

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN011320\  
 Data File : VN059692.D  
 Acq On : 13 Jan 2020 15:40  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 1/14/2020 11:00:00 AM

Quant Time: Jan 14 08:50:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011320W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jan 14 08:36:17 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 197399   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 308726   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 281297   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 142685   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 320100   | 111.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 222.88% |      |
| 35) Dibromofluoromethane  | 7.56   | 113 | 269031   | 139.27 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 278.54% |      |
| 50) Toluene-d8            | 10.08  | 98  | 1033912  | 135.19 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 270.38% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 384268   | 137.70 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 275.40% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 334695  | 131.213 | ug/l   | 99     |
| 3) Chloromethane              | 2.04 | 50  | 322214  | 79.601  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.17 | 62  | 391826  | 102.075 | ug/l   | 97     |
| 5) Bromomethane               | 2.51 | 94  | 232678  | 104.268 | ug/l   | 99     |
| 6) Chloroethane               | 2.67 | 64  | 181858  | 84.296  | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 447540  | 106.262 | ug/l   | 99     |
| 8) Diethyl Ether              | 3.38 | 74  | 157375  | 119.592 | ug/l   | 84     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 249348  | 117.482 | ug/l   | 92     |
| 10) Methyl Iodide             | 3.93 | 142 | 418668  | 149.002 | ug/l   | 95     |
| 11) Tert butyl alcohol        | 4.73 | 59  | 259149  | 492.106 | ug/l   | 99     |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 255921  | 123.606 | ug/l   | 89     |
| 13) Acrolein                  | 3.57 | 56  | 186749  | 497.833 | ug/l   | 98     |
| 14) Allyl chloride            | 4.29 | 41  | 360101  | 84.722  | ug/l # | 87     |
| 15) Acrylonitrile             | 4.94 | 53  | 633926  | 497.663 | ug/l   | 99     |
| 16) Acetone                   | 3.78 | 43  | 527709  | 309.435 | ug/l   | 97     |
| 17) Carbon Disulfide          | 4.03 | 76  | 744242  | 104.683 | ug/l   | 100    |
| 18) Methyl Acetate            | 4.28 | 43  | 371171  | 103.867 | ug/l   | 92     |
| 19) Methyl tert-butyl Ether   | 5.00 | 73  | 839253  | 114.803 | ug/l   | 96     |
| 20) Methylene Chloride        | 4.52 | 84  | 284066  | 115.333 | ug/l   | 89     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 273577  | 118.528 | ug/l   | 90     |
| 22) Diisopropyl ether         | 5.91 | 45  | 800228  | 102.124 | ug/l   | 97     |
| 23) Vinyl Acetate             | 5.86 | 43  | 3130786 | 509.125 | ug/l # | 95     |
| 24) 1,1-Dichloroethane        | 5.81 | 63  | 476658  | 107.386 | ug/l   | 97     |
| 25) 2-Butanone                | 6.80 | 43  | 845836  | 414.762 | ug/l   | 93     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 445286  | 110.378 | ug/l   | 95     |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 314546  | 122.983 | ug/l   | 88     |
| 28) Bromochloromethane        | 7.17 | 49  | 198106  | 130.152 | ug/l # | 76     |
| 29) Tetrahydrofuran           | 7.18 | 42  | 544353  | 438.101 | ug/l   | 89     |
| 30) Chloroform                | 7.35 | 83  | 498776  | 114.158 | ug/l   | 99     |
| 31) Cyclohexane               | 7.63 | 56  | 431515  | 102.887 | ug/l   | 92     |
| 32) 1,1,1-Trichloroethane     | 7.54 | 97  | 461776  | 117.231 | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 382484  | 118.800 | ug/l   | 96     |
| 37) Ethyl Acetate             | 6.90 | 43  | 351366  | 93.898  | ug/l   | 97     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 414684  | 124.125 | ug/l   | 99     |

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 VSTDICC150

Manual Integrations  
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MMDadoda  
 1/14/2020 11:00:00 AM

Quant Time: Jan 14 08:50:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011320W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jan 14 08:36:17 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.06  | 83   | 468410   | 128.264  | ug/l   | 93       |
| 40) Benzene                    | 8.02  | 78   | 1117397  | 118.761  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.15  | 41   | 185271m  | 119.970  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 387503   | 107.543  | ug/l   | 97       |
| 43) Isopropyl Acetate          | 8.14  | 43   | 608866   | 104.656  | ug/l # | 95       |
| 44) Trichloroethene            | 8.82  | 130  | 316667   | 128.493  | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 282401   | 111.149  | ug/l   | 100      |
| 46) Dibromomethane             | 9.19  | 93   | 200016   | 120.162  | ug/l   | 91       |
| 47) Bromodichloromethane       | 9.39  | 83   | 408631   | 123.129  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.18  | 41   | 280865   | 106.408  | ug/l   | 90       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 104530   | 2763.449 | ug/l   | 91       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 1754216  | 505.727  | ug/l   | 95       |
| 52) Toluene                    | 10.14 | 92   | 726929   | 125.742  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 467446   | 121.789  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.82  | 75   | 488649   | 121.117  | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 282349   | 124.464  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 452866   | 134.473  | ug/l   | 92       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 461243   | 116.775  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 768556   | 717.561  | ug/l   | 91       |
| 59) 2-Hexanone                 | 10.74 | 43   | 1331281  | 486.972  | ug/l   | 94       |
| 60) Dibromochloromethane       | 10.89 | 129  | 335969   | 135.696  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 10.99 | 107  | 308189   | 128.098  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.62 | 164  | 294646   | 112.364  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.43 | 112  | 787193   | 129.333  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.50 | 131  | 303310   | 131.195  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.50 | 91   | 1406296  | 128.002  | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.62 | 106  | 1082055  | 266.715  | ug/l   | 92       |
| 69) o-Xylene                   | 11.94 | 106  | 521217   | 135.022  | ug/l   | 95       |
| 70) Styrene                    | 11.96 | 104  | 914343   | 147.422  | ug/l   | 97       |
| 71) Bromoform                  | 12.12 | 173  | 263153   | 151.425  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1394061  | 124.461  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.06 | 43   | 567290   | 110.413  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 412555   | 116.113  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 339455m  | 96.102   | ug/l   |          |
| 77) Bromobenzene               | 12.52 | 156  | 359511   | 130.515  | ug/l   | 84       |
| 78) n-propylbenzene            | 12.59 | 91   | 1609065  | 121.528  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 935654   | 116.866  | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1189624  | 125.505  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.29 | 75   | 161329   | 112.808  | ug/l   | 93       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 981452   | 119.727  | ug/l   | 96       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1015637  | 126.525  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1203361  | 127.676  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1358611  | 127.237  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.28 | 119  | 1267532  | 131.067  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 648172   | 127.967  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 651368   | 127.549  | ug/l   | 97       |
| 89) n-Butylbenzene             | 13.61 | 91   | 1137124  | 125.416  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.87 | 117  | 242411   | 132.609  | ug/l   | 87       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 622295   | 124.577  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 91519    | 87.481   | ug/l   | 79       |

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| Internal Standards         | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|----------------------------|-------|------|----------|---------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 418750   | 129.819 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 201285   | 116.527 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 1223485  | 127.056 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 403835   | 123.783 | ug/l  | 99       |

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

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