

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN110619\  
 Data File : VN059095.D  
 Acq On : 6 Nov 2019 10:01  
 Operator : JC/SP  
 Sample : VSTDICCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/7/2019 9:16:11 AM

Quant Time: Jan 28 01:17:06 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jan 27 17:22:37 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 501883   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 780819   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 716666   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 341701   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 294155   | 47.68 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.36% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 226969   | 48.68 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.36% |      |
| 50) Toluene-d8            | 10.08  | 98  | 902428   | 49.14 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.28% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 322433   | 48.70 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.40% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 242739  | 48.004  | ug/l | 100    |
| 3) Chloromethane              | 2.04 | 50  | 320526  | 46.630  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.17 | 62  | 318466  | 47.787  | ug/l | 100    |
| 5) Bromomethane               | 2.54 | 94  | 182195  | 47.508  | ug/l | 100    |
| 6) Chloroethane               | 2.68 | 64  | 186343  | 47.269  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 389838  | 48.906  | ug/l | 100    |
| 8) Diethyl Ether              | 3.39 | 74  | 158967  | 49.081  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 233068  | 48.494  | ug/l | 100    |
| 10) Methyl Iodide             | 3.93 | 142 | 298379  | 50.156  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.75 | 59  | 284191  | 241.708 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 227595  | 48.613  | ug/l | 100    |
| 13) Acrolein                  | 3.58 | 56  | 146716  | 242.027 | ug/l | 100    |
| 14) Allyl chloride            | 4.30 | 41  | 461136  | 47.950  | ug/l | 100    |
| 15) Acrylonitrile             | 4.95 | 53  | 744559  | 254.457 | ug/l | 100    |
| 16) Acetone                   | 3.79 | 43  | 854120  | 266.228 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.03 | 76  | 679047  | 46.723  | ug/l | 100    |
| 18) Methyl Acetate            | 4.30 | 43  | 375258  | 49.279  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 804261  | 49.896  | ug/l | 100    |
| 20) Methylene Chloride        | 4.52 | 84  | 268292  | 48.002  | ug/l | 100    |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 244729  | 48.698  | ug/l | 100    |
| 22) Diisopropyl ether         | 5.92 | 45  | 909261  | 50.055  | ug/l | 100    |
| 23) Vinyl Acetate             | 5.87 | 43  | 3779296 | 268.449 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 496647  | 48.952  | ug/l | 100    |
| 25) 2-Butanone                | 6.81 | 43  | 1096182 | 259.252 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 421181  | 47.476  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 286934  | 49.214  | ug/l | 100    |
| 28) Bromochloromethane        | 7.17 | 49  | 146369  | 47.952  | ug/l | 100    |
| 29) Tetrahydrofuran           | 7.18 | 42  | 681197  | 253.551 | ug/l | 100    |
| 30) Chloroform                | 7.35 | 83  | 470814  | 48.375  | ug/l | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 457129  | 47.594  | ug/l | 100    |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 407324  | 49.779  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 361775  | 49.569  | ug/l | 100    |
| 37) Ethyl Acetate             | 6.90 | 43  | 413563  | 50.936  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 357171  | 49.169  | ug/l | 100    |

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN110619\  
 Data File : VN059095.D  
 Acq On : 6 Nov 2019 10:01  
 Operator : JC/SP  
 Sample : VSTDICCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/7/2019 9:16:11 AM

Quant Time: Jan 28 01:17:06 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jan 27 17:22:37 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 432147   | 51.018  | ug/l  | 100      |
| 40) Benzene                    | 8.02  | 78   | 1096973  | 49.912  | ug/l  | 100      |
| 41) Methacrylonitrile          | 7.16  | 41   | 194445m  | 55.074  | ug/l  |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 374817   | 49.725  | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.14  | 43   | 647432   | 50.018  | ug/l  | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 268380   | 49.676  | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 299141   | 50.111  | ug/l  | 100      |
| 46) Dibromomethane             | 9.19  | 93   | 180552   | 48.536  | ug/l  | 100      |
| 47) Bromodichloromethane       | 9.39  | 83   | 374995   | 50.483  | ug/l  | 100      |
| 48) Methyl methacrylate        | 9.18  | 41   | 296739   | 51.252  | ug/l  | 100      |
| 49) 1,4-Dioxane                | 9.18  | 88   | 102560   | 996.751 | ug/l  | 100      |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 2032714  | 277.538 | ug/l  | 100      |
| 52) Toluene                    | 10.14 | 92   | 660390   | 50.132  | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 431211   | 50.246  | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 467832   | 50.678  | ug/l  | 100      |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 262193   | 49.181  | ug/l  | 100      |
| 56) Ethyl methacrylate         | 10.42 | 69   | 422923   | 47.654  | ug/l  | 100      |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 459518   | 50.080  | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 849181   | 286.213 | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.74 | 43   | 1568745  | 279.057 | ug/l  | 100      |
| 60) Dibromochloromethane       | 10.90 | 129  | 284491   | 50.472  | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 269565   | 49.948  | ug/l  | 100      |
| 64) Tetrachloroethene          | 10.62 | 164  | 234953   | 48.213  | ug/l  | 100      |
| 65) Chlorobenzene              | 11.43 | 112  | 687797   | 49.232  | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 258343   | 49.296  | ug/l  | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 1275362  | 51.453  | ug/l  | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 948516   | 102.157 | ug/l  | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 450455   | 50.201  | ug/l  | 100      |
| 70) Styrene                    | 11.96 | 104  | 750794   | 53.202  | ug/l  | 100      |
| 71) Bromoform                  | 12.13 | 173  | 207103   | 50.805  | ug/l  | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 1225792  | 49.317  | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 546903   | 51.927  | ug/l  | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 406330   | 48.004  | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 351702m  | 45.209  | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 297305   | 47.609  | ug/l  | 100      |
| 78) n-propylbenzene            | 12.59 | 91   | 1446623  | 50.831  | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 848538   | 48.063  | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1045854  | 49.658  | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 146040   | 49.584  | ug/l  | 100      |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 878184   | 49.594  | ug/l  | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 892640   | 49.078  | ug/l  | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1031663  | 50.629  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1197161  | 50.610  | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1083318  | 51.868  | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 521517   | 48.769  | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 515125   | 48.146  | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 936975   | 51.256  | ug/l  | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 196267   | 46.797  | ug/l  | 100      |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 518417   | 49.282  | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 82324    | 48.750  | ug/l  | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN110619\  
Data File : VN059095.D  
Acq On : 6 Nov 2019 10:01  
Operator : JC/SP  
Sample : VSTDICCC050  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Manual Integrations  
APPROVED

MMDadoda  
11/7/2019 9:16:11 AM

Quant Time: Jan 28 01:17:06 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jan 27 17:22:37 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 289176   | 45.595 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 170199   | 46.924 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 790292   | 44.959 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 290100   | 49.209 | ug/l  | 100      |

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

