

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF062618\  
 Data File : VF059329.D  
 Acq On : 26 Jun 2018 21:22  
 Operator : VA/AP  
 Sample : VSTDCCC050EC  
 Misc : 6.28g/5mL/MSVOA-F/SOIL  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

apatel  
 6/27/2018 5:48:31 PM

Quant Time: Jun 27 05:38:25 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 26 08:45:17 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 277308   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.74  | 114  | 451051   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.89  | 117  | 435792   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 247313   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |       |
|---------------------------|--------|-----|----------|-------|--------|-------|
| 33) 1,2-Dichloroethane-d4 | 5.01   | 65  | 162379   | 45.32 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.64% |       |
| 35) Dibromofluoromethane  | 4.28   | 113 | 146201   | 44.36 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 88.72% |       |
| 50) Toluene-d8            | 7.69   | 98  | 387209   | 47.45 | ug/l   | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.90% |       |
| 62) 4-Bromofluorobenzene  | 11.49  | 95  | 199613   | 43.37 | ug/l   | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 86.74% |       |

## Target Compounds

|                               |      |     |         |        |        | Qvalue |
|-------------------------------|------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.98 | 85  | 113432  | 44.77  | ug/l   | 92     |
| 3) Chloromethane              | 1.08 | 50  | 81355   | 47.80  | ug/l   | 96     |
| 4) Vinyl Chloride             | 1.14 | 62  | 88496   | 52.82  | ug/l   | 100    |
| 5) Bromomethane               | 1.34 | 94  | 55814   | 59.89  | ug/l   | 98     |
| 6) Chloroethane               | 1.42 | 64  | 42531   | 50.40  | ug/l   | 92     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 153621m | 46.37  | ug/l   |        |
| 8) Diethyl Ether              | 1.69 | 74  | 42331   | 49.83  | ug/l   | 93     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.89 | 101 | 99747   | 51.58  | ug/l   | 98     |
| 10) Methyl Iodide             | 1.96 | 142 | 178365m | 50.58  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.68 | 59  | 56506   | 236.90 | ug/l # | 90     |
| 12) 1,1-Dichloroethene        | 1.85 | 96  | 88247   | 53.98  | ug/l   | 87     |
| 13) Acrolein                  | 2.08 | 56  | 26977   | 236.13 | ug/l   | 84     |
| 14) Allyl chloride            | 2.18 | 41  | 165618  | 53.96  | ug/l   | 90     |
| 15) Acrylonitrile             | 3.05 | 53  | 119359  | 284.17 | ug/l   | 91     |
| 16) Acetone                   | 2.32 | 43  | 185597  | 205.61 | ug/l   | 95     |
| 17) Carbon Disulfide          | 1.83 | 76  | 196100  | 50.99  | ug/l # | 92     |
| 18) Methyl Acetate            | 2.44 | 43  | 84595   | 52.37  | ug/l   | 96     |
| 19) Methyl tert-butyl Ether   | 2.52 | 73  | 307010  | 50.34  | ug/l # | 93     |
| 20) Methylene Chloride        | 2.27 | 84  | 101816m | 50.79  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.40 | 96  | 93706   | 53.73  | ug/l   | 92     |
| 22) Diisopropyl ether         | 2.91 | 45  | 366985  | 54.00  | ug/l   | 94     |
| 23) Vinyl Acetate             | 3.31 | 43  | 1116584 | 257.98 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 2.98 | 63  | 214627  | 50.94  | ug/l   | 99     |
| 25) 2-Butanone                | 4.49 | 43  | 276287  | 254.97 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 3.74 | 77  | 140048  | 48.19  | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene    | 3.62 | 96  | 144085  | 54.42  | ug/l   | 81     |
| 28) Bromochloromethane        | 3.87 | 49  | 83349   | 51.65  | ug/l   | 98     |
| 29) Tetrahydrofuran           | 4.23 | 42  | 124699  | 271.36 | ug/l   | 97     |
| 30) Chloroform                | 4.02 | 83  | 297596  | 48.79  | ug/l   | 98     |
| 31) Cyclohexane               | 3.84 | 56  | 151152  | 54.76  | ug/l   | 87     |
| 32) 1,1,1-Trichloroethane     | 4.26 | 97  | 219005  | 49.06  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 4.43 | 75  | 194700  | 49.41  | ug/l   | 99     |
| 37) Ethyl Acetate             | 4.27 | 43  | 127160  | 50.46  | ug/l # | 84     |
| 38) Carbon Tetrachloride      | 4.15 | 117 | 215536m | 43.34  | ug/l   |        |

