

RESIDENTIAL WATER SUPPLY TESTING

If you get your drinking water from a private water supply, such as water wells, cisterns, springs, ponds, rainwater or other water sources, the U.S. Environmental Protection Agency (EPA) highly recommends periodic testing of your water. For more information from the EPA, go to <https://www.epa.gov/ground-water-and-drinking-water/home-drinking-water-testing-fact-sheet>.

LCRA Environmental Laboratory Services (ELS) is certified by the Texas Commission on Environmental Quality (TCEQ) under the National Environmental Laboratory Accreditation Program (NELAP) for drinking water testing and offers the general public affordable testing of their residential water supply for common contaminants identified by the EPA. LCRA ELS can test your water for any or all of these contaminants.

Common Contaminants

TOTAL COLIFORM – Coliforms are common bacteria found in the environment and are generally not harmful. However, their presence in drinking water may indicate contamination from disease-causing germs. **Fecal coliform** and ***E. coli*** are bacteria found in human or animal wastes. These bacteria in drinking water can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. When testing for bacteria, a result of 0 colonies per 100 mL of a sample or “Absent” is acceptable. If you have installed new plumbing or if you suspect contamination, you should disinfect your water supply prior to sampling.

NITRATE – High levels of nitrate (10 mg/L or greater) may cause blood disorders and is of special concern to infants and the elderly. High nitrate may indicate contamination of the water from sewage, fertilizer or other similar materials.

NITRITE – High levels of nitrite (1 mg/L or greater) may cause blood disorders and is of special concern to infants. Nitrite readily converts to nitrate.

LEAD – Lead is an element of primary concern because it can be toxic in very small amounts. The limit for safe drinking water is 0.015 mg/L. Any detectable amount of lead means it is possible for your water to exceed the limits depending on the length of time the water has been stagnant in the water line.

TOTAL DISSOLVED SOLIDS (TDS) – TDS is a measurement of dissolved minerals and is a good general indicator of water quality. Results greater than 1000 mg/L indicate a treatment system (reverse osmosis or distillation) may be required to reduce the TDS to an acceptable level.

TOTAL ORGANIC CARBON (TOC) – Organic substances such as insecticides, herbicides, and other agricultural or industrial chemicals may enter water sources via rainfall runoff or accidental spills and leaks from domestic and industrial wastes. TOC is a screening tool used to determine if water has been contaminated with these types of materials. A TOC result of 5 mg/L or greater may indicate a need for additional testing to determine the source of the contamination.

FLUORIDE – Federal regulations require fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/L in drinking water. Federal regulations also require that the secondary standard limit for fluoride in your drinking water not exceed 2.0 mg/L, since this level could possibly cause adverse effects in the development of permanent teeth for young children.

CHLORIDE – Chloride values of 300 mg/L or greater can be very corrosive to pipes and cause an unpleasant, salty taste in the water.

IRON – This element causes rust stains on sinks and fixtures, gives water a reddish color, and gives water a bad taste and smell. An iron result of less than 0.3 mg/L is considered acceptable for good water quality.

SULFATE – This compound along with Chloride comprises the majority of dissolved salts. Sulfate values of 300 mg/L or greater can produce a laxative effect, bitter taste and have a bad smell.

CALCIUM – Calcium is the main cause of hard water and scaling. High values are common in central Texas due to the limestone formations where most of our groundwater originates. Calcium values of 50 mg/L or greater indicate hard water. (Calcium and Magnesium are required to perform a Hardness calculation.)