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Martabe Gold Mine, Indonesia: a positive solution for positive reconciliation

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ABSTRACT

The prospect of a positive mill reconciliation at a mine is a double-edged-sword. Much back slapping happens. The bank and the board can't get enough until the downside becomes apparent. Over a prolonged period, there becomes an issue with market perception and the potential for shareholders to be misinformed regarding the potential value of the project. In addition, there are impacts on mine scheduling, waste allocation (or lack thereof), government expectations and the potential for misguided external assumptions regarding the 'unexpected' results.

The Martabe Gold Mine has shown a significant undercall, in the order of 25% total gold metal, between the Mineral Resource Estimates (MRE) and Grade Control Estimates since production commenced in 2012. Recently the undercall has been reduced by incorporating the use of grade control drilling in the Resource estimates. Despite the recent improvement in reconciliation, drilling in 2017 at both Purnama and Barani showed that infill RC holes were producing significantly higher grades than the block model.

During 2017 PTAR commissioned a variety of studies aimed at qualifying the causes of, and quantifying the undercall. Two key factors were identified as the cause: 1. Underestimation of contained gold due to an 'information effect' whereby many higher grade, small scale structures cannot be accurately defined in wide spaced resource definition drilling; 2. Volume variance effect between diamond drilling and reverse circulation drilling sampling. The outcome of the studies enabled development of a set of options that can be used at the resource estimation stage to mitigate the undercall going forward. Adjustments have been applied to the inputs to the 2017 MRE at Martabe and reconciliation will be monitored and the adjustments reassessed prior to future MRE updates. The studies that have been completed ensure that the material information related to the adjustments can be reported in a transparent manner in accordance with the JORC Code principles.