

Botswana Diamonds' Thorny River

A high-quality, high-volume diamond asset emerging

AIM and BSE-listed diamond explorer **Botswana Diamonds** is making steady progress with exploration on its Thorny River diamond project in South Africa's Limpopo province as it progresses towards the potential discovery of a commercial diamond ore body, MD **JAMES CAMPBELL** tells **CHANTELLE KOTZE**.

IN SHORT

Botswana Diamonds is in the final stages of exploration work targeted at understanding the scale and economic potential of its Thorny River project in South Africa – the company's most advanced diamond exploration asset in its southern Africa focused portfolio.

Having diligently undertaken exploration on Thorny River over the past four years, Botswana Diamonds has managed to narrow down its exploration focus from an area spanning about 10 km of kimberlite dyke strike on portions of the Frischgewaagt, Hartbeesfontein and Doornrivier properties, to two target areas of no more than 200 m of strike, each on the Frischgewaagt property.

It is on these two target areas at Thorny River that the company has been pleasantly rewarded with the discovery of two small kimberlite pipes, known as kimberlite blows, on which detailed ground geophysics and drilling has subsequently taken place.

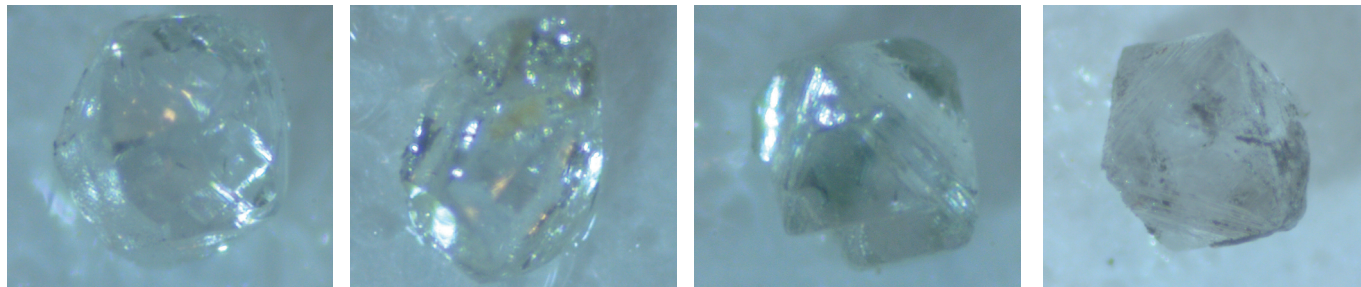
The first blow – River Blow – was discovered in November 2020, while the second blow – River Extension Blow – was discovered in May 2021. Both blows are similar in size at

between 10 and 20 m wide and lie contiguous to one another, says Campbell, noting that independent specialists have modelled the two blows as containing between 300 000 and 600 000 t of kimberlite.

Drill samples from the recently discovered River Extension Blow, which were sent to an independent processing facility for assessment earlier this year, were found to contain four diamonds of good colour, clarity



↑ Exploration drilling at Thorny River in South Africa's Limpopo province



↑ The four diamonds recovered from the River Extension Blow

and of commercial quality – along with extensive diamond indicator minerals including G10 and G9 pyrope garnets (which are common in diamond-bearing kimberlite pipes), eclogitic garnets, chromites, ilmenites and chromium diopsides which are common in diamond-bearing kimberlite pipes, Campbell notes.

“The encouraging diamond indicators from our drill results and drill samples now point towards Thorny River being a high-quality prospect,” says Campbell.

The company is now underway with the crucial next step in its exploration work at Thorny River, which started in early September. This entails a percussion drilling programme to assess the mineralisation between the two adjacent blows, which are located less than 100 m apart from one another.

“This is expected to test the company’s belief that the two blows potentially join to form one continuous ore body,” says Campbell, noting that this would be a significant step towards defining a commercial diamond ore body at Thorny River.

The company is currently undertaking further resource definition work by refining its estimate of the geological continuity, grade continuity and volume at Thorny River, which could culminate in the release of a maiden diamond resource assessment for the project, which Campbell estimates will take place in the not too distant future.

He explains that the next step to be embarked on by the company would be to undertake a detailed core drilling programme, currently planned for the 2022 dry season, to further define the geological model at Thorny River, which may comprise a larger economic

kimberlite zone than was previously thought to exist.

This is a necessary next step, says Campbell, noting that the geology of the kimberlite fissure system was found to comprise both kimberlite and a weathered transition zone of kimberlite and granite, or kimberlite breccia. “By re-evaluating our previous core samples and performing additional core drilling, we will be able to map a clearer picture of the potential economic zone at Thorny River, taking into account both the kimberlite and kimberlite breccia zones,” he says.

