

## **MICROBIOLOGICAL ANALYSIS – COLIFORMS SAMPLING INSTRUCTIONS AND TEST INFORMATION**

Proper sampling techniques are extremely important in obtaining accurate water quality information. Use only sterile sample containers provided by Neilson Research Corporation. DO NOT remove the cap from bottle until ready to fill. DO NOT rinse the sample container. It contains a small amount of powdered sodium thiosulfate as a preservative.

### **SAMPLING INSTRUCTIONS**

- Use only sterile sample bottle provided by NRC. Do not use if bottle is open or damaged, or if sterile neck wrap is broken or missing.
- Select a tap that is frequently used, but avoid the kitchen sink faucet if possible. Remove any aerators, hose attachments, or purification devices.
  1. Allow the water to flow full force for 3-5 minutes.
  2. Turn water down to pencil-size stream and allow it to run for another 1-2 minutes.
  3. Remove and dispose of plastic neck wrap. Note the 100 mL and 120 mL marks on the sample bottle. The white powder must remain in the container. DO NOT RINSE THE CONTAINER.
  4. Carefully open the bottle, keeping hands away from the inside of the cap, bottle, and the bottle rim. If you must set the cap down during sample collection, take care to protect its sterility.
  5. Fill the container until water level is between the 100 mL and 120 mL lines on bottles. DO NOT UNDERFILL. A minimum of 100 mL sample is required. If overfilled, DO NOT POUR OUT EXCESS. If the sample is above the 120 mL fill line, there may be an additional charge to adjust the volume.
  6. Replace cap on container and place in a cooler with ice for transport.
  7. Complete top half of the form enclosed with the container. Legibly print your name and mailing address in the lower box as it will appear in the window of the return envelope.
- 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 may be refused.
- Analysis time is 24 hours, and the results will be mailed directly to the address noted in the lower portion of the report form.
- Rush analysis (18 hours) is available at an additional charge.

### **Total Coliform Bacteria and *E. coli***

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 18 different bacteria which make up 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**

This test differentiates between *E. coli*, a fecal coliform found in the intestines of warm-blooded animals, and coliform bacteria from other sources. Drinking water contaminated with *E. coli* is considered an **EXTREME HEALTH HAZARD.**

### **Treatment**

If your water system fails the bacteriology test, we recommend that you resample from another sample point, or perform a “batch chlorination” of your well and distribution system. For further information or chlorination instructions, please visit our website at [www.nrclabs.com](http://www.nrclabs.com).