

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN092519\  
 Data File : VN058350.D  
 Acq On : 25 Sep 2019 8:43  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 9/26/2019 12:59:57 PM

Quant Time: Sep 26 01:30:15 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091819W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 19 09:27:53 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 472195   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 788755   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 716634   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 346191   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.01   | 65  | 313138   | 47.61 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.22% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 228226   | 47.60 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.20% |      |
| 50) Toluene-d8            | 10.09  | 98  | 884999   | 47.37 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.74% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 322157   | 46.42 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.84% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 161383  | 41.604  | ug/l   | 98     |
| 3) Chloromethane              | 2.04 | 50  | 134928  | 45.024  | ug/l   | 98     |
| 4) Vinyl Chloride             | 2.17 | 62  | 150614  | 45.993  | ug/l   | 98     |
| 5) Bromomethane               | 2.55 | 94  | 82944   | 47.953  | ug/l   | 97     |
| 6) Chloroethane               | 2.69 | 64  | 100984  | 48.152  | ug/l   | 96     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 235142  | 44.412  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.39 | 74  | 114567  | 47.225  | ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 180770  | 47.355  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 147432  | 46.091  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.75 | 59  | 192219  | 245.704 | ug/l   | 100    |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 140366  | 48.442  | ug/l   | 99     |
| 13) Acrolein                  | 3.59 | 56  | 16364   | 141.146 | ug/l   | 98     |
| 14) Allyl chloride            | 4.30 | 41  | 298241  | 47.746  | ug/l   | 98     |
| 15) Acrylonitrile             | 4.96 | 53  | 527751  | 253.200 | ug/l   | 100    |
| 16) Acetone                   | 3.79 | 43  | 657357  | 294.460 | ug/l   | 98     |
| 17) Carbon Disulfide          | 4.03 | 76  | 182035  | 44.670  | ug/l   | 96     |
| 18) Methyl Acetate            | 4.30 | 43  | 280526  | 47.755  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 730951  | 50.768  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.53 | 84  | 194296  | 49.710  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 155417  | 49.227  | ug/l   | 100    |
| 22) Diisopropyl ether         | 5.93 | 45  | 809841  | 51.039  | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.87 | 43  | 2884150 | 265.642 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 417645  | 49.316  | ug/l   | 100    |
| 25) 2-Butanone                | 6.81 | 43  | 827460  | 272.066 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 360105  | 50.122  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 232793  | 48.615  | ug/l   | 98     |
| 28) Bromochloromethane        | 7.18 | 49  | 204828  | 51.128  | ug/l # | 98     |
| 29) Tetrahydrofuran           | 7.19 | 42  | 447576  | 238.909 | ug/l   | 100    |
| 30) Chloroform                | 7.35 | 83  | 452379  | 49.626  | ug/l   | 99     |
| 31) Cyclohexane               | 7.63 | 56  | 261914  | 47.736  | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 356948  | 51.436  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.78 | 75  | 258015  | 45.361  | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.91 | 43  | 295735  | 50.099  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.76 | 117 | 284968  | 49.839  | ug/l   | 98     |

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Instrument :  
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 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
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 9/26/2019 12:59:57 PM

Quant Time: Sep 26 01:30:15 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091819W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 19 09:27:53 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 262067   | 47.655   | ug/l   | 97       |
| 40) Benzene                    | 8.02  | 78   | 835986   | 48.119   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.15  | 41   | 145245   | 48.863   | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.11  | 62   | 360095   | 49.396   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.15  | 43   | 525514   | 47.668   | ug/l   | 99       |
| 44) Trichloroethene            | 8.82  | 130  | 206124   | 48.483   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.11  | 63   | 266490   | 51.363   | ug/l   | 99       |
| 46) Dibromomethane             | 9.20  | 93   | 158365   | 50.204   | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.39  | 83   | 356156   | 53.894   | ug/l   | 96       |
| 48) Methyl methacrylate        | 9.19  | 41   | 254539   | 50.851   | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 85451    | 1039.775 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 1626839  | 277.821  | ug/l   | 99       |
| 52) Toluene                    | 10.15 | 92   | 529189   | 48.603   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 370899   | 54.791   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 402009   | 53.789   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 251929   | 52.139   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 368169   | 52.810   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 426348   | 51.327   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 885396   | 266.626  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1238014  | 284.668  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 264984   | 57.004   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 229212   | 51.188   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 164383   | 47.055   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 622977   | 49.423   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 248331   | 54.332   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1119241  | 51.820   | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 819048   | 100.685  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 402000   | 50.258   | ug/l   | 99       |
| 70) Styrene                    | 11.97 | 104  | 726492   | 52.714   | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 163475   | 48.368   | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1170861  | 54.033   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 490968   | 54.160   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 380870   | 52.486   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 324524m  | 52.379   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 268637   | 49.284   | ug/l   | 98       |
| 78) n-propylbenzene            | 12.60 | 91   | 1390943  | 56.487   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 818168   | 53.165   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.74 | 105  | 1012021  | 55.229   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 105132   | 50.444   | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 868463   | 53.686   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.00 | 119  | 893327   | 54.668   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.05 | 105  | 1035039  | 56.760   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.18 | 105  | 1210767  | 56.661   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1097944  | 57.796   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 524846   | 52.718   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 529904   | 52.136   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 1030229  | 57.201   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 179078   | 53.545   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 528151   | 52.885   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.28 | 75   | 69521    | 53.215   | ug/l   | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.92 | 180  | 338173   | 52.999 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.02 | 225  | 168021   | 54.481 | ug/l  | 97       |
| 95) Naphthalene            | 15.13 | 128  | 884111   | 53.465 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 318758   | 52.854 | ug/l  | 100      |

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

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