

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX101519\  
 Data File : VX013076.D  
 Acq On : 15 Oct 2019 14:30  
 Operator : JC/SP  
 Sample : K5111-09 0.75PPB MDL  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 MDL-MDL-WATER-03-QT4-2019DL

Manual Integrations  
 APPROVED

MMDadoda  
 10/16/2019 9:57:31 AM

Quant Time: Oct 16 07:18:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X100819W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 16 07:02:20 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 161863   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 273854   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 241178   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 105403   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.05  | 65   | 103750   | 51.28 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.56% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 80961    | 51.51 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.02% |          |
| 50) Toluene-d8              | 8.71  | 98   | 301740   | 49.22 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.44%  |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 109977   | 46.17 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.34%  |          |

| Target Compounds              | R.T. | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85   | 1107     | 0.671 | ug/l   | 85     |
| 3) Chloromethane              | 1.32 | 50   | 1184     | 0.659 | ug/l   | 93     |
| 4) Vinyl Chloride             | 1.40 | 62   | 1226     | 0.662 | ug/l   | 89     |
| 5) Bromomethane               | 1.63 | 94   | 1172     | 1.521 | ug/l   | 91     |
| 6) Chloroethane               | 1.72 | 64   | 3430     | 3.144 | ug/l   | 94     |
| 7) Trichlorofluoromethane     | 1.92 | 101  | 1710     | 0.684 | ug/l   | 99     |
| 8) Diethyl Ether              | 2.19 | 74   | 756      | 0.749 | ug/l   | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101  | 1204     | 0.744 | ug/l   | 96     |
| 10) Methyl Iodide             | 2.51 | 142  | 1029     | 0.646 | ug/l # | 88     |
| 11) Tert butyl alcohol        | 3.02 | 59   | 3934     | 7.335 | ug/l # | 77     |
| 12) 1,1-Dichloroethene        | 2.37 | 96   | 1021     | 0.624 | ug/l   | 82     |
| 13) Acrolein                  | 2.28 | 56   | 1087     | 2.852 | ug/l   | 94     |
| 14) Allyl chloride            | 2.72 | 41   | 1799     | 0.618 | ug/l   | 92     |
| 15) Acrylonitrile             | 3.14 | 53   | 3549     | 3.492 | ug/l   | 90     |
| 16) Acetone                   | 2.44 | 43   | 3638     | 3.412 | ug/l   | 94     |
| 17) Carbon Disulfide          | 2.56 | 76   | 2951     | 0.633 | ug/l # | 93     |
| 18) Methyl Acetate            | 2.76 | 43   | 1782     | 0.705 | ug/l   | 91     |
| 19) Methyl tert-butyl Ether   | 3.19 | 73   | 3891     | 0.689 | ug/l # | 88     |
| 20) Methylene Chloride        | 2.85 | 84   | 1534     | 0.783 | ug/l # | 91     |
| 21) trans-1,2-Dichloroethene  | 3.16 | 96   | 1317     | 0.751 | ug/l   | 88     |
| 22) Diisopropyl ether         | 3.85 | 45   | 3711     | 0.665 | ug/l # | 85     |
| 23) Vinyl Acetate             | 3.81 | 43   | 13780    | 2.860 | ug/l   | 95     |
| 24) 1,1-Dichloroethane        | 3.69 | 63   | 2263     | 0.721 | ug/l # | 92     |
| 25) 2-Butanone                | 4.68 | 43   | 4709     | 3.183 | ug/l # | 77     |
| 26) 2,2-Dichloropropane       | 4.57 | 77   | 1614     | 0.611 | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 4.58 | 96   | 1347     | 0.667 | ug/l   | 63     |
| 28) Bromochloromethane        | 5.01 | 49   | 656      | 0.729 | ug/l # | 96     |
| 29) Tetrahydrofuran           | 5.14 | 42   | 3102     | 3.407 | ug/l # | 86     |
| 30) Chloroform                | 5.22 | 83   | 2479     | 0.769 | ug/l # | 82     |
| 31) Cyclohexane               | 5.57 | 56   | 2220     | 0.756 | ug/l # | 93     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97   | 1752     | 0.642 | ug/l # | 44     |
| 36) 1,1-Dichloropropene       | 5.78 | 75   | 1662     | 0.690 | ug/l # | 86     |
| 37) Ethyl Acetate             | 4.83 | 43   | 1684     | 0.625 | ug/l # | 85     |
| 38) Carbon Tetrachloride      | 5.77 | 117  | 1612     | 0.688 | ug/l # | 71     |

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 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

