



## QUEENSLAND FOCUS

# Worth the wait for Diatreme

It has been a long time coming, but the first metallurgical test work results from the Cape Bedford silica sands project appear to have justified Diatreme Resources Ltd's persistence with the North Queensland asset.

An exploration permit for Cape Bedford, 200km north of Cairns, was granted last September, more than three years after Diatreme acquired the rights to a tenement abutting the world's largest silica mine at Cape Flattery.

Having finally been granted access, Diatreme collected six bulk samples, totalling about 600kg, which were wet tumbled to simulate conventional washing and gravity separation typical of silica sand processing.

The resulting recovery of circa 80% of a primary silica sand product, ranging from 99.6-99.9% silicon dioxide and less than 0.02% iron oxide, easily met specifications for glass-grade silica sand.

"The results were very encouraging because they showed us there is really high purity silica sand in-situ and within the deposits," Diatreme chief executive Neil McIntyre told **Paydirt**.

"From a mining perspective, it's a very straight-forward process with minimal effort to produce a high-value product. And, it has very low impurities, which is what you look for within a silica deposit."

Diatreme will conduct an infill programme – using its own drill rig – at Cape Bedford over the next few months in a bid to delineate a resource for the project.

Further specialised test work will also be carried out to determine what else may be required to upgrade the silica sand from Cape Bedford to the highest quality product possible.

McIntyre said the initial exploration and test work results had validated the company's patience with Queensland regulatory authorities and the Traditional Owners, the Hopevale Congress.

Diatreme executed a conduct-and-compensation agreement in January 2017 and a cultural heritage agreement last June with the Hopevale Congress, paving the way for exploration work to begin last September.

"We understood inherently that it was an incredibly valuable tenement, but the



Diatreme has been encouraged by initial test work results from Cape Bedford

whole of that northern region was locked up for quite some time, so we had to take a softly, softly approach," McIntyre said.

"We very carefully negotiated conduct-and-compensation and cultural heritage agreements with the Traditional Owners and built up some ground-level support for what we were about to do within the concession area. We enjoy a really good relationship with the Traditional Owners and we wanted to progressively work through the logical steps of getting a mining business established up there.

"We didn't want to rush that at the risk of prejudicing relationships, we want to make sure those relationships are rock solid."

Silica sand has grown as an industry at nearly 8.7% annually since 2009 and boasts current global market value of \$US6.3 billion. IMARC Group estimates demand for silica sand – typically used in glass-making, foundry casting and water fibration – will grow at 7.2% annually over the next five years and hit nearly \$US10 billion market value by 2022.

McIntyre said local investors were yet to recognise the growth opportunity in the global silica sand industry for an Australian-based operation.

"It's a relatively opaque market and it's hard to get behind, principally because most of the existing or larger companies and players involved in the silica market are privately held, particularly by large trading houses in Japan and elsewhere," McIntyre said.

"There's literally no ASX-listed enti-

ties that are 100% focused on silica sands, but we like what we see. It's a very lucrative market, very much linked to expansion in the hi-tech sectors, urbanisation and growth.

"The level of purity within the silica we're talking about is used in the manufacturing of things like car wind-screens, TFT glass for your smartphones and electronics. It is a fast-growing market."

Encouraging news flow from Cape Bedford has provided Diatreme shareholders with further reason to be excited about 2018 as the company approaches key milestones at its flagship Cyclone zircon project in Western Australia's Eucla Basin.

A DFS will be completed on Cyclone next quarter and the company is believed to be close to finalising offtake and development finance on the back of growing popularity in China.

"Ultimately we're building to the final 'go' decision," McIntyre said.

"What we're looking for from the DFS is not so much confirming the economics – we know the economics are very sound – but really looking to drive down the capex model. We're looking at essentially a Chinese capital equipment procurement hub to try and drive down our capex costs, but that will also flow on to our economics and it will make them even more robust.

"Concurrently with that we're engaging off-takers and potential equity participants in the project. We see this project getting under way in the very near future. This year could be absolutely transformational for the company."

McIntyre said the company was likely to undertake some form of capital raising this quarter to fund upcoming work at both Cyclone and Cape Bedford.

Diatreme continues to examine development options for its Tick Hill gold project in Queensland, however, McIntyre acknowledged the company's growing focus on heavy minerals could lead to the sale or spin-out of the metalliferous assets in its portfolio.

– Michael Washbourne