

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF062118\  
 Data File : VF059270.D  
 Acq On : 21 Jun 2018 19:32  
 Operator : VA/AP  
 Sample : VSTDICV050  
 Misc : 5.00µ/5mL/MSVOA-F/SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 ICSVF062118

Manual Integrations  
 APPROVED

apatel  
 6/22/2018 11:34:50 AM

Quant Time: Jun 22 07:15:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062118S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 22 05:22:31 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 269688   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 460413   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 397386   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 238481   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.02   | 65  | 184698   | 47.71 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.42% |      |
| 35) Dibromofluoromethane  | 4.29   | 113 | 161295   | 41.64 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 83.28% |      |
| 50) Toluene-d8            | 7.71   | 98  | 428658   | 43.50 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 87.00% |      |
| 62) 4-Bromofluorobenzene  | 11.51  | 95  | 221166   | 40.48 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 80.96% |      |

## Target Compounds

|                               |      |     |         |        |        | Qvalue |
|-------------------------------|------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.99 | 85  | 136625  | 43.51  | ug/l   | 97     |
| 3) Chloromethane              | 1.08 | 50  | 97527   | 49.31  | ug/l   | 97     |
| 4) Vinyl Chloride             | 1.15 | 62  | 95614   | 48.75  | ug/l   | 96     |
| 5) Bromomethane               | 1.34 | 94  | 58015   | 41.13  | ug/l   | 93     |
| 6) Chloroethane               | 1.43 | 64  | 44170   | 46.17  | ug/l   | 97     |
| 7) Trichlorofluoromethane     | 1.49 | 101 | 179810m | 46.82  | ug/l   |        |
| 8) Diethyl Ether              | 1.70 | 74  | 41557   | 48.07  | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 1.90 | 101 | 96889   | 45.21  | ug/l   | 91     |
| 10) Methyl Iodide             | 1.97 | 142 | 188300  | 48.07  | ug/l   | 89     |
| 11) Tert butyl alcohol        | 2.68 | 59  | 60314   | 267.38 | ug/l   | 99     |
| 12) 1,1-Dichloroethene        | 1.85 | 96  | 94708   | 49.55  | ug/l   | 93     |
| 13) Acrolein                  | 2.09 | 56  | 43215   | 244.64 | ug/l   | 98     |
| 14) Allyl chloride            | 2.19 | 41  | 169665  | 48.09  | ug/l   | 93     |
| 15) Acrylonitrile             | 3.07 | 53  | 148658  | 366.99 | ug/l   | 92     |
| 16) Acetone                   | 2.33 | 43  | 214432  | 234.37 | ug/l   | 99     |
| 17) Carbon Disulfide          | 1.87 | 76  | 226206  | 48.72  | ug/l   | 97     |
| 18) Methyl Acetate            | 2.44 | 43  | 87167   | 50.53  | ug/l   | 96     |
| 19) Methyl tert-butyl Ether   | 2.53 | 73  | 320541  | 49.99  | ug/l   | 93     |
| 20) Methylene Chloride        | 2.27 | 84  | 94453m  | 51.17  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.41 | 96  | 102674  | 51.46  | ug/l   | 89     |
| 22) Diisopropyl ether         | 2.92 | 45  | 386189  | 52.76  | ug/l   | 93     |
| 23) Vinyl Acetate             | 3.33 | 43  | 1223167 | 261.25 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 2.99 | 63  | 227280  | 47.89  | ug/l   | 99     |
| 25) 2-Butanone                | 4.50 | 43  | 300662  | 246.35 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 3.75 | 77  | 156913  | 47.45  | ug/l   | 94     |
| 27) cis-1,2-Dichloroethene    | 3.63 | 96  | 150161  | 49.54  | ug/l   | 98     |
| 28) Bromochloromethane        | 3.88 | 49  | 90437   | 51.37  | ug/l   | 92     |
| 29) Tetrahydrofuran           | 4.24 | 42  | 133998  | 244.53 | ug/l   | 97     |
| 30) Chloroform                | 4.03 | 83  | 320931  | 46.71  | ug/l   | 100    |
| 31) Cyclohexane               | 3.85 | 56  | 163954  | 50.19  | ug/l   | 94     |
| 32) 1,1,1-Trichloroethane     | 4.27 | 97  | 222015  | 42.79  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 4.45 | 75  | 224007  | 46.30  | ug/l   | 95     |
| 37) Ethyl Acetate             | 4.29 | 43  | 135768  | 43.91  | ug/l # | 77     |
| 38) Carbon Tetrachloride      | 4.17 | 117 | 249096m | 41.91  | ug/l   |        |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.62  | 83   | 202092   | 46.67   | ug/l   | 91       |
| 40) Benzene                    | 4.81  | 78   | 448882   | 43.72   | ug/l   | 95       |
| 41) Methacrylonitrile          | 4.92  | 41   | 70401    | 47.67   | ug/l   | 96       |
