



**Diatreme
Resources
Limited**

ABN: 33 061 267 061

Mineral Sands Conference Melbourne - March 2015



CYCLONE – FOCUSSED ON DELIVERING A MINE



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STATEMENT IN ACCORDANCE WITH THE AUSTRALASIAN CODE FOR REPORTING OF EXPLORATION RESULTS, MINERAL RESOURCES AND ORE RESERVES (THE JORC CODE)

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Ian Reudavey, who is a Member of the Australian Institute of Geoscientists and a full time employee of Diatreme Resources Limited. 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.

The information in this report that relates to Ore Reserves is based on information compiled by Mr Phil McMurtrie, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McMurtrie is a director of Tisana Pty Ltd and is a consultant to Diatreme Resources Limited. Mr McMurtrie 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 McMurtrie consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

PRESENTATION OUTLINE



- Diatreme Resources

Experience counts

- Cyclone Project

Delivering a Mine

- Mineral sands demand

Stronger for longer?

- Strong project pipeline

Cape Bedford, other projects

- Conclusion

Diatreme streamlined and set for growth





EXPERIENCED TEAM

- New, experienced management team focussed on streamlining operations with clear emphasis on flagship Cyclone Zircon Project:
 - **Neil McIntyre** – CEO, 25yrs experience in banking, finance, resources
 - **Ian Reudavey** – Chief Geologist, 25yrs in exploration & mining, 15yrs mineral sands
 - **Phil McMurtrie** – Project Manager, 40yrs experience mining, 25yrs mineral sands
 - **Tuan Do** – Financial Controller/CFO, 30yrs experience, 10yrs resources sector

SKIN IN THE GAME



DRX— Capital Structure

Shares on Issue	751.4 Million
Options on Issue (Listed)	15.3 Million
Options on Issue (Unlisted)	42.7 Million
Share Price (20 th March 2015)	A\$0.090
Market Capitalisation (as at March 2015)	A\$6.76 Million

Substantial Shareholders (March 2015)	Interest
Mr Andrew Tsang (and associates)	14.84%
Mr Zhenbin Zhian	10.91%
Mr Yufeng (Daniel) Zhuang	7.94%
Ms Chenxia Zhou	6.65%
Mr Chenfei Zhuang	5.21%
Total Interest of Top 20 Shareholders	66.24%

Directors

Position

William Wang	Chairman
Andrew Tsang	Non Executive Director
Daniel Zhuang	Non Executive Director

