

WATER QUALITY INFORMATION

Iron:

Reduced forms are generally soluble in water.

Oxidized forms are generally insoluble: red-brown particles, red-orange gel like particles form.

High concentrations of iron can stain laundry.

Iron bacteria can form a slime that can erode metal fixtures and produce an odor similar to diesel fuel, or some say, cucumbers.

Manganese:

Reduced forms can be soluble in water. Upon evaporation can sometimes leave white particles.

Oxidized forms are generally insoluble and form black precipitates.

Manganese bacteria can also form black slime.

Sulfur:

Hydrogen Sulfide has a rotten egg smell. It is found with natural gas deposits. It can form in reduced environments (little oxygen) when there is sulfur (from pyrite of coal or other sulfur/sulfate deposits) and sulfur – reducing bacteria. Hot water heaters are good environments for sulfur reducing bacteria due to the high heat, low oxygen environment, along with magnesium anodes that can provide electrons and thus energy to the bacteria. Hydrogen sulfide can be toxic, flammable and explosive at given concentration. It is corrosive to metal fixtures, and can be an eye irritant.

Hard Water:

Calcium and Magnesium can produce white soap scum and also cause clogged pipes.

Other metals can also give white ppt, so further testing would be required. (Silver looking precipitates could include several possible metals. Arsenic can form a silver precipitate that smells like garlic. Sodium Bicarbonate and carbonates can also form white precipitates upon evaporation.)

Coliform Bacteria:

The presence of coliform bacteria indicates that your well is a suitable environment for bacteria to grow, some of which may be a health threat. The bacteria may be entering your water due to exposure to sewage, human or animal, perhaps from runoff or a broken sewage line.

Other contaminants or substances:

Your well was tested only for the metals and the coliform listed on your data sheets. There may be other metals present, or other organic substances, or other contaminants not tested for.

Conductivity and Specific Conductivity:

High conductivity readings indicate ions or charged particles are present. This usually indicates possible high metal concentrations.

Turbidity:

High turbidity readings are usually the result of cloudy water with high concentrations of insoluble particles. Turbidity does not indicate metal concentrations. The particles may be metallic in nature or they may have other identities, such as fine soil particles.

pH:

A pH of 7 is considered neutral. Below 7 is classified as acidic and above 7 is classified as base or alkaline.

ORP:

This is the Oxidation Reduction Potential of your well water. In general, the higher the ORP, the more likely it is to have an oxidizing environment, and conversely, the lower the ORP, the more likely it is to have a reducing environment, where most metals stay dissolved and reducing bacteria can survive.