Possible causes:	What to check for:	How to correct:
Corrosion of well casing, liner or screen, causing holes. Holes can allow water of undesirable quality to enter the well.	Change in water quality, often coupled with sudden appearance of sediment in water. Calculate the Ryznar Stability Index to determine the water's corrosion potential.	Consult with a licensed drilling contractor about possible repair. Alternate construction materials should be considered or cathodic protection depending on the value of the well.
Failure of the annulus or casing seal.	Change in water quality and possible appearance of sediment.	Consult with a licensed drilling contractor about possible repair.
Iron bacteria or sulfate-reducing bacteria (biofouling).	Change in water quality such as color, odor (e.g., rotten egg) or taste. Check inside of toilet tank for slime buildup. Inspect pump and use down-hole camera to check for slime build-up. (1)(7)	Shock chlorinate the well. For more information on shock chlorination, see Module 6 "Shock Chlorination—Well Maintenance."(2)(6)
Contamination from man-made sources.	Changes in water quality as indicated by color, odor or taste. Compare results from regular water analyses for changes.(1)(8)	Identify and remove contamination source. Have water analyzed through local health unit to ensure it is safe to drink.
Limited aquifer extent/reduced aquifer recharge	Increase in constituents such as hardness, iron, manganese and sulphate. Compare results from original water analyses for changes. Taste and colour changes in the water may also occur.	For surficial aquifers trapping snow or impounding surface water can enhance aquifer recharge and improve water quality.