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UPDATE ON GLYCAT™ LEACHING OF GOLD ORES AND CONCENTRATES

By

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ABSTRACT

Over the past 2 years Mining and Process Solutions (MPS) have completed extensive testwork and piloting programs proving their GlyCat™ Process on the flotation concentrate, ores, and tailings. GlyCat™ is the only process that can be easily adapted to existing cyanidation plants in the market today whose real advantages over cyanidation are when treating high cyanide consuming complex material.

With such complex material, GlyCat™ requires 70-90% less cyanide addition to achieve the same precious metal extraction. However, GlyCat™ is not simply cyanidation with added glycine. It is a completely different process where the solution chemistry and conditions needed to effectively leach the precious metals are quite different.

Downstream however, the process is largely unchanged as the recovery of the leached gold and silver uses existing known processes such as conventional activated carbon or zinc cementation (Merrill-Crowe process). Another advantage is lower SCN, OCN, WAD and no free cyanide in the effluent which can substantially reduce cyanide detoxification requirements and decrease the OHS and ESG risk of the operation.

This paper outlines some of these differences and presents testwork, piloting and process examples to highlight the advantages of this new process over conventional cyanidation.

Keywords: Glycine, GlyCat™ leaching, Cyanidation, flotation concentrate, ores, tailings, gold, silver