

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN082418\  
 Data File : VN050869.D  
 Acq On : 24 Aug 2018 12:00  
 Operator : MD\SY  
 Sample : VN0824MBS01  
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0824MBS01

Manual Integrations  
 APPROVED

MMDadoda  
 8/25/2018 1:18:38 PM

Quant Time: Aug 24 23:08:49 2018  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N082118W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 22 05:38:12 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 596254   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 863287   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 776253   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 380314   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 348503   | 48.55 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.10% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 333942   | 48.62 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.24% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1249566  | 48.66 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.32% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 402927   | 47.22 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.44% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 169973  | 21.301  | ug/l   | 99     |
| 3) Chloromethane              | 2.06 | 50  | 189332  | 19.237  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 183375  | 19.669  | ug/l   | 100    |
| 5) Bromomethane               | 2.57 | 94  | 106264  | 19.400  | ug/l   | 96     |
| 6) Chloroethane               | 2.70 | 64  | 105501  | 19.585  | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 237493  | 19.893  | ug/l   | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 80582   | 19.851  | ug/l   | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 146466  | 19.637  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.95 | 142 | 106680  | 20.572  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.79 | 59  | 44990   | 98.428  | ug/l # | 86     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 131525  | 19.640  | ug/l   | 99     |
| 13) Acrolein                  | 3.61 | 56  | 19600   | 86.084  | ug/l   | 98     |
| 14) Allyl chloride            | 4.33 | 41  | 204412  | 19.589  | ug/l   | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 227073  | 97.752  | ug/l   | 100    |
| 16) Acetone                   | 3.82 | 43  | 170041  | 95.676  | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.05 | 76  | 397792  | 17.719  | ug/l   | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 134940  | 19.908  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 343470  | 20.390  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.55 | 84  | 152853  | 18.894  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 137948  | 19.045  | ug/l   | 99     |
| 22) Diisopropyl ether         | 5.95 | 45  | 430759  | 20.713  | ug/l   | 96     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1317231 | 98.354  | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 262186  | 19.638  | ug/l   | 98     |
| 25) 2-Butanone                | 6.84 | 43  | 251315  | 86.879  | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 210363  | 19.609  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 156749  | 20.073  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.20 | 49  | 109888  | 19.370  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 168456  | 101.570 | ug/l   | 99     |
| 30) Chloroform                | 7.37 | 83  | 264823  | 20.031  | ug/l   | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 232126  | 19.415  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 221533  | 19.508  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 196617  | 19.300  | ug/l   | 98     |
| 37) Ethyl Acetate             | 6.93 | 43  | 116118  | 19.843  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 201411  | 19.559  | ug/l   | 99     |

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 Operator : MD\SY  
 Sample : VN0824MBS01  
 Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
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Manual Integrations  
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Quant Time: Aug 24 23:08:49 2018  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N082118W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 22 05:38:12 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 207266   | 18.806  | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 611037   | 19.891  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.18  | 41   | 65692    | 20.743  | ug/l   | 91       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 181167   | 19.726  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 201927   | 20.069  | ug/l   | 98       |
| 44) Trichloroethene            | 8.84  | 130  | 158718   | 19.591  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 160265   | 19.850  | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 93350    | 19.678  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 199767   | 20.105  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 97536    | 19.021  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 27570    | 394.406 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 566631   | 94.372  | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 369885   | 20.326  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 185339   | 18.740  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 221363   | 19.546  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 134298   | 19.884  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 151121   | 18.741  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 221962   | 19.910  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 318389   | 91.206  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 361727   | 90.496  | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 146708   | 19.400  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 130133   | 19.925  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 143897   | 19.517  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 397300   | 19.581  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 147129   | 19.819  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.51 | 91   | 651107   | 19.739  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 511070   | 40.819  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 245210   | 20.371  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 384597   | 18.940  | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 100032   | 19.594  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 642045   | 20.388  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 151337   | 19.126  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 163946   | 20.884  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 140188m  | 21.045  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 168278   | 19.662  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 722610   | 20.541  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 443233   | 20.227  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 535348   | 21.068  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 38418    | 19.497  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 439880   | 20.334  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 452593   | 20.567  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 529326   | 20.709  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 597548   | 20.722  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 517722   | 21.071  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 282800   | 19.471  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 271997   | 19.029  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 372740   | 18.967  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 93828    | 20.147  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 280101   | 19.990  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 21777    | 19.255  | ug/l   | 99       |

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Sample : VN0824MBS01  
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA\_N/MEOH  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0824MBS01

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8/25/2018 1:18:38 PM

Quant Time: Aug 24 23:08:49 2018  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N082118W.M  
Quant Title : SW846 8260  
QLast Update : Wed Aug 22 05:38:12 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 103289   | 17.095 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 84970    | 19.780 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 183933   | 16.197 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 105001   | 17.650 | ug/l  | 99       |

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

