

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF022819\  
 Data File : VF061787.D  
 Acq On : 28 Feb 2019 15:01  
 Operator : VA/AP  
 Sample : VF0228SBS01  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0228SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/2/2019 4:09:38 AM

Quant Time: Mar 01 00:31:06 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F021319S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 14 03:27:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.85  | 168  | 302846   | 50.00 | ug/l  | -0.04    |
| 34) 1,4-Difluorobenzene    | 5.58  | 114  | 459952   | 50.00 | ug/l  | -0.03    |
| 63) Chlorobenzene-d5       | 9.76  | 117  | 381492   | 50.00 | ug/l  | -0.03    |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 233665   | 50.00 | ug/l  | -0.02    |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 4.83   | 65  | 123498   | 55.61 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.22% |       |
| 35) Dibromofluoromethane  | 4.09   | 113 | 176598   | 51.70 | ug/l    | -0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.40% |       |
| 50) Toluene-d8            | 7.54   | 98  | 489892   | 49.89 | ug/l    | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.78%  |       |
| 62) 4-Bromofluorobenzene  | 11.40  | 95  | 206115   | 51.88 | ug/l    | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.76% |       |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 94967   | 27.306  | ug/l   | 96     |
| 3) Chloromethane              | 1.11 | 50  | 90795   | 24.882  | ug/l   | 97     |
| 4) Vinyl Chloride             | 1.14 | 62  | 89317   | 26.330  | ug/l   | 97     |
| 5) Bromomethane               | 1.33 | 94  | 57979   | 24.834  | ug/l   | 81     |
| 6) Chloroethane               | 1.39 | 64  | 42244   | 25.270  | ug/l   | 93     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 104483m | 25.537  | ug/l   |        |
| 8) Diethyl Ether              | 1.63 | 74  | 22873   | 22.183  | ug/l   | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.83 | 101 | 72544   | 24.578  | ug/l   | 93     |
| 10) Methyl Iodide             | 1.90 | 142 | 135825m | 24.090  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.57 | 59  | 16471   | 128.152 | ug/l   | 96     |
| 12) 1,1-Dichloroethene        | 1.80 | 96  | 62401m  | 24.046  | ug/l   |        |
| 13) Acrolein                  | 1.99 | 56  | 13530   | 83.759  | ug/l   | 92     |
| 14) Allyl chloride            | 2.09 | 41  | 72761   | 22.849  | ug/l   | 96     |
| 15) Acrylonitrile             | 2.93 | 53  | 46638   | 102.301 | ug/l   | 92     |
| 16) Acetone                   | 2.23 | 43  | 60545   | 127.065 | ug/l # | 88     |
| 17) Carbon Disulfide          | 1.83 | 76  | 191482m | 23.474  | ug/l   |        |
| 18) Methyl Acetate            | 2.34 | 43  | 28575   | 26.621  | ug/l   | 97     |
| 19) Methyl tert-butyl Ether   | 2.43 | 73  | 115375  | 26.014  | ug/l   | 98     |
| 20) Methylene Chloride        | 2.17 | 84  | 87269m  | 33.339  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.30 | 96  | 64765   | 22.958  | ug/l   | 97     |
| 22) Diisopropyl ether         | 2.79 | 45  | 184116  | 24.086  | ug/l   | 95     |
| 23) Vinyl Acetate             | 3.18 | 43  | 414919  | 111.132 | ug/l   | 97     |
| 24) 1,1-Dichloroethane        | 2.86 | 63  | 112640  | 24.350  | ug/l   | 99     |
| 25) 2-Butanone                | 4.32 | 43  | 116716  | 112.141 | ug/l   | 95     |
| 26) 2,2-Dichloropropane       | 3.58 | 77  | 49127   | 25.072  | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene    | 3.46 | 96  | 86524   | 23.367  | ug/l   | 98     |
| 28) Bromochloromethane        | 3.70 | 49  | 54799   | 24.689  | ug/l   | 87     |
| 29) Tetrahydrofuran           | 4.05 | 42  | 53394   | 112.872 | ug/l   | 99     |
| 30) Chloroform                | 3.85 | 83  | 127944  | 24.321  | ug/l   | 100    |
| 31) Cyclohexane               | 3.68 | 56  | 117823m | 23.528  | ug/l   |        |
| 32) 1,1,1-Trichloroethane     | 4.08 | 97  | 71078   | 20.626  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.26 | 75  | 96713   | 21.226  | ug/l   | 90     |
| 37) Ethyl Acetate             | 4.10 | 43  | 45510   | 21.504  | ug/l   | 97     |
| 38) Carbon Tetrachloride      | 3.98 | 117 | 70200   | 22.312  | ug/l   | 97     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF022819\  
 Data File : VF061787.D  
 Acq On : 28 Feb 2019 15:01  
 Operator : VA/AP  
 Sample : VF0228SBS01  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleID :  
 VF0228SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/2/2019 4:09:38 AM

