

# MINERAL PROCESSING – CYANIDE DESTRUCTION

## PROJECT DESCRIPTION

After gold ore is recovered from a gold ore slurry, the slurry must be detoxified prior to disposal. The most toxic chemical in any gold slurry is the residual cyanide. INCO developed a very effective process to destroy the cyanide in a dense slurry using SO<sub>2</sub> and air.

## MIXPRO® CHALLENGE

The customer needed to destroy many tonnes of cyanide a day in their barren tailings prior to disposal.

## RECOMMENDED SOLUTION

Our engineers have an excellent understanding of the variety of process objectives that must be simultaneously accomplished in order to achieve effective cyanide removal. We were able to work with our customer to review the laboratory data and help with the risk management; such as safety-factor on capacity and various 'what-if-this-goes-wrong' scenarios. Ultimately, we were able to provide an extremely robust system which incorporated the agitator that achieved the required cyanide destruction requirements.

## PROJECT SUCCESS

Our knowledge of agitation and its impact in the INCO SO<sub>2</sub>/air process allowed us to design the right agitator to minimize both operating costs and downtime.



**FOR MORE INFORMATION CONTACT:**

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