



Florida Keys Aqueduct Authority
Water Quality Sampling Analysis

Property

Date: _____

Name: _____ Location #: _____ Meter #: _____
 Service Address: _____ Key: _____ Phone: _____
 FKAA Fixture Sampled? _____ Customer Fixture Sampled? _____
 Nature of Customer Inquiry/Concern? _____

Results

Parameter	Results @ Meter	Results @ House	Acceptable Range
Total Chlorine	_____ mg/l	_____ mg/l	0.6 - 4.7 mg/l
Hardness	_____ mg/l	_____ mg/l	See Table Pg 2
Turbidity	_____ NTU	_____ NTU	< 1.0 NTU
Alkalinity	_____ mg/l	_____ mg/l	30-50 mg/l
Total Dissolved Solids	_____ mg/l	_____ mg/l	Less than 500 mg/l
Iron	_____ mg/l	_____ mg/l	Less than 0.3 mg/l
Temperature	_____ °	_____ °	N/A

Comments

 Water Quality Technician Signature: _____ Date: _____ Phone: _____

Please see reverse side for explanation of parameters.



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Total Chlorine: Chlorine and Chloramines are common disinfectants added to drinking water to prevent bacteria from forming in the water system. Total Chlorine analysis indicates the amount and the effectiveness of the disinfectant in the line. The disinfectants, in this application, are not harmful to humans. The acceptable range listed on page 1 represents the range that optimizes inactivation of pathogenic organisms while maintaining the integrity of the FCAA and customer pipelines.

Hardness: Water hardness is the measure of the mineral content of the water, typically Calcium (Ca) and Magnesium (Mg). The FCAA's water source is a groundwater source located beneath a protected pine rockland. The FCAA's primary aquifer (Biscayne Aquifer) flows through a limestone substrate composed primarily of calcium carbonate. The FCAA's water hardness can be primarily attributed to this natural mineral. Due to the hardness of the water in the aquifer the FCAA softens the water so the water that reaches the customer is considered moderately hard. This process reduces the mineral build up on cooking utensils, fixtures, appliances and water heaters and also decreases soap and detergent consumption. The degree of hardness in the FCAA system is appropriate for the vast majority of appliances. Generally, normal care and maintenance of appliances negates the need for additional water softening. Some extremely sensitive appliances may require further softening for their optimal use. The manufacturer can provide the requirements for their products. If the hardness level determined in the results on page 1 exceeds the manufacturer's recommendations you may want to further soften your water. Otherwise additional water softening is not necessary. Water hardness is not associated with adverse health effects.

Classification of Water Hardness

Water Classification	Hardness in mg/l (ppm)	Grains per Gallon (gpg)
Soft	<17.0	<1
Slightly Hard	17.1-60	1.0-3.5
Moderately Hard	60-120	3.5-7.0
Hard	120-180	7.0-10.5
Very Hard	180 and Over	>10.5

To convert hardness to grains per gallon, divide hardness by 17.1

Turbidity: Is a measure of the clarity of the water and is used to indicate water quality and filtration effectiveness.

Alkalinity: Measures the ability of the water to neutralize a strong acid, and in natural waters is typically due to the presence of carbonates, bicarbonates and, to a lesser extent, hydroxide ions in the water. High Alkaline waters have an objectionable taste. The alkalinity of natural waters can vary, but rarely exceeds 500 mg/l.

Total Dissolved Solids (TDS): Is a measure of all of the combined content of all inorganic and organic substances in the water. In most waters, the dissolved solids consist predominantly of silica, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, chloride, and sulfate with other trace amounts of other inorganic and organic constituents. Waters with high TDS levels may be distasteful. Fresh waters are typically classified as having a TDS value of less than 1,000 mg/l.

Iron: Iron, in small concentrations, is an essential mineral for human health. Water high in Iron content may have an undesirable taste or odor, may stain fixtures and laundered clothing, and may decrease the efficiency of the water treatment process.

If you have additional questions about your water quality you may contact the Water Quality Technician who performed your analysis (listed on page 1) or you may contact Shelli Johnson, Water Quality and Environmental Manager at: Phone (305) 295-2219; Email sjohnson@fkaa.com