Management

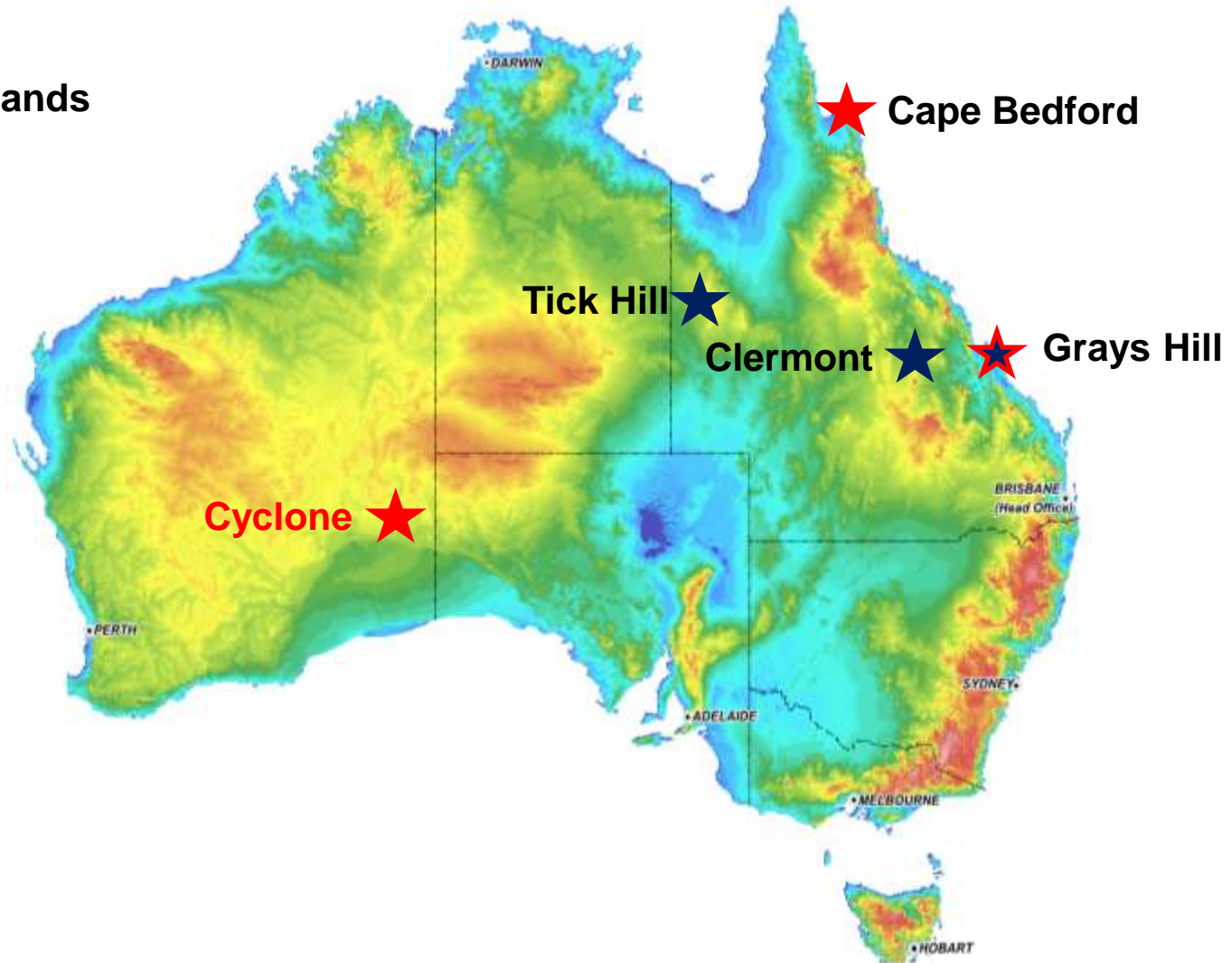
Position

Neil McIntyre	Chief Executive
Ian Reudavey	Chief Geologist
Phil McMurtrie	Project Manager
Tuan Do	Financial Controller

AUSTRALIA-FOCUSED



- ★ Mineral Sands
- ★ Metals



DIATREME'S FLAGSHIP: CYCLONE PROJECT, WA



CYCLONE PROJECT'S INVESTMENT FUNDAMENTALS



- **JORC Resource:** Currently 221Mt @ 2.1% HM (Cyclone + Cyclone Extended)
- **JORC Reserve:** Cyclone 97Mt @ 2.5% HM containing 770kt Zircon;
Cyclone Extended expected to add 20 – 25Mt at similar grade (update in Q2 2015)
- CAPEX of \$A146 million and annual average OPEX of \$A80 million (reductions in CAPEX of \$A77 million by adoption of best practice technologies)
- **Annual net average EBITDA of \$53M per annum during mine life**
- Joint venture with Hong Kong-based Perpetual Mining Holding Limited
- Focus on continued project de-risking and advancing pathway to mining

