How to read an ICP test

A checklist for deciding what to confirm, what to investigate, and what to leave alone.

1 / Record the sample context

☐ Tank: _____ Lab / sample ID: _____
Sample date / time: _____ Salinity: _____ Last dose: _____

☐ Follow the lab's sampling instructions. Note recent water changes, additives, new equipment, and any coral symptoms. Compare samples taken at the same point in the dosing cycle.

2 / Read in a useful order

☐ Check salinity with a calibrated instrument first. If several major elements shift in the same direction, investigate salinity before dosing individual elements.

☐ Review unexpected metals (such as copper or zinc). Inspect fittings, corroding equipment, supplements, salt, and source water. Ask the lab about surprising results and its detection limits; do not dose around contamination.

☐ Confirm major-element problems with a reliable home test where possible. Compare units and the lab's reference basis before comparing numbers.

☐ Look at trace-element trends, not just red flags. A result near the detection limit is not a precise target. Avoid a cocktail of trace supplements in response to one report.

3 / Choose one next action

☐ Confirm / investigate / watch (circle one). Keep routine alkalinity, nutrient, and pH testing: elemental ICP is not a direct test of those parameters; some labs offer separate tests.

Element / result / unit: _____
Home confirmation or lab question: _____
Suspected source / single change: _____
Retest plan / same lab: _____

If livestock are distressed, check temperature, salinity, oxygenation, and routine water parameters now. Do not wait for another mailed sample.

Sources & next steps

Coral Compass: ICP results explained
https://coralcompass.app/blog/icp-test-results-explained/

Coral Compass: ICP methods and trace-element research
https://coralcompass.app/learn/icp-testing-trace-elements/