

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112119\  
 Data File : VN059348.D  
 Acq On : 21 Nov 2019 19:51  
 Operator : JC/SP  
 Sample : VN1121WBSD02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN1121WBSD02

Manual Integrations  
 APPROVED

MMDadoda  
 11/22/2019 3:13:02 PM

Quant Time: Nov 22 07:18:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112019W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Nov 21 08:44:45 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 363763   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 582885   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 520080   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 235048   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.01   | 65  | 229213   | 52.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.04% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 181744   | 51.97 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.94% |      |
| 50) Toluene-d8            | 10.08  | 98  | 729219   | 52.45 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.90% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 254340   | 52.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.64% |      |

## Target Compounds

|                               |      |     |         |        | Qvalue   |
|-------------------------------|------|-----|---------|--------|----------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 90783   | 19.494 | ug/l 100 |
| 3) Chloromethane              | 2.04 | 50  | 112356  | 19.694 | ug/l 100 |
| 4) Vinyl Chloride             | 2.17 | 62  | 119078  | 20.273 | ug/l 98  |
| 5) Bromomethane               | 2.55 | 94  | 63837   | 19.576 | ug/l 100 |
| 6) Chloroethane               | 2.69 | 64  | 60765   | 18.955 | ug/l 97  |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 119095  | 18.828 | ug/l 98  |
| 8) Diethyl Ether              | 3.39 | 74  | 51870   | 20.059 | ug/l 98  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 74183   | 19.180 | ug/l 99  |
| 10) Methyl Iodide             | 3.93 | 142 | 96145   | 20.001 | ug/l 97  |
| 11) Tert butyl alcohol        | 4.75 | 59  | 87104   | 99.679 | ug/l 99  |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 75244   | 19.166 | ug/l 98  |
| 13) Acrolein                  | 3.58 | 56  | 72076   | 90.356 | ug/l 100 |
| 14) Allyl chloride            | 4.30 | 41  | 141099  | 19.238 | ug/l 98  |
| 15) Acrylonitrile             | 4.95 | 53  | 225861  | 97.756 | ug/l 100 |
| 16) Acetone                   | 3.79 | 43  | 180408  | 92.187 | ug/l 99  |
| 17) Carbon Disulfide          | 4.03 | 76  | 231481  | 18.901 | ug/l 100 |
| 18) Methyl Acetate            | 4.30 | 43  | 126952  | 19.547 | ug/l 98  |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 257338  | 20.294 | ug/l 99  |
| 20) Methylene Chloride        | 4.53 | 84  | 85869   | 19.455 | ug/l 98  |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 79528   | 19.113 | ug/l 98  |
| 22) Diisopropyl ether         | 5.92 | 45  | 268874  | 19.471 | ug/l 98  |
| 23) Vinyl Acetate             | 5.87 | 43  | 1074130 | 98.915 | ug/l 100 |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 152442  | 19.612 | ug/l 99  |
| 25) 2-Butanone                | 6.81 | 43  | 297964  | 97.915 | ug/l 98  |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 125030  | 18.577 | ug/l 100 |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 90415   | 19.260 | ug/l 99  |
| 28) Bromochloromethane        | 7.17 | 49  | 62567   | 21.183 | ug/l 95  |
| 29) Tetrahydrofuran           | 7.19 | 42  | 207637  | 98.678 | ug/l 100 |
| 30) Chloroform                | 7.35 | 83  | 147015  | 19.407 | ug/l 98  |
| 31) Cyclohexane               | 7.63 | 56  | 148044  | 19.264 | ug/l 97  |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 124880  | 19.270 | ug/l 99  |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 113553  | 18.871 | ug/l 99  |
| 37) Ethyl Acetate             | 6.91 | 43  | 122747  | 18.980 | ug/l 97  |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 108866  | 18.898 | ug/l 99  |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 137447   | 18.942  | ug/l   | 99       |
| 40) Benzene                    | 8.02  | 78   | 343243   | 19.435  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.15  | 41   | 48428    | 16.869  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 113169   | 19.375  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.15  | 43   | 193977   | 19.627  | ug/l   | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 86332    | 19.288  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.11  | 63   | 92433    | 19.627  | ug/l   | 100      |
| 46) Dibromomethane             | 9.19  | 93   | 53809    | 18.628  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.39  | 83   | 109518   | 18.931  | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.19  | 41   | 84075    | 18.706  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 26898    | 398.202 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 593319   | 102.561 | ug/l   | 99       |
| 52) Toluene                    | 10.15 | 92   | 206225   | 19.420  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 130374   | 19.386  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 141602   | 19.404  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 80302    | 19.449  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 122819   | 19.033  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 140518   | 19.526  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 207780   | 96.563  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 432758   | 102.160 | ug/l   | 100      |
| 60) Dibromochloromethane       | 10.90 | 129  | 84062    | 19.320  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 83200    | 19.366  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 75205    | 18.697  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.43 | 112  | 215303   | 19.253  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 78653    | 19.360  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 392722   | 19.669  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 289302   | 38.993  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 139649   | 19.661  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 219809   | 19.612  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 59361    | 19.294  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.25 | 105  | 377297   | 19.595  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 154995   | 20.030  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 120607   | 18.935  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 110002m  | 20.257  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 89205    | 19.101  | ug/l   | 100      |
| 78) n-propylbenzene            | 12.59 | 91   | 428243   | 19.634  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 255561   | 19.090  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 316951   | 19.582  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 42240    | 19.456  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 260048   | 18.771  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 271654   | 19.872  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 317410   | 20.019  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 360024   | 19.595  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 320795   | 19.621  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 154784   | 18.611  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 152568   | 18.540  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.62 | 91   | 265432   | 18.506  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 57475    | 18.562  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 152204   | 18.915  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 23605    | 17.431  | ug/l   | 96       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 83419    | 18.627 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 53039    | 18.295 | ug/l  | 98       |
| 95) Naphthalene            | 15.13 | 128  | 225367   | 18.400 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 84536    | 18.456 | ug/l  | 99       |

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

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