



# How to Sample for Bacteriological Contaminants in Your Private Well Water

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 accredited bacteriological lab. Follow these five steps:

1. Identify a lab and contact them.
2. Get the right container and form from the lab
3. Collect the sample.
4. Send the sample to the lab for analysis.
5. Read the lab report and understand the results.

## Find Public Health Laboratories in Texas

- Find a [public-health laboratory](#)<sup>1</sup> nearest you on the list of accredited labs in Texas.
- You may also call TCEQ at 512-239-3754 and ask for this information.

## Get a Container and Form

- You need a special, sterile 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.

## Collect the Sample

Find a good sampling location. The best site is an outside faucet in the open that points downward and 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.

<sup>1</sup> [www.tceq.texas.gov/goto/certified\\_labs](http://www.tceq.texas.gov/goto/certified_labs)

- 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. Turn off the faucet. Sterilize the mouth of the faucet for about five seconds using a butane mini-torch (**DO NOT** use if there is a plastic vacuum breaker or a plastic faucet). Alternatively, disinfect the faucet by spraying the inside and outside with a 10% household bleach solution or 70% rubbing alcohol solution. Allow the solution to disinfect the faucet for at least 1 minute.
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. If you see powder inside your empty container, that is normal.
4. Do not rinse the container out—just fill it without splashing. Make sure you collect water to slightly above the fill line indicated on the container but not higher than the neck of the bottle (usually 100mL). Your lab should be able to provide specific guidance about this.
5. Close and seal the container. Make sure it doesn't leak—leaking samples cannot be accepted for analysis.
6. Note the time you collected the sample. (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 supplied by the lab. Follow guidance from the specific lab to fill out their form.

If the lab you are using doesn't have a separate form for private well testing, here's how to complete the TCEQ Microbial Reporting Form 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 and phone number.
- For "Sample Identification/Location" include information about where the sample was collected. For example: "123 Main St, outside tap" or "456"
- Enter the date and time that the sample was taken.
- For "Sample Type" select "special."
- For "Chlorine Residual" enter N/A for not applicable.

## ***Pack and Send 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 secure the form in a box or envelope and send it by overnight delivery to the lab for analysis if you are not able to drop the sample off directly to the lab.

## **Check Out the Results**

It should take about two days for the lab to complete its tests and return the results to you. Ask your lab directly when you can expect the results so you know what to expect. The most important part of the results is the part about coliform organisms. There are three possible outcomes:

1. **Total coliform organisms not found (absent).** This is good news. As far as levels of harmful bacteria are concerned, your water is considered free of total coliform organisms.
2. **Total coliform organisms found (present).** This is not good news. Total coliform organisms are present in your water, and that indicates 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](#)<sup>2</sup>.
  - Disinfect the well and repeat the test.
  - For information on disinfecting your well, go to [Disinfecting Your Private Well](#)<sup>3</sup> or contact the [TCEQ regional office](#)<sup>4</sup> that serves your county.
  - Until you get a test result of "total coliform organisms not found (absent)" 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.

**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 or if the sample was cloudy or had too much color, the result might be "unsuitable for analysis." Review the directions, request guidance from the lab, and re-sample. You may also consider disinfecting the well before repeating the test.

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<sup>2</sup> [www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water](http://www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water)

<sup>3</sup> [www.tceq.texas.gov/goto/gi-432](http://www.tceq.texas.gov/goto/gi-432)

<sup>4</sup> [www.tceq.texas.gov/goto/region](http://www.tceq.texas.gov/goto/region)