

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF011019\  
 Data File : VF061341.D  
 Acq On : 10 Jan 2019 13:53  
 Operator : VA/AP  
 Sample : VF0110SBSD01  
 Misc : 5.00µg/5mL/MSVOA-F/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0110SBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 1/11/2019 3:52:21 PM

Quant Time: Jan 11 00:45:59 2019  
 Quant Method : Z:\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 09 07:13:51 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 1) Pentafluorobenzene         | 4.88  | 168  | 211074   | 50.00  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 5.61  | 114  | 353129   | 50.00  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 9.78  | 117  | 320527   | 50.00  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 12.55 | 152  | 172009   | 50.00  | ug/l   | 0.00     |
| System Monitoring Compounds   |       |      |          |        |        |          |
| 33) 1,2-Dichloroethane-d4     | 4.85  | 65   | 115843   | 49.31  | ug/l   | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 98.62% |          |
| 35) Dibromofluoromethane      | 4.12  | 113  | 131573   | 48.69  | ug/l   | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 97.38% |          |
| 50) Toluene-d8                | 7.56  | 98   | 393746   | 49.24  | ug/l   | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 98.48% |          |
| 62) 4-Bromofluorobenzene      | 11.42 | 95   | 173684   | 49.74  | ug/l   | 0.00     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 99.48% |          |
| Target Compounds              |       |      |          |        |        |          |
|                               |       |      |          |        | Qvalue |          |
| 2) Dichlorodifluoromethane    | 0.96  | 85   | 67939    | 17.449 | ug/l   | 97       |
| 3) Chloromethane              | 1.09  | 50   | 56322    | 16.233 | ug/l   | 94       |
| 4) Vinyl Chloride             | 1.14  | 62   | 47638    | 15.373 | ug/l   | 100      |
| 5) Bromomethane               | 1.31  | 94   | 31240    | 14.038 | ug/l   | 83       |
| 6) Chloroethane               | 1.40  | 64   | 23443    | 15.492 | ug/l # | 89       |
| 7) Trichlorofluoromethane     | 1.47  | 101  | 85723    | 16.318 | ug/l   | 95       |
| 8) Diethyl Ether              | 1.63  | 74   | 11460    | 14.856 | ug/l   | 70       |
| 9) 1,1,2-Trichlorotrifluoroet | 1.84  | 101  | 43654    | 15.738 | ug/l   | 94       |
| 10) Methyl Iodide             | 1.91  | 142  | 68163m   | 15.685 | ug/l   |          |
| 11) Tert butyl alcohol        | 2.57  | 59   | 8105     | 86.164 | ug/l # | 81       |
| 12) 1,1-Dichloroethene        | 1.79  | 96   | 35886    | 16.179 | ug/l   | 98       |
| 13) Acrolein                  | 2.01  | 56   | 7603     | 58.058 | ug/l   | 94       |
| 14) Allyl chloride            | 2.10  | 41   | 56708    | 13.987 | ug/l   | 98       |
| 15) Acrylonitrile             | 2.94  | 53   | 25123    | 75.341 | ug/l   | 92       |
| 16) Acetone                   | 2.24  | 43   | 53238    | 97.412 | ug/l # | 89       |
| 17) Carbon Disulfide          | 1.80  | 76   | 106844   | 14.584 | ug/l   | 98       |
| 18) Methyl Acetate            | 2.35  | 43   | 18927m   | 17.602 | ug/l   |          |
| 19) Methyl tert-butyl Ether   | 2.43  | 73   | 67539    | 15.979 | ug/l   | 97       |
| 20) Methylene Chloride        | 2.19  | 84   | 35233m   | 15.238 | ug/l   |          |
| 21) trans-1,2-Dichloroethene  | 2.31  | 96   | 36393    | 15.484 | ug/l   | 91       |
| 22) Diisopropyl ether         | 2.81  | 45   | 120222   | 15.327 | ug/l   | 97       |
| 23) Vinyl Acetate             | 3.19  | 43   | 229022   | 99.843 | ug/l   | 100      |
| 24) 1,1-Dichloroethane        | 2.88  | 63   | 74736    | 16.472 | ug/l   | 97       |
| 25) 2-Butanone                | 4.35  | 43   | 84771    | 96.372 | ug/l   | 95       |
| 26) 2,2-Dichloropropane       | 3.61  | 77   | 42550    | 14.034 | ug/l   | 94       |
| 27) cis-1,2-Dichloroethene    | 3.49  | 96   | 55967    | 17.055 | ug/l   | 96       |
| 28) Bromochloromethane        | 3.72  | 49   | 36744    | 18.368 | ug/l # | 99       |
| 29) Tetrahydrofuran           | 4.08  | 42   | 34283    | 93.217 | ug/l   | 97       |
| 30) Chloroform                | 3.87  | 83   | 101891   | 17.690 | ug/l   | 98       |
| 31) Cyclohexane               | 3.69  | 56   | 78434m   | 16.478 | ug/l   |          |
| 32) 1,1,1-Trichloroethane     | 4.11  | 97   | 65392    | 14.056 | ug/l   | 89       |
| 36) 1,1-Dichloropropene       | 4.29  | 75   | 77933    | 18.899 | ug/l   | 93       |
| 37) Ethyl Acetate             | 4.12  | 43   | 30487    | 20.302 | ug/l # | 73       |
| 38) Carbon Tetrachloride      | 4.00  | 117  | 59199    | 15.158 | ug/l   | 98       |

