

Tank
Pam's Reef

Net size
454 liter

Reason for analysis
Routine

Barcode
EDFS-HWT7-5SHT-FFLH (ID: 289955)



Created
08/06/2024

Arrived in the laboratory
08/08/2024

Evaluated
08/09/2024



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	88 / 100
Minor elements	92 / 100
Pollutants	98 / 100
Base elements	100 / 100

Results of Salt water

Base elements

Sal. total	36.01 PSU	NORMAL
Salinity	Ideal value: 35.00 PSU	Near nature
KH	8.54 °dKH	NORMAL
Carbonate hardness	Ideal value: 7.50 °dKH	Near nature

Major elements

Cl	20359 mg/l	NORMAL
Chloride	Ideal value: 20255 mg/l	Near nature
Na	11196 mg/l	NORMAL
Sodium	Ideal value: 11253 mg/l	Near nature
Mg	1382 mg/l	NORMAL
Magnesium	Ideal value: 1345 mg/l	Near nature
S	954.8 mg/l	NORMAL
Sulfur	Ideal value: 930.9 mg/l	Near nature
Ca	475.3 mg/l	NORMAL
Calcium	Ideal value: 430.7 mg/l	Near nature
K	391.6 mg/l	NORMAL
Potassium	Ideal value: 417.4 mg/l	Near nature
Br	57.09 mg/l	NORMAL
Bromine	Ideal value: 68.54 mg/l	Near nature
Sr	11.36 mg/l	CRITICALLY HIGH
Strontium	Ideal value: 8.29 mg/l	Critical
B	5.77 mg/l	ABOVE NORMAL
Boron	Ideal value: 4.60 mg/l	Attention
F	1.21 mg/l	NORMAL
Fluorine	Ideal value: 1.33 mg/l	Near nature



Minor elements

Li Lithium	501.7 µg/l Ideal value: 173.9 µg/l	NORMAL Near nature
Si Silicon	131.6 µg/l Ideal value: 102.3 µg/l	NORMAL Near nature
I Iodine	22.71 µg/l Ideal value: 66.50 µg/l	CRITICALLY LOW Critical
Ba Barium	8.39 µg/l Ideal value: 10.23 µg/l	NORMAL Near nature
Mo Molybdenum	8.56 µg/l Ideal value: 12.28 µg/l	NORMAL Near nature
Ni Nickel	1.29 µg/l Ideal value: 0.51 µg/l	NORMAL Near nature
Mn Manganese	--- Ideal value: 1.02 µg/l	BELOW NORMAL Attention
As Arsenic	--- Ideal value: 0.51 µg/l	NORMAL Near nature
Be Beryllium	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Cr Chrome	--- Ideal value: 0.51 µg/l	NORMAL Near nature
Co Cobalt	--- Ideal value: 0.10 µg/l	NORMAL Near nature
Fe Iron	--- Ideal value: 0.51 µg/l	BELOW NORMAL Attention
Cu Copper	--- Ideal value: 0.51 µg/l	NORMAL Near nature
Se Selenium	--- Ideal value: 0.51 µg/l	NORMAL Near nature
Ag Silver	--- Ideal value: 0.10 µg/l	NORMAL Near nature
V Vanadium	1.52 µg/l Ideal value: 1.53 µg/l	NORMAL Near nature
Zn Zinc	1.49 µg/l Ideal value: 2.05 µg/l	NORMAL Near nature
Sn Tin	2.26 µg/l Ideal value: 0.51 µg/l	NORMAL Near nature

Nutrients

NO3 Nitrate	4.60 mg/l Ideal value: 2.00 mg/l	NORMAL Near nature
P Phosphorus	25.23 µg/l Ideal value: 15.35 µg/l	NORMAL Near nature
PO4 Phosphate	0.08 mg/l Ideal value: 0.05 mg/l	ABOVE NORMAL Attention

Pollutants

Al.	90.29 µg/l	ABOVE NORMAL
Aluminium	Ideal value: 0.10 µg/l	Attention
Sb	---	NORMAL
Antimony	Ideal value: 0.10 µg/l	Near nature
Bi	---	NORMAL
Bismuth	Ideal value: 0.10 µg/l	Near nature
Pb	---	NORMAL
Lead	Ideal value: 0.10 µg/l	Near nature
Cd	---	NORMAL
Cadmium	Ideal value: 0.20 µg/l	Near nature
La.	---	NORMAL
Lanthanum	Ideal value: 0.00 µg/l	Near nature
Tl	---	NORMAL
Thallium	Ideal value: 0.10 µg/l	Near nature
Ti	---	NORMAL
Titanium	Ideal value: 0.10 µg/l	Near nature
W	---	NORMAL
Tungsten	Ideal value: 0.00 µg/l	Near nature
Hg	---	NORMAL
Mercury	Ideal value: 0.00 µg/l	Near nature

