## FINE GRINDING IMPLEMENTATION AT THE CRACOW GOLD PROCESSING PLANT

Andres Paz<sup>1</sup>, Rami Ghattas<sup>2</sup>, Simon Loro<sup>3</sup>, Jeff Belke<sup>4</sup>

- 1. Senior Process Engineer Comminution, Outotec Pty Ltd, 40 Kings Park Rd, West Perth, Australia, andres.paz@outotec.com
- 2. Metallurgy Superintendent, Evolution Mining, Cracow Gold Mine, Theodore, QLD, Australia, rami.ghattas@evolutionmining.com.au
- 3. Metallurgist, Evolution Mining, Cracow Gold Mine, Theodore, QLD, Australia, simon.loro@evolutionmining.com.au
- 4. Head of Special Projects Grinding, Outotec Pty Ltd, 40 Kings Park Rd, West Perth, Australia, jeff.belke@outotec.com

## ABSTRACT

The Cracow Gold project is located 500kms north west of Brisbane, in the Banana Shire of Queensland. In 2016 Evolution Mining (Evolution) undertook an investigation into maximising the gold recovery from the CIP Plant. An extensive feasibility study was preceded by a test work campaign into the nature of the gold mineral association, as well as the grinding and leaching kinetics.

Following this work, Evolution determined the best value option to be the used of stirred media. A High-Intensity Grinding Mill (HIGmill) plant solution was provided by Outotec for application in a tertiary grinding duty. This application was the first of its kind for a HIGmill in a whole-ore tertiary grind environment.

This paper discusses the critical aspects and decisions taken during the development and implementation of the stirred milling process at the Cracow Gold Project. It highlights all aspects of project implementation, commissioning, operation, optimisation, test work, troubleshooting and process performance as well as the improvements observed.