

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD122619\  
 Data File : VD064611.D  
 Acq On : 26 Dec 2019 20:53  
 Operator : VA/SY  
 Sample : VSTDCCC050  
 Misc : 5.00G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

apatel  
 12/27/2019 2:07:10 PM

Quant Time: Dec 27 04:56:41 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D122419S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 24 13:19:06 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 408494   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 617090   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 566348   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 284874   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 202203   | 56.14 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.28% |      |
| 35) Dibromofluoromethane  | 7.92   | 113 | 201879   | 53.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.64% |      |
| 50) Toluene-d8            | 10.34  | 98  | 766907   | 52.89 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.78% |      |
| 62) 4-Bromofluorobenzene  | 12.64  | 95  | 247558   | 53.99 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.98% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.99 | 85  | 157069  | 49.477  | ug/l | 97     |
| 3) Chloromethane              | 2.21 | 50  | 235138  | 52.961  | ug/l | 98     |
| 4) Vinyl Chloride             | 2.35 | 62  | 275593  | 50.909  | ug/l | 95     |
| 5) Bromomethane               | 2.77 | 94  | 205467  | 52.201  | ug/l | 97     |
| 6) Chloroethane               | 2.92 | 64  | 194095  | 53.510  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.27 | 101 | 463960  | 50.901  | ug/l | 98     |
| 8) Diethyl Ether              | 3.71 | 74  | 99849   | 55.164  | ug/l | 95     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.09 | 101 | 188852  | 50.029  | ug/l | 99     |
| 10) Methyl Iodide             | 4.30 | 142 | 227269  | 56.049  | ug/l | 98     |
| 11) Tert butyl alcohol        | 5.26 | 59  | 59174   | 286.647 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 185403  | 51.589  | ug/l | 98     |
| 13) Acrolein                  | 3.92 | 56  | 75427   | 262.174 | ug/l | 98     |
| 14) Allyl chloride            | 4.71 | 41  | 304294  | 54.306  | ug/l | 99     |
| 15) Acrylonitrile             | 5.43 | 53  | 217719  | 288.776 | ug/l | 99     |
| 16) Acetone                   | 4.16 | 43  | 170420  | 222.150 | ug/l | 91     |
| 17) Carbon Disulfide          | 4.40 | 76  | 596662  | 51.345  | ug/l | 100    |
| 18) Methyl Acetate            | 4.72 | 43  | 110577  | 54.527  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 5.49 | 73  | 461873  | 57.861  | ug/l | 96     |
| 20) Methylene Chloride        | 4.96 | 84  | 223458  | 61.812  | ug/l | 95     |
| 21) trans-1,2-Dichloroethene  | 5.47 | 96  | 220924  | 53.978  | ug/l | 96     |
| 22) Diisopropyl ether         | 6.37 | 45  | 647572  | 57.942  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.31 | 43  | 1892077 | 298.442 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 6.27 | 63  | 376463  | 56.109  | ug/l | 97     |
| 25) 2-Butanone                | 7.22 | 43  | 271055  | 273.760 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 7.21 | 77  | 305239  | 48.931  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 7.21 | 96  | 248869  | 56.342  | ug/l | 98     |
| 28) Bromochloromethane        | 7.55 | 49  | 141205  | 54.139  | ug/l | 97     |
| 29) Tetrahydrofuran           | 7.57 | 42  | 174692  | 283.715 | ug/l | 100    |
| 30) Chloroform                | 7.71 | 83  | 395706  | 56.213  | ug/l | 99     |
| 31) Cyclohexane               | 7.98 | 56  | 321157  | 47.818  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.91 | 97  | 347586  | 52.570  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 8.11 | 75  | 294369  | 49.561  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.30 | 43  | 127314  | 54.563  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 8.10 | 117 | 321444  | 50.755  | ug/l | 98     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.36  | 83   | 352983   | 49.068   | ug/l   | 94       |
| 40) Benzene                    | 8.35  | 78   | 860532   | 53.073   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.53  | 41   | 72797    | 53.772   | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.43  | 62   | 254677   | 54.355   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.46  | 43   | 252245   | 54.313   | ug/l   | 99       |
| 44) Trichloroethene            | 9.11  | 130  | 245207   | 51.479   | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.39  | 63   | 212419   | 54.870   | ug/l   | 99       |
| 46) Dibromomethane             | 9.48  | 93   | 118410   | 54.860   | ug/l   | 96       |
| 47) Bromodichloromethane       | 9.67  | 83   | 318260   | 55.413   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.46  | 41   | 116390   | 53.224   | ug/l   | 92       |
| 49) 1,4-Dioxane                | 9.47  | 88   | 28028    | 1126.173 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 10.23 | 43   | 635210   | 276.710  | ug/l   | 99       |
| 52) Toluene                    | 10.40 | 92   | 567778   | 53.374   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.63 | 75   | 293301   | 54.774   | ug/l   | 95       |
| 54) cis-1,3-Dichloropropene    | 10.09 | 75   | 343404   | 54.388   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.80 | 97   | 156466   | 53.790   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.66 | 69   | 206268   | 56.780   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.95 | 76   | 278260   | 55.559   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.94  | 63   | 339596   | 245.366  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.99 | 43   | 421136   | 270.296  | ug/l   | 99       |
| 60) Dibromochloromethane       | 11.14 | 129  | 224138   | 55.721   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.25 | 107  | 158605   | 55.282   | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.88 | 164  | 211418   | 48.659   | ug/l   | 97       |
| 65) Chlorobenzene              | 11.67 | 112  | 611402   | 52.014   | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 238698   | 53.867   | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.75 | 91   | 1092329  | 51.199   | ug/l   | 96       |
| 68) m/p-Xylenes                | 11.86 | 106  | 842432   | 102.300  | ug/l   | 98       |
| 69) o-Xylene                   | 12.18 | 106  | 390349   | 52.479   | ug/l   | 99       |
| 70) Styrene                    | 12.20 | 104  | 700490   | 53.652   | ug/l   | 99       |
| 71) Bromoform                  | 12.36 | 173  | 137748   | 54.510   | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.48 | 105  | 1023776  | 50.289   | ug/l   | 100      |
| 74) N-amyl acetate             | 12.29 | 43   | 235362   | 54.084   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.74 | 83   | 169393   | 52.968   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.78 | 75   | 121633m  | 54.070   | ug/l   |          |
| 77) Bromobenzene               | 12.76 | 156  | 263032   | 52.583   | ug/l   | 98       |
| 78) n-propylbenzene            | 12.83 | 91   | 1196562  | 50.382   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.91 | 91   | 672844   | 51.572   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.97 | 105  | 856183   | 51.198   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.53 | 75   | 55411    | 51.517   | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 13.01 | 91   | 716461   | 51.602   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.23 | 119  | 748710   | 51.565   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.27 | 105  | 865300   | 51.955   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.41 | 105  | 998388   | 50.156   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.52 | 119  | 958933   | 50.381   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.52 | 146  | 497812   | 52.204   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.60 | 146  | 485205   | 51.795   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.85 | 91   | 854976   | 49.881   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.12 | 117  | 182973   | 50.325   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.90 | 146  | 425879   | 52.376   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.51 | 75   | 26494    | 51.104   | ug/l   | 98       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.17 | 180  | 313500   | 52.362 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.28 | 225  | 184117   | 48.869 | ug/l  | 99       |
| 95) Naphthalene            | 15.41 | 128  | 521655   | 55.075 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.61 | 180  | 274347   | 53.675 | ug/l  | 98       |

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

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