Design, Construction and Commissioning of a Brownfield CHPP Expansion at Ravensworth North Operations

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Abstract

The Ravensworth North project continues the evolution of the Ravensworth mine from an underground operation known as Newpac to an integrated underground and open cut mining and processing facility capable of processing up to 3000 t/h ROM coal.

Stage one of the project included modifications and debottlenecking of the existing coal preparation facilities at Ravensworth Coal Terminal (RCT) and the addition of a new raw coal system including crushing and raw coal stacking and reclaiming, which linked the existing Ravensworth Open Cut ROM to the RCT. First production from this preliminary stage was achieved in December 2012.

In stage two of the project, an 1800 t/h, two module extension to the existing coal preparation plant (CPP) was constructed and an additional product stockpile added together with an increase in the capacity of the product reclaim and train loading system to 4500 t/h. First coal from stage two was railed to market in September 2013, and within two years production will ramp up to 14 Mt/a ROM for the remaining 27 year life of the mine.

This paper describes the project’s history, design fundamentals and commissioning experiences.