



**2021 North American Proficiency Testing Program
Quarter 1 Water Report - Wednesday, April 14, 2021**

**Laboratory ID
General**

Water Analysis	Units	n	Water 2021-301			Water 2021-302			Water 2021-303		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
Bulk Properties											
pH		33	7.90	0.100		8.20	0.080		8.11	0.090	
EC	dS/m	31	0.340	0.009		0.339	0.009		0.527	0.017	
Cations											
Ca	mmolc/L	32	2.34	0.135		0.851	0.044		3.06	0.194	
Mg	mmolc/L	32	0.742	0.042		2.06	0.114		1.98	0.095	
Na	mmolc/L	32	0.434	0.020		0.730	0.030		0.676	0.031	
K	mmolc/L	29	0.048	0.004		0.100	0.008		0.080	0.008	
NH4-N	mmolc/L	2	0.050	0.038		0.012	0.008		0.009	0.001	
Sum Cations	mmolc/L	16	3.53	0.192		3.72	0.131		5.69	0.328	
SAR		18	0.355	0.023		0.602	0.015		0.420	0.020	
Adj-SAR		7	0.500	0.100		0.700	0.120		0.600	0.230	
Anions											
HCO3	mmolc/L	25	1.99	0.120		3.24	0.190		4.68	0.300	
CO3	mmolc/L	5	0.001	0.001		0.239	0.046		0.419	0.055	
Cl	mmolc/L	22	0.081	0.019		0.036	0.005		0.650	0.040	
NO3	mmolc/L	20	0.012	0.001		0.010	0.002		0.059	0.009	
SO4	mmolc/L	27	1.45	0.079		0.311	0.028		0.270	0.030	
Sum Anions	mmolc/L	16	3.56	0.080		3.72	0.192		5.76	0.315	
Cation-Anion Difference		10	0.090	0.016		0.115	0.026		0.110	0.022	
Other											
Boron	mg/L	18	0.024	0.003		0.024	0.006		0.025	0.005	
PO4-P Phosphorus - Spec	mg/L	5	0.021	0.020		0.034	0.030		0.060	0.029	
Phosphorus - ICP (Total)	mg/L	5	0.040	0.023		0.010	0.010		0.030	0.019	
TKN	mg/L	2	0.200	0.100					0.150	0.050	
Nitrogen Combustion (Total)	mg/L	1	0.290	0.000		0.113	0.000		0.930	0.000	
Total Organic Carbon	mg/L	4	2.40	0.255		10.1	9.98		1.86	0.225	

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " 4 x MAD.

2 - Limits not compared to lab data for methods with less than 7 labs reporting.