

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD122118\  
 Data File : VD060679.D  
 Acq On : 21 Dec 2018 13:02  
 Operator : VA/AP  
 Sample : VD1221SBS01  
 Misc : 5.00g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD1221SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 12/26/2018 10:57:47 AM

Quant Time: Dec 21 13:59:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 21 03:34:39 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 6.44  | 168  | 1288111  | 50.00 | ug/l  | 0.04     |
| 34) 1,4-Difluorobenzene    | 7.48  | 114  | 1735360  | 50.00 | ug/l  | 0.04     |
| 63) Chlorobenzene-d5       | 11.30 | 117  | 1443442  | 50.00 | ug/l  | 0.03     |
| 72) 1,4-Dichlorobenzene-d4 | 13.39 | 152  | 751865   | 50.00 | ug/l  | 0.02     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.82   | 65  | 499399   | 56.10 | ug/l    | 0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.20% |      |
| 35) Dibromofluoromethane  | 6.35   | 113 | 723711   | 56.98 | ug/l    | 0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 113.96% |      |
| 50) Toluene-d8            | 9.48   | 98  | 2096757  | 55.33 | ug/l    | 0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 110.66% |      |
| 62) 4-Bromofluorobenzene  | 12.45  | 95  | 751818   | 56.64 | ug/l    | 0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 113.28% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.60 | 85  | 300922  | 18.283  | ug/l   | 100    |
| 3) Chloromethane              | 1.77 | 50  | 283157  | 18.693  | ug/l   | 96     |
| 4) Vinyl Chloride             | 1.87 | 62  | 218676  | 18.183  | ug/l   | 98     |
| 5) Bromomethane               | 2.16 | 94  | 31982   | 11.872  | ug/l   | 83     |
| 6) Chloroethane               | 2.27 | 64  | 64202   | 17.889  | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 2.53 | 101 | 254926  | 19.058  | ug/l   | 99     |
| 8) Diethyl Ether              | 2.85 | 74  | 43833   | 19.586  | ug/l   | 94     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.12 | 101 | 162179  | 18.691  | ug/l   | 95     |
| 10) Methyl Iodide             | 3.27 | 142 | 167849  | 18.407  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.01 | 59  | 34978   | 94.021  | ug/l # | 92     |
| 12) 1,1-Dichloroethene        | 3.10 | 96  | 132647  | 18.606  | ug/l   | 95     |
| 13) Acrolein                  | 3.01 | 56  | 44793   | 118.153 | ug/l   | 95     |
| 14) Allyl chloride            | 3.56 | 41  | 248555  | 19.000  | ug/l   | 94     |
| 15) Acrylonitrile             | 4.12 | 53  | 221464  | 102.537 | ug/l   | 97     |
| 16) Acetone                   | 3.19 | 43  | 144869  | 93.189  | ug/l   | 98     |
| 17) Carbon Disulfide          | 3.34 | 76  | 416481  | 18.292  | ug/l   | 98     |
| 18) Methyl Acetate            | 3.59 | 43  | 73785   | 19.151  | ug/l   | 95     |
| 19) Methyl tert-butyl Ether   | 4.16 | 73  | 367041  | 20.292  | ug/l   | 96     |
| 20) Methylene Chloride        | 3.75 | 84  | 318848  | 19.750  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 4.13 | 96  | 284026  | 19.453  | ug/l   | 94     |
| 22) Diisopropyl ether         | 4.89 | 45  | 889414  | 20.024  | ug/l   | 100    |
| 23) Vinyl Acetate             | 4.84 | 43  | 2186782 | 101.763 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 4.79 | 63  | 453895  | 19.428  | ug/l   | 99     |
| 25) 2-Butanone                | 5.66 | 43  | 297806  | 100.110 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 5.63 | 77  | 357667  | 19.394  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 5.63 | 96  | 300834  | 20.297  | ug/l   | 96     |
| 28) Bromochloromethane        | 5.96 | 49  | 181527  | 18.392  | ug/l   | 97     |
| 29) Tetrahydrofuran           | 5.99 | 42  | 169893  | 100.743 | ug/l   | 99     |
| 30) Chloroform                | 6.14 | 83  | 467484  | 19.886  | ug/l   | 99     |
| 31) Cyclohexane               | 6.40 | 56  | 437150  | 19.443  | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 6.32 | 97  | 380268  | 19.552  | ug/l   | 98     |
| 36) 1,1-Dichloropropene       | 6.55 | 75  | 356456  | 19.948  | ug/l   | 98     |
| 37) Ethyl Acetate             | 5.73 | 43  | 161067  | 21.552  | ug/l   | 96     |
| 38) Carbon Tetrachloride      | 6.53 | 117 | 320239  | 20.314  | ug/l   | 99     |

