

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD100419\  
 Data File : VD063890.D  
 Acq On : 04 Oct 2019 17:39  
 Operator : VA/SY  
 Sample : K5111-02 5PPB L00  
 Misc : 5.00g/5.00mL/MSVOA D/SOIL  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 LOQ-SOIL-02-QT4-2019

Manual Integrations  
 APPROVED

MMDadoda  
 10/8/2019 3:11:42 PM

Quant Time: Oct 05 03:50:33 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 04 01:55:35 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 178997   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 292725   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 286521   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 142342   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |        |      |
|---------------------------|--------|-----|----------|------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 10175    | 5.84 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.68% |      |
| 35) Dibromofluoromethane  | 7.91   | 113 | 10471    | 5.85 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.70% |      |
| 50) Toluene-d8            | 10.34  | 98  | 40741    | 5.61 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.22% |      |
| 62) 4-Bromofluorobenzene  | 12.63  | 95  | 13406    | 5.31 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.62% |      |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.99 | 85  | 5943   | 4.682  | ug/l # | 57     |
| 3) Chloromethane              | 2.21 | 50  | 22514  | 5.791  | ug/l   | 98     |
| 4) Vinyl Chloride             | 2.35 | 62  | 21704  | 5.290  | ug/l   | 94     |
| 5) Bromomethane               | 2.77 | 94  | 13967  | 5.295  | ug/l   | 99     |
| 6) Chloroethane               | 2.92 | 64  | 15475  | 5.703  | ug/l # | 89     |
| 7) Trichlorofluoromethane     | 3.27 | 101 | 30610  | 5.643  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.71 | 74  | 5480   | 6.294  | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.09 | 101 | 8473   | 5.643  | ug/l   | 97     |
| 10) Methyl Iodide             | 4.30 | 142 | 10484  | 5.067  | ug/l   | 95     |
| 11) Tert butyl alcohol        | 5.25 | 59  | 3212m  | 25.986 | ug/l   |        |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 8740   | 5.826  | ug/l # | 67     |
| 13) Acrolein                  | 3.93 | 56  | 3851   | 24.742 | ug/l # | 70     |
| 14) Allyl chloride            | 4.72 | 41  | 13153m | 5.274  | ug/l   |        |
| 15) Acrylonitrile             | 5.42 | 53  | 10958  | 28.547 | ug/l   | 95     |
| 16) Acetone                   | 4.17 | 43  | 12127m | 26.728 | ug/l   |        |
| 17) Carbon Disulfide          | 4.40 | 76  | 27240  | 4.995  | ug/l # | 90     |
| 18) Methyl Acetate            | 4.73 | 43  | 6374   | 7.183  | ug/l # | 78     |
| 19) Methyl tert-butyl Ether   | 5.48 | 73  | 19743  | 5.082  | ug/l   | 92     |
| 20) Methylene Chloride        | 4.96 | 84  | 18662  | 8.014  | ug/l   | 96     |
| 21) trans-1,2-Dichloroethene  | 5.47 | 96  | 9793m  | 5.244  | ug/l   |        |
| 22) Diisopropyl ether         | 6.37 | 45  | 27663  | 5.431  | ug/l   | 90     |
| 23) Vinyl Acetate             | 6.31 | 43  | 78828  | 26.014 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 6.27 | 63  | 19415  | 6.188  | ug/l   | 96     |
| 25) 2-Butanone                | 7.23 | 43  | 14275  | 26.548 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 7.20 | 77  | 14216  | 5.009  | ug/l # | 53     |
| 27) cis-1,2-Dichloroethene    | 7.21 | 96  | 10574  | 5.002  | ug/l   | 89     |
| 28) Bromochloromethane        | 7.55 | 49  | 7255   | 6.171  | ug/l # | 87     |
| 29) Tetrahydrofuran           | 7.57 | 42  | 8953   | 28.527 | ug/l   | 89     |
| 30) Chloroform                | 7.72 | 83  | 18318  | 5.375  | ug/l   | 100    |
| 31) Cyclohexane               | 7.98 | 56  | 18430  | 6.265  | ug/l # | 82     |
| 32) 1,1,1-Trichloroethane     | 7.90 | 97  | 15480  | 5.296  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 8.12 | 75  | 13673  | 5.109  | ug/l   | 95     |
| 37) Ethyl Acetate             | 7.31 | 43  | 6850   | 5.640  | ug/l # | 94     |
| 38) Carbon Tetrachloride      | 8.09 | 117 | 14206  | 5.252  | ug/l # | 80     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 04 01:55:35 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.36  | 83   | 16470    | 5.005   | ug/l   | 98       |
| 40) Benzene                    | 8.35  | 78   | 39578    | 5.160   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.53  | 41   | 3688     | 5.943   | ug/l # | 44       |
| 42) 1,2-Dichloroethane         | 8.43  | 62   | 11552    | 5.207   | ug/l   | 96       |
| 43) Isopropyl Acetate          | 8.46  | 43   | 12002    | 5.347   | ug/l # | 63       |
