

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061720\  
 Data File : VN061867.D  
 Acq On : 17 Jun 2020 23:28  
 Operator : JC/MD  
 Sample : VN0617WBS02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 32 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0617WBS02

Manual Integrations  
 APPROVED

MMDadoda  
 6/18/2020 9:37:26 AM

Quant Time: Jun 18 06:46:42 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 17 01:19:44 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 151221   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 269103   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 245021   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 111236   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 7.99   | 65  | 98611    | 48.62 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 97.24% |      |
| 35) Dibromofluoromethane    | 7.55   | 113 | 85576    | 49.71 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 99.42% |      |
| 50) Toluene-d8              | 10.06  | 98  | 326150   | 48.19 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 96.38% |      |
| 62) 4-Bromofluorobenzene    | 12.38  | 95  | 106443   | 45.85 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 91.70% |      |

| Target Compounds              |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 38020  | 19.502 | ug/l   | 96     |
| 3) Chloromethane              | 2.03 | 50  | 40689  | 19.385 | ug/l   | 98     |
| 4) Vinyl Chloride             | 2.16 | 62  | 51861  | 20.725 | ug/l   | 98     |
| 5) Bromomethane               | 2.53 | 94  | 37049  | 19.280 | ug/l   | 96     |
| 6) Chloroethane               | 2.67 | 64  | 34604  | 20.433 | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 59609  | 19.943 | ug/l   | 98     |
| 8) Diethyl Ether              | 3.37 | 74  | 19357  | 19.264 | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 29894  | 19.495 | ug/l   | 99     |
| 10) Methyl Iodide             | 3.91 | 142 | 32943  | 21.226 | ug/l   | 100    |
| 11) Tert butyl alcohol        | 4.73 | 59  | 24807  | 88.392 | ug/l # | 89     |
| 12) 1,1-Dichloroethene        | 3.70 | 96  | 30101  | 19.591 | ug/l   | 94     |
| 13) Acrolein                  | 3.56 | 56  | 11910  | 71.005 | ug/l   | 100    |
| 14) Allyl chloride            | 4.27 | 41  | 36612  | 17.954 | ug/l   | 95     |
| 15) Acrylonitrile             | 4.93 | 53  | 66518  | 95.655 | ug/l   | 99     |
| 16) Acetone                   | 3.77 | 43  | 53249  | 88.887 | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.01 | 76  | 83849  | 18.651 | ug/l   | 98     |
| 18) Methyl Acetate            | 4.28 | 43  | 32047  | 18.581 | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 4.99 | 73  | 94608  | 18.493 | ug/l   | 98     |
| 20) Methylene Chloride        | 4.50 | 84  | 35390  | 18.133 | ug/l   | 100    |
| 21) trans-1,2-Dichloroethene  | 4.99 | 96  | 33222  | 18.825 | ug/l   | 97     |
| 22) Diisopropyl ether         | 5.90 | 45  | 87376  | 18.735 | ug/l   | 97     |
| 23) Vinyl Acetate             | 5.84 | 43  | 331455 | 90.361 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 5.80 | 63  | 56934  | 18.648 | ug/l   | 98     |
| 25) 2-Butanone                | 6.79 | 43  | 80086  | 91.628 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 6.78 | 77  | 42760  | 16.647 | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.78 | 96  | 37826  | 18.576 | ug/l   | 98     |
| 28) Bromochloromethane        | 7.15 | 49  | 25864  | 19.027 | ug/l   | 97     |
| 29) Tetrahydrofuran           | 7.17 | 42  | 53851  | 93.620 | ug/l   | 99     |
| 30) Chloroform                | 7.33 | 83  | 61665  | 18.899 | ug/l   | 96     |
| 31) Cyclohexane               | 7.62 | 56  | 48271  | 18.061 | ug/l # | 91     |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 52824  | 19.010 | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.75 | 75  | 44696  | 18.210 | ug/l   | 99     |
| 37) Ethyl Acetate             | 6.88 | 43  | 34596  | 18.049 | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.73 | 117 | 45425  | 18.688 | ug/l   | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061720\  
 Data File : VN061867.D  
 Acq On : 17 Jun 2020 23:28  
 Operator : JC/MD  
 Sample : VN0617WBS02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 32 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VN0617WBS02