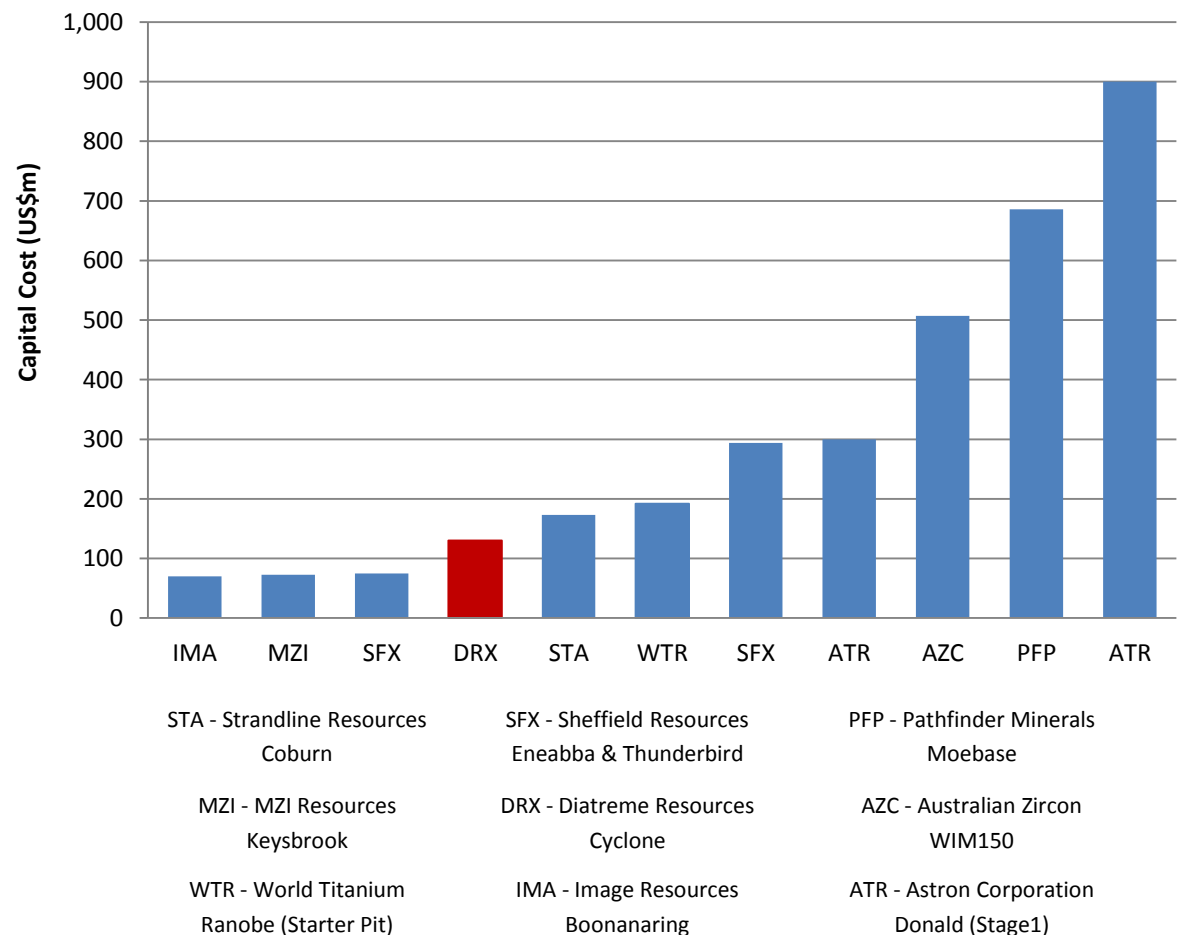


CYCLONE: A LOW-COST PROJECT

This chart shows the capital cost position of the Cyclone Project relative to other mineral sand projects, which are at various stages of feasibility assessment and development. The ASX codes for the companies developing projects are shown below the bars, and the bars' height indicates the projects' capital cost in \$US.

Using the project capital cost analysis, the Cyclone Project is a relatively low capital cost mineral sands project. Project capital cost can be indicative of the financial competitiveness of the project relative to other similar projects and also indicates the likelihood of the project obtaining funding to allow progress to construction and operation.

Capital Cost (HM Developers)





