

Tank
Display
Net size
760 liter
Reason for analysis
Cyanobacteria

Barcode
LLWR-NQHY-EJDT-UKVP (ID: 301613)

Created
11/11/2024

Arrived in the laboratory
11/21/2024

Evaluated
11/22/2024



Quality assessment:
The quality of your aquarium water is assessed using the score in the circle. The closer it is to 100, the better the quality. You can also use the bar chart to identify the areas in which problems may occur.

Major elements	50 / 100
Minor elements	76 / 100
Pollutants	100 / 100
Base elements	92 / 100

Results of Salt water

Base elements

Sal. total	36.26 PSU	ABOVE NORMAL
Salinity	Ideal value: 35.00 PSU	Attention
KH	7.38 °dKH	NORMAL
Carbonate hardness	Ideal value: 7.50 °dKH	Near nature

Major elements

Cl	21575 mg/l	NORMAL
Chloride	Ideal value: 20793 mg/l	Near nature
Na	11118 mg/l	NORMAL
Sodium	Ideal value: 11552 mg/l	Near nature
Mg	1244 mg/l	NORMAL
Magnesium	Ideal value: 1381 mg/l	Near nature
S	571.8 mg/l	CRITICALLY LOW
Sulfur	Ideal value: 955.7 mg/l	Critical
Ca	1019 mg/l	CRITICALLY HIGH
Calcium	Ideal value: 442.1 mg/l	Critical
K	253.5 mg/l	CRITICALLY LOW
Potassium	Ideal value: 428.5 mg/l	Critical
Br	73.99 mg/l	NORMAL
Bromine	Ideal value: 70.36 mg/l	Near nature
Sr	18.75 mg/l	CRITICALLY HIGH
Strontium	Ideal value: 8.51 mg/l	Critical
B	4.00 mg/l	NORMAL
Boron	Ideal value: 4.73 mg/l	Near nature
F	0.25 mg/l	CRITICALLY LOW
Fluorine	Ideal value: 1.37 mg/l	Critical



Minor elements

Li Lithium	274.6 µg/l Ideal value: 178.5 µg/l	NORMAL Near nature
Si Silicon	283.4 µg/l Ideal value: 105.0 µg/l	NORMAL Near nature
I Iodine	7.91 µg/l Ideal value: 68.26 µg/l	CRITICALLY LOW Critical
Ba Barium	18.23 µg/l Ideal value: 10.50 µg/l	NORMAL Near nature
Mo Molybdenum	10.49 µg/l Ideal value: 12.60 µg/l	NORMAL Near nature
Ni Nickel	4.44 µg/l Ideal value: 0.53 µg/l	NORMAL Near nature
Mn Manganese	--- Ideal value: 1.05 µg/l	BELOW NORMAL Attention
As Arsenic	--- Ideal value: 0.53 µg/l	NORMAL Near nature
Be Beryllium	--- Ideal value: 0.11 µg/l	NORMAL Near nature
Cr Chrome	--- Ideal value: 0.53 µg/l	NORMAL Near nature
Co Cobalt	0.72 µg/l Ideal value: 0.11 µg/l	NORMAL Near nature
Fe Iron	32.30 µg/l Ideal value: 0.53 µg/l	ABOVE NORMAL Attention
Cu Copper	2.78 µg/l Ideal value: 0.53 µg/l	NORMAL Near nature
Se Selenium	--- Ideal value: 0.53 µg/l	NORMAL Near nature
Ag Silver	--- Ideal value: 0.11 µg/l	NORMAL Near nature
V Vanadium	1.84 µg/l Ideal value: 1.58 µg/l	NORMAL Near nature
Zn Zinc	37.10 µg/l Ideal value: 2.10 µg/l	CRITICALLY HIGH Critical
Sn Tin	75.82 µg/l Ideal value: 0.53 µg/l	CRITICALLY HIGH Critical

Nutrients

NO3 Nitrate	2.12 mg/l Ideal value: 2.00 mg/l	NORMAL Near nature
P Phosphorus	293.5 µg/l Ideal value: 15.75 µg/l	CRITICALLY HIGH Critical
PO4 Phosphate	0.90 mg/l Ideal value: 0.05 mg/l	CRITICALLY HIGH Critical

