



West Texas Water Flood

An injection well in a West Texas water flood used a centrifuge pump for injection purposes. Out of approximately 900 BWIPD, 80% of the make-up water contained about 10,000 ppm sulfate, and 20% of the produced water contained about 20,000 ppm calcium. The waters co-mingled in the gun barrel. In addition, the injection pump was scaling off every two weeks due to iron sulfide and calcium sulfate scale. The cost of repair was nearly \$2,000 per job.

The gun barrel and water holding tank were treated with a fifty/fifty combination of Litho-Bac and Corroso-Bac. The water holding tank treatment was supplemented with the nutrient OSNF#10.

After treatment with Micro-Bac International bacterial products, the pump operated at normal conditions for three months without scaling off. Laboratory water injectivity screening showed a significant improvement. Water samples from the water flood were filtered through a three-micron filter with a vacuum pump. One hundred cubic centimeters of the pre-treatment sample filtered through in 270 seconds. Samples were taken weekly after treatment and filtered in the lab to monitor performance. The fourth post-treatment sample filtered through in six seconds (note graph).

The use of Micro-Bac, Inc. bacterial products in this operation proved to be an effective and economical treatment for improving injectivity and water quality in an oil field water flood.

