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A conceptual framework for strategic long term planning of platinum mining operations in the South African context

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ABSTRACT

The challenge facing a South African mining company, with multiple mining rights to platinum mineral resources, is to create sustainable value whilst operating within mandated strategic bounds, identified constraints, and variable market and economic conditions.

This can be achieved by allowing the fixed physical nature of the mineral asset to drive definition of the optimal (lowest capital and operating cost) technical solution to mining and processing activities, and developing and resourcing a strategically aligned portfolio of production entities that creates flexibility to near and longer term business environment shifts, i.e. a production mix that allows variation of output (metals, operating cost, capital intensity) to respond to short term market variation, within a long term context.

The practical achievement of this outcome is enabled by the application of the strategic long term planning framework. The framework logic, methodology and components are described and the application demonstrated through a case study (Anglo Platinum Limited).

Prior to definition and description of the strategic long term planning conceptual framework, the context of the South African platinum industry is described through consideration of the characteristics of the mineral resource, the platinum value chain, the PGM market, and the global and local business environment.

The core elements of the framework, and the relationship between them, are expanded: scenario planning, business value optimisation, long term planning parameters, long term planning procedures, capital investment prioritisation, project value tracking, the relationship of the long term plan to the business plan, contingency planning and execution plans for supporting capability (projects, metallurgical, infrastructure and people).

The implementation of the framework at Anglo Platinum Limited is considered over the period 2004 to 2007 with a description of the business response, facilitated by the framework and established capability, following the 2008 global financial crisis.

It is concluded that the strategic long term planning framework is a logic construct that enables delivery of an optimised, strategically aligned, business plan from the mineral asset portfolio using a set of tools and techniques with a common language, standards, systems and processes that align decisions and actions on a cyclical basis.