

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY072020\  
 Data File : VY003228.D  
 Acq On : 20 Jul 2020 12:54  
 Operator : SY/MD  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA Y/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 7/21/2020 4:58:49 PM

Quant Time: Jul 21 04:20:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y071020S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jul 10 13:18:03 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.80  | 168  | 436486   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.69  | 114  | 636207   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.49 | 117  | 580034   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.42 | 152  | 306770   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.14   | 65  | 183601   | 49.84 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.68% |      |
| 35) Dibromofluoromethane  | 7.72   | 113 | 172488   | 47.11 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.22% |      |
| 50) Toluene-d8            | 10.18  | 98  | 639564   | 46.99 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.98% |      |
| 62) 4-Bromofluorobenzene  | 12.48  | 95  | 232303   | 47.24 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.48% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.91 | 85  | 142218  | 45.460  | ug/l | 98     |
| 3) Chloromethane              | 2.12 | 50  | 216339  | 49.855  | ug/l | 98     |
| 4) Vinyl Chloride             | 2.26 | 62  | 219250  | 49.244  | ug/l | 98     |
| 5) Bromomethane               | 2.65 | 94  | 157940  | 47.759  | ug/l | 98     |
| 6) Chloroethane               | 2.80 | 64  | 142855  | 48.851  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 3.13 | 101 | 316107  | 49.716  | ug/l | 98     |
| 8) Diethyl Ether              | 3.53 | 74  | 103941  | 48.784  | ug/l | 88     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.90 | 101 | 189687  | 49.396  | ug/l | 98     |
| 10) Methyl Iodide             | 4.10 | 142 | 199774  | 47.884  | ug/l | 98     |
| 11) Tert butyl alcohol        | 4.96 | 59  | 90151   | 226.301 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.88 | 96  | 181600  | 49.998  | ug/l | 95     |
| 13) Acrolein                  | 3.74 | 56  | 79439   | 229.744 | ug/l | 97     |
| 14) Allyl chloride            | 4.49 | 41  | 320601  | 59.486  | ug/l | 94     |
| 15) Acrylonitrile             | 5.17 | 53  | 266042  | 259.940 | ug/l | 98     |
| 16) Acetone                   | 3.95 | 43  | 242269  | 294.403 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.20 | 76  | 566598  | 50.837  | ug/l | 99     |
| 18) Methyl Acetate            | 4.48 | 43  | 125425  | 54.882  | ug/l | 93     |
| 19) Methyl tert-butyl Ether   | 5.22 | 73  | 512852  | 50.385  | ug/l | 99     |
| 20) Methylene Chloride        | 4.72 | 84  | 216740  | 52.637  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.22 | 96  | 205850  | 50.108  | ug/l | 90     |
| 22) Diisopropyl ether         | 6.12 | 45  | 676771  | 56.580  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.07 | 43  | 2217152 | 278.100 | ug/l | 97     |
| 24) 1,1-Dichloroethane        | 6.02 | 63  | 368481  | 53.174  | ug/l | 98     |
| 25) 2-Butanone                | 6.99 | 43  | 370155  | 273.955 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 6.99 | 77  | 338067  | 54.171  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 6.99 | 96  | 226814  | 50.145  | ug/l | 94     |
| 28) Bromochloromethane        | 7.34 | 49  | 163892  | 54.626  | ug/l | 93     |
| 29) Tetrahydrofuran           | 7.35 | 42  | 241476  | 266.036 | ug/l | 94     |
| 30) Chloroform                | 7.51 | 83  | 368306  | 51.603  | ug/l | 99     |
| 31) Cyclohexane               | 7.78 | 56  | 345890  | 51.618  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.71 | 97  | 334060  | 51.991  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.92 | 75  | 296295  | 51.385  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.08 | 43  | 164523  | 52.982  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.91 | 117 | 304822  | 51.207  | ug/l | 98     |

