

DRINKING WATER TESTING FOR TOTAL COLIFORM

Ana-Lab Corporation



Total Coliform

Thank you for allowing Ana-Lab to test your drinking water for total coliform. We are pleased you have chosen our company to make this test. Ana-Lab is fully certified by state agencies to provide you with these analytical results. The total coliform bacteria test is a primary indicator of the suitability for consumption of drinking water (potability). If coliform is detected then it is possible that disease-causing organisms are present. When having water tested for total coliform, a negative result does not guarantee that the water is potable; rather the results mean that it is unlikely that disease-causing organisms are present.

Coliform bacteria occur as a natural part of the microbiology of the intestinal tract of warm-blooded mammals, including man. Coliform bacteria are not disease-causing organisms and are only mildly infectious. Because of this, these bacteria are relatively easy to work with in the lab. If large numbers of coliforms are found in water there is a high probability that other pathogenic bacteria or organisms such as Giardia and Cryptosporidium may be present.

If your well fails the coliform test you should chlorinate the well.

Well Chlorination Procedure

1. Pour one cup of chlorine bleach in the well at the wellhead.
2. Let sit overnight
3. Run water through all the pipes and faucets until the chlorine smell is gone.

OTHER SUGGESTED DRINKING WATER TESTING

TEST	Source or Cause	Significance	Limits
Total Coliform	Coliforms are naturally present in the environment	Not a health threat in itself, it is used to indicate whether other potentially harmful bacteria may be present.	Less than 1 C.F.U. per 100 mL
Bicarbonate and Carbonate	Formed from carbonated rock such as limestone and dolomite.	Produces alkalinity and forms scale in hot water facilities as a result of hardness in combination with calcium and magnesium.	No Standards Established
Chloride	Dissolved from rock and soil. Found in large amounts in oil-field brine, sea water and industrial brine.	When combined with sodium gives salty taste to drinking water and may increase the corrosiveness of water.	250 mg/l

TEST	Source or Cause	Significance	Limits
Fluoride	Dissolved in small quantities from rock and soil. Fluoride may be added to drinking water.	May cause staining of the teeth in children depending on quantity and temperature average per year. In proper amounts may reduce dental cavities and help prevent osteoporosis.	4.0 mg/L
Alkalinity	Indicates the presence of bicarbonates, carbonates and hydroxides.	Information of alkalinity is useful in water treatment, softening and control of corrosion.	No Standard Established
Conductivity	Based on dissolved solids content of water.	Indicates the degree of mineralization. Measurement of the capacity of the water to conduct an electric current.	1,000 micromhos per cm ²
pH	pH is lowered by acid-generating salts and free carbon dioxide. pH is raised by carbonates, bicarbonates, hydroxides, phosphates, silicates and borates.	pH is a measure of the acid qualities of the water. A pH of 7 means a neutral solution. Water with a pH below 7 is normally harmful in that it may dissolve iron from pumping facilities and mains and produce a red water problem.	Acceptable range 6.5 to 8.5
Nitrate-Nitrogen	Produced by decaying organic matter, sewage, fertilizers and nitrates in the soil.	High concentrations may suggest pollution. Water of high nitrate content may cause blue babies and should not be used in infant feeding.	10 mg/L
Sulfate	Dissolved from rock and soil containing gypsum, iron sulfides and other sulfur compounds. Commonly present in industrial wastes.	Sulfate in water containing calcium forms hard scale in steam boilers, In large amounts sulfate can give a bitter taste and or have a laxative effect.	250 mg/L
Total Hardness	Caused by presence of calcium magnesium, iron and or aluminum.	Hard water consumes soap before lather will form and creates scale in boilers, water heaters and pipes.	0-60 mg/L soft 61-120 mg/L moderate 121-180 mg/L Hard 181mg/L up very hard
Total Calcium/ Magnesium	Dissolved from soil and rock, especially from limestone, dolomite, and gypsum. Calcium and Magnesium are found in large quantities in sea water.	Causes most of the hardness and scale-forming properties of water. Water low in calcium and magnesium is desirable in electroplating, tanning, dyeing and textile manufacturing.	No Standards Established See Hardness Above

TEST	Source or Cause	Significance	Limits
Total Dissolved Solids	Dissolved mineral constituents from rock and soil.	Considered a general indicator of the quality of water.	500 mg/L
Total Lead	Normally found in surface waters from industrial pollution.	Lead symptoms range from gastrointestinal disturbances to inflammation of the brain and spinal cord. Brain damage is common among children exposed.	0.015 mg/L
Total Iron	Dissolved from rock and soil. May also come from iron pipes, pumps, and other equipment if low pH is present.	On exposure to air, iron in ground water oxidizes to reddish-brown which may stain laundry and utensils. Large quantities can cause unpleasant taste and encourage the growth of iron bacteria.	0.3 mg/L
Total Manganese	Dissolved from shale, sandstone or river basin material. Toxic at high levels.	Gives water a grayish appearance and may stain plumbing fixtures.	0.05 mg/L
Total Sodium	Dissolved from rock and soil. Found also in oil-field brine, sea water and industrial brine.	Moderate amounts have little effect on the usefulness of water but persons on low sodium diets should consult a physician.	No Standards Established
Turbidity	Caused by a wide variety of suspended materials, both organic & inorganic.	Water is unclear and visually unpleasant. Disinfection and proper bacteriological analysis is difficult.	1 turbidity unit
Metals Digestion		A sample preparation step in order to perform test.	No Standard Established
Cation-Anion Balance		Internal check used by laboratory to verify correct results.	No Standard Established
Hydroxide	See Alkalinity		
Total Carbon Dioxide	Surface waters normally contain less than 10mg free carbon dioxide per liter, while some ground waters may easily exceed that concentration.	The carbon dioxide content of water may contribute significantly to corrosion.	No Standard Established