

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD103019\  
 Data File : VD064110.D  
 Acq On : 30 Oct 2019 12:56  
 Operator : VA/SY  
 Sample : VD1030SBS01  
 Misc : 5.00G/5.00ml/MSVOA\_D/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD1030SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2019 3:39:16 PM

Quant Time: Oct 31 04:17:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D102919S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 30 08:00:10 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 222416   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 334662   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 310170   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 164553   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 8.33   | 65  | 91354    | 51.64 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.28% |       |
| 35) Dibromofluoromethane  | 7.92   | 113 | 103252   | 50.15 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.30% |       |
| 50) Toluene-d8            | 10.34  | 98  | 401919   | 48.81 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.62%  |       |
| 62) 4-Bromofluorobenzene  | 12.64  | 95  | 131724   | 48.25 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.50%  |       |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.99 | 85  | 49014  | 21.581  | ug/l   | 97     |
| 3) Chloromethane              | 2.21 | 50  | 79207  | 20.903  | ug/l   | 97     |
| 4) Vinyl Chloride             | 2.35 | 62  | 86344  | 21.012  | ug/l   | 99     |
| 5) Bromomethane               | 2.76 | 94  | 52756  | 19.700  | ug/l   | 98     |
| 6) Chloroethane               | 2.91 | 64  | 52872  | 20.715  | ug/l # | 85     |
| 7) Trichlorofluoromethane     | 3.27 | 101 | 117134 | 20.707  | ug/l   | 97     |
| 8) Diethyl Ether              | 3.70 | 74  | 19415  | 19.745  | ug/l   | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.08 | 101 | 41150  | 20.186  | ug/l   | 99     |
| 10) Methyl Iodide             | 4.30 | 142 | 47668  | 18.873  | ug/l # | 90     |
| 11) Tert butyl alcohol        | 5.25 | 59  | 7103   | 74.248  | ug/l # | 71     |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 40303  | 20.889  | ug/l   | 89     |
| 13) Acrolein                  | 3.92 | 56  | 10719  | 95.037  | ug/l   | 92     |
| 14) Allyl chloride            | 4.71 | 41  | 45844  | 20.301  | ug/l   | 98     |
| 15) Acrylonitrile             | 5.42 | 53  | 34912  | 96.121  | ug/l   | 97     |
| 16) Acetone                   | 4.17 | 43  | 31520  | 93.652  | ug/l # | 76     |
| 17) Carbon Disulfide          | 4.40 | 76  | 120068 | 20.251  | ug/l   | 98     |
| 18) Methyl Acetate            | 4.73 | 43  | 15840  | 17.693  | ug/l # | 79     |
| 19) Methyl tert-butyl Ether   | 5.48 | 73  | 76079  | 19.433  | ug/l   | 93     |
| 20) Methylene Chloride        | 4.96 | 84  | 47700  | 19.716  | ug/l # | 83     |
| 21) trans-1,2-Dichloroethene  | 5.47 | 96  | 44050  | 20.339  | ug/l   | 90     |
| 22) Diisopropyl ether         | 6.36 | 45  | 96369  | 19.269  | ug/l   | 95     |
| 23) Vinyl Acetate             | 6.31 | 43  | 277192 | 101.115 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 6.26 | 63  | 69509  | 20.582  | ug/l   | 94     |
| 25) 2-Butanone                | 7.23 | 43  | 42963  | 92.336  | ug/l   | 93     |
| 26) 2,2-Dichloropropane       | 7.21 | 77  | 61462  | 19.175  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 7.21 | 96  | 49280  | 20.335  | ug/l   | 97     |
| 28) Bromochloromethane        | 7.55 | 49  | 19785  | 16.603  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.57 | 42  | 27565  | 101.510 | ug/l   | 96     |
| 30) Chloroform                | 7.71 | 83  | 77682  | 20.102  | ug/l   | 97     |
| 31) Cyclohexane               | 7.98 | 56  | 64481  | 19.598  | ug/l # | 86     |
| 32) 1,1,1-Trichloroethane     | 7.90 | 97  | 73829  | 20.524  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 8.12 | 75  | 60925  | 19.428  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.30 | 43  | 19801  | 20.514  | ug/l # | 95     |
| 38) Carbon Tetrachloride      | 8.10 | 117 | 70027  | 20.467  | ug/l   | 95     |

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 Misc : 5.00G/5.00ml/MSVOA\_D/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 VD1030SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2019 3:39:16 PM