| 44) Trichloroethene            | 9.11  | 130  | 11890    | 5.376   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.39  | 63   | 9823     | 5.232   | ug/l   | 98       |
| 46) Dibromomethane             | 9.48  | 93   | 5786     | 5.412   | ug/l   | 91       |
| 47) Bromodichloromethane       | 9.67  | 83   | 13432    | 4.880   | ug/l # | 96       |
| 48) Methyl methacrylate        | 9.46  | 41   | 4552     | 4.233   | ug/l # | 86       |
| 49) 1,4-Dioxane                | 9.47  | 88   | 1783     | 122.173 | ug/l # | 53       |
| 51) 4-Methyl-2-Pentanone       | 10.24 | 43   | 30079    | 25.839  | ug/l   | 99       |
| 52) Toluene                    | 10.41 | 92   | 25217    | 4.789   | ug/l   | 94       |
| 53) t-1,3-Dichloropropene      | 10.62 | 75   | 11966    | 4.455   | ug/l # | 89       |
| 54) cis-1,3-Dichloropropene    | 10.09 | 75   | 15028    | 4.860   | ug/l # | 88       |
| 55) 1,1,2-Trichloroethane      | 10.80 | 97   | 7721     | 5.115   | ug/l # | 90       |
| 56) Ethyl methacrylate         | 10.66 | 69   | 8795     | 4.601   | ug/l # | 83       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 13415    | 5.194   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.94  | 63   | 21532    | 26.203  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 19948    | 23.689  | ug/l   | 97       |
| 60) Dibromochloromethane       | 11.14 | 129  | 8895     | 4.526   | ug/l   | 89       |
| 61) 1,2-Dibromoethane          | 11.25 | 107  | 7131     | 4.873   | ug/l   | 95       |
| 64) Tetrachloroethene          | 10.88 | 164  | 10366    | 5.300   | ug/l # | 88       |
| 65) Chlorobenzene              | 11.67 | 112  | 29824    | 5.183   | ug/l   | 91       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 9496     | 4.479   | ug/l   | 92       |
| 67) Ethyl Benzene              | 11.74 | 91   | 52491    | 5.059   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.86 | 106  | 37644    | 9.400   | ug/l   | 96       |
| 69) o-Xylene                   | 12.18 | 106  | 17295    | 4.510   | ug/l   | 97       |
| 70) Styrene                    | 12.19 | 104  | 29618    | 4.562   | ug/l   | 98       |
| 71) Bromoform                  | 12.36 | 173  | 5239     | 4.604   | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.48 | 105  | 46384    | 4.847   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.29 | 43   | 11169    | 5.421   | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.73 | 83   | 8821     | 5.298   | ug/l   | 91       |
| 76) 1,2,3-Trichloropropane     | 12.78 | 75   | 6840m    | 7.175   | ug/l   |          |
| 77) Bromobenzene               | 12.76 | 156  | 12507    | 5.246   | ug/l   | 93       |
| 78) n-propylbenzene            | 12.83 | 91   | 58292    | 5.190   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.91 | 91   | 30017    | 4.847   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.96 | 105  | 38626    | 4.838   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.53 | 75   | 2405     | 4.464   | ug/l # | 85       |
| 82) 4-Chlorotoluene            | 13.01 | 91   | 34160    | 5.199   | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.23 | 119  | 36160    | 5.090   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.27 | 105  | 37633    | 4.573   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.40 | 105  | 48803    | 5.086   | ug/l   | 96       |
| 86) p-Isopropyltoluene         | 13.52 | 119  | 40887    | 4.503   | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 22661    | 4.811   | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.60 | 146  | 23127    | 4.977   | ug/l   | 89       |
| 89) n-Butylbenzene             | 13.84 | 91   | 43921    | 5.197   | ug/l   | 96       |
| 90) Hexachloroethane           | 14.11 | 117  | 8019     | 4.911   | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene        | 13.90 | 146  | 19596    | 4.827   | ug/l   | 91       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.50 | 75   | 1220     | 4.235   | ug/l   | 80       |

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Sample : K5111-02 5PPB L00  
Misc : 5.00g/5.00mL/MSVOA D/SOIL  
ALS Vial : 9 Sample Multiplier: 1

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Quant Time: Oct 05 03:50:33 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
Quant Title : SW846 8260  
QLast Update : Fri Oct 04 01:55:35 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.16 | 180  | 14861    | 4.744 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.27 | 225  | 8030     | 4.646 | ug/l  | 86       |
| 95) Naphthalene            | 15.40 | 128  | 25263    | 4.799 | ug/l  | 97       |
| 96) 1,2,3-Trichlorobenzene | 15.60 | 180  | 14071    | 5.207 | ug/l  | 94       |

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

