

UV Pure® Case Study	
Application:	Residential Project
Solution:	Hallett® System for Wastewater
Location:	Kelowna, BC



Pure, safe water.
Always.

HALLETT® SYSTEM SOLVES IRON BACTERIA PROBLEM IN REVERSE OSMOSIS SYSTEM

Frank Filice, a homeowner in Kelowna, BC uses an RO system for his groundwater supply to his home. Although he lives in the municipality of Kelowna, he chose to install his own well rather than use the municipality's chlorinated water.

RO membrane systems usually have three filter cartridges, a sediment filter, second resin filter for removal of minerals and a third, carbon sleeve to absorb any leftover impurities. Within three weeks of installing the RO system, he discovered that the system's membranes were clogged with a green slime which turned out to be iron bacteria. By the fourth week he barely had any water flow, due to the clogging of the filter cartridges. In order to overcome this flow problem he had to clean out the RO filters, which is a time-consuming and messy task.

Diagnosing Iron Bacteria in Water

There are three ways to confirm whether there is iron bacteria in a residential water treatment system: if there are tiny bubbles around the surface edge of the toilet tank water; if there is staining in the toilet itself; if the groundwater has an sulfur odor. When Frank looked into solutions to this problem it was suggested he try adding chlorination to the system. Since his original reason for using RO was to avoid chlorine in his water, this was not an acceptable option for him. Instead, he installed a Hallett® 13 prior to the RO system. Any item not sterilized after the UV unit would continue to cause growth because it was after the treating UV unit. Therefore Frank sterilized all the system components that came after the UV unit (this was the only time he used chlorine on his system). The chlorination step involved using bleach on all the pipes and water treatment devices as well bleaching his toilets to eliminate the existing live bacteria that had contaminated the system components.



Fantastic Results - The Iron Bacteria Problem is Eliminated

When Frank first bought the Hallett® unit he hoped to get 6 weeks of use out of the system before having to clean the RO system again. Instead, the system was installed over 3 months ago and he has still not had to clean the RO membranes. In addition there are no more stains in his toilets, the bubbles in the water tank have disappeared and the water is odor free.

"The Hallett® system resolved my iron bacteria problem and has performed well beyond my expectations. I haven't had a problem with clogging of my RO system since I installed the system." — Frank Filice, Kelowna, B.C.

To find out everything, visit www.uvpure.com