



SHIAWASSEE COUNTY HEALTH DEPARTMENT

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TESTING OF NEW WATER WELLS

Having safe drinking water is a basic human need. Every well owner wants the peace-of-mind that comes from knowing that their drinking water is safe. The Shiawassee County Health Department requires three different tests for newly constructed residential water wells:

1. COLIFORM BACTERIA

Coliform bacteria are found in the intestinal tract of warm-blooded animals, surface water, some soils, and decaying vegetation. Coliform bacteria are “indicator” organisms. If they are present, pathogenic, or disease-causing organisms, could be present. If coliform bacteria are present, the well may have become contaminated during the drilling process.

An initial sample to detect coliform bacteria must be collected before a new well is placed into service. By law, Michigan water well contractors are required to provide coliform-free water.

2. NITRATES

Nitrate is an inorganic chemical found in groundwater. It can get into water if a well is improperly constructed or located where it is subject to contamination sources. Typical sources of nitrate include: wastes from livestock operations, septic tank/drainfield effluent, and crop and lawn fertilizers. Large amounts of nitrate in drinking water can cause serious illness in infants less than six months of age.

The U.S. Environmental Protection Agency has established a maximum contaminant level (MCL) for nitrate at 10 milligrams per liter (mg/L).

3. ARSENIC

Arsenic is a naturally occurring chemical element found in Earth materials such as bedrock, sand, and gravel. Arsenic may be dissolved by, and absorbed into, the groundwater. Long term exposure (2 liters of water a day for 70 years) at levels above the EPA recommended levels can cause chronic health concerns.

The U.S. Environmental Protection Agency set a maximum contaminant level (MCL) of 0.010 mg/L or 10 parts per billion (ppb) for arsenic in drinking water for public water supplies. The EPA does not mandate the treatment of arsenic in private residential water wells.

The water sample results are typically received by the health department within 7 days. At that time, the results will be communicated to the well owner.

If you have any questions, please call the Environmental Health Division at (989) 743-2390.