

## **Modern modelling of 130 years of data**

One of the most attractive aspect of our Transvaal Gold Mining Estate (TGME) project in South Africa is the existing infrastructure and historical production records from these extensive predrilled and premined holdings.

It makes our job a lot easier and means we will eventually require far less capital than if we were developing mines from scratch.

With a 130-year history of mining in the Pilgrims Rest and Sabie areas that are part of the TGME project, there are substantial underground deposits, tailings dumps and premined residue.

For the first time, we are moving the records and data off paper and integrating it into a comprehensive 3D computer model of our areas.

The latest work we've done has focused on investigating a high grade, multiple-level gold reef system as part of Project Bentley, which is within TGME. We began this investigation in December.

Preliminary results indicate that the system hosts multiple horizontal gold reefs that are stacked vertically, one above the other, and that these flat reefs can be accessed through low-cost, open cut mining.

Modern modelling techniques and data analysis indicate that this mineable gold-bearing ore could have high economic value.

Similar work on the Columbia Hill area to the immediate north of the TGME plant has started recently. Historically, this was an area of very high-grade underground mining with more than 100 grams a tonne of gold in some places. Some open-cut mining was last undertaken in the 1950s.

We now intend, subject to securing funding, to investigate the Theta Hill area of the Project Bentley ground – which is next to the TGME processing plant – and later Columbia Hill, seeking to identify potential open-cut mining opportunities.

The exploration target we've set is between 3.4 million tonnes and 5.6 million tonnes, including the Lower Theta seam, where the target is between 1 million tonnes and 1.7 million tonnes at grades of between 16.6 g/t and 26.6 g/t of gold.

We stress that the potential quantity and grade of the exploration target is conceptual and more work is needed to estimate a mineral resource. As is the case with all exploration, there is no certainty that the work will result in the estimation of a mineral resource.

This work complements our main focus, which is to restart the historical high-grade underground mines at Rietfontein and Beta, and process the ore through a refurbished and upgraded TGME processing plant at Pilgrims Rest.

It's ironic that while we are incorporating more than a century of data and records into the modelling of our holdings, Project Bentley is actually a relatively recent study. It's named after Phil Bentley, a geologist who worked at TGME with Rand Mines in the 1980s and 1990s, and who conducted a lot of the preliminary sampling work for an exploration program that Rand planned. The aim of that work was also to find additional ore reserves to feed the TGME processing plant.

Phil Bentley is still active in the industry and we are pleased that modern modelling appears to confirm that a high grade, multiple-level gold reef system exists in the project area that bears his name – and that it will, in all likelihood, ultimately feed the TGME processing plant.