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 Quant Title : SW846 8260  
 QLast Update : Tue Jun 26 08:45:17 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.61  | 83   | 177882   | 50.94   | ug/l   | 96       |
| 40) Benzene                    | 4.79  | 78   | 423342   | 48.46   | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.91  | 41   | 62735    | 46.67   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 5.09  | 62   | 225504   | 44.17   | ug/l   | 97       |
| 43) Isopropyl Acetate          | 7.10  | 43   | 162095   | 49.39   | ug/l # | 93       |
| 44) Trichloroethene            | 5.66  | 130  | 138525   | 46.22   | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 6.38  | 63   | 121402   | 48.64   | ug/l   | 98       |
| 46) Dibromomethane             | 6.24  | 93   | 100696   | 46.48   | ug/l   | 98       |
| 47) Bromodichloromethane       | 6.53  | 83   | 241804   | 46.11   | ug/l   | 97       |
| 48) Methyl methacrylate        | 6.86  | 41   | 104014   | 47.29   | ug/l   | 94       |
| 49) 1,4-Dioxane                | 6.85  | 88   | 15741    | 1356.33 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 8.39  | 43   | 565384   | 232.52  | ug/l   | 97       |
| 52) Toluene                    | 7.76  | 92   | 307967   | 47.11   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.41  | 75   | 205140   | 42.91   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 7.44  | 75   | 229638   | 44.23   | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane      | 8.62  | 97   | 118875   | 46.83   | ug/l   | 96       |
| 56) Ethyl methacrylate         | 8.74  | 69   | 155414   | 49.43   | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 8.98  | 76   | 203948   | 46.85   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 7.76  | 63   | 53630    | 227.42  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.61  | 43   | 445782   | 243.60  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.84  | 129  | 177964   | 45.42   | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 9.12  | 107  | 137887   | 44.79   | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.29  | 164  | 141900   | 50.20   | ug/l   | 98       |
| 65) Chlorobenzene              | 9.92  | 112  | 386147   | 47.82   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.05 | 131  | 163342   | 46.77   | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.02 | 91   | 651812   | 47.58   | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.25 | 106  | 466500   | 95.67   | ug/l   | 98       |
| 69) o-Xylene                   | 10.81 | 106  | 264647   | 48.53   | ug/l   | 97       |
| 70) Styrene                    | 10.89 | 104  | 398195   | 47.93   | ug/l   | 98       |
| 71) Bromoform                  | 10.87 | 173  | 111840   | 46.72   | ug/l   | 98       |
| 73) Isopropylbenzene           | 11.22 | 105  | 752972   | 52.26   | ug/l   | 98       |
| 74) N-amyl acetate             | 11.45 | 43   | 280175   | 53.59   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.78 | 83   | 179759   | 49.40   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 11.88 | 75   | 133221   | 48.54   | ug/l   | 96       |
| 77) Bromobenzene               | 11.58 | 156  | 201748   | 50.47   | ug/l   | 89       |
| 78) n-propylbenzene            | 11.68 | 91   | 882155   | 50.98   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.80 | 91   | 528252   | 49.97   | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 636069   | 50.40   | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 79175    | 48.46   | ug/l   | 93       |
| 82) 4-Chlorotoluene            | 11.97 | 91   | 561832   | 49.62   | ug/l   | 93       |
| 83) tert-Butylbenzene          | 12.20 | 119  | 636543   | 50.43   | ug/l   | 93       |
| 84) 1,2,4-Trimethylbenzene     | 12.27 | 105  | 666754   | 50.16   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 12.38 | 105  | 846760   | 50.61   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.53 | 119  | 719322   | 51.23   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.55 | 146  | 354265   | 54.05   | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 355512   | 49.80   | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.91 | 91   | 724101   | 50.80   | ug/l   | 97       |
| 90) Hexachloroethane           | 12.98 | 117  | 179583   | 51.31   | ug/l   | 78       |
| 91) 1,2-Dichlorobenzene        | 13.01 | 146  | 359003   | 49.47   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.70 | 75   | 38244    | 47.41   | ug/l   | 72       |

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Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.25 | 180  | 268770   | 50.09 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 14.24 | 225  | 154301   | 51.48 | ug/l  | 92       |
| 95) Naphthalene            | 14.51 | 128  | 585223   | 52.13 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.66 | 180  | 260265   | 51.20 | ug/l  | 98       |

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

