



How to Sample for Bacteriological Contaminants in Your Private Well Water and Understand the Results

If flooding, loss of water pressure or a recurrent digestive concern has you wondering whether your private well water has become contaminated, you can take a sample and have the water tested by an approved bacteriological lab. Follow these four steps:

1. Get the right container and form.
2. Collect the sample.
3. Send the sample to the lab for analysis.
4. Read the lab report and understand the results.

Until you are sure that your well water is not contaminated, you shouldn't use it for drinking, cooking, bathing, washing dishes, washing clothes, or household cleaning.

Get a Container and Form

You need a special container and form to collect and send a drinking-water sample to a lab for analysis.

- If your area has experienced a hurricane, flood, or other natural disaster, recovery teams may be distributing water-sampling kits. Check with the recovery coordinator in your area to see if you can get the container and form you need.
- If not, call a public health laboratory near you and ask them to send you a kit for collecting a water sample for bacteriological testing. If you can't reach a lab near you, you can use a lab that is farther away. It's important to find a lab that can serve you quickly.

Public Health Laboratories in Texas

Find the public-health laboratory nearest you on the list of accredited labs in Texas at <www.tceq.texas.gov/goto/certified_labs>.

You may also call the TCEQ at 512-239-3754 and ask for this information.

Collect the Sample

Find a good sampling location. The best site is an outside faucet in the open that does not leak:

- Take the sample at the faucet, not through a hose.
- Avoid sampling from fire hydrants, dirty areas, and areas behind bushes.
- Do not take samples from kitchen or bathroom sinks.
- Try not to sample in high or gusty winds or when it is raining.
- Handle samples carefully! It is easy to contaminate the samples. Contaminated samples give meaningless results.

Follow these steps to take the sample:

1. Do not open the sample container yet. Open the faucet to full flow for 3 minutes to clear the line.
2. Reduce the flow to a slow, steady, spray-less stream—about the thickness of a pencil (1/4 inch).
3. Be careful not to touch the inside of the container when you open it.
4. Do not rinse the container out—just fill it without splashing.
5. Close and seal the container. Make sure it doesn't leak—leaking samples cannot be accepted for analysis.
6. Note the time. (You will need to enter this on the form you send in with the sample.)

Send the Sample to the Lab

Don't delay! Your sample must arrive at the laboratory no more than 30 hours after you collect it. But first complete the form and pack the sample properly. If you have questions about this, ask the lab.

Fill Out the Submission Form

With your sampling container, there will be a bacteriological submission form. Here's how to complete it for a private well:

- For "Name of Water System" item, write "Private."
- For "County," write in the name of your county.
- For "Send Results To:" enter your name and mailing address.
- Enter the date and time that the sample was taken.
- For "Type of System," write "Individual."
- For "Water Source," give as much information as you can—for example, the location, diameter, and depth of the well. If you know the aquifer that the well is drilled into, enter that information, too.

Pack and Send In the Sample

Enclose the sample container in a plastic bag, seal it, and wrap the bag securely in bubble wrap or some other suitable padding. Put it on ice and the form in a box or envelope and send it by express delivery to the lab for analysis.

Check Out the Results

It should take about two days for the lab to complete its tests and return the results to you. The most important part of the results is the part about coliform organisms. There are three possible outcomes:

1. **Coliform organisms not found.** This is good news: As far as levels of harmful bacteria are concerned, your water is considered safe to drink at the time of sampling.
2. **Coliform organisms found.** This is not good news. Coliform organisms are present in your water, and it might not be safe to drink. Here is what to do:
 - Don't use the water for drinking, bathing, cooking, preparing food, making ice, washing dishes, or cleaning.
 - Instead, boil or disinfect your water before you use it, use bottled water, or get water from another source,
 - If you choose to boil your water, heat it to the boiling point and let it continue at a full boil for two minutes. Let it cool before using it for drinking or bathing.
 - To find out how to disinfect water, go online to EPA's Emergency Disinfection of Drinking Water webpage at www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water.
 - Disinfect the well and repeat the test.
 - For information on disinfecting your well, go to www.tceq.texas.gov/response/safewell.html or contact the TCEQ regional office that serves your county. Find contact information for that office at tceq.texas.gov/goto/region.
 - Until you get a test result of "coliform organisms not found" from the lab, continue to boil your water, use bottled water, or use water from another source.
 - If repeated tests continue to show coliform organisms are present, consider adding continuous disinfection equipment to your well.
3. **Unsuitable for analysis.** This is a gray area: The lab could not draw a conclusion, perhaps because of a sampling error. For example, if you rinse out the container before you collect the sample, the result might be "unsuitable for analysis." Review the directions and re-sample. You may also consider disinfecting the well before repeating the test.