

COLIFORM BACTERIA UNSATISFACTORY

If the analysis for coliform bacteria returns unsatisfactory (1 or more colonies of E. Coli bacteria present or 1 or more colonies of coliform bacteria present) shock chlorination is strongly recommended. The well owner can either contract with a licensed plumber, water treatment service or well driller or complete the chlorination themselves. Proper chlorination can be accomplished as follows:

Drilled wells

1. Remove (if possible) a portion of the well cap (top half) so that the inner surfaces of the well casing are visible. Wells located in pits typically have a split top cap from which the well pump is suspended. For these, chlorine can only be introduced to the well through a threaded vent opening on the top of the cap. Pour in approximately 1 gallon of bleach (5.25% chlorine) for every 100 feet of well (a 200' deep well would require 2 gallons of bleach)*. Dispense the bleach in such a manner that the inner walls of the casing come in contact with the bleach. Then with a garden hose wash down the inner walls of the casing for at least 5 minutes. Doing so will clean the casing and assure proper mixing. Re-secure the well cap and proceed to step 2.

Driven Wells

1. Store approximately 5 gallons of water in a clean bucket. Turn the water pump power off at the breaker. Drain the pressure tank by allowing a faucet to run, preferably in the basement or lower floor. Turn the faucet off when it stops running. Detach (unthread) the check valve (brass fitting) on the drive pipe, opposite the pump (some set ups have a "T" fitting with a threaded plug** at which bleach can be introduced). Carefully pour 1 gallon of bleach into the drive pipe and re-attach to check valve**. To re-prime the pump and well, remove the 3/4" to 1" plug located on the pump above the discharge line. Pour clean water into plug opening until full. Leaving the plug out, turn the pump on. (If water level at the plug opening drops as the pump runs, add more water). The prime is taking hold when the pump makes a pulling noise. Replace the plug at this time.*** Once the pressure tank fills up and the pump shuts off, do not use any water for at least 10 minutes. Doing so will allow the strong bleach concentration to disinfect the well and pressure tank. Proceed to step number 2.

2. Begin circulating the disinfecting mixture by allowing the hot water tap to run (Important: First remove aerators, if present, to allow loosened sediment to pass through). Turn the tap off when a strong odor of bleach is detectable. Repeat this step at all hot water taps both inside and out. Once all hot water taps have been bled adequately, repeat this same procedure on all cold water taps (for a drilled well it is unnecessary to bleed the tap used for mixing bleach in the well).

3. Allow the chlorine mixture to remain in the water lines for 10 to 14 hours, preferably overnight.

Water Softener: Under normal circumstances periodic shock chlorination, using the concentration prescribed, will not damage a softener. It is important to not leave chlorine in the system longer than indicated to preserve the integrity of the softener resin. If you have any doubts, contact your softener technician.

Again, using a garden hose, discharge water on to the ground surface until the chlorine odor disappears***. Lastly, discharge water from all water outlets in the house until all chlorine odor has disappeared.

After five days use, a sample may be collected for testing. A repeat unsatisfactory water test after chlorination may link the source of bacteria to a specific component of the water system in which case we recommend a professional be contacted.

*For extra large pressure tanks (80 gallons or more) or extensive water distribution systems (cattle feed lot, etc.) Add an additional gallon of bleach.

** Joint compound (pipe dope) or teflon tape should be used on all threaded fittings to prevent vacuum leaks.

*** This is important so that the bulk of the chlorine does not enter the septic system and interfere with it's function.