# 2013 North American Proficiency Testing Program
# 4th Quarter Report - January 14, 2014

**Laboratory ID**
**general**

| Water | | | Water 2013-310 | | | Water 2013-311 | | | Water 2013-312 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis** | **Units** | ***n*** | **Median** | ***MAD*** | **Lab[1,2]** | **Median** | ***MAD*** | **Lab[1,2]** | **Median** | ***MAD*** | **Lab[1,2]** |
| **pH** | | 28 | **7.02** | *0.130* | | **7.41** | *0.110* | | **7.93** | *0.065* | |
| **EC** | dS/m | 26 | **37.3** | *1.55* | | **0.230** | *0.010* | | **0.390** | *0.010* | |
| **Cations** | | | | | | | | | | | |
| **Ca** | mmolc/L | 24 | **54.1** | *3.01* | | **1.57** | *0.090* | | **1.50** | *0.065* | |
| **Mg** | mmolc/L | 24 | **2.78** | *0.335* | | **0.350** | *0.020* | | **0.380** | *0.020* | |
| **Na** | mmolc/L | 24 | **297** | *23.0* | | **0.270** | *0.018* | | **1.78** | *0.075* | |
| **K** | mmolc/L | 24 | **25.9** | *2.28* | | **0.280** | *0.024* | | **0.240** | *0.020* | |
| **NH4-N** | mmolc/L | 15 | **0.300** | *0.050* | | **0.000** | *0.000* | | **0.000** | *0.000* | |
| **Sum Cations** | mmolc/L | 12 | **378** | *32.5* | | **2.79** | *0.440* | | **4.07** | *0.314* | |
| **SAR** | | 13 | **55.5** | *9.10* | | **0.370** | *0.046* | | **1.84** | *0.090* | |
| **Adj-SAR** | | 5 | **158** | *7.00* | | **0.670** | *0.310* | | **2.80** | *0.100* | |
| **Anions** | | | | | | | | | | | |
| **HCO3** | mmolc/L | 17 | **3.17** | *0.170* | | **1.86** | *0.120* | | **2.11** | *0.160* | |
| **CO3** | mmolc/L | 9 | **0.000** | *0.000* | | **0.000** | *0.000* | | **0.000** | *0.000* | |
| **Cl** | mmolc/L | 24 | **384** | *26.5* | | **0.231** | *0.018* | | **0.510** | *0.040* | |
| **NO3** | mmolc/L | 22 | **0.040** | *0.009* | | **0.046** | *0.009* | | **0.010** | *0.002* | |
| **SO4** | mmolc/L | 22 | **4.06** | *0.471* | | **0.200** | *0.030* | | **1.17** | *0.075* | |
| **Sum Anions** | mmolc/L | 11 | **392** | *21.3* | | **2.30** | *0.134* | | **3.86** | *0.180* | |
| **Cation-Anion Difference** | | 7 | **4.68** | *33.3* | | **0.600** | *0.560* | | **0.160** | *0.136* | |
| **Other** | | | | | | | | | | | |
| **Boron** | mg/L | 17 | **4.40** | *0.440* | | **0.033** | *0.004* | | **0.080** | *0.008* | |
| **PO4-P Phosphorus - Spec** | mg/L | 5 | **0.050** | *0.020* | | **0.670** | *0.020* | | **0.050** | *0.020* | |
| **Phosphorus - ICP** (Total) | mg/L | 13 | **0.113** | *0.020* | | **0.750** | *0.085* | | **0.055** | *0.012* | |
| **TKN** | mg/L | 4 | **4.81** | *0.040* | | **1.60** | *0.370* | | **0.285** | *0.215* | |
| **Nitrogen Combustion** (Total) | mg/L | 2 | **5.95** | *1.12* | | **2.35** | *0.480* | | **0.625** | *0.445* | |
| **Total Organic Carbon** | mg/L | 4 | **1.29** | *0.766* | | **16.9** | *0.704* | | **0.921** | *0.215* | |

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " **" 4 x MAD. " < " and "ND" values not recorded.
2 - Limits not compared to lab data for methods with < 7 labs reporting.