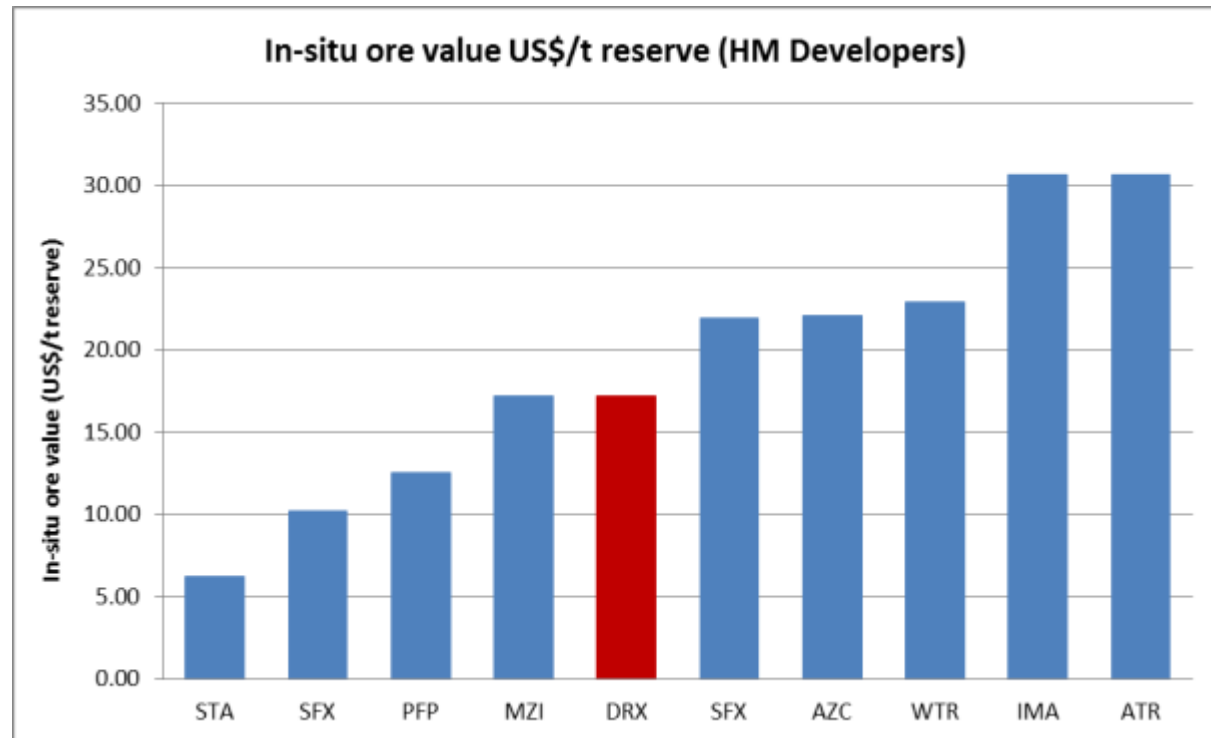
CYCLONE VS PEERS – IN-GROUND VALUE

This chart shows the ore value position of the Cyclone Project relative to other mineral sand projects, which are at various stages of feasibility assessment and development. The ASX codes for the companies developing the projects are shown below the bars, and the bars' height indicates the in-ground value of the minerals presented as \$US/tonne ore.

Using the in-ground value per tonne analysis, the Cyclone Project is a mid-tier mineral sands project. In-ground value per tonne can be indicative of the financial competitiveness of the project relative to other projects which plan to produce similar minerals.

Cyclone has positive attributes of:

- low levels of slime and oversize,
- low levels of trash HM
- low levels of U+Th
- HM grainsize D₅₀ 170um



STA - Strandline Resources
Coburn

MZI - MZI Resources
Keysbrook

WTR - World Titanium
Ranobe (Starter Pit)

SFX - Sheffield Resources
Eneabba & Thunderbird

DRX - Diatreme Resources
Cyclone

IMA - Image Resources
Boonanaring

PFP - Pathfinder Minerals
Moebase

AZC - Australian Zircon
WIM150

ATR - Astron Corporation
Donald (Stage1)



CYCLONE PROJECT BUILDS MOMENTUM

Water Supply

Extensive groundwater aquifer discovered beneath Cyclone Dec 2013.
First bore complete (>40 l/s). Pump test required for bore-field design.

Mine and Haul Road

Environmental studies complete and Public Environment Report submitted in November 2014; PER process set to be concluded by mid-2015.

Cyclone HM Resource Expansion

Purchase agreement for the Cyclone Extended resource executed with Image Resources on March 23rd, expanding resource and potential mine life.

Mining Lease (ML69/141)

Mining agreement signed with the Traditional Owners (Spinifex People) November 15th and ML subsequently granted November 18th.

