



Market Announcements Office
Australian Securities Exchange
Level 4, 20 Bridge Street
Sydney NSW 2000

12 August 2013

Mineral Sands Update

With the receipt by Diatreme Resources Limited (DRX) of additional funding through share placements and the negotiation of an in-principle agreement for a farm-in/joint venture with Hong Kong based Perpetual Mining Holding Limited, the Cyclone Zircon Project will now continue to be advanced toward achieving three significant milestones (ASX release 26/07/13). Further DRX funds are now available for mineral sand exploration to continue using the Company's own, low cost, aircore drill rig outfit over other tenements in the Eucla Basin and Arckaringa projects during the remainder of 2013.

CYCLONE ZIRCON PROJECT (WA) - WATER SUPPLY INVESTIGATIONS

DRX employees, consultants and contractors are currently planning and preparing a major water supply investigation for the Cyclone Zircon Project. Previous water exploration around the Cyclone Deposit identified small supplies of shallow saline groundwater at depths to 100m. These water supplies were generally too small and unlikely to be sufficiently reliable for a mine water supply. The Company has decided to drill a deep bore into the Officer Basin sediments to test the suitability of deep aquifers for the mine water supply.

The nearest deep drilling in the Officer Basin has been approximately 80km to the east of Cyclone where, in the past few years, Rodinia Oil drilled two oil exploration wells and intersected high flows of good quality water at depths between 700 and 800m. The stratigraphy at Cyclone is unlikely to be identical due to the site's distance from the Rodinia wells, but sequences of sandstones and mudstones are likely to be present with at least one good sandstone aquifer at a depth less than 1,000m. Preliminary quotes have been received from several drilling companies and these drillers are assisting DRX employees and consultants develop a drill strategy to minimize the cost should a second deep investigation hole be required. The deep bore will initially be drilled as a pilot hole and if a high yielding aquifer is intersected the pilot hole will be reamed for construction of a full size production bore. The bore will then be pump tested to obtain data for design of a borefield suitable for supplying up to seven gigalitres per year for the Cyclone Project.

An Alice Springs based hydrogeological consultant (Centreprise Resource Group), experienced in deep groundwater investigations in Central Australia, has been engaged to oversee the deep bore construction. To supervise the site works an experienced licenced bore driller has also been engaged. Construction of the deep bore will require a small short term water supply for the mixing of drill muds. DRX has been granted licences from WA Department of Water (DoW) for construction of three water bores up to 100m deep in an area approximately 20km west of Cyclone where the best shallow water aquifers were previously intersected. The Department of Mines and Petroleum has approved programs of works for both the shallow bore program and the deep bore program.



The shallow bores are planned to be constructed early in September and will be equipped with low flow pumps suitable for supplying water for the deep mud drilling necessary to construct the deep bore. Centreprise and drilling contractors have provided construction and planning information for the deep bore and an application for construction of this bore has recently been submitted to the DoW. Following completion of the deep test bore a pump test will be conducted to obtain aquifer yield and drawdown information that will be used to design a borefield for the project.

EUCLA BASIN (WA)

The far northern part of the Eucla Basin in WA has been subject to drilling by the Company since mid 2007 when the Cyclone Deposit was originally discovered, shortly after exploration commenced in this area. Since this time, a number of drilling programs have taken place and rationalisation of tenement holdings has occurred based upon drill results. Apart from Cyclone, the Zephyr resource has been outlined 3km to the northeast. Drilling has also located further mineralisation north of Cyclone and Zephyr on the Anne Beadell Hwy (track). However, the drilling to date has not been sufficient to adequately define the economic potential of the mineralisation. Further drilling around known concentrations of heavy minerals will occur once the Company's aircore rig completes the shallow water bores discussed in the above section on Cyclone water supply.

EUCLA BASIN (SA)

DRX holds two tenements, EL5045 (Noorina 1) and EL5046 (Noorina 2), in the northern part of the Eucla Basin 80km to the east of Cyclone. These tenements cover approximately 1,340km² and extend for a strike length of 100km along the Barton shoreline, which hosts the Cyclone Deposit to the west. With cultural heritage surveys completed and drill access lines in place, the Company will use its aircore rig in a program to locate fossil shore lines that may host heavy mineral sands.

Iluka Resources have completed extensive, but unsuccessful drilling immediately to the south of the Noorina areas. The Digital Elevation Model feature appears to lie where Iluka have drilled but they were unsuccessful in intersecting mineralisation and it may well occur further to the north in DRX's tenements.

