

Tank
50gallon

Net size
50 liter

Reason for analysis
Tissue necrosis (fast, RTN)

Barcode
W7PT-UHNM-VF7D-3V6P (ID: 268572)

Created
02/25/2024

Arrived in the laboratory
03/15/2024

Evaluated
03/16/2024



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	98 / 100
Minor elements	85 / 100
Pollutants	100 / 100
Base elements	100 / 100

Results of Salt water

Base elements

Sal. total Salinity	34.44 PSU Ideal value: 35.00 PSU	NORMAL Near nature
KH Carbonate hardness	8.08 °dKH Ideal value: 7.50 °dKH	NORMAL Near nature

Major elements

Cl Chloride	19475 mg/l Ideal value: 19181 mg/l	NORMAL Near nature
Na Sodium	10493 mg/l Ideal value: 10656 mg/l	NORMAL Near nature
Mg Magnesium	1441 mg/l Ideal value: 1274 mg/l	ABOVE NORMAL Attention
S Sulfur	931.8 mg/l Ideal value: 881.5 mg/l	NORMAL Near nature
Ca Calcium	421.6 mg/l Ideal value: 407.8 mg/l	NORMAL Near nature
K Potassium	396.3 mg/l Ideal value: 395.2 mg/l	NORMAL Near nature
Br Bromine	64.65 mg/l Ideal value: 64.91 mg/l	NORMAL Near nature
Sr Strontium	6.38 mg/l Ideal value: 7.75 mg/l	NORMAL Near nature
B Boron	4.39 mg/l Ideal value: 4.36 mg/l	NORMAL Near nature
F Fluorine	1.30 mg/l Ideal value: 1.26 mg/l	NORMAL Near nature



Minor elements

Li Lithium	194.1 µg/l Ideal value: 164.7 µg/l	NORMAL Near nature
Si Silicon	83.09 µg/l Ideal value: 96.87 µg/l	NORMAL Near nature
I Iodine	10.91 µg/l Ideal value: 62.97 µg/l	CRITICALLY LOW Critical
Ba Barium	6.21 µg/l Ideal value: 9.69 µg/l	NORMAL Near nature
Mo Molybdenum	9.52 µg/l Ideal value: 11.62 µg/l	NORMAL Near nature
Ni Nickel	--- Ideal value: 0.48 µg/l	NORMAL Near nature
Mn Manganese	0.19 µg/l Ideal value: 0.97 µg/l	BELOW NORMAL Attention
As Arsenic	--- Ideal value: 0.48 µg/l	NORMAL Near nature
Be Beryllium	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Cr Chrome	--- Ideal value: 0.48 µg/l	NORMAL Near nature
Co Cobalt	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Fe Iron	--- Ideal value: 0.48 µg/l	BELOW NORMAL Attention
Cu Copper	--- Ideal value: 0.48 µg/l	NORMAL Near nature
Se Selenium	--- Ideal value: 0.48 µg/l	NORMAL Near nature
Ag Silver	--- Ideal value: 0.10 µg/l	NORMAL Near nature
V Vanadium	--- Ideal value: 1.45 µg/l	BELOW NORMAL Attention
Zn Zinc	--- Ideal value: 1.94 µg/l	CRITICALLY LOW Critical
Sn Tin	1.76 µg/l Ideal value: 0.48 µg/l	NORMAL Near nature

Nutrients

NO3 Nitrate	4.11 mg/l Ideal value: 2.00 mg/l	NORMAL Near nature
P Phosphorus	7.97 µg/l Ideal value: 14.53 µg/l	CRITICALLY LOW Critical
PO4 Phosphate	0.02 mg/l Ideal value: 0.04 mg/l	CRITICALLY LOW Critical

Pollutants

Al. Aluminium	18.00 µg/l Ideal value: 0.10 µg/l	NORMAL Near nature
Sb Antimony	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Bi Bismuth	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Pb Lead	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Cd Cadmium	--- Ideal value: 0.19 µg/l	NORMAL Near nature
La. Lanthanum	--- Ideal value: 0.00 µg/l	NORMAL Near nature
Tl Thallium	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Ti Titanium	--- Ideal value: 0.10 µg/l	NORMAL Near nature
W Tungsten	--- Ideal value: 0.00 µg/l	NORMAL Near nature
Hg Mercury	--- Ideal value: 0.00 µg/l	NORMAL Near nature

Results of Osmosis water

Minor elements

Li Lithium	---	NORMAL Near nature
Si Silicon	---	NORMAL Near nature
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	---	NORMAL Near nature
Sn Tin	---	NORMAL Near nature

Nutrients

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

Pollutants

Al. Aluminium	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Sb Antimony	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Bi Bismuth	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Pb Lead	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Cd Cadmium	---	Ideal value: 0.00 µg/l	NORMAL Near nature
La. Lanthanum	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Tl Thallium	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Ti Titanium	---	Ideal value: 0.00 µg/l	NORMAL Near nature
W Tungsten	---	Ideal value: 0.00 µg/l	NORMAL Near nature
Hg Mercury	---	Ideal value: 0.00 µg/l	NORMAL Near nature

Recommendations

The following recommendations were calculated for the aquarium **50gallon** with **50 liters** content.