CYCLONE MINING LEASE & SITE LAYOUT

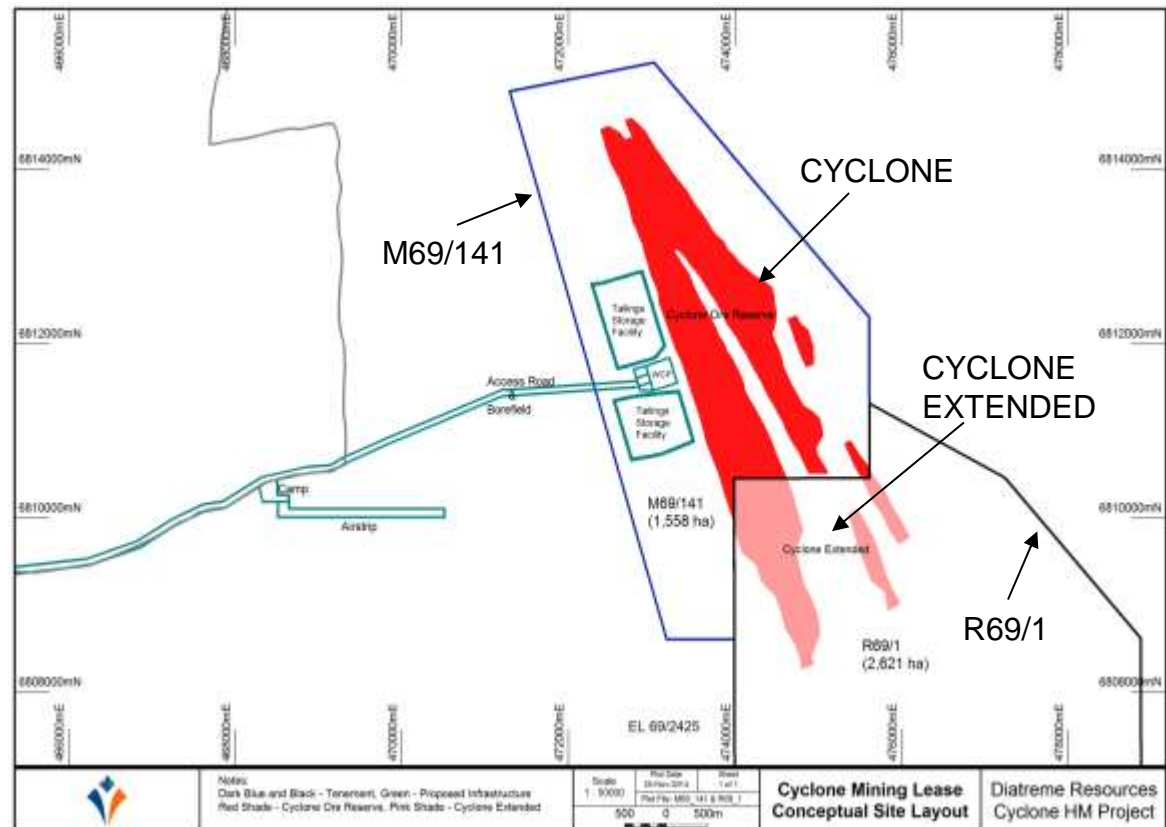


Mining Lease M69/141 has been granted for the Cyclone Ore Reserve (dark red) and the operational activities that will occur around it. These activities include wet concentrating, tailings disposal, HMC stockpiles, offices, workshops, infrastructure and services.

Cyclone Extended (light red) is secured under a Mineral Retention Licence (R69/1).

A Miscellaneous Licence for the haul road, accommodation camp, airstrip, and borefield will be obtained following approval of the PER by the EPA. EPA approval is required for the road alignment which has been requested in the PER.

The mine site and associated activities including the proposed road alignment have all been assessed by Diatreme's environmental consultants as meeting the EPA's environmental objectives.



