



**2018 North American Proficiency Testing Program  
Quarter 3 Water Report - Oct 9, 2018**

**Laboratory ID  
General**

Water Analysis	Units	n	Water 2018-307			Water 2018-308			Water 2018-309		
			Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>
pH		31	7.76	0.110		8.10	0.100		8.16	0.070	
EC	dS/m	30	0.180	0.005		0.930	0.031		0.580	0.016	
<b>Cations</b>											
Ca	mmolc/L	30	1.33	0.030		3.56	0.088		3.28	0.117	
Mg	mmolc/L	30	0.339	0.015		1.69	0.065		1.63	0.055	
Na	mmolc/L	30	0.170	0.010		4.04	0.158		1.09	0.044	
K	mmolc/L	29	0.040	0.002		0.033	0.004		0.160	0.007	
NH4-N	mmolc/L	10	0.003	0.000		0.000	0.000		0.000	0.000	
Sum Cations	mmolc/L	13	1.88	0.084		9.25	0.481		6.14	0.300	
SAR		13	0.190	0.010		2.50	0.090		0.700	0.020	
Adj-SAR		5	0.250	0.010		5.30	0.170		1.50	0.100	
<b>Anions</b>											
HCO3	mmolc/L	20	1.40	0.069		4.15	0.204		4.29	0.243	
CO3	mmolc/L	11	0.000	0.000		0.000	0.000		0.000	0.000	
Cl	mmolc/L	22	0.141	0.008		3.94	0.174		1.21	0.100	
NO3	mmolc/L	26	0.040	0.008		0.005	0.001		0.040	0.008	
SO4	mmolc/L	24	0.250	0.022		1.06	0.049		0.400	0.034	
Sum Anions	mmolc/L	12	1.85	0.107		9.23	0.522		6.18	0.352	
Cation-Anion Difference		8	0.140	0.024		0.550	0.131		0.320	0.070	
<b>Other</b>											
Boron	mg/L	17	0.011	0.001		0.030	0.006		0.060	0.010	
PO4-P Phosphorus - Spec	mg/L	6	0.038	0.003		0.017	0.007		0.015	0.005	
Phosphorus - ICP (Total)	mg/L	13	0.044	0.006		0.035	0.006		0.030	0.004	
TKN	mg/L	6	0.522	0.200		0.198	0.119		0.450	0.200	
Nitrogen Combustion (Total)	mg/L	2	0.341	0.329		0.037	0.023		0.326	0.314	
Total Organic Carbon	mg/L	2	1.94	0.043		1.08	0.085		1.11	0.100	

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.