



**2009 North American Proficiency Testing Program  
3rd Quarter Report - September 20, 2009**

Laboratory ID

Water Analysis	Units	n	Water 2009-307			Water 2009-308			Water 2009-309		
			Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>
<b>pH</b>		29	<b>7.96</b>	0.140		<b>7.97</b>	0.130		<b>7.03</b>	0.230	
<b>EC</b>	dS/m	27	<b>6.63</b>	0.265		<b>0.663</b>	0.026		<b>0.550</b>	0.018	
<b>Cations</b>											
<b>Ca</b>	mmolc/L	27	<b>2.28</b>	0.140		<b>3.72</b>	0.223		<b>2.55</b>	0.102	
<b>Mg</b>	mmolc/L	27	<b>10.7</b>	0.43		<b>2.16</b>	0.104		<b>2.15</b>	0.100	
<b>Na</b>	mmolc/L	26	<b>47.9</b>	2.47		<b>1.09</b>	0.043		<b>0.385</b>	0.019	
<b>K</b>	mmolc/L	27	<b>1.92</b>	0.100		<b>0.160</b>	0.010		<b>0.407</b>	0.021	
<b>NH4-N</b>	mmolc/L	10	<b>0.000</b>	0.000		<b>0.000</b>	0.000		<b>0.000</b>	0.000	
<b>Sum Cations</b>	mmolc/L	16	<b>63.3</b>	2.53		<b>7.27</b>	0.501		<b>5.59</b>	0.364	
<b>SAR</b>		16	<b>18.3</b>	0.94		<b>0.625</b>	0.025		<b>0.240</b>	0.020	
<b>Adj-SAR</b>		8	<b>37.9</b>	2.33		<b>1.35</b>	0.075		<b>0.480</b>	0.026	
<b>Anions</b>											
<b>HCO3</b>	mmolc/L	18	<b>2.92</b>	0.233		<b>5.00</b>	0.370		<b>3.13</b>	0.205	
<b>CO3</b>	mmolc/L	13	<b>0.000</b>	0.000		<b>0.000</b>	0.000		<b>0.000</b>	0.000	
<b>Cl</b>	mmolc/L	22	<b>56.4</b>	2.84		<b>1.41</b>	0.095		<b>0.457</b>	0.030	
<b>NO3</b>	mmolc/L	28	<b>0.020</b>	0.010		<b>0.069</b>	0.009		<b>1.53</b>	0.540	
<b>SO4</b>	mmolc/L	23	<b>5.39</b>	0.220		<b>0.280</b>	0.030		<b>0.160</b>	0.020	
<b>Sum Anions</b>	mmolc/L	12	<b>63.6</b>	2.82		<b>6.85</b>	0.318		<b>5.40</b>	0.425	
<b>Cation-Anion Difference</b>		40	<b>0.00</b>	0.000		<b>0.00</b>	0.000		<b>0.00</b>	0.000	
<b>Boron</b>	mg/L	20	<b>0.480</b>	0.079		<b>0.039</b>	0.012		<b>0.040</b>	0.010	
<b>PO4-P Phosphorus - Spec</b>	mg/L	9	<b>0.033</b>	0.006		<b>0.132</b>	0.033		<b>2.57</b>	0.115	
<b>Phosphorus - ICP (Total)</b>	mg/L	14	<b>0.025</b>	0.015		<b>0.110</b>	0.030		<b>2.62</b>	0.115	
<b>TKN</b>	mg/L	5	<b>1.03</b>	0.530		<b>0.700</b>	0.550		<b>0.600</b>	0.431	
<b>Nitrogen Combustion (Total)</b>	mg/L	1	<b>0.600</b>	0.000		<b>1.19</b>	0.000		<b>23.4</b>	0.000	
<b>Total Organic Carbon</b>	mg/L	4	<b>5.61</b>	3.090		<b>6.29</b>	4.325		<b>3.29</b>	2.230	

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.