

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN021220\  
 Data File : VN060080.D  
 Acq On : 12 Feb 2020 17:52  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 2/13/2020 10:38:20 AM

Quant Time: Feb 13 01:36:34 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 12 14:12:21 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 224638   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 357879   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 337917   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 179671   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 135221   | 49.47 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.94% |      |
| 35) Dibromofluoromethane  | 7.56   | 113 | 108612   | 49.37 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.74% |      |
| 50) Toluene-d8            | 10.08  | 98  | 422164   | 48.73 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.46% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 158827   | 49.89 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.78% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 110703  | 49.303  | ug/l | 99     |
| 3) Chloromethane              | 2.04 | 50  | 129623  | 48.510  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.17 | 62  | 146284  | 48.029  | ug/l | 100    |
| 5) Bromomethane               | 2.54 | 94  | 87183   | 46.683  | ug/l | 99     |
| 6) Chloroethane               | 2.68 | 64  | 73552   | 47.745  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 186273  | 47.435  | ug/l | 99     |
| 8) Diethyl Ether              | 3.39 | 74  | 64228   | 49.135  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 102729  | 47.120  | ug/l | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 141828  | 48.485  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.73 | 59  | 95320   | 233.029 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 102859  | 48.430  | ug/l | 97     |
| 13) Acrolein                  | 3.58 | 56  | 89826   | 222.166 | ug/l | 96     |
| 14) Allyl chloride            | 4.29 | 41  | 148173  | 47.400  | ug/l | 97     |
| 15) Acrylonitrile             | 4.95 | 53  | 250960  | 251.223 | ug/l | 99     |
| 16) Acetone                   | 3.78 | 43  | 250860  | 210.396 | ug/l | 98     |
| 17) Carbon Disulfide          | 4.03 | 76  | 300456  | 46.934  | ug/l | 99     |
| 18) Methyl Acetate            | 4.29 | 43  | 112456  | 50.208  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 343237  | 48.056  | ug/l | 100    |
| 20) Methylene Chloride        | 4.52 | 84  | 113847  | 47.860  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 110533  | 47.743  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.91 | 45  | 334011  | 48.754  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.86 | 43  | 1423406 | 247.411 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 197556  | 47.601  | ug/l | 99     |
| 25) 2-Butanone                | 6.80 | 43  | 350113  | 233.478 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 186250  | 47.248  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 127765  | 47.155  | ug/l | 100    |
| 28) Bromochloromethane        | 7.17 | 49  | 79889   | 48.964  | ug/l | 99     |
| 29) Tetrahydrofuran           | 7.18 | 42  | 221029  | 240.262 | ug/l | 99     |
| 30) Chloroform                | 7.35 | 83  | 208283  | 47.909  | ug/l | 99     |
| 31) Cyclohexane               | 7.63 | 56  | 177086  | 45.805  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 190043  | 47.836  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 157288  | 47.450  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.90 | 43  | 142546  | 47.581  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 169088  | 46.968  | ug/l | 98     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 12 14:12:21 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 190652   | 46.333  | ug/l   | 99       |
| 40) Benzene                    | 8.02  | 78   | 456516   | 46.427  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.15  | 41   | 64499m   | 51.338  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 164917   | 47.853  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.14  | 43   | 249341   | 48.688  | ug/l   | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 125128   | 45.957  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 117192   | 48.140  | ug/l   | 98       |
| 46) Dibromomethane             | 9.19  | 93   | 81111    | 47.149  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.39  | 83   | 164697   | 47.089  | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.18  | 41   | 110749   | 48.200  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 37702    | 960.362 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 719474   | 242.721 | ug/l   | 100      |
| 52) Toluene                    | 10.14 | 92   | 298161   | 47.286  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 189474   | 47.993  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.82  | 75   | 198262   | 47.691  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 116176   | 47.227  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 175031   | 50.297  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 191057   | 47.069  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 416292   | 256.782 | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.74 | 43   | 545139   | 238.076 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.89 | 129  | 134703   | 47.718  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 123549   | 47.910  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.62 | 164  | 112442   | 43.772  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 322827   | 46.892  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.50 | 131  | 124501   | 47.804  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.50 | 91   | 587653   | 47.327  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 440470   | 94.517  | ug/l   | 100      |
| 69) o-Xylene                   | 11.94 | 106  | 214210   | 47.740  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 356798   | 49.311  | ug/l   | 100      |
| 71) Bromoform                  | 12.12 | 173  | 102662   | 49.009  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 585148   | 43.613  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.06 | 43   | 227666   | 47.057  | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 172403   | 44.643  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 140544m  | 40.886  | ug/l   |          |
| 77) Bromobenzene               | 12.52 | 156  | 221097m  | 66.402  | ug/l   |          |
| 78) n-propylbenzene            | 12.59 | 91   | 677086   | 44.294  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 396629   | 44.144  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 499474   | 44.774  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.29 | 75   | 62437    | 44.473  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 410074   | 44.486  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 419907   | 42.551  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 496208   | 45.061  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 571756   | 43.748  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.28 | 119  | 527106   | 44.515  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 264063   | 44.803  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 263346   | 44.690  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 478411   | 45.935  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 95915    | 43.358  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 255878   | 44.362  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.26 | 75   | 36619    | 44.511  | ug/l   | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.90 | 180  | 169315   | 49.958 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 85998    | 43.344 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 470591   | 51.403 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 162328   | 48.097 | ug/l  | 100      |

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

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