

New Kalahari diamond plays

Two junior diamond seekers are reaching an exciting stage in their exploration programmes in the Kalahari of southern Africa – Australia’s Mount Burgess Mining NL on the Namibian side of the border and Canadian Tsodilo Resources Ltd on the Botswana side.

Both are following the trail of diamondiferous kimberlites on the southern part of the Congo craton below 10 to 70 metre thick Kalahari sediments. Will their efforts be rewarded and is this to become the next major diamond play of the 21st century?

Mt Burgess has continued a campaign started in the 1970s by De Beers that found kimberlite indicator minerals and a macro diamond in the Tsumkwe area of Namibia.

De Beers abandoned the project in the wake of escalating conflict during the late 1970s liberation war. Rio Tinto plc briefly resuscitated the project in the 1990s and it then lapsed until the licenses were taken up by private company Kimberlite Resources which farmed out the project to Mt Burgess in 1999. Currently, Mt Burgess has a 90% share with Kimberlite Resources holding the balance.

Mt Burgess has followed the buried topography of the basement below the Kalahari sediments and their drill sampling of this interface zone has defined a primary source search area to the west of the Botswana border, with several small, non-diamondiferous kimberlites discovered along the way.

The company’s most recent drill campaign recovered a G10 garnet and a macro-diamond from the basal zone of the Kalahari sediments at 30m.

It is extremely rare to recover a diamond from a small diameter (16.5 centimetres) percussion hole. This result not only suggests that the exploration methodology is correct and that Mt Burgess is rapidly approaching the source kimberlite, but also raises the possibility of there being an economic alluvial diamond resource in the basal Kalahari sediments.

North east of the Mt Burgess drill hole and across the border in Botswana, Tsodilo Resources is drilling RC holes into several of its larger anomalies defined by indicator mineral sampling, airborne and ground magnetic and gravity surveys on their Ngami prospect.



Tsodilo exploration director Andy Moore

This first phase drilling is close to a cluster of 19 small kimberlites discovered by a Reunion-Ashton Mining joint venture in the late 1990s, the so-called Nxau-Nxau kimberlite field. Four of these 19 kimberlites had low micro-diamond counts and all of the drilling ended in kimberlitic crater facies, indicating good preservation of the upper part of the kimberlite.

Ngami is a JV between Tsodilo (75%) and South Africa’s Trans Hex Group having the balance.

Tsodilo said its first two RC holes drilled into the A12 anomaly in the Nxau-Nxau field intersected kimberlitic crater facies. The A12 anomaly is interpreted from the ground magnetic and gravity surveys as being 16 hectares in extent – larger than other kimberlites found to date at Nxau-Nxau. This is significant in the Southern Africa context, where the largest of the pipes in a kimberlite field usu-



Evening at A12

ally carry the highest grade of diamonds. A good example of this is Debswana’s Orapa kimberlite mine which is 110 ha in extent amidst a field of smaller pipes with lower grades. De Beers Group’s Orapa mine is 550 km south east of Nxau-Nxau on the northern boundary of the Zimbabwe craton.

Tsodilo is drilling its A37 and adjacent A38 anomalies – also interpreted as having large areal extent (about 50 ha each). Drill cuttings from the crater facies are being submitted for petrological examination and micro-diamond analysis.

— Peter Walker in Cape Town



Field jiggling to obtain heavy minerals

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