

## BACTERIOLOGICAL SAMPLING INFORMATION

### I. General

The presence of the coliform bacteria group is used as an indicator of pollution in drinking water systems. Sampling procedures involve stringent measures to reduce the risk of sample contamination from the sampler, plumbing fixtures, sampling containers and the environment.

### II. Sampling Container Preparation:

Write name and sampling date on pre-sterilized whirlpak baggie in the white area. Use ink pen, being careful not to puncture the baggie.

### III. Site Selection:

Sites, water spigots, should be chosen carefully to obtain a representative sample of well water. However, precautions must be taken to choose a spigot that will not contaminate the sample.

#### **Spigots to be avoided include:**

- 1) Spigots that are not used on a regular basis, with possible visible algae growth.
- 2) Spigots with leaking packing nuts or cracks.
- 3) Spigots with non-removable aerators, screens, or filters.
- 4) Spigots connected to plumbing in or around bathrooms.
- 5) Spigots that come after a whole-house softener or filter system.

The kitchen sink spigot is usually the best choice. However, for single lever faucets make sure **cold water only is run**. All aerators, screens, and filters should be removed or placed in bypass prior to sampling. New wells, or wells that have not been used recently, should be run before sampling to flush stagnant/contaminated water from the system.

### IV. Sampling Procedure:

After the plumbing fixture has been chosen and all aerators, screens and filters have been removed or placed in by-pass, the spigot should be turned to full velocity and allowed to run for at least five minutes or longer for little used spigots or wells. The water velocity should be reduced to a pencil sized stream prior to sampling and adjusted to avoid water from running around the threaded portion of the spigot head. Once the water velocity has been established, the perforated top should be torn off the baggie and the paper tabs used to open the baggie with care taken to avoid contact with the baggie lip. The whirlpak should then be filled without touching it to the spigot and then closed with a twirling motion flipped end over end using the weight of the water and secured shut using the wire tabs by twisting them together. The baggie should then be placed in an upright position in a cooler or cup of ice until delivery to the lab. **Bacteriological samples have a limited hold time, analysis MUST be started within 24 hours of sample collection.** If possible, sampling should not be done outside during unfavorable environmental conditions, i.e. windy, rainy etc. to avoid environmental contamination.