

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN050219\  
 Data File : VN055373.D  
 Acq On : 3 May 2019 2:47  
 Operator : JC/SP  
 Sample : VN0502MBSD02  
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VN0502MBSD02

Manual Integrations  
 APPROVED

MMDadoda  
 5/3/2019 1:08:26 PM

Quant Time: May 03 09:54:43 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N042919W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Apr 30 07:16:52 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 402243   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 676499   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 563320   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 208838   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 273924   | 52.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.10% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 217364   | 48.95 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.90%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 788800   | 49.20 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.40%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 253280   | 50.54 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.08% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 93135   | 18.898  | ug/l   | 98     |
| 3) Chloromethane              | 2.06 | 50  | 109330  | 17.915  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 94060   | 19.121  | ug/l   | 97     |
| 5) Bromomethane               | 2.57 | 94  | 50172   | 19.255  | ug/l   | 94     |
| 6) Chloroethane               | 2.71 | 64  | 52719   | 19.783  | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 140292  | 20.057  | ug/l   | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 52321   | 21.380  | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 81960   | 19.677  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 115809  | 19.756  | ug/l   | 98     |
| 11) Tert butyl alcohol        | 4.80 | 59  | 30920   | 102.629 | ug/l # | 93     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 78384   | 19.727  | ug/l   | 96     |
| 13) Acrolein                  | 3.62 | 56  | 13473   | 57.262  | ug/l   | 98     |
| 14) Allyl chloride            | 4.33 | 41  | 161154  | 19.583  | ug/l   | 99     |
| 15) Acrylonitrile             | 5.00 | 53  | 176067  | 103.969 | ug/l   | 100    |
| 16) Acetone                   | 3.83 | 43  | 130241  | 79.432  | ug/l   | 98     |
| 17) Carbon Disulfide          | 4.06 | 76  | 172557  | 16.640  | ug/l   | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 91192   | 22.256  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 248337  | 22.232  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.56 | 84  | 96085   | 19.199  | ug/l   | 97     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 84029   | 19.968  | ug/l   | 93     |
| 22) Diisopropyl ether         | 5.95 | 45  | 359029  | 21.957  | ug/l   | 95     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1143873 | 106.739 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 184215  | 21.145  | ug/l   | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 210251  | 100.268 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 83708   | 13.914  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 99619   | 20.817  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.19 | 49  | 90025   | 20.500  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 147274  | 109.685 | ug/l   | 99     |
| 30) Chloroform                | 7.37 | 83  | 170713  | 20.671  | ug/l   | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 162041  | 19.576  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 137294  | 20.483  | ug/l   | 98     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 121488  | 18.749  | ug/l   | 98     |
| 37) Ethyl Acetate             | 6.94 | 43  | 97863   | 19.706  | ug/l   | 97     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 112232  | 17.955  | ug/l   | 98     |

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 Sample : VN0502MBSD02  
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
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 VN0502MBSD02

Manual Integrations  
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 5/3/2019 1:08:26 PM

Quant Time: May 03 09:54:43 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N042919W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Apr 30 07:16:52 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 124688   | 18.098  | ug/l   | 97       |
| 40) Benzene                    | 8.04  | 78   | 372305   | 19.490  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 56559m   | 21.471  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 132891   | 19.642  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 171321   | 21.466  | ug/l # | 88       |
| 44) Trichloroethene            | 8.84  | 130  | 94451    | 19.396  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 110874   | 20.125  | ug/l   | 97       |
| 46) Dibromomethane             | 9.21  | 93   | 57147    | 18.977  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 123536   | 19.122  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 78195    | 19.930  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.21  | 88   | 15453    | 381.006 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 454119   | 101.063 | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 215067   | 19.622  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 103927   | 18.531  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 130950   | 18.727  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 80111    | 19.683  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 102628   | 20.487  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 144499   | 20.238  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 109051   | 79.068  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 272234   | 96.829  | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 79463    | 19.103  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 73343    | 19.497  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 96610    | 20.972  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 217582   | 19.756  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 84072    | 19.495  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 398206   | 20.022  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 286746   | 40.392  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 146560   | 20.829  | ug/l   | 98       |
| 70) Styrene                    | 11.96 | 104  | 226063   | 20.925  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 45397    | 18.971  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.25 | 105  | 391140   | 21.752  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 123979   | 23.132  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 92119    | 20.379  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 87200m   | 21.004  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 88701    | 20.985  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 418060   | 19.488  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 257473   | 21.216  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 320713   | 19.589  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 18404    | 16.700  | ug/l   | 90       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 239109   | 19.170  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 272748   | 21.900  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 316221   | 21.596  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 343034   | 19.277  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 288881   | 19.751  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 136707   | 19.562  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 129213   | 19.634  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.61 | 91   | 209653   | 20.172  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 46283    | 19.009  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 139688   | 20.168  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 11933    | 21.719  | ug/l   | 94       |

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Sample : VN0502MBSD02  
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0502MBSD02

Manual Integrations  
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5/3/2019 1:08:26 PM

Quant Time: May 03 09:54:43 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N042919W.M  
Quant Title : SW846 8260  
QLast Update : Tue Apr 30 07:16:52 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 42904    | 17.983 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 47023    | 20.935 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 89875    | 17.780 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 46016    | 18.831 | ug/l  | 98       |

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

