



**2021 North American Proficiency Testing Program
Quarter 4 Water Report - Thursday, February 3, 2022**

**Laboratory ID
General**

Water Analysis	Units	n	Water 2021-310			Water 2021-311			Water 2021-312		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
Bulk Properties											
pH		34	8.14	0.075		7.90	0.100		8.06	0.110	
EC	dS/m	31	1.05	0.040		0.320	0.016		0.690	0.020	
Cations											
Ca	mmolc/L	31	3.50	0.130		2.40	0.090		3.18	0.122	
Mg	mmolc/L	31	1.50	0.049		0.542	0.027		1.32	0.065	
Na	mmolc/L	31	5.13	0.194		0.243	0.013		2.25	0.072	
K	mmolc/L	30	0.044	0.006		0.025	0.005		0.066	0.006	
NH4-N	mmolc/L	4	0.001	0.001		0.001	0.001		0.003	0.002	
Sum Cations	mmolc/L	14	10.3	0.171		3.24	0.064		7.00	0.148	
SAR		16	3.16	0.115		0.200	0.010		1.48	0.080	
Adj-SAR		7	4.00	0.300		0.250	0.080		1.82	0.320	
Anions											
HCO3	mmolc/L	22	3.98	0.260		1.40	0.089		2.24	0.122	
CO3	mmolc/L	9	0.269	0.047		0.000	0.000		0.128	0.076	
Cl	mmolc/L	26	5.33	0.185		0.060	0.015		1.66	0.131	
NO3	mmolc/L	18	0.008	0.002		0.010	0.002		0.030	0.003	
SO4	mmolc/L	25	0.873	0.043		1.69	0.084		2.85	0.132	
Sum Anions	mmolc/L	13	10.4	0.440		3.26	0.129		6.91	0.381	
Cation-Anion Difference		8	0.622	0.127		0.077	0.012		0.247	0.047	
Other											
Boron	mg/L	16	0.021	0.003		0.015	0.002		0.038	0.005	
PO4-P Phosphorus - Spec	mg/L	6	0.014	0.012		0.010	0.006		0.026	0.004	
Phosphorus - ICP (Total)	mg/L	7	0.020	0.007		0.020	0.009		0.018	0.003	
TKN	mg/L	2	0.076	0.024		0.132	0.068		0.174	0.026	
Nitrogen Combustion (Total)	mg/L	1	0.084	0.000		0.190	0.000		0.598	0.000	
Total Organic Carbon	mg/L	5	0.910	0.090		1.06	0.080		2.82	0.180	

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.