Results of Osmosis water

Minor elements

Li	---	NORMAL
Lithium	Ideal value: 0.00 µg/l	Near nature
Si	---	NORMAL
Silicon	Ideal value: 0.00 µg/l	Near nature
Ba	---	NORMAL
Barium	Ideal value: 0.00 µg/l	Near nature
Mo	---	NORMAL
Molybdenum	Ideal value: 0.00 µg/l	Near nature
Ni	---	NORMAL
Nickel	Ideal value: 0.00 µg/l	Near nature
Mn	---	NORMAL
Manganese	Ideal value: 0.00 µg/l	Near nature
As	---	NORMAL
Arsenic	Ideal value: 0.00 µg/l	Near nature
Be	---	NORMAL
Beryllium	Ideal value: 0.00 µg/l	Near nature
Cr	---	NORMAL
Chrome	Ideal value: 0.00 µg/l	Near nature
Co	---	NORMAL
Cobalt	Ideal value: 0.00 µg/l	Near nature
Fe	---	NORMAL
Iron	Ideal value: 0.00 µg/l	Near nature
Cu	---	NORMAL
Copper	Ideal value: 0.00 µg/l	Near nature
Se	---	NORMAL
Selenium	Ideal value: 0.00 µg/l	Near nature
Ag	---	NORMAL
Silver	Ideal value: 0.00 µg/l	Near nature
V	---	NORMAL
Vanadium	Ideal value: 0.00 µg/l	Near nature
Zn	---	NORMAL
Zinc	Ideal value: 0.00 µg/l	Near nature
Sn	---	NORMAL
Tin	Ideal value: 0.00 µg/l	Near nature

Nutrients

P	---	NORMAL
Phosphorus	Ideal value: 0.00 µg/l	Near nature
PO4	---	NORMAL
Phosphate	Ideal value: 0.00 mg/l	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 **Pam's Reef** with **454 liters** content.

Recommended actions

Strontium

Important

Stop adding strontium to reduce value to 7.8-8.2 mg/l. Can be accelerated by several water changes with Absolute Ocean.

Boron

Recommended

Reduce/stop addition of boron to bring value down to 4,3-4,7 mg/l.

Iodine (1000 ml bottle)**Important**

Addition Total: 19.88 ml
 Divide the addition into portions: three times 6.63 ml *

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

Addition Total: 1.99 ml
 Divide the addition into portions: three times 0.66 ml *

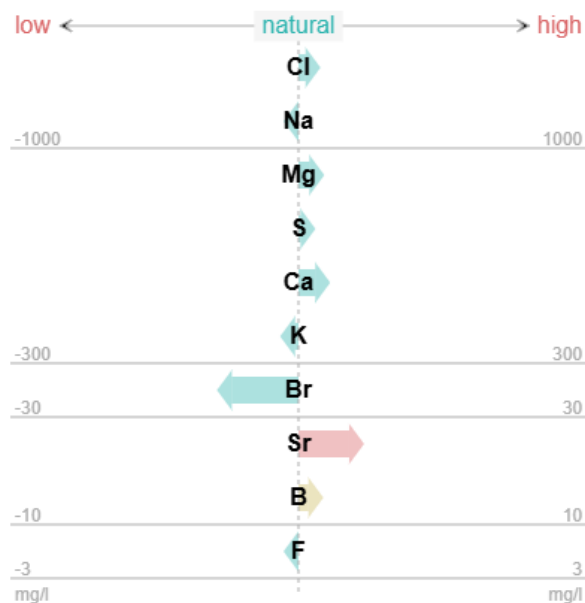
Manganese (Mn)**Recommended**

Addition Total: 2.32 ml
 Divide the addition into portions: once 2.32 ml

Iron (Fe)**Recommended**

Addition Total: 1.16 ml
 Divide the addition into portions: six times 0.19 ml *

* Only one portion should be dosed per day.

Diagrams**Composition of the aquarium water**

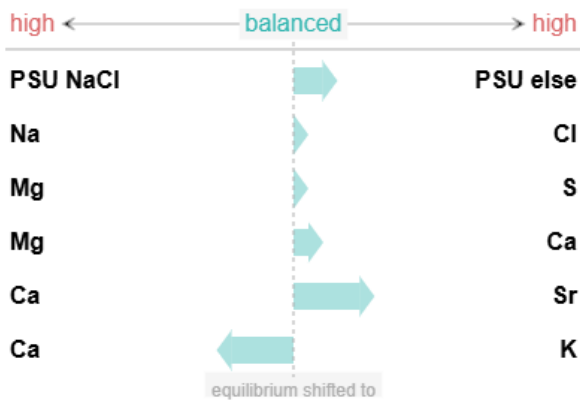
The diagram shows whether the concentrations of the major elements in your water sample match the measured salinity or whether individual elements are increased or reduced. Note the different concentration ranges on the x-axis.

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

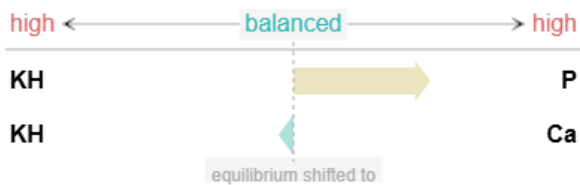
Relationship close to nature.

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.