Quant Time: Mar 01 00:31:06 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F021319S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 14 03:27:56 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.44  | 83   | 116228   | 21.569  | ug/l   | 98       |
| 40) Benzene                    | 4.62  | 78   | 274255   | 23.012  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.72  | 41   | 24887    | 22.995  | ug/l # | 89       |
| 42) 1,2-Dichloroethane         | 4.93  | 62   | 64744    | 22.711  | ug/l   | 95       |
| 43) Isopropyl Acetate          | 6.94  | 43   | 55534    | 22.169  | ug/l   | 93       |
| 44) Trichloroethene            | 5.49  | 130  | 91038    | 23.622  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 6.22  | 63   | 68172    | 23.664  | ug/l   | 99       |
| 46) Dibromomethane             | 6.08  | 93   | 39591    | 22.321  | ug/l   | 97       |
| 47) Bromodichloromethane       | 6.37  | 83   | 90469    | 23.291  | ug/l   | 92       |
| 48) Methyl methacrylate        | 6.71  | 41   | 33387    | 22.147  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 6.70  | 88   | 6506     | 459.090 | ug/l # | 76       |
| 51) 4-Methyl-2-Pentanone       | 8.24  | 43   | 193370   | 108.031 | ug/l   | 98       |
| 52) Toluene                    | 7.61  | 92   | 158857   | 21.978  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 8.26  | 75   | 73876    | 22.853  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.29  | 75   | 100569   | 23.356  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 8.48  | 97   | 46622    | 21.953  | ug/l   | 93       |
| 56) Ethyl methacrylate         | 8.61  | 69   | 51793    | 21.905  | ug/l   | 93       |
| 57) 1,3-Dichloropropane        | 8.84  | 76   | 80537    | 22.721  | ug/l   | 92       |
| 58) 2-Chloroethyl Vinyl ether  | 7.28  | 63   | 42213    | 103.477 | ug/l   | 93       |
| 59) 2-Hexanone                 | 9.48  | 43   | 141498   | 112.773 | ug/l   | 100      |
| 60) Dibromochloromethane       | 8.70  | 129  | 66641    | 22.545  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 8.97  | 107  | 49440    | 21.464  | ug/l   | 99       |
| 64) Tetrachloroethene          | 8.14  | 164  | 77400    | 24.822  | ug/l   | 96       |
| 65) Chlorobenzene              | 9.78  | 112  | 180159   | 23.272  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 9.92  | 131  | 74718    | 24.631  | ug/l   | 97       |
| 67) Ethyl Benzene              | 9.89  | 91   | 303290   | 23.559  | ug/l   | 98       |
| 68) m/p-Xylenes                | 10.12 | 106  | 243690   | 49.460  | ug/l   | 100      |
| 69) o-Xylene                   | 10.70 | 106  | 127335   | 24.220  | ug/l   | 96       |
| 70) Styrene                    | 10.78 | 104  | 177105   | 23.813  | ug/l   | 99       |
| 71) Bromoform                  | 10.76 | 173  | 39274    | 23.843  | ug/l   | 95       |
| 73) Isopropylbenzene           | 11.11 | 105  | 355098   | 21.344  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.36 | 43   | 89923    | 22.519  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.69 | 83   | 59707    | 20.033  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.78 | 75   | 41579    | 20.519  | ug/l   | 98       |
| 77) Bromobenzene               | 11.49 | 156  | 85806    | 20.878  | ug/l   | 97       |
| 78) n-propylbenzene            | 11.59 | 91   | 403927   | 21.158  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.71 | 91   | 230106   | 21.522  | ug/l   | 92       |
| 80) 1,3,5-Trimethylbenzene     | 11.81 | 105  | 291347   | 21.911  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 11.86 | 75   | 18759m   | 19.310  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.89 | 91   | 231679   | 20.877  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.12 | 119  | 325563   | 22.106  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.20 | 105  | 288933   | 21.872  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.30 | 105  | 415073   | 21.795  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.46 | 119  | 354060   | 22.152  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.47 | 146  | 171929   | 21.458  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.55 | 146  | 169937   | 22.053  | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.83 | 91   | 333583   | 22.102  | ug/l   | 99       |
| 90) Hexachloroethane           | 12.91 | 117  | 84276    | 22.671  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 12.93 | 146  | 168713   | 22.138  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.63 | 75   | 9102     | 19.261  | ug/l   | 85       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF022819\  
Data File : VF061787.D  
Acq On : 28 Feb 2019 15:01  
Operator : VA/AP  
Sample : VF0228SBS01  
Misc : 5.00g/5mL/MSVOA-F/SOIL  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VF0228SBS01

Manual Integrations  
APPROVED

MMDadoda  
3/2/2019 4:09:38 AM

Quant Time: Mar 01 00:31:06 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F021319S.M  
Quant Title : SW846 8260  
QLast Update : Thu Feb 14 03:27:56 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.19 | 180  | 115203   | 21.089 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.18 | 225  | 74584    | 22.108 | ug/l  | 99       |
| 95) Naphthalene            | 14.45 | 128  | 199938   | 20.919 | ug/l  | 97       |
| 96) 1,2,3-Trichlorobenzene | 14.60 | 180  | 108793   | 21.699 | ug/l  | 94       |

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

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF022819\  
 Data File : VF061787.D  
 Acq On : 28 Feb 2019 15:01  
 Operator : VA/AP  
 Sample : VF0228SBS01  
 Misc : 5.00µ/5mL/MSVOA-F/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0228SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/2/2019 4:09:38 AM

Quant Time: Mar 01 00:31:06 2019  
 Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F021319S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 14 03:27:56 2019  
 Response via : Initial Calibration

