

Collecting Bacteriological Water Samples¹

If possible, collect samples from cold-water faucets free of contaminating devices such as screens, aeration devices, hoses, point-of-use devices or swiveled faucets. If you must use a tap with a screen or aeration device, remove these before taking your sample. Outside locations are discouraged, but if they are used, they must be free of sources of contamination such as insects, cobwebs, dust, rain, snow, etc. Do not obtain samples from taps that leak around the valve stem and allow water to flow over the outside of the tap. This leakage could be a significant source of external contamination of the sample. Faucets must be high enough to put the bottle underneath without contacting the mouth of the container with the faucet.

TAKING THE SAMPLE:

1. Open the faucet and thoroughly flush the line for at least two to five minutes. The longer the water runs, the better the chance of flushing out bacteria that may be in the building plumbing.
2. Reduce the flow until the water leaving the tap has a continuous, gentle flow without any turbulence.
3. Do not rinse the bottle prior to taking the sample. The powder in the bottle is sodium thiosulfate, which inactivates any chlorine-based disinfectant. Be sure this substance stays in the bottle.
4. Remove the cap from the sample bottle and keep it in your hand facing down. Do not touch the inside of the cap or the bottle's inner surface. These actions can contaminate the sample.
5. Carefully place the sample bottle under the running water. Fill the bottle to the fill-line; do not overfill the sample bottle or allow the water to splash.
6. Quickly replace the cap on the bottle and label the sample clearly. If samples cannot be delivered to the lab immediately, place samples in a cooler with cold packs. If ice is used, at no time should the sample container be immersed or submerged in the ice or melted ice water. The sample must be delivered to the laboratory within 24 hours from the time of collection.

IF CONTAMINATION OF THE SAMPLE TAP IS SUSPECTED:

1. Scrub the outside and inside of the tap with a plastic-bristled brush to loosen any attached debris.
2. Open the faucet and thoroughly flush the line for at least two to five minutes and then turn the tap off.
3. Swab the tap with a disinfectant such as bleach and wait for one to two minutes.
4. Continue the sampling procedures as described above, starting with #1 ("Open the faucet").

¹For additional information see "An Operator's Guide to Bacteriological Testing" by John Lisle, © 1993, and from "Pocket Guide to Water Sampling", © 1990. American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235. (303) 794-7711