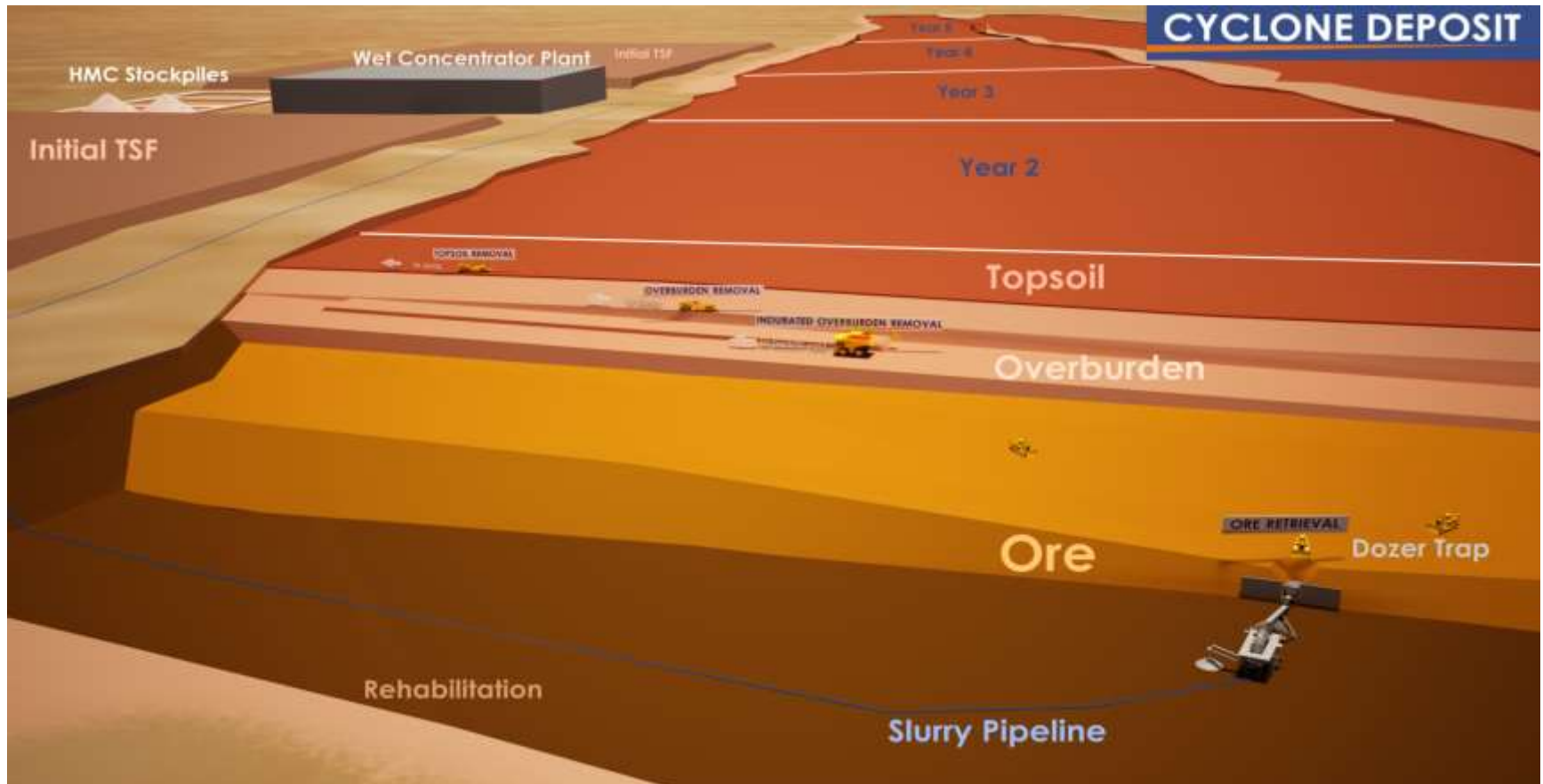


CYCLONE PROJECT MILESTONES

Schedule	Date
Pre-Feasibility Study	Completed - March 2012
Definitive Feasibility Study (most permits)	Q3 2015
Project Financing	Q4 2015
Construction & Development	Q3 2016
Mining & Production	Q2 2017



PROPOSED MINING METHODS





CYCLONE MINING PROPOSAL - PFS

Strip Ratio	1.1 : 1
Mining Rate (Dry)	1,300 tonnes per hour – 2 x Dozer traps
Mine Site Wet Concentration Plant Product	26 Tonnes / Hour HMC production 147,000 t PA @ 98.5% HM Concentrate
Transport - Road	240km - 4 trucks x 110 tonnes to Forrest.
Transport - Rail	1,000km

