

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF122718\  
 Data File : VF061210.D  
 Acq On : 27 Dec 2018 16:11  
 Operator : VA/AP  
 Sample : J6378-19MSD  
 Misc : 5.01µ/5mL/MSVOA-F/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 P001-SS001-0612-01MSD

Manual Integrations  
 APPROVED

MMDadoda  
 12/28/2018 9:38:34 AM

Quant Time: Dec 28 04:16:17 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.85  | 168  | 157215   | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 5.58  | 114  | 279203   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.75  | 117  | 236707   | 50.00 | ug/l  | -0.02    |
| 72) 1,4-Dichlorobenzene-d4 | 12.53 | 152  | 89265    | 50.00 | ug/l  | -0.01    |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 4.82   | 65  | 114220   | 56.49 | ug/l    | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.98% |       |
| 35) Dibromofluoromethane  | 4.10   | 113 | 119111   | 53.26 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.52% |       |
| 50) Toluene-d8            | 7.53   | 98  | 296839   | 46.83 | ug/l    | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.66%  |       |
| 62) 4-Bromofluorobenzene  | 11.40  | 95  | 123624   | 42.31 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 84.62%  |       |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 192463 | 55.071  | ug/l   | 99     |
| 3) Chloromethane              | 1.09 | 50  | 116704 | 58.297  | ug/l   | 98     |
| 4) Vinyl Chloride             | 1.13 | 62  | 111066 | 59.808  | ug/l   | 91     |
| 5) Bromomethane               | 1.32 | 94  | 62599  | 48.600  | ug/l   | 95     |
| 6) Chloroethane               | 1.38 | 64  | 50284  | 58.764  | ug/l   | 88     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 213078 | 60.093  | ug/l   | 99     |
| 8) Diethyl Ether              | 1.62 | 74  | 33138  | 68.247  | ug/l   | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.82 | 101 | 95828  | 52.124  | ug/l   | 95     |
| 10) Methyl Iodide             | 1.89 | 142 | 143749 | 49.603  | ug/l   | 93     |
| 11) Tert butyl alcohol        | 2.56 | 59  | 29807  | 365.290 | ug/l   | 98     |
| 12) 1,1-Dichloroethene        | 1.78 | 96  | 78975  | 56.987  | ug/l   | 89     |
| 13) Acrolein                  | 1.99 | 56  | 7322m  | 124.181 | ug/l   |        |
| 14) Allyl chloride            | 2.09 | 41  | 97426  | 67.554  | ug/l   | 98     |
| 15) Acrylonitrile             | 2.93 | 53  | 58794  | 311.595 | ug/l   | 95     |
| 16) Acetone                   | 2.22 | 43  | 124004 | 306.765 | ug/l   | 99     |
| 17) Carbon Disulfide          | 1.82 | 76  | 221115 | 52.796  | ug/l   | 97     |
| 18) Methyl Acetate            | 2.33 | 43  | 118214 | 141.350 | ug/l   | 94     |
| 19) Methyl tert-butyl Ether   | 2.42 | 73  | 192737 | 62.656  | ug/l   | 99     |
| 20) Methylene Chloride        | 2.22 | 84  | 78600m | 61.919  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.29 | 96  | 79316  | 53.511  | ug/l   | 96     |
| 22) Diisopropyl ether         | 2.79 | 45  | 298147 | 62.062  | ug/l # | 88     |
| 23) Vinyl Acetate             | 3.17 | 43  | 80638  | 36.386  | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 2.86 | 63  | 173050 | 60.797  | ug/l   | 98     |
| 25) 2-Butanone                | 4.31 | 43  | 199608 | 304.473 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 3.58 | 77  | 96859  | 59.297  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 3.46 | 96  | 123622 | 54.478  | ug/l   | 96     |
| 28) Bromochloromethane        | 3.69 | 49  | 83336  | 57.703  | ug/l   | 98     |
| 29) Tetrahydrofuran           | 4.06 | 42  | 84850  | 317.992 | ug/l   | 99     |
| 30) Chloroform                | 3.84 | 83  | 246321 | 57.715  | ug/l   | 94     |
| 31) Cyclohexane               | 3.67 | 56  | 139653 | 47.283  | ug/l   | 94     |
| 32) 1,1,1-Trichloroethane     | 4.07 | 97  | 162935 | 63.694  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.26 | 75  | 168896 | 50.115  | ug/l   | 97     |
| 37) Ethyl Acetate             | 4.08 | 43  | 58336  | 43.508  | ug/l # | 6      |
| 38) Carbon Tetrachloride      | 3.97 | 117 | 140936 | 54.913  | ug/l   | 94     |

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 Sample : J6378-19MSD  
 Misc : 5.01µ/5mL/MSVOA-F/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 P001-SS001-0612-01MSD

