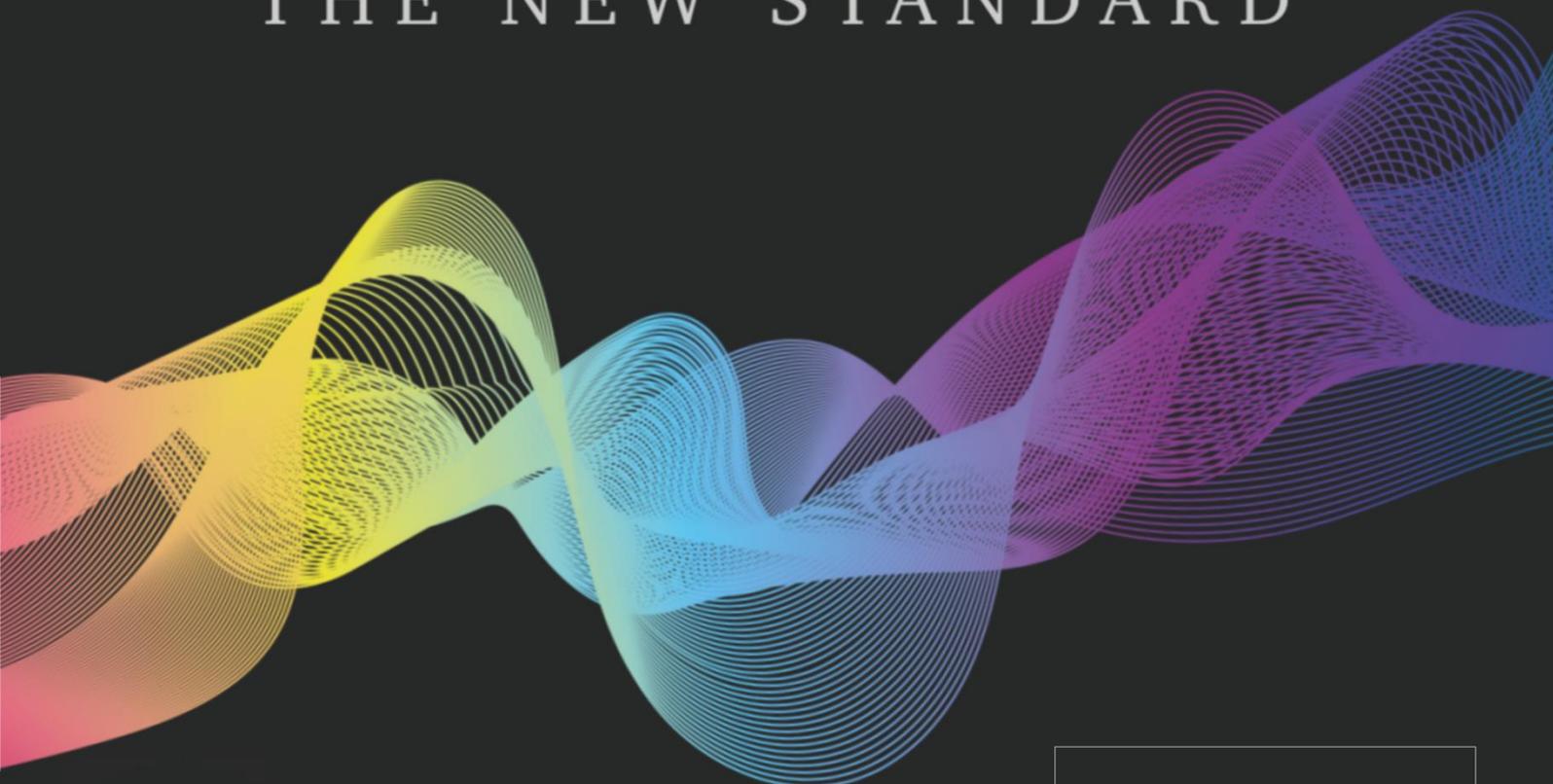




ADVANCED ICP-OES WATER ANALYSIS



THE NEW STANDARD



AAF688

Disclaimer

Higher values indicated in red may have greater inaccuracies due to the range of calibration



Litres of Tank (L): 150

Environment: LPS Dominant

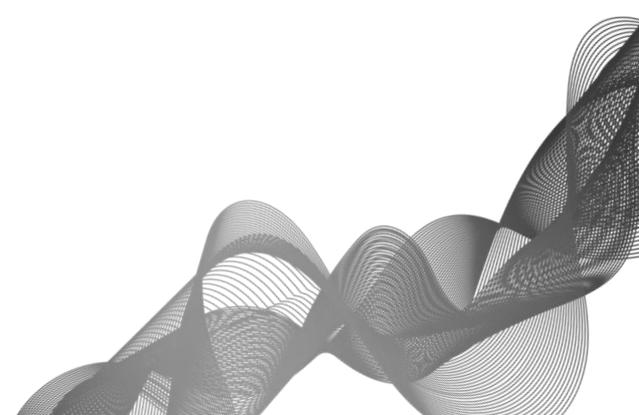
Days Between Tests: 56

Group I	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Lithium	0.12	0.10	+0.02	✓
Sodium**	10686	10500	+186	✓
Potassium	412.9	390.0	+22.9	!
Rubidium	0.04	0.04	+0.00	✓