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 7/21/2020 4:58:49 PM

Quant Time: Jul 21 04:20:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y071020S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jul 10 13:18:03 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.18  | 83   | 361492   | 49.905   | ug/l   | 94       |
| 40) Benzene                    | 8.16  | 78   | 812696   | 51.187   | ug/l   | 96       |
| 41) Methacrylonitrile          | 7.32  | 41   | 94351m   | 50.450   | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.24  | 62   | 249386   | 51.021   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.27  | 43   | 314077   | 52.254   | ug/l   | 98       |
| 44) Trichloroethene            | 8.94  | 130  | 232088   | 47.685   | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.22  | 63   | 216984   | 52.817   | ug/l   | 99       |
| 46) Dibromomethane             | 9.31  | 93   | 118609   | 49.431   | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.50  | 83   | 293970   | 51.513   | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.29  | 41   | 143795   | 53.513   | ug/l   | 93       |
| 49) 1,4-Dioxane                | 9.30  | 88   | 31532    | 1035.424 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone       | 10.07 | 43   | 821438   | 262.933  | ug/l   | 97       |
| 52) Toluene                    | 10.24 | 92   | 508879   | 50.146   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.47 | 75   | 307350   | 51.981   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.93  | 75   | 351713   | 51.627   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.64 | 97   | 165041   | 48.540   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.51 | 69   | 238919   | 51.685   | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 10.79 | 76   | 289020   | 50.132   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.78  | 63   | 621998   | 263.834  | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.83 | 43   | 576896   | 264.526  | ug/l   | 97       |
| 60) Dibromochloromethane       | 10.99 | 129  | 211862   | 49.540   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.09 | 107  | 159688   | 47.585   | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.72 | 164  | 235642   | 45.563   | ug/l   | 96       |
| 65) Chlorobenzene              | 11.52 | 112  | 557753   | 49.915   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.59 | 131  | 218442   | 50.333   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.59 | 91   | 1022043  | 51.227   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.70 | 106  | 766159   | 101.209  | ug/l   | 98       |
| 69) o-Xylene                   | 12.03 | 106  | 358044   | 50.628   | ug/l   | 98       |
| 70) Styrene                    | 12.04 | 104  | 618666   | 51.138   | ug/l   | 98       |
| 71) Bromoform                  | 12.20 | 173  | 136843   | 48.042   | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.33 | 105  | 991878   | 50.737   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.14 | 43   | 295070   | 53.793   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.58 | 83   | 189854   | 50.283   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 134215m  | 49.427   | ug/l   |          |
| 77) Bromobenzene               | 12.61 | 156  | 246195   | 49.405   | ug/l   | 97       |
| 78) n-propylbenzene            | 12.67 | 91   | 1198835  | 52.024   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.75 | 91   | 662675   | 51.542   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 830447   | 50.968   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 71517    | 51.257   | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.85 | 91   | 694176   | 51.728   | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.08 | 119  | 740313   | 51.493   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.12 | 105  | 839328   | 51.197   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.25 | 105  | 1026365  | 51.941   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.37 | 119  | 951785   | 51.587   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.36 | 146  | 476403   | 50.555   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.44 | 146  | 464819   | 49.821   | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.69 | 91   | 920627   | 53.048   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.96 | 117  | 180466   | 53.711   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.74 | 146  | 410580   | 49.648   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.36 | 75   | 28488    | 46.540   | ug/l   | 100      |

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ALS Vial : 2 Sample Multiplier: 1

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7/21/2020 4:58:49 PM

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y071020S.M  
Quant Title : SW846 8260  
QLast Update : Fri Jul 10 13:18:03 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.01 | 180  | 292039   | 49.640 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.11 | 225  | 201978   | 50.103 | ug/l  | 99       |
| 95) Naphthalene            | 15.23 | 128  | 475727   | 48.929 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.42 | 180  | 231956   | 49.877 | ug/l  | 97       |

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