Manual Integrations  
 APPROVED

MMDadoda  
 12/28/2018 9:38:34 AM

Quant Time: Dec 28 04:16:17 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 5.43  | 83   | 129443   | 42.812   | ug/l  | 98       |
| 40) Benzene                    | 4.61  | 78   | 372368   | 51.378   | ug/l  | 94       |
| 41) Methacrylonitrile          | 4.72  | 41   | 38120    | 53.558   | ug/l  | 95       |
| 42) 1,2-Dichloroethane         | 4.93  | 62   | 156020   | 56.668   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 6.94  | 43   | 51003    | 31.342   | ug/l  | 95       |
| 44) Trichloroethene            | 5.48  | 130  | 118246   | 51.749   | ug/l  | 97       |
| 45) 1,2-Dichloropropane        | 6.22  | 63   | 106216   | 53.867   | ug/l  | 96       |
| 46) Dibromomethane             | 6.06  | 93   | 72980    | 57.065   | ug/l  | 91       |
| 47) Bromodichloromethane       | 6.37  | 83   | 179875   | 54.132   | ug/l  | 98       |
| 48) Methyl methacrylate        | 6.70  | 41   | 76940    | 67.728   | ug/l  | 97       |
| 49) 1,4-Dioxane                | 6.68  | 88   | 10089    | 1223.956 | ug/l  | 92       |
| 51) 4-Methyl-2-Pentanone       | 8.24  | 43   | 339055   | 303.804  | ug/l  | 100      |
| 52) Toluene                    | 7.60  | 92   | 241906   | 50.423   | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 8.26  | 75   | 140992   | 52.597   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 7.29  | 75   | 175113   | 52.049   | ug/l  | 98       |
| 55) 1,1,2-Trichloroethane      | 8.47  | 97   | 80789    | 56.173   | ug/l  | 96       |
| 56) Ethyl methacrylate         | 8.60  | 69   | 63788    | 40.988   | ug/l  | 93       |
| 57) 1,3-Dichloropropane        | 8.83  | 76   | 152853   | 58.762   | ug/l  | 96       |
| 58) 2-Chloroethyl Vinyl ether  | 7.28  | 63   | 61656    | 206.281  | ug/l  | 96       |
| 59) 2-Hexanone                 | 9.47  | 43   | 249452   | 309.077  | ug/l  | 100      |
| 60) Dibromochloromethane       | 8.70  | 129  | 114216   | 55.400   | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 8.96  | 107  | 82387    | 53.637   | ug/l  | 95       |
| 64) Tetrachloroethene          | 8.13  | 164  | 86453    | 47.479   | ug/l  | 97       |
| 65) Chlorobenzene              | 9.78  | 112  | 260450   | 53.261   | ug/l  | 96       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.91  | 131  | 113544   | 56.819   | ug/l  | 94       |
| 67) Ethyl Benzene              | 9.88  | 91   | 468719   | 52.613   | ug/l  | 99       |
| 68) m/p-Xylenes                | 10.11 | 106  | 297351   | 94.843   | ug/l  | 97       |
| 69) o-Xylene                   | 10.70 | 106  | 177828   | 51.142   | ug/l  | 93       |
| 70) Styrene                    | 10.77 | 104  | 228384   | 54.324   | ug/l  | 97       |
| 71) Bromoform                  | 10.76 | 173  | 52464    | 56.746   | ug/l  | 98       |
| 73) Isopropylbenzene           | 11.11 | 105  | 464765   | 60.418   | ug/l  | 100      |
| 74) N-amyl acetate             | 11.36 | 43   | 48420    | 28.351   | ug/l  | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.68 | 83   | 105594   | 82.709   | ug/l  | 97       |
| 76) 1,2,3-Trichloropropane     | 11.78 | 75   | 76322    | 80.330   | ug/l  | 96       |
| 77) Bromobenzene               | 11.48 | 156  | 106725   | 64.451   | ug/l  | 98       |
| 78) n-propylbenzene            | 11.58 | 91   | 510455   | 60.174   | ug/l  | 99       |
| 79) 2-Chlorotoluene            | 11.70 | 91   | 309170   | 58.588   | ug/l  | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.81 | 105  | 357369   | 56.420   | ug/l  | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.85 | 75   | 31783m   | 77.848   | ug/l  |          |
| 82) 4-Chlorotoluene            | 11.88 | 91   | 302466   | 55.408   | ug/l  | 99       |
| 83) tert-Butylbenzene          | 12.12 | 119  | 348958   | 53.538   | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.19 | 105  | 358921   | 56.823   | ug/l  | 96       |
| 85) sec-Butylbenzene           | 12.29 | 105  | 399403   | 46.955   | ug/l  | 97       |
| 86) p-Isopropyltoluene         | 12.44 | 119  | 345885   | 48.989   | ug/l  | 98       |
| 87) 1,3-Dichlorobenzene        | 12.46 | 146  | 164554   | 62.205   | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 12.55 | 146  | 163619   | 53.810   | ug/l  | 99       |
| 89) n-Butylbenzene             | 12.83 | 91   | 314592   | 42.638   | ug/l  | 95       |
| 90) Hexachloroethane           | 12.90 | 117  | 82569    | 47.334   | ug/l  | 93       |
| 91) 1,2-Dichlorobenzene        | 12.93 | 146  | 165206   | 55.806   | ug/l  | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.63 | 75   | 18486    | 78.907   | ug/l  | 90       |

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Sample : J6378-19MSD  
Misc : 5.01g/5mL/MSVOA-F/SOIL  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
P001-SS001-0612-01MSD

Manual Integrations  
APPROVED

MMDadoda  
12/28/2018 9:38:34 AM

Quant Time: Dec 28 04:16:17 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
Quant Title : SW846 8260  
QLast Update : Thu Dec 20 00:56:59 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.18 | 180  | 78594    | 37.435 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 14.18 | 225  | 32270    | 24.133 | ug/l  | 97       |
| 95) Naphthalene            | 14.44 | 128  | 201255   | 52.496 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.58 | 180  | 63868    | 32.907 | ug/l  | 99       |

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