Recommended actions

Phosphorus

Dose 0.5 ml Nutrition P per day. Reduce the dose if the home test shows more than 0.03 mg/l PO4.

Important

Magnesium

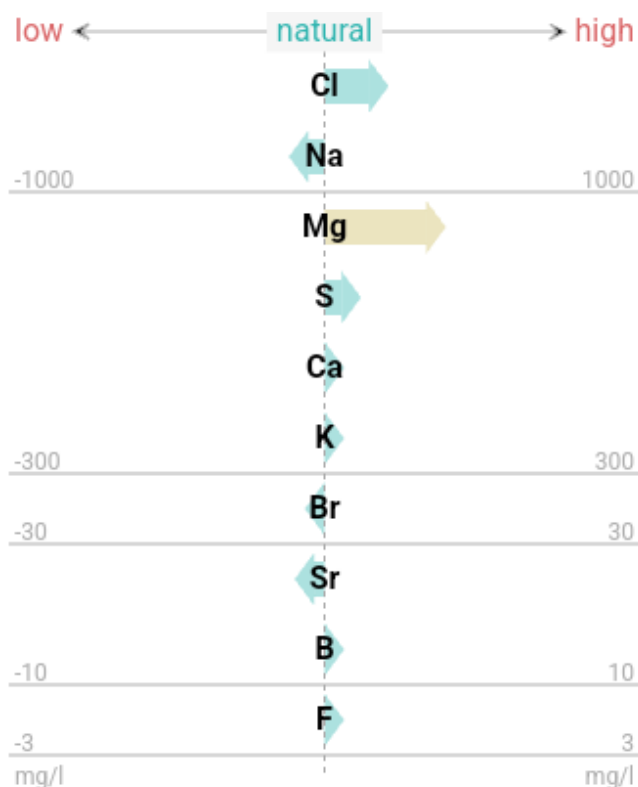
Stop adding magnesium to reduce value to 1300-1350 mg/l.

Recommended

Iodine (1000 ml bottle)		Important
Addition Total:	2.6 ml	
Divide the addition into portions:	three times 0.87 ml *	
Iodine (alt. 100 ml bottle)		Important
Addition Total:	0.26 ml	
Divide the addition into portions:	three times 0.09 ml *	
Vanadium (V)		Recommended
Addition Total:	0.36 ml	
Divide the addition into portions:	twice 0.18 ml *	
Zinc (Zn)		Recommended
Addition Total:	0.48 ml	
Divide the addition into portions:	once 0.48 ml	
Manganese (Mn)		Recommended
Addition Total:	0.19 ml	
Divide the addition into portions:	once 0.19 ml	
Iron (Fe)		Recommended
Addition Total:	0.12 ml	
Divide the addition into portions:	five times 0.02 ml *	

* Only one portion should be dosed per day.

Diagrams

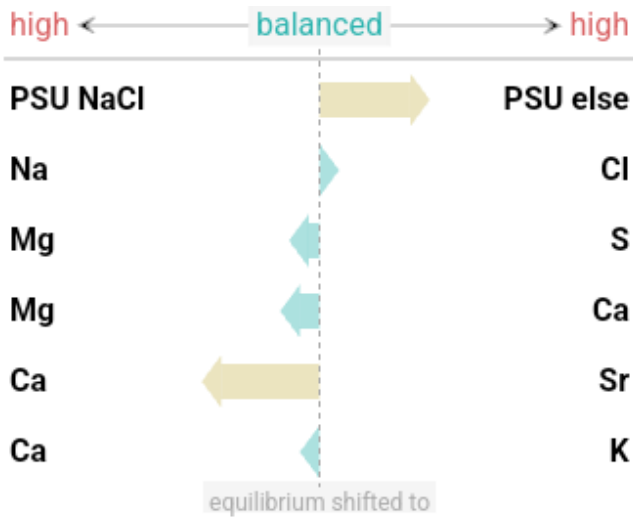


Composition of the aquarium water

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

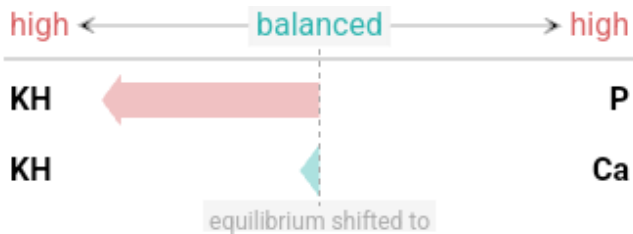
This chart shows whether the element supply is appropriate or whether the ratios of certain element pairs are skewed due to an imbalanced supply. The arrow points in the direction of the element with increased concentration. Only the relationship between the elements is evaluated. The evaluation of the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