Symptom	Probable Cause	Suggested Remedy
Sudsy lather difficult to maintain in wash basin; greasy-grimy ring in bathtub; scale develops in pipeline and restricts flow of water	Hard water due to calcium and magnesium compounds dissolved from rocks and minerals in the earth	Install a water softener to remove calcium and magnesium compounds
Fluffy brown sediment in standing water; reddish-brown stains in sinks, toilets, and bathtubs; water has metallic taste	Dissolved iron in ground water oxidized by air in pressure tank forms an insoluble rusty iron oxide	Install polyphosate feeder; or high capacity water softener recommended for iron removal by manufacturer; or automatic chlorinator together with sand filter
Reddish slime on walls of toilet flush tank; slimy material suspended in clear water; reduced pumping capacity	Iron-eating bacteria live in pipe, produce slimy material which hardens into scale	Disinfect well with strong chlorine solution; if condition persists, install chlorinator and sand filter
Iron pipe rusts; water dripping from faucet has rusty color; copper tubing corrodes at joints; blue-green stains on sink	Low pH, or high concentration of carbon dioxide; possible acidic drainage from coal mine spoil bank	Use calcium carbonate neutralizing filter plus water softener, or feed soda ash solution into water system with automatic chlorinator
Rust particles or black specks suspended in clear water	Oxidized iron or manganese compounds	Install removable cartridge filter or sand filter with adequate backwash capacity
Water feels greasy; black stains in sink	Iron and/or manganese sulfides	Iron and sulfur water conditioner or automatic chlorinator and sand filter
Rotten-egg odor	Hydrogen sulfide, sulfur, or sulfate-reducing bacteria in ground water	Iron and sulfur water conditioner or automatic chlorinator and sand filter
Rotten-egg odor in hot water only	Chemical reaction of anti-corrosion magnesium rod in electric water heater	Remove magnesium rod and discard
Objectionable taste or odor other than hydrogen sulfide	Decaying organic matter; pollution from surface drainage; insufficient chlorine being used to disinfect water	Install activated carbon filter, or automatic chlorinator followed by an activated carbon filter
Turbid, cloudy, or dirty water	Suspended particles of silt, clay, and collodial matter	Install cartridge-type sediment filter or automatic sand filter
Water unsafe or not potable; coliform bacteria	Contamination due to sewage, manure, or surface runoff	Disinfect well or source of supply with strong chlorine solution; if condition persists install chlorinator or ultraviolet disinfection equipment