ARCKARINGA MINERAL SANDS PROJECT (SA)

Following relinquishment in 2011 of a number of exploration licences within the eastern sector of the Arckaringa Project area (Figure 1), DRX has a further five licences (ELs 5146 to 5150) now ready for assessment in the western sector of the project. Exploration using the Company's aircore rig will continue along interpreted DEM features and stratigraphic units favourable for the development of heavy mineral strand lines previously outlined.

For further information:

Tony Fawdon

Executive Chairman/CEO

Ph: +61 7 3832 5666

Competent Person Statement

The information in this report, insofar as it relates to Exploration Results and Mineral Resources is based on information compiled by company personnel under the supervision of Mr David Jelley, who is a full time employee of Diatreme Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy. Mr Jelley 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jelley consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

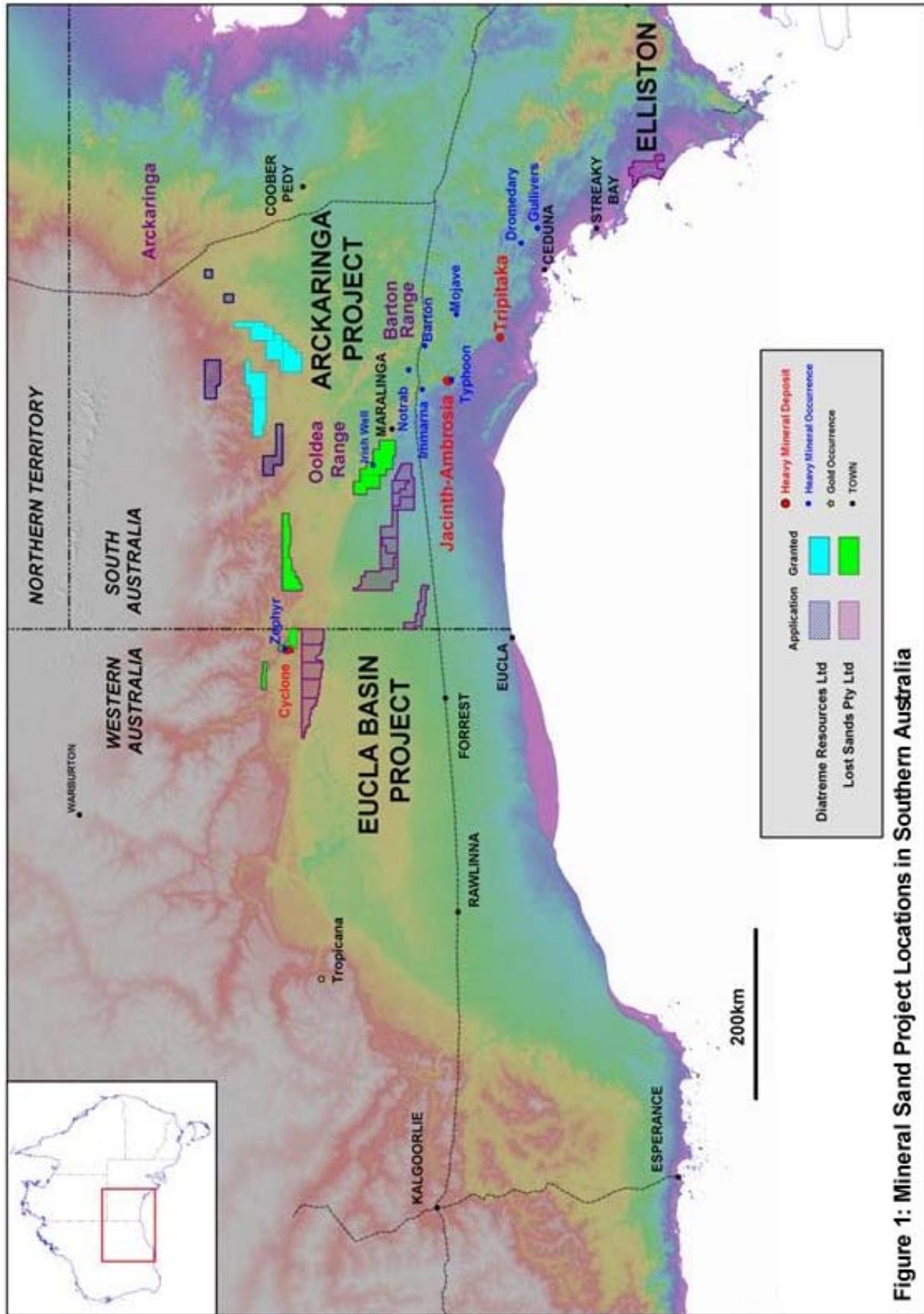


Figure 1: Mineral Sand Project Locations in Southern Australia