

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD122018\  
 Data File : VD060659.D  
 Acq On : 20 Dec 2018 15:18  
 Operator : VA/AP  
 Sample : VSTDICV050  
 Misc : 5.00g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 ICVVD122018

Manual Integrations  
 APPROVED

apatel  
 12/21/2018 11:32:48 AM

Quant Time: Dec 21 05:48:42 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      | 6.41  | 168  | 1764539  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 7.44  | 114  | 2350097  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.28 | 117  | 1879087  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.38 | 152  | 961496   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 6.79   | 65  | 522171   | 42.82 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 85.64% |      |
| 35) Dibromofluoromethane    | 6.33   | 113 | 783621   | 45.56 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 91.12% |      |
| 50) Toluene-d8              | 9.46   | 98  | 2333531  | 45.47 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 90.94% |      |
| 62) 4-Bromofluorobenzene    | 12.42  | 95  | 813113   | 45.24 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 90.48% |      |

|                               |      |     |         |         |      |     |
|-------------------------------|------|-----|---------|---------|------|-----|
| Target Compounds              |      |     |         | Qvalue  |      |     |
| 2) Dichlorodifluoromethane    | 1.61 | 85  | 1137175 | 50.437  | ug/l | 100 |
| 3) Chloromethane              | 1.77 | 50  | 1014469 | 48.890  | ug/l | 99  |
| 4) Vinyl Chloride             | 1.87 | 62  | 800395  | 48.585  | ug/l | 99  |
| 5) Bromomethane               | 2.17 | 94  | 207085  | 56.117  | ug/l | 98  |
| 6) Chloroethane               | 2.28 | 64  | 262131  | 53.317  | ug/l | 96  |
| 7) Trichlorofluoromethane     | 2.52 | 101 | 905222  | 49.401  | ug/l | 97  |
| 8) Diethyl Ether              | 2.84 | 74  | 148100  | 48.309  | ug/l | 90  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.11 | 101 | 562250  | 47.304  | ug/l | 98  |
| 10) Methyl Iodide             | 3.26 | 142 | 613486  | 49.112  | ug/l | 98  |
| 11) Tert butyl alcohol        | 3.98 | 59  | 122760  | 240.884 | ug/l | 95  |
| 12) 1,1-Dichloroethene        | 3.09 | 96  | 455734  | 46.664  | ug/l | 99  |
| 13) Acrolein                  | 3.00 | 56  | 108998  | 209.882 | ug/l | 97  |
| 14) Allyl chloride            | 3.56 | 41  | 841308  | 46.947  | ug/l | 98  |
| 15) Acrylonitrile             | 4.10 | 53  | 673726  | 227.711 | ug/l | 97  |
| 16) Acetone                   | 3.17 | 43  | 499784  | 234.690 | ug/l | 98  |
| 17) Carbon Disulfide          | 3.33 | 76  | 1529719 | 49.045  | ug/l | 100 |
| 18) Methyl Acetate            | 3.57 | 43  | 242308  | 45.912  | ug/l | 98  |
| 19) Methyl tert-butyl Ether   | 4.14 | 73  | 1165891 | 47.054  | ug/l | 100 |
| 20) Methylene Chloride        | 3.73 | 84  | 901707  | 40.772  | ug/l | 98  |
| 21) trans-1,2-Dichloroethene  | 4.12 | 96  | 939808  | 46.989  | ug/l | 98  |
| 22) Diisopropyl ether         | 4.86 | 45  | 2829494 | 46.503  | ug/l | 98  |
| 23) Vinyl Acetate             | 4.82 | 43  | 6772745 | 230.076 | ug/l | 99  |
| 24) 1,1-Dichloroethane        | 4.77 | 63  | 1504834 | 47.020  | ug/l | 100 |
| 25) 2-Butanone                | 5.63 | 43  | 943636  | 231.564 | ug/l | 98  |
| 26) 2,2-Dichloropropane       | 5.59 | 77  | 1195462 | 47.321  | ug/l | 100 |
| 27) cis-1,2-Dichloroethene    | 5.60 | 96  | 950896  | 46.834  | ug/l | 99  |
| 28) Bromochloromethane        | 5.93 | 49  | 598278  | 44.250  | ug/l | 99  |
| 29) Tetrahydrofuran           | 5.96 | 42  | 518189  | 224.310 | ug/l | 100 |
| 30) Chloroform                | 6.10 | 83  | 1473369 | 45.752  | ug/l | 100 |
| 31) Cyclohexane               | 6.37 | 56  | 1424508 | 46.252  | ug/l | 98  |
| 32) 1,1,1-Trichloroethane     | 6.30 | 97  | 1281725 | 48.107  | ug/l | 99  |
| 36) 1,1-Dichloropropene       | 6.53 | 75  | 1167344 | 48.238  | ug/l | 98  |
| 37) Ethyl Acetate             | 5.70 | 43  | 480891  | 47.515  | ug/l | 96  |
| 38) Carbon Tetrachloride      | 6.51 | 117 | 1059218 | 49.614  | ug/l | 99  |