Quant Time: Oct 31 04:17:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D102919S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 30 08:00:10 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.36  | 83   | 76247    | 19.807  | ug/l   | 91       |
| 40) Benzene                    | 8.35  | 78   | 166703   | 19.494  | ug/l   | 95       |
| 41) Methacrylonitrile          | 7.52  | 41   | 9488     | 17.033  | ug/l # | 86       |
| 42) 1,2-Dichloroethane         | 8.43  | 62   | 44098    | 19.522  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.46  | 43   | 36315    | 18.617  | ug/l   | 98       |
| 44) Trichloroethene            | 9.11  | 130  | 54771    | 21.132  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.39  | 63   | 37875    | 19.111  | ug/l   | 97       |
| 46) Dibromomethane             | 9.48  | 93   | 22623    | 18.954  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.66  | 83   | 58754    | 19.512  | ug/l   | 95       |
| 48) Methyl methacrylate        | 9.46  | 41   | 17604    | 19.515  | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.46  | 88   | 6021     | 440.698 | ug/l # | 87       |
| 51) 4-Methyl-2-Pentanone       | 10.23 | 43   | 98598    | 92.846  | ug/l   | 100      |
| 52) Toluene                    | 10.41 | 92   | 115273   | 19.235  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.62 | 75   | 53132    | 18.903  | ug/l   | 89       |
| 54) cis-1,3-Dichloropropene    | 10.09 | 75   | 64270    | 19.435  | ug/l # | 92       |
| 55) 1,1,2-Trichloroethane      | 10.81 | 97   | 32698    | 19.322  | ug/l # | 91       |
| 56) Ethyl methacrylate         | 10.67 | 69   | 35104    | 19.055  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 10.95 | 76   | 50770    | 18.141  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.94  | 63   | 72854    | 98.268  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.99 | 43   | 68859    | 88.750  | ug/l   | 100      |
| 60) Dibromochloromethane       | 11.14 | 129  | 42773    | 18.622  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.25 | 107  | 33025    | 19.513  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.88 | 164  | 47980    | 21.532  | ug/l   | 96       |
| 65) Chlorobenzene              | 11.67 | 112  | 129605   | 20.223  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.75 | 131  | 47516    | 19.814  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.75 | 91   | 230405   | 20.213  | ug/l   | 94       |
| 68) m/p-Xylenes                | 11.86 | 106  | 186905   | 40.764  | ug/l   | 99       |
| 69) o-Xylene                   | 12.18 | 106  | 82106    | 19.622  | ug/l   | 97       |
| 70) Styrene                    | 12.20 | 104  | 142191   | 19.703  | ug/l   | 98       |
| 71) Bromoform                  | 12.37 | 173  | 25611    | 19.997  | ug/l # | 95       |
| 73) Isopropylbenzene           | 12.48 | 105  | 230286   | 20.139  | ug/l   | 96       |
| 74) N-amyl acetate             | 12.29 | 43   | 35243    | 18.552  | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.74 | 83   | 36184    | 20.076  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.79 | 75   | 24681m   | 22.322  | ug/l   |          |
| 77) Bromobenzene               | 12.77 | 156  | 58837    | 21.311  | ug/l   | 94       |
| 78) n-propylbenzene            | 12.83 | 91   | 271739   | 20.279  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.91 | 91   | 147015   | 20.466  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.96 | 105  | 198071   | 20.697  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.53 | 75   | 10689    | 19.743  | ug/l   | 95       |
| 82) 4-Chlorotoluene            | 13.01 | 91   | 155338   | 20.238  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.23 | 119  | 178474   | 20.763  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.27 | 105  | 195202   | 20.305  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.41 | 105  | 240562   | 20.380  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.52 | 119  | 229142   | 20.660  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.52 | 146  | 114408   | 20.679  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.60 | 146  | 110514   | 20.263  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.85 | 91   | 201734   | 19.720  | ug/l   | 95       |
| 90) Hexachloroethane           | 14.11 | 117  | 42458    | 20.447  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.90 | 146  | 95519    | 20.061  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.51 | 75   | 5407     | 20.541  | ug/l   | 92       |

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Sample : VD1030SBS01  
Misc : 5.00G/5.00ml/MSVOA\_D/SOIL  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
VD1030SBS01

Manual Integrations  
APPROVED

MMDadoda  
10/31/2019 3:39:16 PM

Quant Time: Oct 31 04:17:13 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D102919S.M  
Quant Title : SW846 8260  
QLast Update : Wed Oct 30 08:00:10 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.17 | 180  | 71712    | 20.952 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.28 | 225  | 43888    | 21.940 | ug/l  | 98       |
| 95) Naphthalene            | 15.41 | 128  | 111715   | 20.014 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.60 | 180  | 58404    | 19.700 | ug/l  | 98       |

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

