

Tank  
**REEFER 425**

Net size  
**386 liter**

Reason for analysis  
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Barcode  
**LPDK-JRX-5KAD-RJ6S (ID: 253894)**

Created  
**11/12/2023**

Arrived in the laboratory  
**11/20/2023**

Evaluated  
**11/21/2023**



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	85 / 100
Pollutants	100 / 100
Base elements	92 / 100

## Results of Salt water

### Base elements

Sal. total Salinity	32.66 PSU Ideal value: 35.00 PSU	DECREASED Attention
KH Carbonate hardness	8.42 °dKH Ideal value: 7.50 °dKH	TOP Near nature

### Major elements

Cl Chloride	18629 mg/l Ideal value: 18199 mg/l	TOP Near nature
Na Sodium	9871 mg/l Ideal value: 10110 mg/l	TOP Near nature
Mg Magnesium	1336 mg/l Ideal value: 1209 mg/l	TOP Near nature
S Sulfur	840.3 mg/l Ideal value: 836.4 mg/l	TOP Near nature
Ca Calcium	393.7 mg/l Ideal value: 386.9 mg/l	TOP Near nature
K Potassium	365.4 mg/l Ideal value: 375.0 mg/l	TOP Near nature
Br Bromine	87.54 mg/l Ideal value: 61.58 mg/l	INCREASED Attention
Sr Strontium	9.22 mg/l Ideal value: 7.35 mg/l	INCREASED Attention
B Boron	4.30 mg/l Ideal value: 4.14 mg/l	TOP Near nature
F Fluorine	1.00 mg/l Ideal value: 1.19 mg/l	TOP Near nature



## Minor elements

<b>Li</b> Lithium	<b>334.5 µg/l</b> Ideal value: 156.3 µg/l	<b>TOP</b> Near nature
<b>Si</b> Silicon	<b>162.6 µg/l</b> Ideal value: 91.91 µg/l	<b>TOP</b> Near nature
<b>I</b> Iodine	<b>20.25 µg/l</b> Ideal value: 59.74 µg/l	<b>TOO LITTLE</b> Critical
<b>Ba</b> Barium	<b>6.85 µg/l</b> Ideal value: 9.19 µg/l	<b>TOP</b> Near nature
<b>Mo</b> Molybdenum	<b>9.10 µg/l</b> Ideal value: 11.03 µg/l	<b>TOP</b> Near nature
<b>Ni</b> Nickel	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature
<b>Mn</b> Manganese	<b>---</b> Ideal value: 0.92 µg/l	<b>DECREASED</b> Attention
<b>As</b> Arsenic	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature
<b>Be</b> Beryllium	<b>---</b> Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Cr</b> Chrome	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature
<b>Co</b> Cobalt	<b>---</b> Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Fe</b> Iron	<b>---</b> Ideal value: 0.46 µg/l	<b>DECREASED</b> Attention
<b>Cu</b> Copper	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature
<b>Se</b> Selenium	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature
<b>Ag</b> Silver	<b>---</b> Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>V</b> Vanadium	<b>---</b> Ideal value: 1.38 µg/l	<b>DECREASED</b> Attention
<b>Zn</b> Zinc	<b>---</b> Ideal value: 1.84 µg/l	<b>TOO LITTLE</b> Critical
<b>Sn</b> Tin	<b>---</b> Ideal value: 0.46 µg/l	<b>TOP</b> Near nature

## Nutrients

<b>NO3</b> Nitrate	<b>0.00 mg/l</b> Ideal value: 2.00 mg/l	<b>DECREASED</b> Attention
<b>P</b> Phosphorus	<b>10.14 µg/l</b> Ideal value: 13.79 µg/l	<b>DECREASED</b> Attention
<b>PO4</b> Phosphate	<b>0.03 mg/l</b> Ideal value: 0.04 mg/l	<b>TOP</b> Near nature

## Pollutants

<b>Al.</b> Aluminium	<b>5.79 µg/l</b> Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Sb</b> Antimony	--- Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Bi</b> Bismuth	--- Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Pb</b> Lead	--- Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Cd</b> Cadmium	--- Ideal value: 0.18 µg/l	<b>TOP</b> Near nature
<b>La.</b> Lanthanum	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Tl</b> Thallium	--- Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>Ti</b> Titanium	--- Ideal value: 0.09 µg/l	<b>TOP</b> Near nature
<b>W</b> Tungsten	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Hg</b> Mercury	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature

## Results of Osmosis water

### Minor elements

<b>Li</b> Lithium	<b>18.40 µg/l</b> Ideal value: 0.00 µg/l	<b>TOO HIGH</b> Critical
<b>Si</b> Silicon	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Ba</b> Barium	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Mo</b> Molybdenum	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Ni</b> Nickel	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Mn</b> Manganese	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>As</b> Arsenic	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Be</b> Beryllium	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Cr</b> Chrome	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Co</b> Cobalt	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Fe</b> Iron	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Cu</b> Copper	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Se</b> Selenium	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Ag</b> Silver	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>V</b> Vanadium	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Zn</b> Zinc	--- Ideal value: 0.00 µg/l	<b>TOP</b> Near nature
<b>Sn</b> Tin	<b>10.05 µg/l</b> Ideal value: 0.00 µg/l	<b>TOO HIGH</b> Critical

