PRIVATE WELL WATER IN CONNECTICUT

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Publication #24a: Private Well Testing (short version[1])

Testing your private well water provides you with information on the quality of your drinking water. Testing is the best way to ensure that your drinking water supply is safe from harmful chemicals. In addition, water testing can determine whether nuisance impurities, such as iron and manganese are present and at what levels. The purpose of this document is to assist private well owners in deciding how frequently to test their private well water and what to test for.

Private Well Water Supplies

Private well owners are responsible for the quality of their private well water and are generally not required by law to test their water. Testing is a good idea even if you do not suspect a problem because it is the only way to be sure your water is safe to drink. Test your well water:

- on a routine basis, as outlined in Table 1 of this publication.
- in accordance with Section 19-13-B101 of the Public Health Code for newly constructed wells. Required testing does not cover all contaminants.
- when buying a house. Water tests done during home purchases are usually required by the bank providing the mortgage and do not necessarily cover all contaminants.
- if you have water treatment equipment in your home to be sure it is working properly.
- when you notice a change to your water quality, or, if you suspect your well has been contaminated.

This publication provides general guidelines for private well water testing. Check with your Local Health Department and neighbors to find out whether there are any water quality problems specific to your area.

How Do I Get My Water Tested?

You can have your water tested at any state certified laboratory to test drinking water. Make sure the private lab is certified to test drinking water for the contaminants you are requesting. If you collect the samples yourself, ask the laboratory for sample instructions and follow them carefully. Always keep a record of all your water test results for reference.

What to Test for and How Frequently to Test?

Even if you do not suspect any well water problems, it is important to test your water to ensure that it is safe to drink. Table 1 lists the tests we recommend for all private wells even if you do not notice any problems with your water. Refer to Table 3 in Publication #24: Private Well Testing for a list of water quality issues you might encounter and what tests you should perform if you have a particular issue with your water. Whenever you notice a change in the taste, color, odor, or clarity of your water, contact your Local Health Department or the Connecticut Department of Public Health (CT DPH), Private Well Program for assistance.

1. Refer to the full version of Publication #24: Private Well Testing for more detailed information.

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Table 1. Recommended Test for All Private Wells		
Type of Test	**When?**	**Why?**
Basic Indicators *(See table 2 below)*	**Every Year** Also test after repair or replacement of your well, pump or water pipes.	Provides a general indication of water quality. Required for all new wells. Some basic indicators above their acceptable limit are associated with health concerns.
Lead *(2 samples; a first draw sample and a flushed sample should be collected when testing for lead in drinking water)*	**At Least Once** Also when planning a pregnancy or have a child under 6 years old in the home. *If your water is considered corrosive, test every 3-5 years.*	Lead can leach from your home's plumbing (pipes, faucets, valves, etc.) system. Corrosive water leaches lead more readily. Lead above the acceptable limit is associated with health concerns. Young children are especially susceptible to harmful effects from lead exposure.
Arsenic, Uranium, Radon	**At Least Once** Ideally, repeat test every 5 years	Arsenic, uranium and radon are naturally occurring in groundwater in some areas of CT and are associated with health concerns above their acceptable limit. Private wells with high levels have been found sporadically around CT, and levels may fluctuate.
Volatile Organic Compounds (VOCs)	**At Least Once**	Gasoline, oil, solvents or industrial chemicals spilled or leaked on the ground could get into your well water. VOCs above their acceptable limit are associated with health concerns.
Fluoride	**Every 5 years when a child under 12 is present**	Fluoride can occur naturally in wells throughout CT. A child's permanent teeth can become discolored from excess fluoride. Too little fluoride can increase risk of tooth decay. Your child's dentist will likely ask you about the fluoride level in your well water.

*Some drinking water standards are based on aesthetics and some are based on health risk. If your water exceeds a drinking water standard, contact your Local Health Department or CT DPH for assistance. For more information refer to the types of drinking water standards hyperlinked below.

DRINKING WATER STANDARD TYPES:

CT DPH Action Levels
US EPA Maximum Contaminant Levels (MCLs)
US EPA Secondary MCLs

For More Information Contact:

Health related: CT DPH, Environmental & Occupational Health Assessment Program, (860) 509-7740

All other questions (i.e., testing, treatment, etc.): CT DPH, Private Well Program, (860) 509-7296

Table 2. Basic Indicators Test

Parameter	Applicable Drinking Water Standard*
Total Coliform Bacteria	None Present
Nitrate-Nitrogen	10 milligrams/liter (mg/L)
Nitrite-Nitrogen	1 mg/L
pH	6.4 - 8.5 standard units (SU)
Odor	Less than 2
Chloride	250 mg/L
Hardness	150 mg/L
Apparent Color	Less than 15 SU
Sulfate	250 mg/L
Turbidity	Less than 5 SU
Iron	0.3 mg/L
Manganese	0.05 mg/L (Aesthetic based) 0.5 mg/L (Health based)