Pollutants

Al. Aluminium	14.64 µg/l Ideal value: 0.11 µg/l	NORMAL Near nature
Sb Antimony	--- Ideal value: 0.11 µg/l	NORMAL Near nature
Bi Bismuth	--- Ideal value: 0.11 µg/l	NORMAL Near nature
Pb Lead	--- Ideal value: 0.11 µg/l	NORMAL Near nature
Cd Cadmium	--- Ideal value: 0.21 µg/l	NORMAL Near nature
La. Lanthanum	--- Ideal value: 0.001 µg/l	NORMAL Near nature
Tl Thallium	--- Ideal value: 0.11 µg/l	NORMAL Near nature
Ti Titanium	--- Ideal value: 0.11 µg/l	NORMAL Near nature
W Tungsten	--- Ideal value: 0.001 µg/l	NORMAL Near nature
Hg Mercury	--- Ideal value: 0.001 µg/l	NORMAL Near nature

Results of Osmosis water

Minor elements

Li Lithium	---	NORMAL Near nature
Si Silicon	1037 µg/l Ideal value: 0.001 µg/l	CRITICALLY HIGH Critical
Ba Barium	---	NORMAL Near nature
Mo Molybdenum	---	NORMAL Near nature
Ni Nickel	---	NORMAL Near nature
Mn Manganese	---	NORMAL Near nature
As Arsenic	---	NORMAL Near nature
Be Beryllium	---	NORMAL Near nature
Cr Chrome	---	NORMAL Near nature
Co Cobalt	---	NORMAL Near nature
Fe Iron	---	NORMAL Near nature
Cu Copper	---	NORMAL Near nature
Se Selenium	---	NORMAL Near nature
Ag Silver	---	NORMAL Near nature
V Vanadium	---	NORMAL Near nature
Zn Zinc	46.68 µg/l Ideal value: 0.001 µg/l	CRITICALLY HIGH Critical
Sn Tin	---	NORMAL Near nature

Nutrients

P Phosphorus	---	NORMAL Near nature
PO4 Phosphate	---	NORMAL Near nature

Pollutants

Al. Aluminium	---	NORMAL Near nature
Sb Antimony	---	NORMAL Near nature
Bi Bismuth	---	NORMAL Near nature
Pb Lead	---	NORMAL Near nature
Cd Cadmium	---	NORMAL Near nature
La. Lanthanum	---	NORMAL Near nature
Tl Thallium	---	NORMAL Near nature
Ti Titanium	---	NORMAL Near nature
W Tungsten	---	NORMAL Near nature
Hg Mercury	---	NORMAL Near nature

Recommendations

The following recommendations were calculated for the aquarium **Display** with **760 liters** content.

Recommended actions

Tin Change 3 x 20 % of water with natural seawater or "Absolute Ocean" (weekly cycle).	Important
Strontium Stop adding strontium to reduce value to 7.8-8.2 mg/l. Can be accelerated by several water changes with Absolute Ocean.	Important
Zinc Zinc is elevated. Find and eliminate the source (e.g. corroding metals, contaminated water treatment, osmosis water, etc.). Carry out several large water changes with Absolute Ocean to reduce the value.	Important
Phosphorus Phosphorus is too high. Improve the filtration and/or reduce the amount of food. Use an iron-based PO ₄ adsorber (e.g. ATI Phosphate Stop) to reduce the phosphorus value to 13-17 µg/l.	Important
Calcium Stop addition of calcium to reduce value to 410-440 mg/l. Can be accelerated by several water changes with Absolute Ocean.	Important
Salinity Lower the salinity to 35 PSU. For this purpose, remove 26.45 liters of aquarium water and replace it with the same amount of osmosis water.	Recommended
Silicon Maintain osmosis system / replace mixed bed resin.	Osmosis

Iodine (1000 ml bottle)**Important**

Addition Total: 45.87 ml
 Divide the addition into portions: four times 11.47 ml *

