
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MMDadoda  
 11/13/2018 2:11:11 PM

Quant Time: Nov 13 05:04:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F110218S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 03 05:29:31 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.45  | 83   | 94474    | 22.355  | ug/l   | 99       |
| 40) Benzene                    | 4.62  | 78   | 183058   | 21.777  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.74  | 41   | 18215    | 19.348  | ug/l # | 92       |
| 42) 1,2-Dichloroethane         | 4.94  | 62   | 62646    | 25.966  | ug/l   | 91       |
| 43) Isopropyl Acetate          | 6.95  | 43   | 36657    | 17.433  | ug/l # | 96       |
| 44) Trichloroethene            | 5.50  | 130  | 59090    | 23.390  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 6.23  | 63   | 48353    | 22.491  | ug/l   | 97       |
| 46) Dibromomethane             | 6.08  | 93   | 33420    | 24.503  | ug/l   | 96       |
| 47) Bromodichloromethane       | 6.38  | 83   | 81426    | 24.751  | ug/l   | 98       |
| 48) Methyl methacrylate        | 6.70  | 41   | 25272    | 19.123  | ug/l   | 88       |
| 49) 1,4-Dioxane                | 6.70  | 88   | 4773     | 345.246 | ug/l # | 59       |
| 51) 4-Methyl-2-Pentanone       | 8.25  | 43   | 141936   | 100.375 | ug/l   | 98       |
| 52) Toluene                    | 7.62  | 92   | 124030   | 22.651  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene      | 8.27  | 75   | 63167    | 22.092  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 7.30  | 75   | 82578    | 22.859  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane      | 8.49  | 97   | 34136    | 21.423  | ug/l   | 95       |
| 56) Ethyl methacrylate         | 8.62  | 69   | 36508    | 17.808  | ug/l   | 92       |
| 57) 1,3-Dichloropropane        | 8.84  | 76   | 61466    | 21.984  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 7.62  | 63   | 19199    | 136.973 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.49  | 43   | 93563    | 82.803  | ug/l   | 98       |
| 60) Dibromochloromethane       | 8.71  | 129  | 48785    | 21.892  | ug/l   | 94       |
| 61) 1,2-Dibromoethane          | 8.98  | 107  | 36930    | 22.039  | ug/l   | 99       |
| 64) Tetrachloroethene          | 8.14  | 164  | 52257    | 22.211  | ug/l   | 95       |
| 65) Chlorobenzene              | 9.79  | 112  | 136296   | 22.200  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.92  | 131  | 58457    | 22.534  | ug/l   | 98       |
| 67) Ethyl Benzene              | 9.89  | 91   | 244803   | 21.973  | ug/l   | 98       |
| 68) m/p-Xylenes                | 10.13 | 106  | 177538   | 42.305  | ug/l   | 89       |
| 69) o-Xylene                   | 10.71 | 106  | 99310    | 21.672  | ug/l   | 80       |
| 70) Styrene                    | 10.79 | 104  | 146273   | 22.033  | ug/l   | 96       |
| 71) Bromoform                  | 10.77 | 173  | 26393    | 19.699  | ug/l   | 95       |
| 73) Isopropylbenzene           | 11.12 | 105  | 317060   | 24.630  | ug/l   | 96       |
| 74) N-amyl acetate             | 11.37 | 43   | 62523    | 16.804  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.70 | 83   | 51391    | 21.871  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 11.86 | 75   | 22679    | 19.640  | ug/l   | 93       |
| 77) Bromobenzene               | 11.49 | 156  | 63796    | 22.648  | ug/l   | 97       |
| 78) n-propylbenzene            | 11.59 | 91   | 358063   | 23.773  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.72 | 91   | 205256   | 23.863  | ug/l   | 94       |
| 80) 1,3,5-Trimethylbenzene     | 11.82 | 105  | 247761   | 23.350  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.86 | 75   | 16688m   | 18.388  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.89 | 91   | 204993   | 22.843  | ug/l   | 97       |
| 83) tert-Butylbenzene          | 12.13 | 119  | 269574   | 24.868  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 12.20 | 105  | 243432   | 23.427  | ug/l   | 94       |
| 85) sec-Butylbenzene           | 12.31 | 105  | 349136   | 23.413  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.46 | 119  | 285177   | 23.223  | ug/l   | 95       |
| 87) 1,3-Dichlorobenzene        | 12.47 | 146  | 123895   | 22.409  | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene        | 12.56 | 146  | 117860   | 22.475  | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.84 | 91   | 303676   | 22.885  | ug/l   | 95       |
| 90) Hexachloroethane           | 12.91 | 117  | 73848    | 23.648  | ug/l   | 77       |
| 91) 1,2-Dichlorobenzene        | 12.94 | 146  | 122374   | 23.659  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.64 | 75   | 8400     | 20.577  | ug/l   | 81       |

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Sample : VF1112SBSD01  
Misc : 5.00µ/5mL/MSVOA-F/SOIL  
ALS Vial : 19 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VF1112SBSD01

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APPROVED

MMDadoda  
11/13/2018 2:11:11 PM

Quant Time: Nov 13 05:04:01 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F110218S.M  
Quant Title : SW846 8260  
QLast Update : Sat Nov 03 05:29:31 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.19 | 180  | 84512    | 24.051 | µg/l  | 90       |
| 94) Hexachlorobutadiene    | 14.19 | 225  | 51644    | 22.681 | µg/l  | 95       |
| 95) Naphthalene            | 14.45 | 128  | 152836   | 21.731 | µg/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 14.60 | 180  | 76599    | 23.076 | µg/l  | 95       |

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

