

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF082318\  
 Data File : VF060074.D  
 Acq On : 24 Aug 2018 2:48  
 Operator : VA/AP  
 Sample : VF0823SBS02  
 Misc : 5.00µ/5mL/MSVOA F/SOIL  
 ALS Vial : 40 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0823SBS02

Manual Integrations  
 APPROVED

MMDadoda  
 8/24/2018 4:13:22 PM

Quant Time: Aug 24 04:14:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F082118S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 22 04:43:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.05  | 168  | 164106   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 269437   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.92  | 117  | 289683   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.64 | 152  | 182935   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 5.03   | 65  | 124961   | 55.64 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.28% |       |
| 35) Dibromofluoromethane  | 4.30   | 113 | 116561   | 55.09 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 110.18% |       |
| 50) Toluene-d8            | 7.71   | 98  | 295377   | 49.16 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.32%  |       |
| 62) 4-Bromofluorobenzene  | 11.51  | 95  | 166720   | 52.45 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.90% |       |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.95 | 85  | 49816  | 23.06  | ug/l   | 93     |
| 3) Chloromethane              | 1.07 | 50  | 35380  | 23.25  | ug/l   | 98     |
| 4) Vinyl Chloride             | 1.12 | 62  | 25867  | 19.28  | ug/l   | 97     |
| 5) Bromomethane               | 1.32 | 94  | 21159  | 20.76  | ug/l   | 91     |
| 6) Chloroethane               | 1.39 | 64  | 12277  | 23.22  | ug/l   | 97     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 68740  | 25.48  | ug/l   | 95     |
| 8) Diethyl Ether              | 1.70 | 74  | 9240   | 19.16  | ug/l   | 82     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.86 | 101 | 31919  | 22.54  | ug/l   | 94     |
| 10) Methyl Iodide             | 1.93 | 142 | 39203  | 20.94  | ug/l # | 84     |
| 11) Tert butyl alcohol        | 2.69 | 59  | 12168  | 101.84 | ug/l # | 90     |
| 12) 1,1-Dichloroethene        | 1.83 | 96  | 23225  | 22.26  | ug/l   | 90     |
| 13) Acrolein                  | 2.09 | 56  | 3646   | 71.01  | ug/l   | 96     |
| 14) Allyl chloride            | 2.19 | 41  | 37905  | 20.46  | ug/l   | 85     |
| 15) Acrylonitrile             | 3.08 | 53  | 22465  | 95.27  | ug/l   | 95     |
| 16) Acetone                   | 2.34 | 43  | 54514  | 92.35  | ug/l # | 92     |
| 17) Carbon Disulfide          | 1.84 | 76  | 67259  | 20.59  | ug/l   | 97     |
| 18) Methyl Acetate            | 2.45 | 43  | 23537  | 20.95  | ug/l   | 97     |
| 19) Methyl tert-butyl Ether   | 2.54 | 73  | 70744  | 21.17  | ug/l   | 100    |
| 20) Methylene Chloride        | 2.28 | 84  | 28302  | 21.41  | ug/l   | 92     |
| 21) trans-1,2-Dichloroethene  | 2.41 | 96  | 23202  | 19.88  | ug/l   | 98     |
| 22) Diisopropyl ether         | 2.93 | 45  | 74893  | 18.05  | ug/l   | 90     |
| 23) Vinyl Acetate             | 3.33 | 43  | 205816 | 93.65  | ug/l # | 94     |
| 24) 1,1-Dichloroethane        | 3.00 | 63  | 55559  | 21.68  | ug/l   | 98     |
| 25) 2-Butanone                | 4.51 | 43  | 82242  | 107.26 | ug/l   | 99     |
| 26) 1,2-Dichloropropane       | 3.76 | 77  | 47817  | 18.03  | ug/l   | 91     |
| 27) cis-1,2-Dichloroethene    | 3.64 | 96  | 35617  | 21.53  | ug/l   | 96     |
| 28) Bromochloromethane        | 3.89 | 49  | 27829  | 25.72  | ug/l   | 85     |
| 29) Tetrahydrofuran           | 4.27 | 42  | 34332  | 118.59 | ug/l   | 95     |
| 30) Chloroform                | 4.04 | 83  | 86464  | 24.03  | ug/l   | 97     |
| 31) Cyclohexane               | 3.86 | 56  | 42012  | 21.51  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 4.28 | 97  | 75251  | 24.43  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.46 | 75  | 50402  | 19.91  | ug/l   | 96     |
| 37) Ethyl Acetate             | 4.30 | 43  | 30087  | 19.87  | ug/l # | 74     |
| 38) Carbon Tetrachloride      | 4.17 | 117 | 62604  | 21.35  | ug/l   | 96     |