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 MSVOA\_X  
 ClientSampleId :  
 MDL-MDL-WATER-03-QT4-2019DL

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MMDadoda  
 10/16/2019 9:57:31 AM

Quant Time: Oct 16 07:18:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X100819W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 16 07:02:20 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 1908     | 0.653  | ug/l   | 98       |
| 40) Benzene                    | 6.13  | 78   | 5193     | 0.730  | ug/l   | 92       |
| 41) Methacrylonitrile          | 5.04  | 41   | 918      | 0.621  | ug/l # | 43       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 1834     | 0.719  | ug/l   | 79       |
| 43) Isopropyl Acetate          | 6.43  | 43   | 2677     | 0.619  | ug/l # | 89       |
| 44) Trichloroethene            | 7.20  | 130  | 1360     | 0.690  | ug/l   | 86       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 1251     | 0.690  | ug/l # | 72       |
| 46) Dibromomethane             | 7.66  | 93   | 802      | 0.664  | ug/l # | 75       |
| 47) Bromodichloromethane       | 7.89  | 83   | 1588     | 0.674  | ug/l   | 94       |
| 48) Methyl methacrylate        | 7.77  | 41   | 1212     | 0.576  | ug/l   | 89       |
| 49) 1,4-Dioxane                | 7.75  | 88   | 684      | 13.435 | ug/l   | 91       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 8144     | 3.023  | ug/l   | 99       |
| 52) Toluene                    | 8.78  | 92   | 3297     | 0.725  | ug/l   | 94       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 1563     | 0.599  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 1680     | 0.580  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 1352     | 0.751  | ug/l # | 88       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 1594     | 0.547  | ug/l # | 87       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 2007     | 0.644  | ug/l # | 86       |
| 58) 2-Chloroethyl Vinyl ether  | 8.31  | 63   | 3533     | 2.671  | ug/l   | 92       |
| 59) 2-Hexanone                 | 9.49  | 43   | 6157     | 2.936  | ug/l   | 94       |
| 60) Dibromochloromethane       | 9.58  | 129  | 1010     | 0.572  | ug/l   | 90       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 1196     | 0.631  | ug/l   | 90       |
| 64) Tetrachloroethene          | 9.33  | 164  | 1374     | 0.821  | ug/l # | 92       |
| 65) Chlorobenzene              | 10.14 | 112  | 3371     | 0.704  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 945      | 0.569  | ug/l # | 63       |
| 67) Ethyl Benzene              | 10.25 | 91   | 5588     | 0.657  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.35 | 106  | 3708     | 1.167  | ug/l   | 92       |
| 69) o-Xylene                   | 10.70 | 106  | 2119     | 0.684  | ug/l   | 99       |
| 70) Styrene                    | 10.71 | 104  | 3036     | 0.576  | ug/l   | 96       |
| 71) Bromoform                  | 10.85 | 173  | 537      | 0.449  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.01 | 105  | 5452     | 0.704  | ug/l   | 97       |
| 74) N-amyl acetate             | 10.90 | 43   | 1633     | 0.489  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 1823     | 0.707  | ug/l   | 94       |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 1684m    | 0.720  | ug/l   |          |
| 77) Bromobenzene               | 11.25 | 156  | 1305     | 0.715  | ug/l   | 98       |
| 78) n-propylbenzene            | 11.35 | 91   | 5655     | 0.663  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 4025     | 0.751  | ug/l   | 93       |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 4192     | 0.648  | ug/l   | 96       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 462m     | 0.559  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 4175     | 0.680  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 11.77 | 119  | 4003     | 0.634  | ug/l   | 88       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 4030     | 0.615  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 4612     | 0.631  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 4105     | 0.605  | ug/l   | 92       |
| 87) 1,3-Dichlorobenzene        | 12.03 | 146  | 2423     | 0.715  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 2736m    | 0.797  | ug/l   |          |
| 89) n-Butylbenzene             | 12.39 | 91   | 3288     | 0.577  | ug/l   | 97       |
| 90) Hexachloroethane           | 12.59 | 117  | 635      | 0.578  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 2528     | 0.760  | ug/l   | 92       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 323      | 0.535  | ug/l   | 88       |

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Quant Title : SW846 8260  
QLast Update : Wed Oct 16 07:02:20 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.64 | 180  | 1285     | 0.617 | ug/l  | 95       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 471      | 0.490 | ug/l  | 71       |
| 95) Naphthalene            | 13.83 | 128  | 3981     | 0.551 | ug/l  | 97       |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 1317     | 0.612 | ug/l  | 95       |

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

