

ASX

ANNOUNCEMENT



CYCLONE COSTS REDUCED IN PROJECT REDESIGN

Diatreme Resources Limited is an Australian based diversified mineral explorer with significant projects in WA, VIC and QLD.

The Company seeks to develop the Cyclone Zircon Deposit in WA, through a joint venture arrangement, and conducts exploration over a number of project areas prospective for heavy mineral sands, silica sand, copper and gold.

The Board and senior personnel exhibit wide experience, ranging through the exploration, development and financing phases of resource project management.

Australian Securities Exchange
Codes: DRX, DRXO

Board of Directors – Non-Executive
William Wang - Chairman
Andrew Tsang
Daniel Zhuang

Executive:
Neil McIntyre – Chief Executive
Tuan Do – Chief Financial Officer
Ian Reudavey – Chief Geologist

Joint Company Secretaries:
Leni Stanley
Tuan Do

Key Projects:
• Cyclone Zircon Project
• Clermont Copper Project
• Cape Bedford Silica/HMS Project
• Tick Hill Gold Project

Diatreme Resources Ltd Contact:
Neil McIntyre – Chief Executive
Phone: +61 7 3832 5666
Fax: +61 7 3832 5300

Share Registry:
Link Market Services Ltd
Level 15, ANZ Building
324 Queen Street, Brisbane, Q 4000

21st November 2014

HIGHLIGHTS

- **Cost savings identified after internal reviews at flagship Cyclone Zircon Project of an estimated \$77m in capital expenditure and \$11m in annual operating costs, with project redesign set to boost underpinning economic returns.**
- **Mining Lease anticipated in December 2014 as ‘de-risking’ activities continue to improve investment fundamentals**

Emerging mineral sands miner Diatreme Resources Limited (ASX:DRX) has slashed forecast costs at its flagship Cyclone Zircon Project in Western Australia’s Eucla Basin, with further project redesign and de-risking activities improving the project fundamentals.

Based on a preliminary assessment, forecast capital costs have been revised down by \$77 million to an estimated \$146 million, while average estimated annual operating cash costs have been cut by \$11 million (based on previous PFS studies announced to market , ASX release dates 20th March 2012 and 16th April 2012).

Diatreme has engaged Mineral Technologies, which has more than 70 years’ experience in the mineral sands industry, to undertake further value engineering studies from next month which are expected to define additional opportunities to reduce capital and operating costs and ensure current “best practice” technologies are applied to the project.

Diatreme’s Chief Executive Officer, Neil McIntyre, said the identified savings would increase confidence in the Eucla Basin’s largest undeveloped zircon project.

“These cost cuts together with our progress on de-risking the project, have improved the investment fundamentals of this potential new mine for Western Australia, bringing vital new jobs and investment,” he said.

“Having recently signed a Project Agreement with the traditional owners, the Spinifex People, we are focused on bringing Cyclone into production as quickly as possible.”

Project Redesign

Diatreme has been investigating options for redesign of the Cyclone Project to reduce capital and operating costs, with the first stage involving excluding the proposed mineral separation plant from the project. The heavy mineral concentrate produced by the mine site wet concentrator plant will be sold rather than being upgraded to final products.

Advances in spiral separator technology provide an opportunity to design a compact relocatable wet concentrator which would be located close to the mine face and tailings area, thereby reducing pumping costs for ore to the concentrator and tailings from the concentrator. This concept is expected to result in a 25% reduction in the capital cost for the wet concentrator and large savings in diesel-generated power.

Other changes expected to reduce project capex include a lower cost upgrade for the Eyre Highway to Forrest access road, exclusion of earlier sunk costs on project development, reductions in site facilities and infrastructure, and consequent reductions in engineering, procurement and project management.

Mineral Technologies (MT) has been engaged to undertake a value engineering study, which will review the Prefeasibility Study’s engineering design to identify opportunities to further reduce capital and operating costs. MT has vast experience in the mineral sands industry, commencing as a miner and processor before moving into equipment supply, project evaluation and design for mineral sand operations. It believes there are several recent advances in technology which can be applied to the Cyclone operation, resulting in reductions in costs and improvements in plant performance.

The revised project model, based on heavy mineral concentrate sales rather than final product sales, has undergone preliminary financial evaluation, with initial indications that the project will produce solid financial results at forecast near-term mineral prices.

Public Environmental Review

The Public Environmental Review (PER) process for the project is required for approval of the haul road from Cyclone to the Forrest rail siding. The PER also covers the mine site and infrastructure, including the accommodation camp, water supply and airstrip. The PER report has been submitted to Western Australia’s Environmental Protection Authority (EPA) and will be made available for public review in early 2015. The PER process is expected to be concluded by mid-2015, providing environmental approvals for the entire project, including the haul road.

Diatreme has referred the project to the Commonwealth Department of the Environment (DoE) for consideration under the EPBC Act. Information on the project was made available for public review and comment as part of the assessment process by the DoE. On 25 October 2014, the DoE provided written notice to Diatreme that the proposed action for the Cyclone Project is not a controlled action and it does not require any further assessment or approval under the EPBC Act before it can proceed. This assessment confirmed that the WA process through the EPA, which is now well advanced, is the sole environmental approval process for the project.

Project Implementation

Cyclone's development into an operating mine will require participation in the project by financial, equity or joint venture partners whose balance sheets, capital positions and market credibility will allow the project to transition through its final stages to an eventual Final Investment Decision (FID).

Diatreme has focused on improving the project's commercial attractiveness through a "de-risking process". This has been accelerated through the last quarter of 2014 to remove key project risks, such as an agreement with the traditional owners, mining lease, environmental approvals, water supply and resource expansion. Addressing these areas is key to direct participation by the large and principally foreign-owned companies comprising mineral sands buyers/traders, processors and end users (offtakers) that have shown interest in the project, in addition to existing joint venture partner, Perpetual Mining Holding Ltd.

"Diatreme is confident in its ability to attract further investment to the Cyclone Project, with the aim of delivering an operating mine in the shortest possible timeframe," said Diatreme's Chairman, William Wang.

"The company is excited by the opportunity to enhance shareholder value from our flagship project, as well as from our diversified project pipeline across Australia."

About the Cyclone Zircon Project

Discovered in 2007, the Cyclone Zircon deposit is located along the Barton shoreline within the Wanna Lakes area of the northern Eucla Basin, 25 kilometres from Western Australia's state border with South Australia and 220 kilometres north of the transcontinental railway.

Based on the acquisition of the Cyclone Extended Heavy Mineral Resource (refer ASX announcement 11 November 2014) the Cyclone Project's JORC resource will comprise 223 million tonnes at 2.1% heavy minerals (containing 4.6 million tonnes HM). On 17 November 2014, Diatreme announced the signing of a Project Agreement with the traditional owners, the Spinifex People, an important step towards the grant of a Mining Lease.

A Definitive Feasibility Study is underway along with further project specific commercial and operational enhancement studies, with Cyclone representing the largest undeveloped zircon project in the Eucla Basin.

Neil McIntyre
CEO

Competent Person Statement

The information in this report, insofar as it relates to Exploration Results and Mineral Resources is based on information compiled by Mr Ian Reudavey, who is a full time employee of Diatreme Resources Limited and a Member of the Australian Institute of Geoscientists. Mr Reudavey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of 'The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reudavey consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.