

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD062419\  
 Data File : VD062855.D  
 Acq On : 24 Jun 2019 23:48  
 Operator : VA/AP  
 Sample : VSTDCCC050  
 Misc : 5.00µl/5ml/MSVOA D/SOIL  
 ALS Vial : 30 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 6/25/2019 10:00:00 AM

Quant Time: Jun 25 06:08:10 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 01:50:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.06  | 168  | 986275   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.23  | 114  | 1387567  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.37 | 117  | 1175741  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 643825   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.46   | 65  | 572880   | 53.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.88% |      |
| 35) Dibromofluoromethane  | 6.94   | 113 | 586233   | 50.11 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.22% |      |
| 50) Toluene-d8            | 10.41  | 98  | 1287404  | 50.56 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.12% |      |
| 62) 4-Bromofluorobenzene  | 13.56  | 95  | 582313   | 50.29 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.58% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.57 | 85  | 536984  | 42.074  | ug/l   | 98     |
| 3) Chloromethane              | 1.76 | 50  | 419475  | 43.702  | ug/l   | 92     |
| 4) Vinyl Chloride             | 1.85 | 62  | 437998  | 46.024  | ug/l   | 100    |
| 5) Bromomethane               | 2.15 | 94  | 193134  | 43.334  | ug/l   | 97     |
| 6) Chloroethane               | 2.27 | 64  | 201854  | 46.849  | ug/l   | 91     |
| 7) Trichlorofluoromethane     | 2.54 | 101 | 831735  | 43.185  | ug/l   | 98     |
| 8) Diethyl Ether              | 2.87 | 74  | 144790  | 59.167  | ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.15 | 101 | 530662  | 50.858  | ug/l   | 97     |
| 10) Methyl Iodide             | 3.31 | 142 | 728274  | 52.905  | ug/l   | 97     |
| 11) Tert butyl alcohol        | 4.09 | 59  | 144758  | 296.472 | ug/l # | 90     |
| 12) 1,1-Dichloroethene        | 3.13 | 96  | 377864  | 48.275  | ug/l   | 93     |
| 13) Acrolein                  | 3.04 | 56  | 117541  | 235.806 | ug/l   | 98     |
| 14) Allyl chloride            | 3.63 | 41  | 630081  | 54.478  | ug/l   | 93     |
| 15) Acrylonitrile             | 4.20 | 53  | 352248  | 307.024 | ug/l # | 92     |
| 16) Acetone                   | 3.23 | 43  | 570938  | 262.977 | ug/l   | 100    |
| 17) Carbon Disulfide          | 3.37 | 76  | 1181005 | 47.210  | ug/l # | 94     |
| 18) Methyl Acetate            | 3.65 | 43  | 199867  | 61.758  | ug/l   | 93     |
| 19) Methyl tert-butyl Ether   | 4.25 | 73  | 1000624 | 59.052  | ug/l   | 97     |
| 20) Methylene Chloride        | 3.82 | 84  | 403916  | 49.402  | ug/l   | 93     |
| 21) trans-1,2-Dichloroethene  | 4.22 | 96  | 444623  | 53.348  | ug/l   | 92     |
| 22) Diisopropyl ether         | 5.14 | 45  | 1386435 | 58.945  | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.08 | 43  | 4277194 | 290.609 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 4.99 | 63  | 814907  | 53.213  | ug/l   | 99     |
| 25) 2-Butanone                | 6.08 | 43  | 632239  | 315.317 | ug/l   | 93     |
| 26) 2,2-Dichloropropane       | 6.03 | 77  | 751790  | 46.315  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.04 | 96  | 477025  | 54.124  | ug/l   | 97     |
| 28) Bromochloromethane        | 6.45 | 49  | 285841  | 52.997  | ug/l   | 98     |
| 29) Tetrahydrofuran           | 6.48 | 42  | 306371  | 322.943 | ug/l   | 98     |
| 30) Chloroform                | 6.67 | 83  | 971017  | 52.138  | ug/l   | 96     |
| 31) Cyclohexane               | 6.97 | 56  | 538863  | 53.525  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane     | 6.88 | 97  | 944872  | 48.709  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 7.15 | 75  | 608203  | 46.303  | ug/l   | 90     |
| 37) Ethyl Acetate             | 6.20 | 43  | 287344  | 52.123  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.13 | 117 | 955839m | 48.385  | ug/l   |        |

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 Operator : VA/AP  
 Sample : VSTDCCC050  
 Misc : 5.00µl/5ml/MSVOA D/SOIL  
 ALS Vial : 30 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 6/25/2019 10:00:00 AM