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 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          | 8.04  | 83   | 1356626  | 49.154  | ug/l   | 100      |
| 40) Benzene                    | 6.80  | 78   | 2991260  | 47.853  | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.94  | 41   | 263555m  | 47.078  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 6.90  | 62   | 737195   | 47.524  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.35  | 43   | 623346   | 47.994  | ug/l # | 98       |
| 44) Trichloroethene            | 7.75  | 130  | 927230   | 50.117  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 8.10  | 63   | 721513   | 47.066  | ug/l   | 100      |
| 46) Dibromomethane             | 8.22  | 93   | 422594   | 48.301  | ug/l   | 97       |
| 47) Bromodichloromethane       | 8.50  | 83   | 1017897  | 49.121  | ug/l   | 97       |
| 48) Methyl methacrylate        | 8.25  | 41   | 394400   | 49.997  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 8.23  | 88   | 73014    | 995.478 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.34  | 43   | 1891338  | 237.685 | ug/l   | 99       |
| 52) Toluene                    | 9.55  | 92   | 1885539  | 48.117  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 9.92  | 75   | 838290   | 48.489  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.11  | 75   | 1067927  | 47.194  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.18 | 97   | 496869   | 47.126  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.03 | 69   | 484988   | 49.524  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.39 | 76   | 804714   | 48.152  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.93  | 63   | 1319035  | 228.590 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.48 | 43   | 1401064  | 251.544 | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.64 | 129  | 671917   | 50.032  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 10.76 | 107  | 541828   | 49.545  | ug/l   | 95       |
| 64) Tetrachloroethene          | 10.26 | 164  | 829391   | 48.698  | ug/l   | 100      |
| 65) Chlorobenzene              | 11.31 | 112  | 1967088  | 47.382  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.42 | 131  | 644786   | 48.304  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.43 | 91   | 3384583  | 47.603  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.57 | 106  | 2473203  | 95.183  | ug/l   | 99       |
| 69) o-Xylene                   | 11.93 | 106  | 1203926  | 48.838  | ug/l   | 90       |
| 70) Styrene                    | 11.96 | 104  | 1946561  | 49.028  | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 439068   | 49.830  | ug/l   | 96       |
| 73) Isopropylbenzene           | 12.28 | 105  | 3326607  | 48.594  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.14 | 43   | 793895   | 49.137  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.56 | 83   | 540895   | 48.746  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.60 | 75   | 527836   | 48.220  | ug/l   | 98       |
| 77) Bromobenzene               | 12.54 | 156  | 874729   | 48.398  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.64 | 91   | 4086673  | 46.695  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.71 | 91   | 2206066  | 47.062  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.80 | 105  | 2574679  | 48.706  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.34 | 75   | 154059   | 50.932  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.81 | 91   | 2437503  | 45.877  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.05 | 119  | 2898642  | 48.182  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.09 | 105  | 2606292  | 47.871  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.22 | 105  | 3562813  | 48.561  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.35 | 119  | 2854130  | 48.193  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.31 | 146  | 1568717  | 47.282  | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene        | 13.40 | 146  | 1565201  | 47.875  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.65 | 91   | 2918266  | 48.220  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.86 | 117  | 724517   | 49.798  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 1254598  | 47.140  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.22 | 75   | 63084    | 48.393  | ug/l   | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.78 | 180  | 1032485  | 48.753 | ug/l  | 95       |
| 94) Hexachlorobutadiene    | 14.88 | 225  | 757593   | 48.397 | ug/l  | 99       |
| 95) Naphthalene            | 14.97 | 128  | 1231191  | 48.914 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.12 | 180  | 794106   | 47.967 | ug/l  | 100      |

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

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