OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Disinfection of Individual Water Wells

A water well should be disinfected:

1. when the well is newly drilled;
2. when repairs to the well or pumping equipment are completed;
3. when an unsafe sample has been reported; or
4. after a disaster situation, for example after a flood or natural disaster, which has impacted your home or business.

Ordinary liquid laundry bleach may be used to disinfect a well. Most liquid laundry bleach contains 6 percent chlorine as sodium hypochlorite. The label on the bleach container should show the concentration. **Do not** use scented or splashless bleach, since these will contaminate the well.

Well Disinfection Procedure

Note: if your water system has a softener or filter, check the manufacturer's recommendations prior to disinfecting your system.

1. Prior to disinfection, pump the well enough to completely remove sediment or other debris caused by construction or repairs.
2. Remove the cap or seal to the well and pour enough bleach down the well to make a 50 to 100 parts-per-million solution (ppm). The table to the right will assist you with determining how much laundry bleach to use, based on your well diameter and the depth of the well. If the diameter and depth are unknown, add 1/2 gallon of bleach.
3. Attach a garden hose to a nearby outside hydrant and place the other end of the hose into the well opening. Turn on the hydrant and circulate the water back through the well for at least 1/2 hour. This will thoroughly mix the bleach solution. Shut off the outside hydrant, remove the hose from the well, and reinstall the well cap or seal.
4. Open each tap inside the home, both hot and cold, one at a time. When the smell of bleach is present, close the tap. Proceed to the next tap and repeat the process until all taps have a bleach smell. Then open any outside faucets or connected faucets in outbuildings. This process may take from 15 minutes to several hours depending on your system.
5. Let the bleached water stand at least 24 hours, if possible, but no less than 2 hours.
6. Open an outside hydrant and flush the system onto the ground until you can no longer smell bleach. This may take several hours so pay attention that you do not overtax your pump. You may need to flush, pause for some time, and restart the flushing process. When discharging the chlorinated water to the ground take care not to discharge to an adjoining property.
7. Open all the taps inside the house and flush until the bleach smell is gone. Repeat the process for any outside taps or connected taps in outbuildings.
8. Resample after one week to check for bacterial regrowth. Please write **Resample** in the Sampler's Remarks section of the Chain of Custody when submitting the sample.

Amount of Chlorine Bleach Needed

for a 50 ppm solution using 6 percent sodium hypochlorite bleach. Double the amount for a 100 ppm solution.

	Well Diameter			
Depth of Water	3 in.	6 in.	9 in.	12 in.
50 ft.	3 oz.	8 oz.	19 oz.	33 oz.
100 ft.	6 oz.	18 oz.	39 oz.	66 oz.
150 ft.	8 oz.	26 oz.	56 oz.	99 oz.
8 oz. = 1 cup	25 oz. = 3 cups	50 oz. = 6-1/4 cups	100 oz.= 12-1/ 2 cups	150 oz. = 19 cups, 1-1/4 gals.

Further assistance regarding disinfection of your well may be obtained from your local environmental specialist. Questions about the testing can be answered by the DEQ State Environmental Laboratory at (405) 702-1000 or via email at selsd@deq.ok.gov.

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(Fact Sheets\SELS\Disinfection Water Wells.indd 3/2022)