

Well rehab by design,
not by accident!

DESIGN WATER
TECHNOLOGIES

get rid of
Iron Bacteria! coliform too!

The new chlorine

STERILENE[™]

To: [REDACTED]

Project: [REDACTED]

From: Dave Hanson

Date: May 22, 2011

Problem evaluation: Coliform "Present"

Well Information: 12" dia, 210' total depth w/ 12' static level = 5.9 gal/ft x 2 volumes x 158' of water in well = 1865 gallons.

Calculation of chemistry: @ 100 ppm, use 0.0015 lbs/gal x 1865 gal = 1.8 lbs Sterilene or 1 capful per 100 gal water off the 8.5 lb container = 19 capfuls.

Recommended Procedure

- Step 1 Use a surface tank with a minimum of 1865 gallons of water. If more, simply multiply the total gallons by 0.0015 lbs/gallon.
- Step 2 Use any contractor pump and start a recirculation of water in the tank and pour 1.8 lbs of Sterilene into the intake area of the pump for mixing.
- Step 3 IF LESS than 200' water in well, Pump or pour the total chemistry into the well. One volume will displace the water in the well and the second volume will move a chlorine solution into the formation. This can be done with the pump in place. IF MORE than 200' of water in the well, displace in equal 40' increments throughout the entire column of water. This may require pulling the pump if a tremie line can not be set by the pump.
- Step 4 Any movement may help disperse the chlorinated solution throughout the well. If a turbine pump, "Rawhiding" the pump may work. With submersible pumps, you can recirculate upwards and back into the well. Pump a chlorinated solution into the system to whatever sampling port until you can smell a chlorine odor or have a chlorine residual. Let set for 4-5 hours or overnight.
- Step 5 Pump to waste from an outside hydrant or faucet to an area of little concern as chlorine will kill some grass. DO NOT pump to a sanitary sewer (or septic system) unless de-chlorinated. Note that there is a chlorine odor or chlorine residual upon startup as indicates chlorine is available. Standard chlorine test strips can be used with Sterilene. We have chlorine test strips if required. Pump until there is no chlorine odor/residual. Pump for 15-30 minutes after the odor or chlorine residual is gone. Sample.

IF "Absent", congratulations. IF "Present" for coliform, repeat the above procedure.

IF you have more than two failures with Sterilene, do not re-chlorinate. Ask you lab if they can do 3 tests, 1. coliform counts for severity, 2. Heterotrophic Plate Count, & 3. ID of Heterotrophic bacteria which may cause false positives. Do testing on a "Timed" basis to determine if the problem is contained (treatable) or coming from an outside source (untreatable as physical issues in the well). See our brochure Coliform, E. coli in Wells & Pipelines on our web site for calculations of times for a "Casing" Sample and an "Aquifer" Sample. Call our Technical Service with test results for analysis and recommendations.