

Tank
Display Reef

Net size
1000 liter

Reason for analysis
Routine

Barcode
CPCA-4CAY-57BR-R9M9 (ID: 261453)

Created
01/10/2024

Arrived in the laboratory
01/19/2024

Evaluated
01/19/2024



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	95 / 100
Minor elements	89 / 100
Pollutants	100 / 100
Base elements	100 / 100

Results of Salt water

Base elements

Sal. total Salinity	35.43 PSU Ideal value: 35.00 PSU	TOP Near nature
KH Carbonate hardness	7.29 °dKH Ideal value: 7.50 °dKH	TOP Near nature

Major elements

Cl Chloride	20046 mg/l Ideal value: 19779 mg/l	TOP Near nature
Na Sodium	10840 mg/l Ideal value: 10988 mg/l	TOP Near nature
Mg Magnesium	1541 mg/l Ideal value: 1314 mg/l	INCREASED Attention
S Sulfur	936.7 mg/l Ideal value: 909.0 mg/l	TOP Near nature
Ca Calcium	400.3 mg/l Ideal value: 420.6 mg/l	TOP Near nature
K Potassium	410.8 mg/l Ideal value: 407.6 mg/l	TOP Near nature
Br Bromine	94.85 mg/l Ideal value: 66.93 mg/l	INCREASED Attention
Sr Strontium	7.23 mg/l Ideal value: 7.99 mg/l	TOP Near nature
B Boron	3.99 mg/l Ideal value: 4.50 mg/l	TOP Near nature
F Fluorine	1.31 mg/l Ideal value: 1.30 mg/l	TOP Near nature



Minor elements

Li Lithium	430.8 µg/l Ideal value: 169.8 µg/l	TOP Near nature
Si Silicon	163.2 µg/l Ideal value: 99.89 µg/l	TOP Near nature
I Iodine	49.56 µg/l Ideal value: 64.93 µg/l	TOP Near nature
Ba Barium	76.32 µg/l Ideal value: 9.99 µg/l	INCREASED Attention
Mo Molybdenum	30.90 µg/l Ideal value: 11.99 µg/l	INCREASED Attention
Ni Nickel	--- Ideal value: 0.50 µg/l	TOP Near nature
Mn Manganese	--- Ideal value: 1.00 µg/l	DECREASED Attention
As Arsenic	--- Ideal value: 0.50 µg/l	TOP Near nature
Be Beryllium	--- Ideal value: 0.10 µg/l	TOP Near nature
Cr Chrome	--- Ideal value: 0.50 µg/l	TOP Near nature
Co Cobalt	--- Ideal value: 0.10 µg/l	TOP Near nature
Fe Iron	--- Ideal value: 0.50 µg/l	DECREASED Attention
Cu Copper	--- Ideal value: 0.50 µg/l	TOP Near nature
Se Selenium	--- Ideal value: 0.50 µg/l	TOP Near nature
Ag Silver	--- Ideal value: 0.10 µg/l	TOP Near nature
V Vanadium	1.25 µg/l Ideal value: 1.50 µg/l	TOP Near nature
Zn Zinc	--- Ideal value: 2.00 µg/l	TOO LITTLE Critical
Sn Tin	--- Ideal value: 0.50 µg/l	TOP Near nature

Nutrients

NO3 Nitrate	50.08 mg/l Ideal value: 2.00 mg/l	TOO HIGH Critical
P Phosphorus	84.45 µg/l Ideal value: 14.98 µg/l	TOO HIGH Critical
PO4 Phosphate	0.26 mg/l Ideal value: 0.04 mg/l	TOO HIGH Critical

Pollutants

Al. Aluminium	17.36 µg/l Ideal value: 0.10 µg/l	TOP Near nature
Sb Antimony	--- Ideal value: 0.10 µg/l	TOP Near nature
Bi Bismuth	--- Ideal value: 0.10 µg/l	TOP Near nature
Pb Lead	--- Ideal value: 0.10 µg/l	TOP Near nature
Cd Cadmium	--- Ideal value: 0.20 µg/l	TOP Near nature
La. Lanthanum	--- Ideal value: 0.00 µg/l	TOP Near nature
Tl Thallium	--- Ideal value: 0.10 µg/l	TOP Near nature
Ti Titanium	--- Ideal value: 0.10 µg/l	TOP Near nature
W Tungsten	--- Ideal value: 0.00 µg/l	TOP Near nature
Hg Mercury	--- Ideal value: 0.00 µg/l	TOP Near nature