| 42) 1,2-Dichloroethane         | 5.11  | 62   | 254577   | 43.05   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 7.10  | 43   | 179903   | 47.49   | ug/l   | 100      |
| 44) Trichloroethene            | 5.68  | 130  | 156341   | 43.94   | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 6.40  | 63   | 134515   | 44.91   | ug/l   | 94       |
| 46) Dibromomethane             | 6.25  | 93   | 112287   | 44.42   | ug/l   | 96       |
| 47) Bromodichloromethane       | 6.54  | 83   | 265780   | 43.91   | ug/l   | 100      |
| 48) Methyl methacrylate        | 6.87  | 41   | 118321   | 49.33   | ug/l   | 95       |
| 49) 1,4-Dioxane                | 6.86  | 88   | 15241    | 1095.75 | ug/l # | 89       |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 624634   | 231.20  | ug/l   | 99       |
| 52) Toluene                    | 7.78  | 92   | 325210   | 41.04   | ug/l   | 91       |
| 53) t-1,3-Dichloropropene      | 8.43  | 75   | 243427   | 42.84   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 7.45  | 75   | 269743   | 44.96   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 8.63  | 97   | 131976   | 43.15   | ug/l   | 93       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 169456   | 48.46   | ug/l   | 95       |
| 57) 1,3-Dichloropropane        | 9.00  | 76   | 235756   | 46.60   | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 7.78  | 63   | 56042    | 200.39  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.63  | 43   | 508592   | 237.44  | ug/l   | 94       |
| 60) Dibromochloromethane       | 8.86  | 129  | 203352   | 45.18   | ug/l   | 90       |
| 61) 1,2-Dibromoethane          | 9.14  | 107  | 163143   | 46.30   | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.30  | 164  | 157321   | 51.55   | ug/l   | 95       |
| 65) Chlorobenzene              | 9.93  | 112  | 415971   | 49.19   | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.07 | 131  | 182288   | 51.75   | ug/l   | 92       |
| 67) Ethyl Benzene              | 10.03 | 91   | 735884   | 51.26   | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.27 | 106  | 520436   | 100.86  | ug/l   | 97       |
| 69) o-Xylene                   | 10.83 | 106  | 283607   | 49.76   | ug/l   | 96       |
| 70) Styrene                    | 10.90 | 104  | 440151   | 51.23   | ug/l   | 98       |
| 71) Bromoform                  | 10.89 | 173  | 129160   | 51.41   | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.23 | 105  | 851748   | 51.85   | ug/l   | 98       |
| 74) N-amyl acetate             | 11.46 | 43   | 313531   | 58.45   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.79 | 83   | 200105   | 51.91   | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.89 | 75   | 150309   | 53.26   | ug/l   | 99       |
| 77) Bromobenzene               | 11.59 | 156  | 223581   | 50.38   | ug/l   | 84       |
| 78) n-propylbenzene            | 11.69 | 91   | 959191   | 49.35   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.82 | 91   | 569988   | 48.91   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.92 | 105  | 704572   | 50.73   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 88853    | 49.16   | ug/l   | 95       |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 617168   | 49.30   | ug/l   | 93       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 698975   | 49.72   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.29 | 105  | 708168   | 48.41   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 937683   | 49.98   | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.54 | 119  | 801207   | 51.80   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.56 | 146  | 391773   | 49.23   | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 396658   | 50.47   | ug/l   | 96       |
| 89) n-Butylbenzene             | 12.92 | 91   | 790376   | 50.18   | ug/l   | 97       |
| 90) Hexachloroethane           | 13.00 | 117  | 189546   | 49.02   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 389254   | 49.32   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.72 | 75   | 41619    | 50.00   | ug/l   | 89       |

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| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.27 | 180  | 289390   | 50.20 | µg/l  | 99       |
| 94) Hexachlorobutadiene    | 14.26 | 225  | 169755   | 49.68 | µg/l  | 100      |
| 95) Naphthalene            | 14.53 | 128  | 645377   | 54.52 | µg/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.67 | 180  | 286563   | 52.83 | µg/l  | 99       |

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

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