

# LABORATORY REPORT

DATE: 9/17/2018

SAMPLE: XXXXXXXXXX

TO: ELBROCK

TOTAL DISSOLVED SOLIDS (T.D.S.) -----172-----

This is the term used to indicate all the dissolved solids in the water. According to the U.S. Department of Health, Education, and Welfare the presence of T.D.S. in the water supply should not exceed 500 p.p.m. . Most taste tests indicate that water with under 100 p.p.m. is preferred. If it exceeds level a more suitable supply should be sought. Water softening or filtration will not change the T.D.S.. To remove the sodium and lower the T.D.S. reverse osmosis is the most satisfactory system.

pH -----8.4-----

Term used to indicate acidity or alkalinity of water ( 7.0 ph is neutral ).

1. Acidity concentrate acid ( ph below 7.0 ) tends to eat out piping and fixtures and corrode copper and iron plumbing. Brown rust or green copper stains will occur on fixtures.
2. Alkalinity-( ph above 7.0 ) Tends to form scale, especially in the water heaters, and hot side fixtures and plumbing. This scale can choke off water lines causing loss of pressure, reduced flow and eventual replacement of the system. The ph does not cause scale, but does assist in the hardness build up.

## HARDNESS

-----4-----

Calcium ( ca ) and magnesium ( mg ) Hard Water

The hardness of water is directly in proportion to the amount of calcium and magnesium. 17.1 P.P.M . = 1 grain of hardness. 1 to 3.5 grains is considered moderately hard water. 3.5 to 7 grains is considered hard water. 7 to 10.5 grains is considered very hard water. 10.5 grains and higher is considered extremely hard water. Effects of hard water wastes soap, grays fabrics, wears out clothes, deposits scale, increases fuel cost to heat water, clogs pores on the skin, spots dishes washed in it, and causes increased time in the home cleaning to approximate 10 hours per month.

## TOTAL ARSENIC

-----0-----

0.05 mg/L (EPA proposed 0.01 mg/L) It may cause skin cancer at high levels. EPA considers it to be a carcinogen. At 100mg/L severe poisoning can occur, elemental forms can be toxic. Anion exchange, reverse osmosis unit will also work, with special cartridges.

## IRON

-----0.15-----

The iron stains everything it touches in any trace amount. It comes both in visible and clear iron. Clear iron will turn visible after it is exposed to iron or chlorine.

COLIFORM BACTERIA

-----POSITIVE-----

NITRATE #5

-----3 PPM-----

NITRATE #3

-----0-----

LABORATORY TECHNICIAN

-----JAY MOSES-----

This laboratory report is prepared for the sizing of proper water treatment equipment and not connected with the city, or water company.