Results of Osmosis water

Minor elements

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

Nutrients

P Phosphorus	---	TOP Near nature
	Ideal value: 0.00 µg/l	
PO4 Phosphate	---	TOP Near nature
	Ideal value: 0.00 mg/l	

Pollutants

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

Recommendations

The following recommendations were calculated for the aquarium **Display Reef with 1000 liters** content.

Recommended actions

Phosphorus

Important

Phosphorus is too high. Improve the filtration and/or reduce the amount of food. Use an iron-based PO₄ adsorber (e.g. ATI Phosphate Stop) to reduce the phosphorus value to 13-17 µg/l.

Nitrate

Important

Nitrate value is elevated. Optimize filtration and/or reduce feed input. Check osmosis water for nitrate.

Magnesium

Recommended

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

Bromine

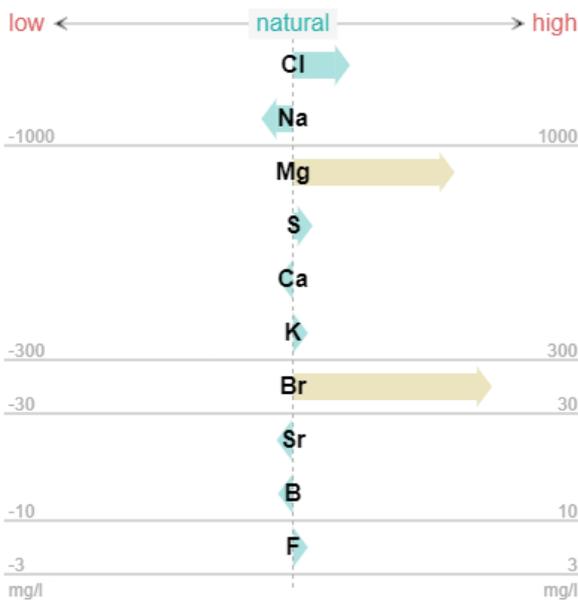
Recommended

Reduce/stop addition of bromide to bring value down to 65-67 mg/l.

Zinc (Zn)		Recommended
Addition Total:	9.99 ml	
Divide the addition into portions:	once 9.99 ml	
Manganese (Mn)		Recommended
Addition Total:	4.99 ml	
Divide the addition into portions:	once 4.99 ml	
Iron (Fe)		Recommended
Addition Total:	2.5 ml	
Divide the addition into portions:	five times 0.5 ml *	

* Only one portion should be dosed per day.

Diagrams

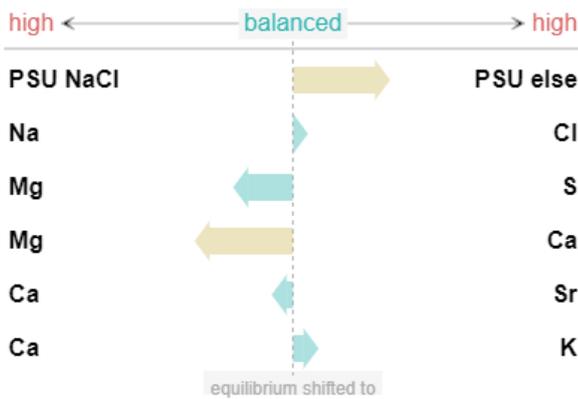


Composition of the aquarium water

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

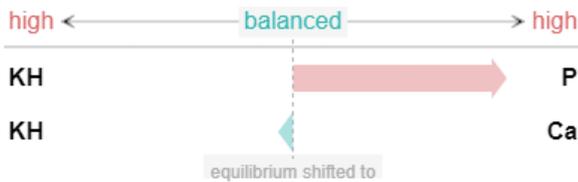
This chart shows whether the element supply is appropriate or whether the ratios of certain element pairs are skewed due to an imbalanced supply. The arrow points in the direction of the element with increased concentration. Only the relationship between the elements is evaluated. The evaluation of the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