



## *CASE HISTORY*

### **“Rusty Distribution Line Deposits: Can They Be Cleaned?”**

**In July of 2002, AmeriWest Water Services Inc. was approached by Clint Long,** who was representing the Dale Pedersen Animal Reserve in Graham Washington. Clint is one of the nation’s foremost experts on wolverines and has studied and cared for animals for over 30 years. The Reserve contains over 20 wolverines, three black bears, a cougar, and otters. Clint also has the distinction of having 30 years experience as a water superintendent of the largest water company in Idaho (United Water Idaho--Boise). While there, Clint pioneered treatment studies in the early 70’s that addressed iron and manganese stain problems. His experiences in Boise prepared him for the testing and treatment on the Animal Reserve water system.

**Over the years, the Reserve water system, consisting of a single well and distribution lines to various areas, has been plagued by heavy iron and manganese tuberculation deposits.** One inch distribution lines had been reduced to one quarter-inch diameter openings. All efforts to clean the lines with flushing were unsuccessful. They needed a way to clean the lines that would not negatively affect the health and safety of the animals. Their search led them to Ameriwest Water Services Inc.

**They settled on a well treatment procedure that used an advanced sequestering chemical, All-Qwest 100,** which was continually fed in small dosages at the well. All-Qwest 100 is formulated to sequester iron and manganese as well as providing the cleansing action (deflocculation) that dissolves existing accumulations in the mains.

**Photos were taken of cross-sections of the main before treatment began.** Treatment began in August 2002. Feed rates averaged 3.98 mg/L total phosphate as PO4.

**RESULTS: One year later, the lines were opened to inspect the results** of one year of chemical treatment. To the surprise and pleasure of Dale and Clint, the mains were completely free of the original deposits and restrictions. The results were so great that photos were taken to record the changes. They now enjoy increased flow rates and their rusty water problems have been solved.

PS: The animals are healthy and getting more water and cleaner water!