**CASE HISTORY**

Mining

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**RECORDED BENEFITS**

- +4% increase in copper recovery across all feed grades
- Consistent ≥80% recovery across all feed grades
- Improved mine operation by fully utilizing lower grade ores
- 25% reduction in cohesive/adhesive parameter of ground ore

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**Wet Grinding Aid in Hard Rock Mining Increases Recovery by 4 Percentage Points**

**Zalta™ Grinding Aid**

**Customer Challenge**

A copper mine in Latin America was failing to meet increased and consistent copper rougher recovery targets of +80% at optimized throughput. The rougher flotation stage was the process bottleneck. Also, the mine struggled to gain copper recovery due to the increased utilization of lower grade ore.

**Recommended Solution**

Solenis utilized their methodical blueprinting approach to identify customer needs. Using this information, it was then determined that a Zalta grinding aid could reduce ground ore cohesive/adhesive parameter, ground ore average particle size and, as a result, enhance copper recovery at a given throughput.

**Results Achieved**

After a two week trial, recovery was statistically analyzed from mill data and showed a 4% increase over untreated/blank in a wide range of ore feed grades and process conditions. In addition, the adhesive/cohesive ground ore parameter decreased by an average of 25% over the blank. Trial results correlated well with in-house lab pre-screening methodology using a lab-scale planetary ball mill grinding and the analysis of the ground ore.

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**Recovery increase with Zalta of 4.0% ± 1.17% with 99.9% confidence**