



Interpretation of Water Potability Results

Total Coliform may indicate presence of disease causing organisms. When coliform bacteria are present, this is a good indication that the source of the water may have been contaminated by surface water or fecal material, and may contain disease-producing organisms. **Reference Range: Absent per 100 ml**

Ammonia Nitrogen a product of the microbiological decay of plant and animal protein and is commonly used in commercial fertilizers. Ammonia nitrogen in ground waters is normal therefore, unless the nitrite or nitrate nitrogen or the bacterial level is also elevated, high ammonia nitrogen is of little concern. **Reference Range: .0 - 1.0 mg/L**

Chloride. The allowed limit for chloride was formed primarily as an aesthetic standard. The concentration at which the average person can detect a salty taste in water is 250 mg/L. **Reference Range: .00 - 250 mg/L**

Color may be caused by dissolved organic material from decaying vegetation and/or certain inorganic material such as iron or manganese. While color is not objectionable from a health standpoint, its presence is aesthetically objectionable and suggests that the water needs appropriate treatment. **Reference Range: 0 - 15 units**

Copper in small amounts is not considered detrimental to health, but will impart an undesirable taste to drinking water. High levels are usually due to low pH and low hardness in the water. **Reference Range: limit is 1.3 mg/L**

Hardness the major cause of hardness are calcium and magnesium salts in the water supply. Although not detrimental to health, hard water retards the cleaning action of soaps and detergents. When hard water is heated, it will deposit a hard scale on heating coils and cooking utensils. A water softening system is the most common method of lowering the hardness in water. Following is a scale on which to compare your water hardness: **0 - 75 low/soft, 76 - 150 moderate, 151-250 hard, over 250 very hard.**

Iron in high levels can discolor fixtures and laundry and may impart a metallic taste to the water. Iron is frequently present in water because of the large amounts present in soil. Corrosive water will also pick up iron from pipes. Common methods for removing iron from the water are aeration or chlorination of the water followed by filtration of the iron. **Reference Range: .0 - .30 mg/L**

Lead is a metal formerly used in soldering joints in plumbing systems. It is now prohibited, but many houses still have lead in their plumbing systems. Lead can build up in the body and cause health problems down the road. **Reference Range: limit is .015 mg/L**

Manganese at high levels may produce a brownish black stain in laundry and on fixtures and impart an objectionable odor and taste. IT is usually found along with iron in soil with a high mineral content. Oxidation followed by a greensand filter is a common method of manganese removal. **Reference Range: .00 - .05 mg/L**



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Nitrate Nitrogen an elevated level may be an indication that agricultural fertilizer or waste disposal is polluting the water. The allowed limit has been established to prevent a disease called methemoglobinemia "blue baby disease" in infants. Nitrates can be removed by reverse osmosis and ion exchange resins. **Reference Range: 0 - 10.0 mg/L**

Odor in the water can be caused by foreign matter such as organic compounds, inorganic salts or dissolved gases. These materials may come from domestic, agricultural or natural sources. The allowed limit has been set according to aesthetic values by acceptable waters should be free of objectionable odors. **Reference Range: 0 - 2**

PH is the measure of the acid or alkaline content of the water. Water with a low ph (acidic) is corrosive to plumbing and may cause leaching of toxic metals such as lead or copper. Soda ash can be added to the lead water to effectively raise the PH. **Reference range - 6.4 - 8.5**

Radon is well water is has become a growing concern. Radon can enter directly into the living areas of the home by escaping into the air through, water faucets, showers, baths, etc. **Reference Range: 0 - 5000 pCi/L**

Sodium. For healthy persons the sodium content of the water is relatively unimportant because the intake of sodium from other drinks and foods is so much greater. Persons following a low sodium diet because of hypertension, kidney, or cardiovascular disease should be concerned with an elevated level of sodium. The usual low sodium diet allows 20 mg/L in the drinking water. Elevated sodium levels are likely to be seen with the use of a water softener. Other possible causes are run-off from road salting or sewage contamination. **Reference Range: 0 - 28 mg/L**

Sulfate is a substance that occurs naturally in drinking water. Health concerns regarding sulfate in drinking water have been raised because of reports that diarrhea may be associated with the ingestion of water containing high levels of sulfate. Sulfate in drinking water currently has a secondary maximum contaminant level (SMCL) of 250 milligrams per liter (mg/L), based on aesthetic effects (i.e., taste and odor). **Reference Range: 0 - 250 mg/L**

Turbidity is the presence of suspended materials such as clay, silt, plankton, finely divided organic material and other inorganic materials. Turbidity in excess of 5 units is detectable in a glass of water and is usually objectionable for aesthetic reasons. The most common method of removing turbidity is with a filter system. **Reference Range: .0 - 5.0 NTU**