### Nutrients

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

## Pollutants

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

## Recommendations

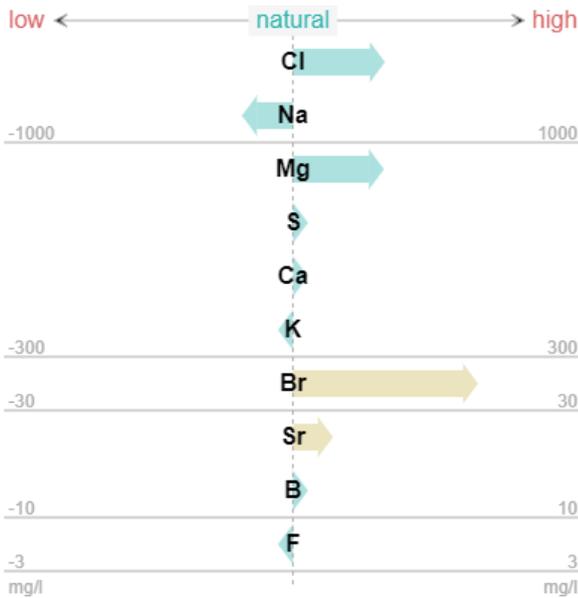
The following recommendations were calculated for the aquarium **REEFER 425** with **386 liters** content.

	Recommended actions
<b>Bromine</b> Reduce/stop addition of bromide to bring value down to 65-67 mg/l.	<b>Recommended</b>
<b>Strontium</b> Reduce/stop addition of strontium to bring value down to 7,8-8,2 mg/l.	<b>Recommended</b>
<b>Phosphorus</b> Dose 1.93 ml Nutrition P per day. Reduce the dose if the home test shows more than 0.03 mg/l PO <sub>4</sub> .	<b>Recommended</b>
<b>Nitrate</b> Dose 1.93 ml Nutrition N per day. Reduce the dose if the nitrate value exceeds 2 mg/l.	<b>Recommended</b>
<b>Salinity</b> Increase the salinity to 35 PSU. For example, add 1544 ml Absolute Ocean #1 and 1544 ml Absolute Ocean #2 to the aquarium.	<b>Recommended</b>
<b>Tin</b> Volume of mixed bed resin filter may not be sufficient (1 liter volume of mixed bed resin should be used per 120 liters of daily output of the osmosis system)	<b>Osmosis</b>
<b>Lithium</b> Volume of mixed bed resin filter may not be sufficient (1 liter volume of mixed bed resin should be used per 120 liters of daily output of the osmosis system)	<b>Osmosis</b>

<b>Iodine (I -1000 ml bottle)</b>		<b>Important</b>
Addition Total:	15.25 ml	
Divide the addition into portions:	twice 7.62 ml *	
<b>Iodine (I -alt. 100 ml bottle)</b>		<b>Important</b>
Addition Total:	1.52 ml	
Divide the addition into portions:	twice 0.76 ml *	
<b>Vanadium (V)</b>		<b>Recommended</b>
Addition Total:	2.66 ml	
Divide the addition into portions:	twice 1.33 ml *	
<b>Zinc (Zn)</b>		<b>Recommended</b>
Addition Total:	3.55 ml	
Divide the addition into portions:	once 3.55 ml	
<b>Manganese (Mn)</b>		<b>Recommended</b>
Addition Total:	1.77 ml	
Divide the addition into portions:	once 1.77 ml	
<b>Iron (Fe)</b>		<b>Recommended</b>
Addition Total:	0.89 ml	
Divide the addition into portions:	five times 0.18 ml *	

\* Only one portion should be dosed per day.

### Diagrams

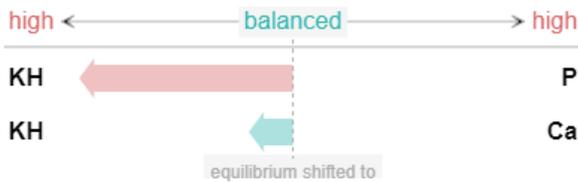
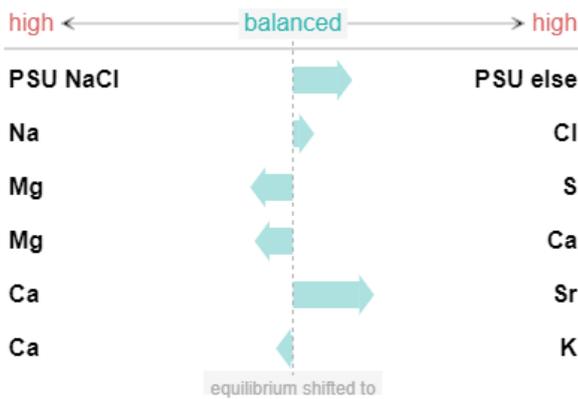


### Composition of the aquarium water

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.