Iodine (alt. 100 ml bottle)**Important**

Addition Total: 4.59 ml
 Divide the addition into portions: four times 1.15 ml *

Potassium (K)**Recommended**

Addition Total: 1329.67 ml
 Divide the addition into portions: 18x 73.87 ml *

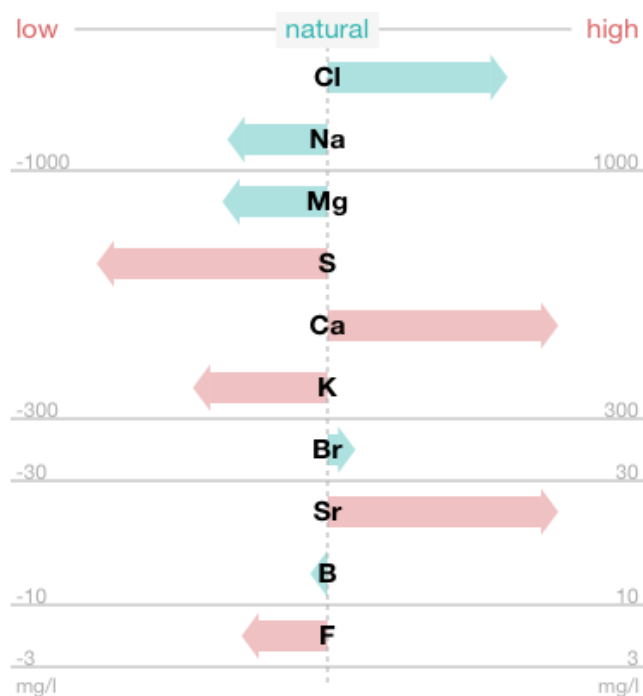
Manganese (Mn)**Recommended**

Addition Total: 3.99 ml
 Divide the addition into portions: once 3.99 ml

Fluorine (F)**Recommended**

Addition Total: 424.54 ml
 Divide the addition into portions: five times 84.91 ml *

* Only one portion should be dosed per day.

Diagrams**Composition of the aquarium water**

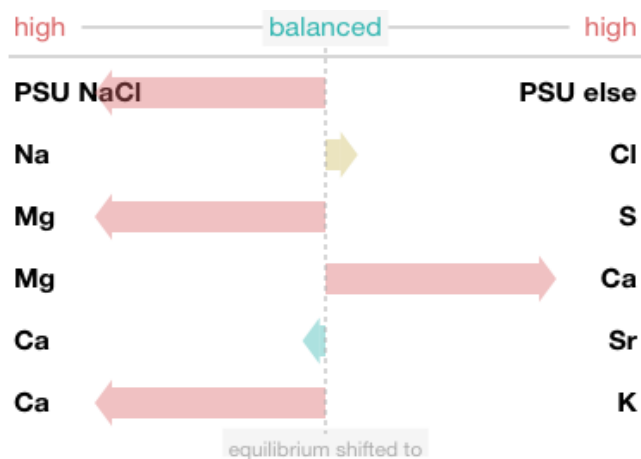
The diagram shows whether the concentrations of the major elements in your water sample match the measured salinity or whether individual elements are increased or reduced. Note the different concentration ranges on the x-axis.

Background: Natural seawater consists of the same elements in fixed proportions. Only the concentrations of the elements increase or decrease in proportion to salinity. That is why the ideal values also change with salinity.

Green arrow
 Value is relatively natural.

Yellow arrow
 Value is becoming increasingly unnatural.

Red arrow
 Value unnatural.



Element ratios

This chart shows whether the element supply is appropriate or whether the ratios of certain element pairs are skewed due to an imbalanced supply. The arrow points in the direction of the element with increased concentration. Only the relationship between the elements is evaluated. The evaluation of the individual measured values may vary.

Background: The reef inhabitants remove various elements from the aquarium water. To compensate for this consumption and obtain water that is true to nature, water changes are carried out and water additives are used. This does not always work as needed.

Green Arrow

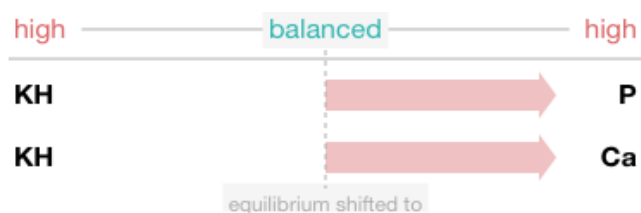
Relationship close to nature.

Yellow arrow

Ratio slightly shifted.

Red arrow

Ratio shifted drastically.



Growth Factors

This diagram shows whether important growth factors are in balance or out of proportion. The arrow points in the direction of the factor with increased concentration. Only the relationship between the factors is evaluated. The evaluation of the individual measured values may vary.

Background: The most important growth factors include carbonate hardness, calcium concentration and phosphorus content. When these values are slightly increased, growth is usually encouraged, while greatly increased or reduced values slow growth. If there is an imbalance between these factors, it can adversely affect coral growth and, in the worst case, lead to tissue necrosis.

Green arrow

Balance between factors OK.

Yellow arrow

Factors increasingly disproportionate to one another.

Red arrow

Factors in disproportion to one another.