

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF032219\  
 Data File : VF062083.D  
 Acq On : 22 Mar 2019 15:27  
 Operator : VA/AP  
 Sample : VF0322SBS01  
 Misc : 5.00µg/5mL/MSVOA-F/SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0322SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/27/2019 11:57:15 AM

Quant Time: Mar 23 06:02:23 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F032219S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Mar 23 01:16:37 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.90  | 168  | 290269   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.63  | 114  | 448575   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.81  | 117  | 387553   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.57 | 152  | 197898   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 4.88   | 65  | 113625   | 52.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.26% |      |
| 35) Dibromofluoromethane  | 4.15   | 113 | 161494   | 53.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.44% |      |
| 50) Toluene-d8            | 7.58   | 98  | 480847   | 53.09 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.18% |      |
| 62) 4-Bromofluorobenzene  | 11.44  | 95  | 181212   | 51.82 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.64% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 84387   | 22.693  | ug/l | 98     |
| 3) Chloromethane              | 1.11 | 50  | 89502   | 23.003  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.15 | 62  | 86092   | 23.921  | ug/l | 97     |
| 5) Bromomethane               | 1.34 | 94  | 53528   | 20.690  | ug/l | 96     |
| 6) Chloroethane               | 1.40 | 64  | 37502   | 20.699  | ug/l | 95     |
| 7) Trichlorofluoromethane     | 1.50 | 101 | 94436   | 21.726  | ug/l | 96     |
| 8) Diethyl Ether              | 1.64 | 74  | 21116   | 21.267  | ug/l | 88     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.85 | 101 | 66854   | 22.545  | ug/l | 97     |
| 10) Methyl Iodide             | 1.93 | 142 | 122226m | 21.690  | ug/l |        |
| 11) Tert butyl alcohol        | 2.59 | 59  | 14313   | 120.485 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 1.81 | 96  | 60898   | 21.765  | ug/l | 95     |
| 13) Acrolein                  | 2.02 | 56  | 16532   | 115.729 | ug/l | 92     |
| 14) Allyl chloride            | 2.12 | 41  | 70902   | 23.735  | ug/l | 95     |
| 15) Acrylonitrile             | 2.97 | 53  | 45284   | 108.403 | ug/l | 96     |
| 16) Acetone                   | 2.26 | 43  | 50921   | 112.061 | ug/l | 96     |
| 17) Carbon Disulfide          | 1.84 | 76  | 190380m | 22.313  | ug/l |        |
| 18) Methyl Acetate            | 2.37 | 43  | 24803   | 22.882  | ug/l | 91     |
| 19) Methyl tert-butyl Ether   | 2.45 | 73  | 101143  | 22.872  | ug/l | 99     |
| 20) Methylene Chloride        | 2.21 | 84  | 69583m  | 23.784  | ug/l |        |
| 21) trans-1,2-Dichloroethene  | 2.33 | 96  | 64148   | 23.828  | ug/l | 98     |
| 22) Diisopropyl ether         | 2.83 | 45  | 178694  | 22.816  | ug/l | 96     |
| 23) Vinyl Acetate             | 3.21 | 43  | 412203  | 128.544 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 2.90 | 63  | 97758   | 20.814  | ug/l | 98     |
| 25) 2-Butanone                | 4.37 | 43  | 106589  | 112.361 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 3.63 | 77  | 43506   | 22.846  | ug/l | 95     |
| 27) cis-1,2-Dichloroethene    | 3.51 | 96  | 78881   | 22.112  | ug/l | 94     |
| 28) Bromochloromethane        | 3.75 | 49  | 45414   | 23.666  | ug/l | 89     |
| 29) Tetrahydrofuran           | 4.11 | 42  | 47064   | 114.108 | ug/l | 98     |
| 30) Chloroform                | 3.89 | 83  | 111854  | 22.535  | ug/l | 99     |
| 31) Cyclohexane               | 3.72 | 56  | 108268m | 22.071  | ug/l |        |
| 32) 1,1,1-Trichloroethane     | 4.13 | 97  | 66446   | 22.006  | ug/l | 96     |
| 36) 1,1-Dichloropropene       | 4.32 | 75  | 95341   | 22.314  | ug/l | 97     |
| 37) Ethyl Acetate             | 4.15 | 43  | 39325   | 21.060  | ug/l | 93     |
| 38) Carbon Tetrachloride      | 4.02 | 117 | 64300   | 22.080  | ug/l | 98     |

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 ALS Vial : 11 Sample Multiplier: 1

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 MSVOA\_F  
 ClientSampleID :  
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 3/27/2019 11:57:15 AM

