

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY011320\  
 Data File : VY001188.D  
 Acq On : 13 Jan 2020 18:21  
 Operator : SY/MD  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA Y/SOIL  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

apatel  
 1/14/2020 12:48:08 PM

Quant Time: Jan 14 11:28:16 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y011020S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jan 10 16:01:58 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.80  | 168  | 180261   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.70  | 114  | 321568   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.49 | 117  | 290439   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.42 | 152  | 139592   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.15   | 65  | 103298   | 54.26 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 108.52% |      |
| 35) Dibromofluoromethane  | 7.73   | 113 | 96867    | 51.45 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.90% |      |
| 50) Toluene-d8            | 10.18  | 98  | 397178   | 54.75 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.50% |      |
| 62) 4-Bromofluorobenzene  | 12.48  | 95  | 153080   | 51.61 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.22% |      |

## Target Compounds

|                               |      |     |         |         | Qvalue   |
|-------------------------------|------|-----|---------|---------|----------|
| 2) Dichlorodifluoromethane    | 1.90 | 85  | 71401   | 51.576  | ug/l 98  |
| 3) Chloromethane              | 2.12 | 50  | 100839  | 50.534  | ug/l 100 |
| 4) Vinyl Chloride             | 2.25 | 62  | 107345  | 53.397  | ug/l 98  |
| 5) Bromomethane               | 2.65 | 94  | 72097   | 66.766  | ug/l 96  |
| 6) Chloroethane               | 2.80 | 64  | 68827   | 59.261  | ug/l 99  |
| 7) Trichlorofluoromethane     | 3.13 | 101 | 137528  | 49.148  | ug/l 98  |
| 8) Diethyl Ether              | 3.54 | 74  | 59189   | 54.435  | ug/l 97  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.91 | 101 | 91042   | 50.545  | ug/l 99  |
| 10) Methyl Iodide             | 4.10 | 142 | 123441  | 50.069  | ug/l 99  |
| 11) Tert butyl alcohol        | 4.97 | 59  | 52922   | 276.276 | ug/l 99  |
| 12) 1,1-Dichloroethene        | 3.88 | 96  | 94029   | 51.025  | ug/l 98  |
| 13) Acrolein                  | 3.74 | 56  | 45988   | 266.678 | ug/l 100 |
| 14) Allyl chloride            | 4.49 | 41  | 162083  | 52.114  | ug/l 99  |
| 15) Acrylonitrile             | 5.18 | 53  | 153987  | 283.169 | ug/l 99  |
| 16) Acetone                   | 3.96 | 43  | 132353  | 299.334 | ug/l 95  |
| 17) Carbon Disulfide          | 4.20 | 76  | 307282  | 51.520  | ug/l 100 |
| 18) Methyl Acetate            | 4.49 | 43  | 78073   | 53.406  | ug/l 99  |
| 19) Methyl tert-butyl Ether   | 5.22 | 73  | 275900  | 54.126  | ug/l 99  |
| 20) Methylene Chloride        | 4.73 | 84  | 114340  | 56.172  | ug/l 98  |
| 21) trans-1,2-Dichloroethene  | 5.23 | 96  | 109293  | 52.305  | ug/l 95  |
| 22) Diisopropyl ether         | 6.13 | 45  | 343243  | 54.033  | ug/l 94  |
| 23) Vinyl Acetate             | 6.07 | 43  | 1104168 | 271.783 | ug/l 100 |
| 24) 1,1-Dichloroethane        | 6.03 | 63  | 182959  | 52.609  | ug/l 99  |
| 25) 2-Butanone                | 7.00 | 43  | 206166  | 299.593 | ug/l 99  |
| 26) 2,2-Dichloropropane       | 6.99 | 77  | 153228  | 47.913  | ug/l 100 |
| 27) cis-1,2-Dichloroethene    | 7.00 | 96  | 123661  | 54.010  | ug/l 98  |
| 28) Bromochloromethane        | 7.35 | 49  | 81861   | 57.322  | ug/l 99  |
| 29) Tetrahydrofuran           | 7.36 | 42  | 137008  | 290.521 | ug/l 98  |
| 30) Chloroform                | 7.52 | 83  | 178792  | 52.469  | ug/l 98  |
| 31) Cyclohexane               | 7.79 | 56  | 178820  | 48.563  | ug/l 98  |
| 32) 1,1,1-Trichloroethane     | 7.71 | 97  | 153487  | 50.765  | ug/l 100 |
| 36) 1,1-Dichloropropene       | 7.93 | 75  | 144395  | 49.267  | ug/l 99  |
| 37) Ethyl Acetate             | 7.08 | 43  | 91355   | 53.111  | ug/l 99  |
| 38) Carbon Tetrachloride      | 7.91 | 117 | 131892  | 49.103  | ug/l 97  |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y011020S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jan 10 16:01:58 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.19  | 83   | 194802   | 49.025   | ug/l   | 99       |
| 40) Benzene                    | 8.17  | 78   | 444587   | 51.965   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.33  | 41   | 42067m   | 52.064   | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.24  | 62   | 122814   | 51.266   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.28  | 43   | 179061   | 54.440   | ug/l   | 99       |
