Case History
0-56

Gold Mine Leach Pad Trial Success

Background

A mining company operating a large heap leach for gold extraction in the western US was plagued by scale forming in the barren solution and subsequently plugging off a large section of the drip emitter on the pad. The current water treatment supplier was unable to stop the scale formation while charging over $1.8MM per year for their efforts. ChemTreat was allowed to survey the plant and recommend a solution to the scale problem.

Solution

ChemTreat's laboratory water analysis showed the scale formation was a combination of calcium carbonate and calcium sulfate. ChemTreat personnel recommended a product to inhibit the formation of both scale species and a date for a plant trial was selected. The customer stated no contract would be awarded without superior performance regardless of cost. ChemTreat personnel used calcium mass balance as the main indicator of successful treatment between the barren pumps and drip emitters.

Results

ChemTreat chose to use ML2580 and was quickly able to reduce the dosage to half that of the previous supplier in the barren stream and 30% less in the remaining pregnant streams. ChemTreat effectively reduced the annual cost by $1MM. ChemTreat was awarded the business after a lengthy trial period to ensure the improved performance was not influenced by seasonal variances in water chemistry. Dosages were 10-15% higher in the warmer summer months, but no scale was observed.

Summary

ChemTreat's success can be attributed to the following: Proper system survey techniques, careful product selection, the latest monitoring equipment, and a team with years of mine water treatment experience.

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