



*Serving Valley, Elmore, Boise and Ada Counties*

Main Office • 707 N. Armstrong Pl. • Boise Id 83704-0825 • (208) 327-7499 • Fax 327-8553

## **CONTAMINATED DRINKING WATER**

Laboratory examination of your water sample indicates that the water is contaminated with intestinal type of bacteria. This indicates organisms normally found in sewage pollute the water and continued use may result in disease.

Corrective measures can be divided into two categories. The first is aimed at preventing surface water or other contaminating material from gaining access to the well, and the second is aimed at disinfecting the well.

### **OLD WELLS**

These wells may be contaminated because of poor construction or because the source of water itself is contaminated. If the latter is the case (usually shallow wells) little can be done to improve the situation except to have a well digger seal (case) off this shallow contaminated water and seek safe water at a greater depth. Dug wells commonly show contamination because it is almost impossible to keep out surface or seepage waters.

### **NEW WELLS**

It has been our experience that new wells or recently repaired old wells and water systems commonly show contamination. This is because the materials used are ordinarily contaminated. Disinfection, as outlined below, will usually correct this trouble.

## **DISINFECTING WELLS**

Wells may be disinfected by adding chlorine bleach directly to the water in the well.

For a 4-inch diameter well casing, dilute approximately 1 gallon liquid household bleach into 5 gallons of water. 6- inch diameter well casing, dilute 1 3/4 gallons of liquid household bleach into 5 gallons of water. For larger diameter wells, proportionately more solution is required.

### **IN THE EVENING**

Remove the well cap. Pour bleach solution into the well casing wetting the entire inner surface of the casing. One at a time, open all faucets in and outside the house until a bleach odor is detected. Shut off the faucets. Be sure to flush toilets and run shower/bath/washing machine and hot and cold water. Allow bleach solution to remain in water lines 8-12 hours.

### **IN THE MORNING**

Open taps again and allow the water to run until no smell or taste of chlorine is detected, this may take between 8-24 hours depending on well size and amount of bleach used. **If on a septic tank**, run water through outside taps only and not over drainfield. After running outside taps until chlorine bleach cannot be detected, run water inside of house to flush chlorine out of the plumbing system.

PRIOR TO CALLING THE HEALTH DEPARTMENT FOR RESAMPLE: Ensure the water chlorine free by dissolving one (1) DPD 1 tablet in 1 tsp. water. If water remains clear, there is no chlorine residual. A pink color indicates there is still chlorine. Continue to run water (4-6 hours) and test again until DPD 1 tablets produce no color change.

When it is suspected that the water is contaminated because of poor design or construction of the well. There are a number of conditions to check:

- 1) Is the well deep enough to get satisfactory water? Water from shallow wells and pitcher pumps is always subject to contamination.
- 2) Is the well tightly cased? Make certain the casing is not perforated or cracked and that the joints are tight in the contaminated area or upper strata.
- 3) Is the well or casing tightly sealed at the top? This is important to keep out surface contamination and rodents
- 4) Is the top of the well casing and pump in a pit below ground level? This is poor construction unless special protection is offered.
- 5) Are outdoor toilets, septic tanks, cesspools or sewer lines close to the well? This is a definite hazard and corrective measures should be taken.
- 6) Is the surface drainage toward the well or is irrigation water close? These conditions should be remedied.
- 7) Is your well in a lava formation where crevices may bring contamination great distances?
- 8) Are there other conditions which contribute to the contamination of the water? Stock tank watering troughs, underground sprinkler systems?
- 9) If you have a water sprinkler system connected to your well, does it have an Atmospheric Vacuum Breaker to prevent back siphonage?
- 10) Are there any water filters or water softeners in the water system? Poorly maintained filters can discharge more bacteria than they remove.

If you are still in doubt concerning the safety of your well or the quality of your water, write or call Central District Health. We will be glad to advise you and have an environmental health specialist call you and assist you in diagnosing your problem and resample the well after corrective measures have been taken.