

Strategic Mine Planning: A SWOT Analysis Applied to KOV Open Pit Mine in the Democratic Republic of Congo

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Abstract : KOV pit (Kamoto Oliveira Virgule) is located 10 km from Kolwezi town, one of the mineral rich town in the Lualaba province of the Democratic Republic of Congo. The KOV pit is currently operating under the Katanga Mining Limited (KML), a Glencore-Gecamines (a State Owned Company) joint venture. Recently, the mine optimization process provided a life of mine of approximately 10 years with nice pushbacks using the Datamine NPV Scheduler software. In previous KOV pit studies, we recently outlined the impact of the accuracy of the geological information on a long-term mine plan for a big copper mine such as KOV pit. The approach taken, discussed three main scenarios and outlined some weaknesses on the geological information side, and now, in this paper that we are going to develop here, we are going to highlight, as an overview, those weaknesses, strengths and opportunities, in a global SWOT analysis. The approach we are taking here is essentially descriptive in terms of steps taken to optimize KOV pit and, at every step, we categorized the challenges we faced to have a better tradeoff between what we called strengths and what we called weaknesses. The same logic is applied in terms of the opportunities and threats. The SWOT analysis conducted in this paper demonstrates that, despite a general poor ore body definition, and very rude ground water conditions, there is room for improvement for such high grade ore body.

Keywords : mine planning, mine optimization, mine scheduling, SWOT analysis

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