Manual Integrations  
 APPROVED

MMDadoda  
 6/18/2020 9:37:26 AM

Quant Time: Jun 18 06:46:42 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 17 01:19:44 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.05  | 83   | 47424    | 17.943  | ug/l   | 96       |
| 40) Benzene                    | 8.00  | 78   | 135596   | 18.237  | ug/l   | 98       |
| 41) Methacrylonitrile          | 7.14  | 41   | 15174m   | 18.513  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.08  | 62   | 47375    | 18.687  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.13  | 43   | 57990    | 17.953  | ug/l # | 90       |
| 44) Trichloroethene            | 8.80  | 130  | 36319    | 18.561  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.08  | 63   | 34121    | 18.674  | ug/l   | 97       |
| 46) Dibromomethane             | 9.17  | 93   | 24432    | 18.988  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.37  | 83   | 48884    | 18.554  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.17  | 41   | 25581    | 17.414  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.17  | 88   | 12724    | 377.281 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.95  | 43   | 172318   | 90.275  | ug/l   | 100      |
| 52) Toluene                    | 10.12 | 92   | 87711    | 18.783  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.35 | 75   | 48198    | 17.232  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.81  | 75   | 53752    | 17.693  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.53 | 97   | 34753    | 18.916  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.40 | 69   | 44372    | 17.796  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.68 | 76   | 57795    | 18.568  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.66  | 63   | 80293    | 82.807  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.72 | 43   | 119277   | 87.428  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.87 | 129  | 37322    | 18.205  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 10.98 | 107  | 35787    | 18.654  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.60 | 164  | 31558    | 20.208  | ug/l   | 96       |
| 65) Chlorobenzene              | 11.41 | 112  | 95208    | 18.415  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 34226    | 18.981  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.48 | 91   | 161117   | 18.587  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.60 | 106  | 126609   | 37.878  | ug/l   | 99       |
| 69) o-Xylene                   | 11.92 | 106  | 59499    | 18.656  | ug/l   | 99       |
| 70) Styrene                    | 11.94 | 104  | 99113    | 18.560  | ug/l   | 99       |
| 71) Bromoform                  | 12.10 | 173  | 24690    | 18.779  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.22 | 105  | 155402   | 19.660  | ug/l   | 98       |
| 74) N-amyl acetate             | 12.05 | 43   | 45153    | 17.871  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 49042    | 19.083  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.53 | 75   | 40167m   | 18.393  | ug/l   |          |
| 77) Bromobenzene               | 12.50 | 156  | 39511    | 19.813  | ug/l   | 94       |
| 78) n-propylbenzene            | 12.57 | 91   | 173158   | 19.198  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.65 | 91   | 105038   | 19.390  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 130573   | 19.966  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.27 | 75   | 13808    | 17.245  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.75 | 91   | 109762   | 19.609  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.97 | 119  | 108034   | 19.486  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 130144   | 20.160  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.15 | 105  | 143305   | 19.748  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.26 | 119  | 128343   | 19.848  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.26 | 146  | 68244    | 18.763  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.34 | 146  | 68797    | 18.479  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.59 | 91   | 96707    | 17.908  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.85 | 117  | 22910    | 19.355  | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene        | 13.63 | 146  | 68932    | 19.686  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.25 | 75   | 8074     | 19.352  | ug/l   | 97       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061720\  
Data File : VN061867.D  
Acq On : 17 Jun 2020 23:28  
Operator : JC/MD  
Sample : VN0617WBS02  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 32 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0617WBS02

Manual Integrations  
APPROVED

MMDadoda  
6/18/2020 9:37:26 AM

Quant Time: Jun 18 06:46:42 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jun 17 01:19:44 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.88 | 180  | 29391    | 17.788 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 14.98 | 225  | 12467    | 19.157 | ug/l  | 98       |
| 95) Naphthalene            | 15.11 | 128  | 84479    | 17.687 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.29 | 180  | 30476    | 18.624 | ug/l  | 99       |

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