Group II	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Beryllium	0.001	0.001	+0.000	✓
Magnesium	1293	1280	+13	✓
Calcium	435.6	430.0	+5.6	✓
Strontium	6.40	8.00	-1.60	!
Barium	0.002	0.010	-0.008	✓

Transition Metals	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Vanadium	0.001	0.001	+0.000	✓
Chromium	n.d.	0.001		✓
Manganese	n.d.	0.001		!
Iron	0.004	0.004	+0.000	✓
Cobalt	n.d.	0.001		✓
Nickel	0.001	0.001	+0.000	✓
Zinc	0.001	0.002	-0.001	✓
Molybdenum	0.003	0.005	-0.002	✓

Group III	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Boron	4.26	4.50	-0.24	!
Aluminium**	0.12	0.30	-0.176	✓



Group VI	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Sulfur	925.7	900.0	+25.7	✓
Sulphate	2773	2696	+77	✓

Halogens	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Chlorine**	19169	19000	+169	✓
Bromine	62.6	65.0	-2.4	✓
Iodine	0.048	0.060	-0.012	✓

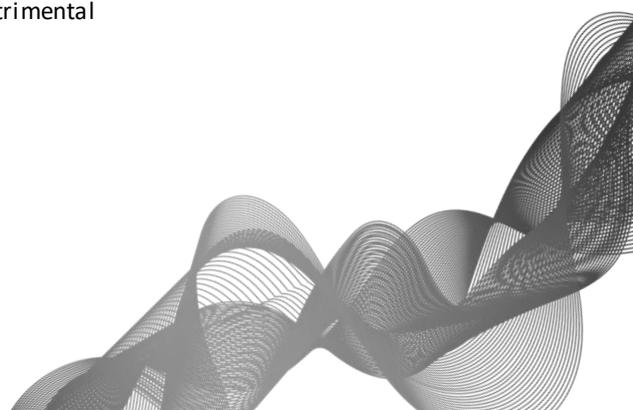
Lanthinoids	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Lanthanum	n.d.	0.001		✓

Actinoids	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Uranium	n.d.	0.001		✓

Nutrients	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Silicon	0.10	0.10	+0.00	✓
Phosphorus	0.024	0.010	+0.014	⚠
Phosphate	0.074	0.031	+0.043	⚠

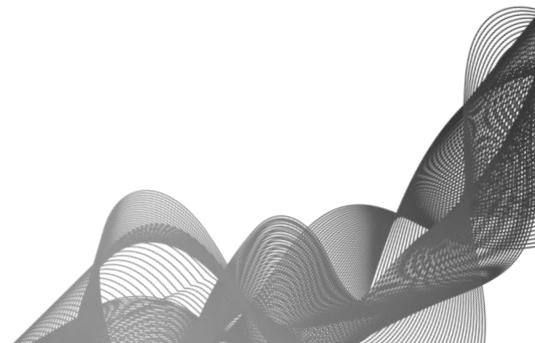
Unwanted Elements	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Scandium	n.d.	n.d.		✓
Titanium	n.d.	n.d.		✓
Copper	n.d.	n.d.		✓
Arsenic	n.d.	n.d.		✓
Selenium	n.d.	n.d.		✓
Silver	n.d.	n.d.		✓
Cadmium	n.d.	n.d.		✓
Tin	n.d.	n.d.		✓
Antimony	n.d.	n.d.		✓
Gold	n.d.	n.d.		✓
Thallium	n.d.	n.d.		✓
Lead	n.d.	n.d.		✓
Bismuth	n.d.	n.d.		✓

**It is important to ensure that there is stability in these elements rather than just considering the reading, as fluctuations in the level of these elements may be detrimental



Analysis

Element	Risk Level	Suggested Action
Potassium	Low Risk	10% water change & Lower Bio-Kalium dosing
Strontium	Low Risk	We recommend you dose an additional 2 drops daily of Reef Essential Signature Series Strontium for a period of 56 days
Manganese	Low Risk	We recommend you dose 1 drop of Reef Essential Signature Series Manganese every 2 days for a period of 56 days
Boron	Low Risk	We recommend you dose an additional 3 drops daily of Reef Essential Signature Series Boron for a period of 56 days
Phosphate	Low Risk	Increase phosphate remover dosing according to instructions on bottle



Environment: RODI

Group I	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Sodium	n.d.	n.d.	N/A	✓
Potassium	n.d.	n.d.	N/A	✓

Group II	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Magnesium	n.d.	n.d.	N/A	✓
Calcium	0.061	n.d.	+0.061	✓

Group III	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Aluminium	n.d.	n.d.	N/A	✓

Transition Metals	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Iron	n.d.	n.d.	N/A	✓
Zinc	n.d.	n.d.	N/A	✓

Nutrients	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Silicon	n.d.	n.d.	N/A	✓
Phosphorus	n.d.	n.d.	N/A	✓
Phosphate	n.d.	n.d.	N/A	✓

Unwanted Elements	Reading (ppm)	Desired level (ppm)	Difference (ppm)	Warning level
Copper	n.d.	n.d.	N/A	✓
Arsenic	n.d.	n.d.	N/A	✓
Lead	n.d.	n.d.	N/A	✓

Recommendation

Filters are in excellent condition

