

## INSTRUCTIONS TO CHLORINATE YOUR WELL

When bacteria is found in a well the first step is to try to remove it by chlorinating the well. Chlorine bleach is introduced into the well and mixed thoroughly with the water in the well column. The chlorine is allowed to remain in the well column for a 24 hour period, then removed. This process normally kills any bacteria present, although it is not a guarantee that new bacteria will not re-contaminate the well. Please read these instructions carefully and completely before you begin.

### SUPPLIES

- One quart of chlorine bleach for every 75 feet of well depth [150 feet = 2 quarts, 225 feet = 3 quarts, 300 feet = 4 quarts etc.]. If your well depth falls between the 75 foot increments use the lesser amount of chlorine bleach. Chlorine bleach is available at any grocery store for about \$2 per gallon.
- One swimming pool/spa test kit for chlorine. Test kits are available at any pool or spa supply store and some home centers. **DO NOT GET THE PAPER TEST STRIPS!** The paper strips indicate the ideal level of chlorine for a swimming pool. Be sure to get the OTO liquid drops that show the exact chlorine level all the way down to none present.
- One 1/2 inch diameter garden hose [the standard size 5/8 inch will NOT work]. Most home centers or hardware stores carry these small diameter hoses. Cost is about \$10.

### DAY ONE

#### STEPS

1. Go to the wellhead and unscrew the vent pipe from the seal. The vent pipe is 1/2 inch in diameter and may be steel, copper, or pvc plastic and is usually less than 6 inches in length.
2. Pour the chlorine bleach down the well column through the vent pipe hole left by removing the vent pipe.
3. Take the 1/2 inch garden hose and cut the male end off at a steep angle. The male end is the one where the water comes out, NOT the end that screws to the spigot.
4. Put the male end of the 1/2 inch hose into the vent pipe hole and hook the female end to the nearest spigot. If the 1/2 inch hose will not reach a spigot, use as many hoses as it takes to reach the nearest spigot.
5. Turn the water on as hard as it will run. This pulls water off the bottom of the well and recirculates it back to the top causing the chlorine bleach to be quickly and evenly mixed throughout the well column. This exposes all bacteria present to chlorine.
6. After 1 hour of re-circulating, use the chlorine pool test kit to check for chlorine in the water. This is done by slowing the flow of water, pulling the hose out of the vent pipe hole, and testing for chlorine in the water coming out of the hose.
7. If chlorine is not present, put the hose back in the vent pipe hole and continue recirculating as hard as the water will run. Test for chlorine every 15 minutes.

8. When chlorine is present, put the hose back in the vent pipe hole and twist the hose around for 10 minutes on full blast. This will wash any bacteria clinging to the well column walls into the well shaft.
9. After 10 minutes turn off the hose, remove it from the vent pipe hole, and replace the vent pipe.
10. Go inside and run the water until it tests positive for chlorine on both hot and cold at every location in the home. This includes every tub, sink, shower, and outside spigot. Also, flush each toilet once.
11. Day one of the process is complete! Please keep water use to a minimum. Chlorine kills bacteria indiscriminately and while you want to kill bacteria in the well you do not want to kill bacteria in your septic system. If possible shower elsewhere and use bottled water for cooking, drinking, etc. At this point there is more chlorine in the well than any swimming pool and the water will taste terrible! Chlorine should remain in the well undisturbed for an absolute minimum of 12 hours, 24 hours is preferable.

## **DAY TWO**

Now that the chlorine has done its job and killed the bacteria, it must be removed from well in order to resample. Before the run-off is started, two points **MUST** be understood.

- Know where the circuit breaker for the pump is located. If the well is run dry, power to the pump must be shut off. Otherwise, you may burn the pump up. The pump is only designed to pump liquids, not air.
- Do not leave running hoses unattended. Watching water run is not very exciting; however, turning the water on and not monitoring the water flow can lead to burning the pump up. Pumps are fairly expensive and if one must be replaced, the well will have to be chlorinated again! **DO NOT** leave running hoses unattended.

## **STEPS**

1. Hook up as many hoses as the house has outside spigots. Make sure the hoses are run away from the septic tank and leachfield. It helps to tie the hoses around a tree or fence about 3 feet off the ground so the water flow can be easily monitored.
2. Begin running the water as hard as it will run. It helps to have all the hose ends in the same location as they are easier to watch and if the water pressure drops off, power to the pump can be shut off.
3. Use the chlorine pool test kit to periodically check the chlorine levels of the water coming out of the hoses. When **ALL** of the chlorine is gone the process is complete.
4. It is possible to run out of water many times before all the chlorine is gone from the well. If this happens, shut off power to the pump and wait an hour before the run-off is resumed. This permits the well column to refill. After an hour go back to day 2 step 2.

A run-off can take anywhere from 2 to 24 hours or more depending on the nature of the well. The average run-off time is 6 hours, but each well is different so it may take more or less time. We suggest setting up a comfortable chair near the hose ends and reading a good book while the water runs. Good luck and think pure water thoughts!