Quant Time: Jun 25 06:08:10 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 01:50:56 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 8.87  | 83   | 586300   | 50.708   | ug/l   | 99       |
| 40) Benzene                    | 7.47  | 78   | 1381920  | 52.412   | ug/l   | 95       |
| 41) Methacrylonitrile          | 6.47  | 41   | 389489   | 56.227   | ug/l # | 94       |
| 42) 1,2-Dichloroethane         | 7.59  | 62   | 768858   | 53.454   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 9.25  | 43   | 408370   | 59.301   | ug/l # | 97       |
| 44) Trichloroethene            | 8.54  | 130  | 524603   | 50.751   | ug/l   | 92       |
| 45) 1,2-Dichloropropane        | 8.95  | 63   | 341600   | 52.103   | ug/l   | 99       |
| 46) Dibromomethane             | 9.07  | 93   | 303889   | 53.959   | ug/l   | 90       |
| 47) Bromodichloromethane       | 9.39  | 83   | 770192   | 52.657   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.13  | 41   | 283736   | 57.980   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.09  | 88   | 49736    | 1221.604 | ug/l   | 91       |
| 51) 4-Methyl-2-Pentanone       | 10.31 | 43   | 1376562  | 281.943  | ug/l   | 99       |
| 52) Toluene                    | 10.52 | 92   | 916985   | 51.738   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.93 | 75   | 641648   | 53.597   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.05 | 75   | 658468   | 50.604   | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane      | 11.20 | 97   | 312418   | 51.307   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 11.05 | 69   | 376594   | 57.871   | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 11.42 | 76   | 504702   | 54.132   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.86  | 63   | 955733   | 286.078  | ug/l   | 99       |
| 59) 2-Hexanone                 | 11.55 | 43   | 1020300  | 293.426  | ug/l   | 98       |
| 60) Dibromochloromethane       | 11.69 | 129  | 617228   | 54.420   | ug/l   | 96       |
| 61) 1,2-Dibromoethane          | 11.81 | 107  | 391300   | 54.411   | ug/l   | 96       |
| 64) Tetrachloroethene          | 11.27 | 164  | 509904   | 52.694   | ug/l   | 96       |
| 65) Chlorobenzene              | 12.40 | 112  | 1160078  | 53.165   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 12.52 | 131  | 527312   | 51.674   | ug/l   | 91       |
| 67) Ethyl Benzene              | 12.53 | 91   | 1896394  | 48.407   | ug/l   | 98       |
| 68) m/p-Xylenes                | 12.68 | 106  | 1378215  | 101.007  | ug/l   | 95       |
| 69) o-Xylene                   | 13.05 | 106  | 642395   | 51.501   | ug/l   | 98       |
| 70) Styrene                    | 13.08 | 104  | 1151069  | 52.539   | ug/l   | 92       |
| 71) Bromoform                  | 13.24 | 173  | 384757   | 55.032   | ug/l # | 92       |
| 73) Isopropylbenzene           | 13.41 | 105  | 2037427  | 49.355   | ug/l   | 99       |
| 74) N-amyl acetate             | 13.27 | 43   | 560213   | 55.882   | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane  | 13.70 | 83   | 375624   | 55.846   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 13.74 | 75   | 365717   | 49.205   | ug/l   | 97       |
| 77) Bromobenzene               | 13.67 | 156  | 569694   | 51.308   | ug/l   | 95       |
| 78) n-propylbenzene            | 13.78 | 91   | 2277092  | 47.393   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 13.85 | 91   | 1403227  | 51.104   | ug/l   | 92       |
| 80) 1,3,5-Trimethylbenzene     | 13.94 | 105  | 1681532  | 48.495   | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 13.48 | 75   | 105545   | 54.183   | ug/l   | 91       |
| 82) 4-Chlorotoluene            | 13.95 | 91   | 1574570  | 47.632   | ug/l   | 94       |
| 83) tert-Butylbenzene          | 14.19 | 119  | 1936316  | 50.099   | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 14.24 | 105  | 1631308  | 45.901   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 14.37 | 105  | 1902681  | 45.294   | ug/l   | 97       |
| 86) p-Isopropyltoluene         | 14.50 | 119  | 1946006  | 50.638   | ug/l   | 95       |
| 87) 1,3-Dichlorobenzene        | 14.46 | 146  | 1004130  | 50.450   | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 14.54 | 146  | 988645   | 49.454   | ug/l   | 97       |
| 89) n-Butylbenzene             | 14.80 | 91   | 1700196  | 47.269   | ug/l   | 95       |
| 90) Hexachloroethane           | 15.01 | 117  | 483256   | 46.770   | ug/l   | 89       |
| 91) 1,2-Dichlorobenzene        | 14.81 | 146  | 895060   | 52.561   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 15.38 | 75   | 76344    | 58.154   | ug/l   | 63       |

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Operator : VA/AP  
Sample : VSTDCCC050  
Misc : 5.00g/5ml/MSVOA D/SOIL  
ALS Vial : 30 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
APPROVED

MMDadoda  
6/25/2019 10:00:00 AM

Quant Time: Jun 25 06:08:10 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
Quant Title : SW846 8260  
QLast Update : Thu Jun 20 01:50:56 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.95 | 180  | 662078   | 49.771 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 16.04 | 225  | 488976   | 48.116 | ug/l  | 95       |
| 95) Naphthalene            | 16.12 | 128  | 1111192  | 59.598 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 16.27 | 180  | 560977   | 54.886 | ug/l  | 95       |

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