| 44) Trichloroethene            | 8.94  | 130  | 117071   | 52.514   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.22  | 63   | 112175   | 53.036   | ug/l   | 95       |
| 46) Dibromomethane             | 9.31  | 93   | 62134    | 53.841   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.50  | 83   | 146899   | 52.231   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.30  | 41   | 81918    | 53.820   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.30  | 88   | 16323    | 1161.449 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 10.07 | 43   | 463665   | 277.821  | ug/l   | 100      |
| 52) Toluene                    | 10.24 | 92   | 286753   | 52.550   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.47 | 75   | 164759   | 52.352   | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.93  | 75   | 185279   | 52.216   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.64 | 97   | 92281    | 53.939   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.51 | 69   | 142737   | 54.542   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.79 | 76   | 159694   | 54.372   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.78  | 63   | 223003   | 242.279  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.83 | 43   | 338341   | 289.269  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.99 | 129  | 106220   | 53.924   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.09 | 107  | 89686    | 53.687   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.72 | 164  | 104122   | 55.613   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.52 | 112  | 301930   | 52.026   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.59 | 131  | 104117   | 52.053   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.59 | 91   | 545032   | 51.339   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.70 | 106  | 415702   | 103.801  | ug/l   | 100      |
| 69) o-Xylene                   | 12.03 | 106  | 200505   | 52.219   | ug/l   | 98       |
| 70) Styrene                    | 12.04 | 104  | 357899   | 53.123   | ug/l   | 99       |
| 71) Bromoform                  | 12.20 | 173  | 65642    | 53.215   | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.33 | 105  | 529577   | 50.464   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.14 | 43   | 181770   | 55.502   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.58 | 83   | 117214   | 53.089   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 95622m   | 63.989   | ug/l   |          |
| 77) Bromobenzene               | 12.61 | 156  | 120948   | 52.159   | ug/l   | 97       |
| 78) n-propylbenzene            | 12.67 | 91   | 637110   | 50.473   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.75 | 91   | 367964   | 50.758   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 446063   | 50.943   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 45213    | 51.308   | ug/l # | 97       |
| 82) 4-Chlorotoluene            | 12.85 | 91   | 387339   | 50.049   | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.07 | 119  | 366078   | 49.756   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.12 | 105  | 447272   | 51.438   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.25 | 105  | 534764   | 50.524   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.37 | 119  | 467177   | 50.836   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.36 | 146  | 230982   | 52.671   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.44 | 146  | 233217   | 51.672   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.69 | 91   | 466531   | 50.404   | ug/l   | 100      |
| 90) Hexachloroethane           | 13.95 | 117  | 91252    | 50.818   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.74 | 146  | 215219   | 52.806   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.36 | 75   | 20351    | 51.098   | ug/l   | 94       |

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Quant Title : SW846 8260  
QLast Update : Fri Jan 10 16:01:58 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.00 | 180  | 140312   | 52.252 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.11 | 225  | 66943    | 49.484 | ug/l  | 99       |
| 95) Naphthalene            | 15.23 | 128  | 338179   | 54.095 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.42 | 180  | 124665   | 52.677 | ug/l  | 99       |

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

