



Public Health Department

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Environmental Health

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RESIDENTIAL WELL SAMPLING PROCEDURE FOR COLIFORM BACTERIA

Background Information

The Public Health Laboratory tests for the presence or absence of coliform bacteria. Coliform bacteria are indicators of potential contamination of a water supply and may originate from human, animal, or soil sources. If coliform bacteria are present, drinking the water may not necessarily result in illness, but that possibility does exist.

It is important that well water be sampled correctly in order to get accurate results. Special care must be taken to assure that bacteria are not introduced into the sample when it is taken. We recommend that you use the following steps when collecting your sample. If instructions from your laboratory are different, please call us for clarification.



Step One: Be Sure to Plan Ahead

Only water collection bottled provided by the testing laboratory can be used. These bottles can be obtained either from the Public Health Laboratory or from the Environmental Health Division. The location of these two facilities is found at the end of these documents.

Along with the water bottle, there should be a lab slip surrounding the bottle and held in place by a rubber band.



Step Two: Be Careful Where You Draw the Water

Sample taps should represent the water in your distribution system. Avoid poor sample sites such as swivel faucets, hot and cold mixing faucets (with a single lever), leaky or spraying faucets, drinking fountains, janitorial sinks, frost-free hose bibs, and faucets below or near ground level.

Remove any attachments from the faucet, including aerators, screens, washers, hoses, and water filters.

Step Three: Use Fresh, Clean Water

Turn on the cold water only and let it run with a steady stream for at least five minutes. Before collecting the sample, turn the water down to a thin stream (about the width of a pencil), then let the water run one minute.

Hold the bottle under the stream of water. Be careful not to let the bottle touch the sample tap. Fill the bottle to the neck or indicated fill line, but do not allow it to overflow. Remove the bottle from the water flow and replace the cap.



To avoid contamination while taking the sample, hold the bottle near the bottom with one hand, hold the top of the cap with the other, and then unscrew the cap. **Do not** set the cap down, touch any part of the cap that touches the bottle, or let anything touch the rim of the bottle or the inside of the cap.

Butte County Public Health Laboratory
695 Oleander Avenue
Chico, CA 95926
530-891-2747
Greg Costo Laboratory Director

WATER REPORT

Laboratory Number _____ Date & Time Received _____
Last First

Name _____

Address _____

City _____

State CA _____

Telephone Number _____

Fax Number _____

Date Collected _____

Time Collected _____

Collected By _____

What was the actual sample collection point? _____

Additional information _____

TEST RESULT BY "COLLERT" TEST METHOD

Coliforms Absent Present E. coli Absent Present

Date Reported _____ By _____

Method of Contacting Client Mail Fax Telephone Environmental Health 6/21/06

Step Four: Complete the Paperwork

Complete the lab slip. If there was anything unusual about the sample collection, note it on the lab slip. Secure the lab slip to the bottle with the rubber band.

Step Five: Deliver Sample to the Lab

Transport water samples immediately to the laboratory or refrigerate and submit to the laboratory less than 24 hours from the time the sample was taken. Water samples cost \$24 at the Public Health Laboratory. The laboratory accepts water samples on Monday through Thursday, 8 a.m. – 4 p.m.

Step Six: Interpret the Results

The test identifies the presence or absence of total and fecal coliform and results are available within 24 hours.

Coliform is a term that describes a group of bacteria commonly used to indicate possible contamination of drinking water. **Total coliform** are a large group of bacteria that are found in many different environments. They are found both living in the intestinal tracts of warm

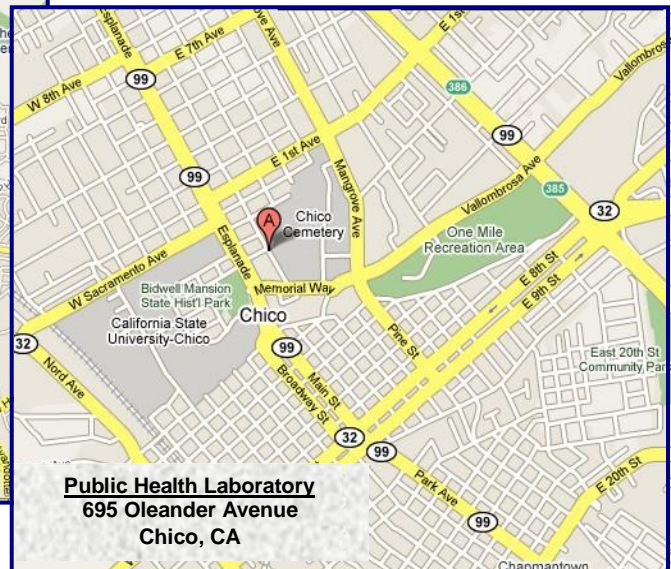
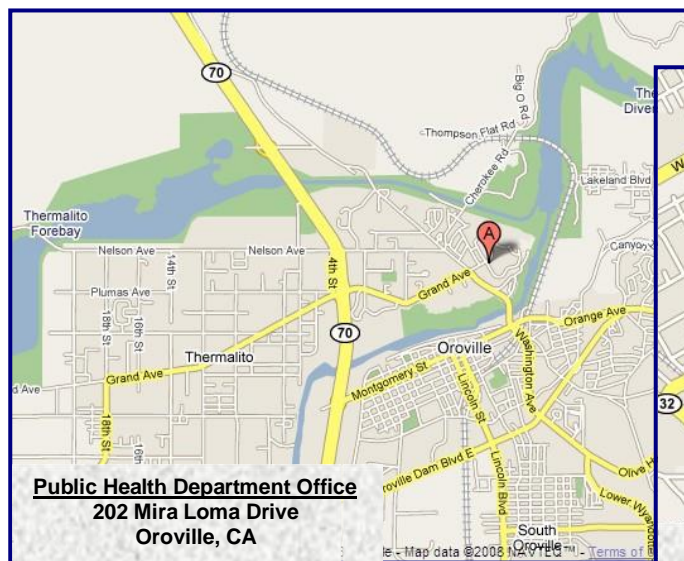
blooded animals and living freely in the natural environment, including lawns, soil, and even in mountain glaciers.

A properly constructed and maintained drinking water well should not have total coliform in the water, but it is not unusual for these widespread bacteria to, over time, find their way into a home's water through the distribution system when a water line is broken, through a well casing vent, when the well casing cap is not adequately sealed, when a well does not have an adequate annular seal, or for a variety of other reasons. Presence of total coliform



indicates that there could be a pathway for other more harmful contamination to find its way into your home's water, but is not itself conclusive that your water is unsafe to drink.

Fecal coliform are a subset of the total coliform group of bacteria and are unique because they originate exclusively from the intestinal tract of warm blooded animals. Although our laboratory tests cannot distinguish between fecal coliform originating from human sources and fecal coliform originating from animal sources, its presence, nonetheless, would have indicated that the home's water system was potentially contaminated with fecal pollution.



Questions?

Residents seeking more information about the status of water in their area should call Public Health's Environmental Health Division at 530-552-3880.