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Quant Time: Jan 11 00:45:59 2019  
 Quant Method : Z:\HPCHEM1\MSVOA\_F\METHODS\82F010819S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 09 07:13:51 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.46  | 83   | 91057    | 17.647  | ug/l   | 94       |
| 40) Benzene                    | 4.64  | 78   | 179127   | 18.606  | ug/l   | 98       |
| 41) Methacrylonitrile          | 4.76  | 41   | 16385    | 19.539  | ug/l   | 96       |
| 42) 1,2-Dichloroethane         | 4.95  | 62   | 55766    | 18.605  | ug/l   | 94       |
| 43) Isopropyl Acetate          | 6.97  | 43   | 40614    | 20.485  | ug/l # | 96       |
| 44) Trichloroethene            | 5.51  | 130  | 57454    | 20.392  | ug/l   | 82       |
| 45) 1,2-Dichloropropane        | 6.24  | 63   | 47448    | 19.381  | ug/l   | 97       |
| 46) Dibromomethane             | 6.09  | 93   | 29213    | 19.434  | ug/l   | 95       |
| 47) Bromodichloromethane       | 6.40  | 83   | 73056    | 19.542  | ug/l   | 98       |
| 48) Methyl methacrylate        | 6.72  | 41   | 23765    | 18.467  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 6.71  | 88   | 3347     | 412.188 | ug/l # | 89       |
| 51) 4-Methyl-2-Pentanone       | 8.27  | 43   | 152917   | 102.186 | ug/l   | 97       |
| 52) Toluene                    | 7.63  | 92   | 121986   | 19.713  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 8.28  | 75   | 60645    | 20.656  | ug/l   | 91       |
| 54) cis-1,3-Dichloropropene    | 7.30  | 75   | 82026    | 21.072  | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 8.50  | 97   | 33417    | 19.298  | ug/l   | 95       |
| 56) Ethyl methacrylate         | 8.63  | 69   | 39170    | 20.240  | ug/l   | 95       |
| 57) 1,3-Dichloropropane        | 8.86  | 76   | 58961    | 19.240  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 7.30  | 63   | 9885     | 119.858 | ug/l   | 98       |
| 59) 2-Hexanone                 | 9.50  | 43   | 115279   | 108.737 | ug/l   | 97       |
| 60) Dibromochloromethane       | 8.73  | 129  | 44199    | 19.169  | ug/l   | 93       |
| 61) 1,2-Dibromoethane          | 8.99  | 107  | 34670    | 19.642  | ug/l   | 93       |
| 64) Tetrachloroethene          | 8.16  | 164  | 47622    | 20.406  | ug/l   | 98       |
| 65) Chlorobenzene              | 9.81  | 112  | 125906   | 19.452  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 9.94  | 131  | 49840    | 18.871  | ug/l   | 95       |
| 67) Ethyl Benzene              | 9.91  | 91   | 239492   | 19.191  | ug/l   | 97       |
| 68) m/p-Xylenes                | 10.14 | 106  | 177279   | 40.724  | ug/l   | 97       |
| 69) o-Xylene                   | 10.72 | 106  | 95162    | 19.569  | ug/l   | 95       |
| 70) Styrene                    | 10.80 | 104  | 127631   | 19.702  | ug/l   | 99       |
| 71) Bromoform                  | 10.78 | 173  | 21312    | 19.745  | ug/l # | 96       |
| 73) Isopropylbenzene           | 11.13 | 105  | 277707   | 18.348  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.38 | 43   | 71497    | 20.780  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.70 | 83   | 46910    | 19.547  | ug/l   | 96       |
| 76) 1,2,3-Trichloropropane     | 11.80 | 75   | 33316    | 18.928  | ug/l   | 94       |
| 77) Bromobenzene               | 11.50 | 156  | 56550    | 18.780  | ug/l   | 94       |
| 78) n-propylbenzene            | 11.60 | 91   | 346747   | 19.214  | ug/l   | 96       |
| 79) 2-Chlorotoluene            | 11.72 | 91   | 193643   | 19.259  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 11.83 | 105  | 234146   | 19.441  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.87 | 75   | 12733m   | 16.554  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.90 | 91   | 194198   | 19.008  | ug/l   | 97       |
| 83) tert-Butylbenzene          | 12.14 | 119  | 232694   | 19.393  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 12.21 | 105  | 247734   | 20.718  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 12.32 | 105  | 329247   | 19.271  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.46 | 119  | 282688   | 20.342  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.48 | 146  | 122092   | 20.762  | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene        | 12.57 | 146  | 113583   | 20.091  | ug/l   | 96       |
| 89) n-Butylbenzene             | 12.85 | 91   | 278719   | 19.520  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.93 | 117  | 59168    | 18.613  | ug/l   | 84       |
| 91) 1,2-Dichlorobenzene        | 12.95 | 146  | 110177   | 19.630  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.65 | 75   | 7421     | 18.301  | ug/l   | 89       |

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Quant Title : SW846 8260  
QLast Update : Wed Jan 09 07:13:51 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.21 | 180  | 73374    | 18.997 | ug/l  | 93       |
| 94) Hexachlorobutadiene    | 14.20 | 225  | 43411    | 17.458 | ug/l  | 95       |
| 95) Naphthalene            | 14.47 | 128  | 126608   | 17.394 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.60 | 180  | 65705    | 18.059 | ug/l  | 96       |

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

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