

Case Study

Progressive Management of AMD Risk During Construction of an Integrated Waste Storage Landform

Gold Mine, North Sumatra, Indonesia

> Background

A program of strategic risk management for construction of an integrated tailings storage facility (TSF) and mine rock stockpile (MRS) was implemented at a Gold Mine in North Sumatra, Indonesia. The construction strategy included a progressive approach, incorporating low oxygen diffusion layers throughout construction to reduce Acid and Metalliferous Drainage (AMD) risk. To inform the effectiveness of the management strategy, Okane developed design specifications, and designed/installed an advanced field performance monitoring system.

> Approach

Okane optimized the TSF and MRS landform designs by incorporating the inherent properties of pit-run material and local climate and linking them directly to the mine sequence and schedule. We created a monitoring program designed to develop multiple lines of evidence to demonstrate performance of the integrated facility.

> Client Benefit

The progressive AMD management approach Okane developed led to reduced closure risk given the decreased reliance on a closure cover system at the end of life of mine as well as decreased operational AMD risk. By demonstrating the effectiveness of the AMD management strategy through performance monitoring, we instilled confidence that the approach was effective.

“Progressive AMD management reducing AMD risk and reliance on closure cover systems.”

**Integrated Mine Closure
and Relinquishment Solutions**



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