

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN022019\  
 Data File : VN053876.D  
 Acq On : 20 Feb 2019 11:23  
 Operator : JC/SP  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICSVN022019

Manual Integrations  
 APPROVED

MMDadoda  
 2/21/2019 10:52:15 AM

Quant Time: Feb 21 03:52:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022019W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 21 03:36:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 710501   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 1041406  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 914664   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 488460   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 336240   | 46.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.62%  |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 322933   | 47.25 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.50%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 1227747  | 49.74 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.48%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 421783   | 51.76 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.52% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 290224  | 47.016  | ug/l | 98     |
| 3) Chloromethane              | 2.06 | 50  | 362493  | 47.235  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 384388  | 46.661  | ug/l | 99     |
| 5) Bromomethane               | 2.57 | 94  | 294313  | 48.786  | ug/l | 100    |
| 6) Chloroethane               | 2.71 | 64  | 254743  | 47.847  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 554157  | 47.372  | ug/l | 97     |
| 8) Diethyl Ether              | 3.41 | 74  | 189262  | 46.024  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 319811  | 45.364  | ug/l | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 471909  | 45.139  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.78 | 59  | 106600  | 235.170 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 305844  | 46.386  | ug/l | 99     |
| 13) Acrolein                  | 3.61 | 56  | 91931   | 283.749 | ug/l | 100    |
| 14) Allyl chloride            | 4.33 | 41  | 483045  | 48.407  | ug/l | 99     |
| 15) Acrylonitrile             | 4.98 | 53  | 551616  | 241.562 | ug/l | 100    |
| 16) Acetone                   | 3.81 | 43  | 480510  | 240.618 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.06 | 76  | 939681  | 46.015  | ug/l | 99     |
| 18) Methyl Acetate            | 4.32 | 43  | 216787  | 45.997  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 828067  | 49.500  | ug/l | 99     |
| 20) Methylene Chloride        | 4.55 | 84  | 338247  | 45.242  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 329387  | 47.598  | ug/l | 96     |
| 22) Diisopropyl ether         | 5.95 | 45  | 919074  | 49.408  | ug/l | 98     |
| 23) Vinyl Acetate             | 5.89 | 43  | 3443648 | 257.513 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 585398  | 46.481  | ug/l | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 630774  | 244.784 | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 467983  | 48.968  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 370329  | 47.771  | ug/l | 100    |
| 28) Bromochloromethane        | 7.19 | 49  | 264687  | 48.154  | ug/l | 97     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 402876  | 241.748 | ug/l | 100    |
| 30) Chloroform                | 7.37 | 83  | 586137  | 46.317  | ug/l | 99     |
| 31) Cyclohexane               | 7.65 | 56  | 562815  | 48.791  | ug/l | 100    |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 500751  | 46.248  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 458395  | 48.021  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.92 | 43  | 267679  | 46.602  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 454219  | 47.664  | ug/l | 99     |

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 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 ICVVN022019

Manual Integrations  
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MMDadoda  
 2/21/2019 10:52:15 AM

Quant Time: Feb 21 03:52:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022019W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 21 03:36:07 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 589584   | 53.601  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 1374768  | 48.717  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 146889   | 46.852  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 402422   | 47.835  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.16  | 43   | 484404   | 47.575  | ug/l   | 99       |
| 44) Trichloroethene            | 8.83  | 130  | 390079   | 49.378  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 355763   | 49.380  | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 212463   | 48.977  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 449701   | 49.140  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 225442   | 51.641  | ug/l   | 94       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 68370    | 967.787 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 1276383  | 244.143 | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 837436   | 50.076  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 463408   | 52.148  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 546115   | 52.140  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 304391   | 49.791  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 378293   | 48.206  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 510741   | 49.619  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 853516   | 242.121 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 842158   | 263.629 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 351857   | 49.309  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 300857   | 49.536  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 384423   | 47.001  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 939353   | 49.065  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 343351   | 49.146  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1571516  | 50.720  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 1243469  | 103.648 | ug/l   | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 593770   | 51.410  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 967809   | 53.399  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 247075   | 49.832  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1552886  | 45.127  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 376093   | 47.593  | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 361523   | 44.437  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 302347m  | 42.165  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 421496   | 45.661  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 1878260  | 48.811  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 1104889  | 47.620  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1384318  | 48.465  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 101370   | 46.670  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1130405  | 48.903  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1202120  | 46.870  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1474840  | 51.481  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1769138  | 51.230  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1572341  | 52.463  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 811042   | 50.349  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 797468   | 49.203  | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.61 | 91   | 1350187  | 54.783  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 259146   | 45.261  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 765441   | 48.434  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 54775    | 46.139  | ug/l   | 98       |

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Sample : VSTDICV050  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN022019

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APPROVED

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2/21/2019 10:52:15 AM

Quant Time: Feb 21 03:52:42 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022019W.M  
Quant Title : SW846 8260  
QLast Update : Thu Feb 21 03:36:07 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 465740   | 48.727 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 301585   | 45.759 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 919516   | 47.680 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 434564   | 47.953 | ug/l  | 98       |

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