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F032219S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Mar 23 01:16:37 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.49  | 83   | 111734   | 22.532  | ug/l   | 98       |
| 40) Benzene                    | 4.67  | 78   | 252739   | 22.065  | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.78  | 41   | 21025    | 21.280  | ug/l   | 90       |
| 42) 1,2-Dichloroethane         | 4.98  | 62   | 56028    | 20.685  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 6.99  | 43   | 48890    | 21.620  | ug/l # | 91       |
| 44) Trichloroethene            | 5.54  | 130  | 79288    | 22.641  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 6.26  | 63   | 59365    | 21.730  | ug/l   | 99       |
| 46) Dibromomethane             | 6.11  | 93   | 36558    | 21.886  | ug/l   | 89       |
| 47) Bromodichloromethane       | 6.42  | 83   | 77918    | 21.059  | ug/l   | 93       |
| 48) Methyl methacrylate        | 6.75  | 41   | 30863    | 23.970  | ug/l   | 94       |
| 49) 1,4-Dioxane                | 6.74  | 88   | 5359     | 474.334 | ug/l   | 91       |
| 51) 4-Methyl-2-Pentanone       | 8.29  | 43   | 165660   | 109.450 | ug/l   | 98       |
| 52) Toluene                    | 7.65  | 92   | 137179   | 20.677  | ug/l   | 95       |
| 53) t-1,3-Dichloropropene      | 8.31  | 75   | 63431    | 21.839  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.33  | 75   | 89781    | 21.603  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.52  | 97   | 42262    | 22.427  | ug/l   | 95       |
| 56) Ethyl methacrylate         | 8.65  | 69   | 47170    | 20.988  | ug/l # | 89       |
| 57) 1,3-Dichloropropane        | 8.88  | 76   | 68455    | 21.887  | ug/l   | 92       |
| 58) 2-Chloroethyl Vinyl ether  | 7.32  | 63   | 32662    | 95.774  | ug/l   | 94       |
| 59) 2-Hexanone                 | 9.52  | 43   | 129440   | 116.686 | ug/l   | 97       |
| 60) Dibromochloromethane       | 8.74  | 129  | 57033    | 21.771  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.02  | 107  | 44415    | 22.092  | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.18  | 164  | 62403    | 20.842  | ug/l   | 96       |
| 65) Chlorobenzene              | 9.83  | 112  | 159382   | 21.980  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.96  | 131  | 61501    | 21.114  | ug/l   | 97       |
| 67) Ethyl Benzene              | 9.93  | 91   | 279965   | 22.200  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.16 | 106  | 213846   | 45.370  | ug/l   | 99       |
| 69) o-Xylene                   | 10.74 | 106  | 104437   | 21.156  | ug/l   | 91       |
| 70) Styrene                    | 10.81 | 104  | 161711   | 21.620  | ug/l   | 98       |
| 71) Bromoform                  | 10.79 | 173  | 31186    | 20.932  | ug/l   | 97       |
| 73) Isopropylbenzene           | 11.15 | 105  | 318311   | 22.858  | ug/l   | 99       |
| 74) N-amyl acetate             | 11.40 | 43   | 73194    | 22.059  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.71 | 83   | 52110    | 21.794  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.81 | 75   | 36269    | 21.554  | ug/l   | 93       |
| 77) Bromobenzene               | 11.51 | 156  | 75378    | 22.156  | ug/l   | 82       |
| 78) n-propylbenzene            | 11.61 | 91   | 369730   | 22.865  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.74 | 91   | 206728   | 23.001  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.84 | 105  | 250953   | 21.909  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.89 | 75   | 15354m   | 22.393  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.92 | 91   | 209677   | 22.753  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.15 | 119  | 266498   | 22.226  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 12.22 | 105  | 249858   | 22.252  | ug/l   | 97       |
| 85) sec-Butylbenzene           | 12.32 | 105  | 349279   | 22.517  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.48 | 119  | 294812   | 21.937  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.49 | 146  | 137742   | 21.792  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.58 | 146  | 131188   | 21.270  | ug/l   | 94       |
| 89) n-Butylbenzene             | 12.87 | 91   | 297335   | 23.191  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.93 | 117  | 70196    | 21.937  | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene        | 12.96 | 146  | 135758   | 22.873  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 13.66 | 75   | 7868     | 21.718  | ug/l   | 74       |

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Sample : VF0322SBS01  
Misc : 5.00µ/5mL/MSVOA-F/SOIL  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
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3/27/2019 11:57:15 AM

Quant Time: Mar 23 06:02:23 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F032219S.M  
Quant Title : SW846 8260  
QLast Update : Sat Mar 23 01:16:37 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.22 | 180  | 95672    | 23.128 | µg/l  | 97       |
| 94) Hexachlorobutadiene    | 14.21 | 225  | 60084    | 21.846 | µg/l  | 96       |
| 95) Naphthalene            | 14.47 | 128  | 156511   | 21.591 | µg/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.62 | 180  | 85033    | 21.961 | µg/l  | 98       |

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