The company also plans to undertake a bulk sampling programme at the project (for which it has Section 20 authorisation) to better understand the diamond value of the Thorny River ore body. By selling the diamonds that it recovers from the bulk sample, the company will be able to arrive at a definitive Dollar-per-carat diamond price, giving it a better idea of how best to commercialise the asset, says Campbell.

Could history repeat itself in delivering another diamond mine?

According to Campbell, all signs currently point to the fact that history may repeat itself within the Zebediela kimberlite field in Limpopo, which hosts the Thorny River project.

The kimberlite field consists of a series of consistent diamondiferous kimberlite dykes along a 20 km strike length, with several blows discovered along the east to west trending kimberlite dyke system to date.

Besides the recently discovered blows at Thorny River, Campbell says there have been several historic blows discovered within the kimberlite dykes: namely Kudu, Sugarbird, Sugarbird Pass (which together formed the Klipspringer mine) and the Marsfontein blow, all of which have since been mined out.

The relatively small 0.4 ha Marsfontein blow was developed into the extremely profitable Marsfontein diamond mine by its then shareholders De Beers and SouthernEra Diamonds – which was etched into history as the mine with the



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GHAGHOO ACQUISITION

AIM-listed companies Botswana Diamonds and Vast Resources announced in August that their joint venture, Okwa Diamonds, would acquire the Ghaghoo diamond mine in central Botswana, which is currently under care and maintenance.

Botswana Diamonds has an initial 10% free-carried interest in Okwa Diamonds, for the first \$15 million of expenditure by Okwa, which is being funded by Vast Resources, including the acquisition cash consideration of US\$4 million.

Thereafter, Botswana Diamonds will not be diluted below 2.5% of Okwa and can also earn up to a further 20% interest in Okwa through funding 20% of expenditure.

Under the terms of the joint venture with Vast Resources, Botswana Diamonds will be the operator of the Ghaghoo mine until such time as an agreed management team is in place.

fastest payback period at just three-and-a-half days.

Campbell believes finding another 'Marsfontein' is likely at Thorny River, as the historic Marsfontein mine is a mere 3.5 km west and on strike from the company's discoveries.

The kimberlite at Thorny River has also been found to be consistent in terms of geology, grade and diamond value with that found at the Klipspringer mine in the west and the Frischgewaagt property to the east. Botswana Diamonds therefore expects the Thorny River kimberlite to contain an average in situ grade of 60 cpht, based on the historical data from the surrounding areas and assets, which is



↑ Drilling at the River Blow at Thorny River

high grade for a kimberlite, according to Campbell.

Fast-tracking exploration in Botswana

Across the border in Botswana, the world's largest diamond producer by value and the second largest by volume, Botswana Diamonds has grown its asset base even further.

Having undertaken exploration in the Kalahari region of Botswana, both under its own wholly-owned subsidiary Sunland Minerals and in joint venture with BCL in Maibwe Diamonds, the company acquired the full interest in Sekaka Diamonds, Petra Diamonds' exploration vehicle in Botswana in 2020.

The deal saw Botswana Diamonds acquire three prospecting licences which include the high grade KX36 kimberlite pipe; a recently constructed, fit-for-purpose bulk sampling plant; and an extensive database built up over 15 years of exploration – all of which are also located in the country's Kalahari region.

Later that year, in November, Botswana Diamonds also entered into an earn-in agreement to fund exploration of its prospecting licence assets in Botswana with private Botswana company Diamexstrat, which in turn has an alliance agreement with ASX-listed Burgundy Diamond Mines.

As part of the agreement, Diamexstrat and Burgundy can earn up to a 70% interest in Botswana Diamonds' Sunland Minerals and Sekaka prospecting licences, while



↑ James Campbell and drilling geologist Trevor Mashiolane undertaking chip logging at the River Blow at Thorny River

Botswana Diamonds can earn a 15% interest in prospecting licences held by Diamexstrat and its partners.

Under the agreement, the parties have also agreed to use Botswana Diamonds' extensive diamond exploration database (acquired as part of the Sekaka transaction), which contains the results of work undertaken in country since 2005, and could provide all parties with substantial support for all future kimberlite exploration activities in Botswana.

According to Campbell, through its partnerships Botswana Diamonds is now one of the most active explorers in Botswana.

On the back of a recovering diamond market which was impacted by the COVID-19 pandemic, Botswana Diamonds is evaluating the potential of its current exploration assets and continues to remain on the lookout for new opportunities, Campbell concludes. **MRA**

DID YOU KNOW?

In addition to its diamond assets in South Africa and Botswana, Botswana Diamonds is also present in Zimbabwe, where it plans to jointly develop the diamond potential of Zimbabwe together with AIM-listed explorer Vast Resources, both of whom have past experience and information on the Marange Diamond Fields of eastern Zimbabwe.