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Quant Time: Aug 24 04:14:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F082118S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 22 04:43:43 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| -----                          |       |      |          |        |        |          |
| 39) Methylcyclohexane          | 5.63  | 83   | 47563    | 20.03  | ug/l # | 86       |
| 40) Benzene                    | 4.81  | 78   | 119533   | 21.61  | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.94  | 41   | 15764    | 20.58  | ug/l # | 90       |
| 42) 1,2-Dichloroethane         | 5.11  | 62   | 64573    | 21.77  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 7.12  | 43   | 35955    | 18.87  | ug/l # | 98       |
| 44) Trichloroethene            | 5.68  | 130  | 41130    | 22.49  | ug/l   | 93       |
| 45) 1,2-Dichloropropane        | 6.41  | 63   | 33370    | 21.33  | ug/l   | 94       |
| 46) Dibromomethane             | 6.25  | 93   | 30315    | 24.76  | ug/l # | 76       |
| 47) Bromodichloromethane       | 6.55  | 83   | 66943    | 22.64  | ug/l   | 88       |
| 48) Methyl methacrylate        | 6.88  | 41   | 23377    | 18.54  | ug/l   | 89       |
| 49) 1,4-Dioxane                | 6.88  | 88   | 4146     | 342.45 | ug/l # | 84       |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 193023   | 117.28 | ug/l   | 96       |
| 52) Toluene                    | 7.79  | 92   | 85457    | 21.19  | ug/l   | 94       |
| 53) t-1,3-Dichloropropene      | 8.43  | 75   | 54989    | 20.51  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 7.46  | 75   | 60341    | 20.16  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 8.64  | 97   | 35051    | 23.49  | ug/l   | 95       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 39054    | 21.62  | ug/l   | 92       |
| 57) 1,3-Dichloropropane        | 9.01  | 76   | 58541    | 22.32  | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether  | 7.78  | 63   | 15614    | 108.89 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.63  | 43   | 151583   | 113.79 | ug/l   | 97       |
| 60) Dibromochloromethane       | 8.86  | 129  | 49718    | 22.57  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 9.14  | 107  | 39427    | 22.49  | ug/l   | 88       |
| 64) Tetrachloroethene          | 8.31  | 164  | 44224    | 22.66  | ug/l   | 94       |
| 65) Chlorobenzene              | 9.94  | 112  | 119519   | 21.85  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.07 | 131  | 43573    | 21.00  | ug/l   | 96       |
| 67) Ethyl Benzene              | 10.04 | 91   | 204783   | 21.70  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.27 | 106  | 157087   | 45.75  | ug/l   | 96       |
| 69) o-Xylene                   | 10.83 | 106  | 77299    | 20.90  | ug/l   | 98       |
| 70) Styrene                    | 10.90 | 104  | 125990   | 22.21  | ug/l   | 98       |
| 71) Bromoform                  | 10.89 | 173  | 29379    | 20.30  | ug/l   | 99       |
| 73) Isopropylbenzene           | 11.23 | 105  | 232078   | 21.08  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.46 | 43   | 68408    | 19.99  | ug/l # | 93       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.79 | 83   | 56194    | 23.37  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.89 | 75   | 43132    | 23.13  | ug/l   | 94       |
| 77) Bromobenzene               | 11.60 | 156  | 63078    | 21.06  | ug/l   | 98       |
| 78) n-propylbenzene            | 11.69 | 91   | 299861   | 22.06  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.82 | 91   | 170405   | 21.32  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.92 | 105  | 206937   | 21.57  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.96 | 75   | 15114m   | 17.71  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.99 | 91   | 189312   | 21.82  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.22 | 119  | 194042   | 20.74  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 12.29 | 105  | 220249   | 21.60  | ug/l   | 95       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 276103   | 21.20  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.54 | 119  | 235526   | 21.79  | ug/l   | 96       |
| 87) 1,3-Dichlorobenzene        | 12.56 | 146  | 123329   | 22.27  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.65 | 146  | 117150   | 21.29  | ug/l   | 96       |
| 89) n-Butylbenzene             | 12.92 | 91   | 236797   | 22.55  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.00 | 117  | 51387    | 21.16  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 116241   | 21.83  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 10611    | 21.59  | ug/l   | 60       |

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QLast Update : Wed Aug 22 04:43:43 2018  
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| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.27 | 180  | 82081    | 20.93 | ug/l  | 95       |
| 94) Hexachlorobutadiene    | 14.26 | 225  | 47005    | 19.26 | ug/l  | 97       |
| 95) Naphthalene            | 14.53 | 128  | 129948   | 20.51 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.67 | 180  | 80597    | 21.54 | ug/l  | 97       |

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

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