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 Operator : VA/AP  
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 Misc : 5.00g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD1221SBS01

Manual Integrations  
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 12/26/2018 10:57:47 AM

Quant Time: Dec 21 13:59:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 21 03:34:39 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 8.08  | 83   | 409527   | 20.094  | ug/l   | 99       |
| 40) Benzene                    | 6.83  | 78   | 952560   | 20.637  | ug/l   | 98       |
| 41) Methacrylonitrile          | 5.95  | 41   | 70354m   | 17.019  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 6.93  | 62   | 234818   | 20.500  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.38  | 43   | 188062   | 19.609  | ug/l # | 100      |
| 44) Trichloroethene            | 7.77  | 130  | 281811   | 20.628  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 8.14  | 63   | 230977   | 20.405  | ug/l   | 97       |
| 46) Dibromomethane             | 8.25  | 93   | 133101   | 20.602  | ug/l   | 95       |
| 47) Bromodichloromethane       | 8.52  | 83   | 309035   | 20.196  | ug/l   | 97       |
| 48) Methyl methacrylate        | 8.27  | 41   | 115356   | 19.804  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 8.26  | 88   | 22355    | 412.759 | ug/l # | 86       |
| 51) 4-Methyl-2-Pentanone       | 9.38  | 43   | 610566   | 103.911 | ug/l   | 98       |
| 52) Toluene                    | 9.58  | 92   | 585959   | 20.250  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 9.95  | 75   | 259569   | 20.333  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 9.13  | 75   | 330344   | 19.770  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.21 | 97   | 156731   | 20.131  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.06 | 69   | 147902   | 20.453  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 10.41 | 76   | 258589   | 20.955  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.95  | 63   | 463818   | 108.854 | ug/l   | 96       |
| 59) 2-Hexanone                 | 10.52 | 43   | 437158   | 106.290 | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.66 | 129  | 208801   | 21.055  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 10.78 | 107  | 167492   | 20.741  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.28 | 164  | 257261   | 19.664  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.33 | 112  | 633739   | 19.872  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.44 | 131  | 210288   | 20.508  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.45 | 91   | 1103122  | 20.198  | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.59 | 106  | 821730   | 41.169  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 392059   | 20.704  | ug/l   | 93       |
| 70) Styrene                    | 11.97 | 104  | 619726   | 20.320  | ug/l   | 96       |
| 71) Bromoform                  | 12.14 | 173  | 135115   | 19.962  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.30 | 105  | 1089918  | 20.360  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.15 | 43   | 247868   | 19.619  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.58 | 83   | 184768   | 21.294  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.61 | 75   | 173708   | 20.293  | ug/l   | 100      |
| 77) Bromobenzene               | 12.56 | 156  | 290848   | 20.579  | ug/l   | 93       |
| 78) n-propylbenzene            | 12.65 | 91   | 1358830  | 19.855  | ug/l   | 95       |
| 79) 2-Chlorotoluene            | 12.72 | 91   | 764943   | 20.868  | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 849077   | 20.541  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.36 | 75   | 45228    | 19.121  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.83 | 91   | 864080   | 20.798  | ug/l   | 92       |
| 83) tert-Butylbenzene          | 13.07 | 119  | 947328   | 20.137  | ug/l   | 95       |
| 84) 1,2,4-Trimethylbenzene     | 13.12 | 105  | 860132   | 20.203  | ug/l   | 96       |
| 85) sec-Butylbenzene           | 13.24 | 105  | 1191970  | 20.776  | ug/l   | 95       |
| 86) p-Isopropyltoluene         | 13.36 | 119  | 950090   | 20.515  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.33 | 146  | 540984   | 20.852  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.41 | 146  | 526316   | 20.587  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.67 | 91   | 1003367  | 21.202  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.87 | 117  | 224379   | 19.722  | ug/l   | 82       |
| 91) 1,2-Dichlorobenzene        | 13.68 | 146  | 453540   | 21.792  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.25 | 75   | 20828    | 20.432  | ug/l   | 67       |

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Acq On : 21 Dec 2018 13:02  
Operator : VA/AP  
Sample : VD1221SBSD01  
Misc : 5.00g/5ml/MSVOA\_D/SOIL  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
VD1221SBSD01

Manual Integrations  
APPROVED

MMDadoda  
12/26/2018 10:57:47 AM

Quant Time: Dec 21 13:59:53 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
Quant Title : SW846 8260  
QLast Update : Fri Dec 21 03:34:39 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.81 | 180  | 343150   | 20.721 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.90 | 225  | 257094   | 21.003 | ug/l  | 99       |
| 95) Naphthalene            | 14.98 | 128  | 400221   | 20.334 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.13 | 180  | 277999   | 21.474 | ug/l  | 98       |

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

