



# NEILSON RESEARCH CORPORATION

*Environmental Testing Laboratory*

Coliform Bacteria

## Sampling Instructions and Test Information

Proper sampling techniques are extremely important in obtaining accurate water quality information. Only use sample containers provided by the laboratory. DO NOT remove the cap from bottle until ready to fill. DO NOT rinse the sample container. There is a small amount of powdered chemical inside.

### Sampling Instructions

1. Select a tap that is frequently used, but avoid the kitchen sink faucet if possible. Do not use a single handle-mixing faucet. Remove any aerators, hose attachments, or purification devices.
2. Allow the water to flow full force for 3-5 minutes. Turn water down to pencil size stream so it doesn't splash.
3. Note the 100 ml mark on the sterile sample bottle. The white powder or tablet must remain in the container. DO NOT RINSE THE CONTAINER. Carefully open the bottle, keeping hands away from the inside of the cap or the bottle rim. Fill the plastic container between the two lines on bottle. DO NOT UNDERFILL. A minimum of 100 ml sample is required. If overfilled, DO NOT POUR OUT EXCESS. If the sample is above the fill line, (120 ml) there will be a \$10.00 fee to adjust the volume.
4. Fill out the information section on the left side and the bottom of the form enclosed with the container.
5. Sample must be received within 24 hours after sample is taken. All samples must be kept cold and brought to the laboratory in a cooler and on ice. Samples that are too warm or frozen may be refused.
6. Analysis time is 24 hours. The results will be sent to the email address provided on the chain of custody form.

### Total Coliform Bacteria

The Total Coliform Bacteria test is the standard microbiological test of the sanitary quality of drinking water. The EPA states that good drinking water should not contain any coliform bacteria.

There are primarily 12 different bacteria which makeup the group known as "coliforms." In most cases, coliform bacteria are not harmful. However, if these bacteria are found in your water supply, this indicates that other disease-causing bacteria may enter through the same pathway and be present in your drinking water. If coliform bacteria are found, the water supply is considered a potential health hazard and is classified as UNSAFE for human consumption. This test does not indicate whether the water is chemically safe to drink.

### *E. coli* Bacteria Analysis

Two types of the above mention coliforms are known as fecal coliforms. This test differentiates between coliforms of fecal origin, specifically *E. coli*, (from the intestines of warm blooded animals) and coliforms from other sources. Drinking water contaminated with fecal coliform is considered and EXTREME HEALTH HAZARD.

### Treatment

If your water system fails the coliform bacteriology test, your next step is to perform a "batch chlorination" of your well and distribution system.