

## RECORDED BENEFITS

- Mine start-up - on time and under budget
- +40% reduction in polymer consumption vs original consultant estimates
- Reduced cost due to equipment optimization
- Solenis now consulting on other unit operation improvements

## Expertise with Greenfield Mine Design and Startup Demonstrates Solenis Advantage

### Customer Challenge

Selecting optimal flocculant and antiscalant chemistry while achieving cost budgets is a complex process for engineering consultants and mine operators of greenfield mines since actual conditions may vary from design estimates. Based on a previous successful application at a rare earth mine, Solenis was invited to bid on the flocculant mixing and chemistry package for a new gold mine in South America.

### Recommended Solution

Following a complete evaluation of the P&ID, ore samples, water chemistries, and work environment expected during the first 3 years of operation, a team of Solenis mining applications and R&D experts determined that Praestol™ 2520 anionic flocculant was the best solution for the primary thickeners. By understanding the nuances of the process, Solenis recognized that Drewfloc™ 2449 cationic polymer, would be needed for the carbon fines thickener due to the charge difference between the carbon fines and ore. In addition to the chemistry selection, Solenis leveraged its' Global Equipment Group to design and install an efficient, reliable, and safe polymer feed system.

### Results Achieved

By selecting the optimal flocculants for each unit operation, Solenis' flocculant program consumption was targeted at 40% less than original consultant estimates. With decades of process expertise, Solenis also identified a number of equipment optimization steps that eliminated costs vs original estimates. With Solenis' mining expertise and support, the mine was able to start-up on time and under budget.