OPTIONS

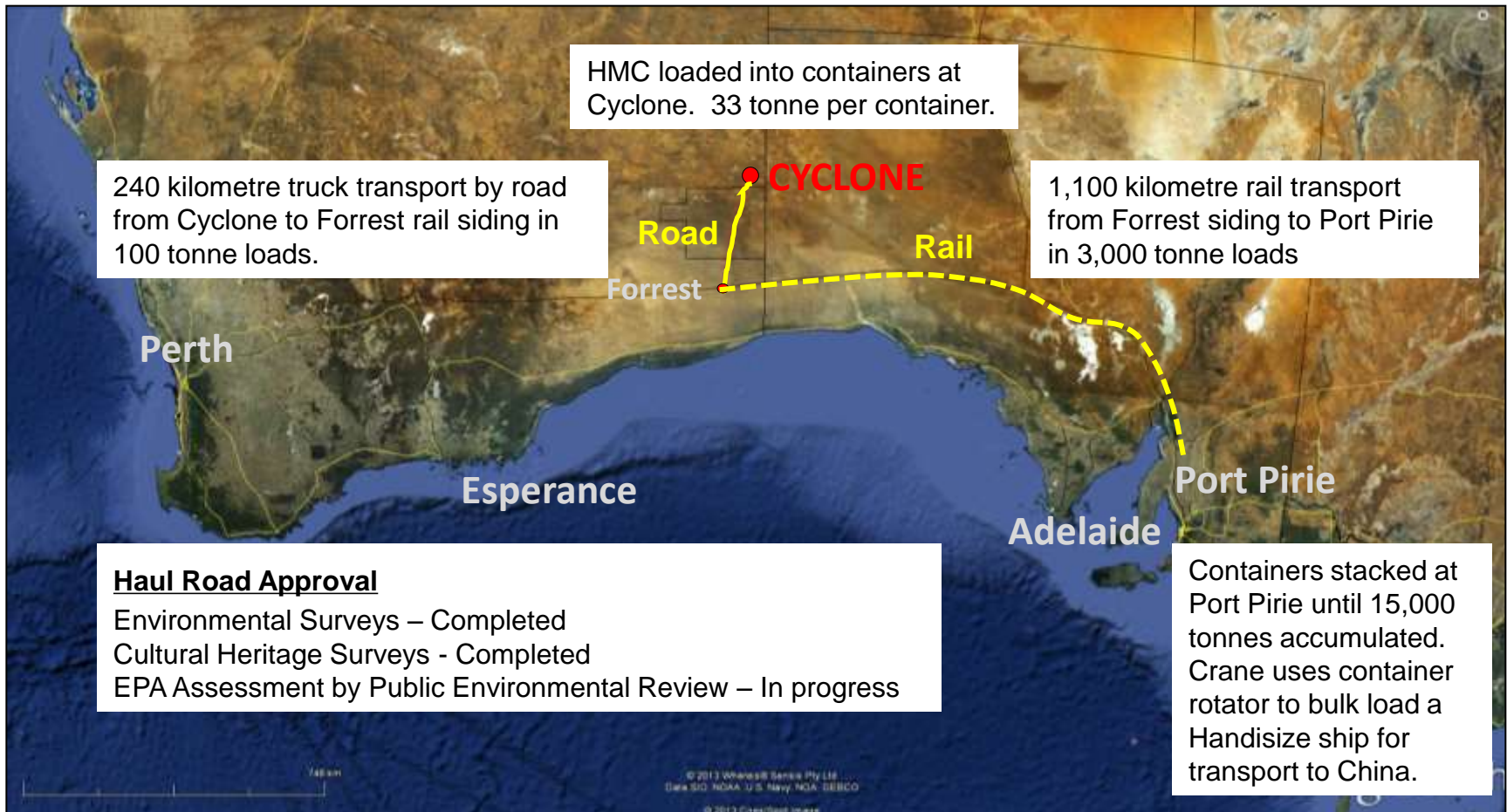
Mineral Separation Plant in Australia

Mineral Separation Plant in China or other country

Direct sale of HMC within Australia

Direct sale of HMC offshore – most likely option.

TRANSPORT OPTIONS





CYCLONE PROJECT 2014 FINANCIAL ESTIMATES

- Cyclone Project including Cyclone Extended
- Evaluation based on sale of HMC CIF China
- 12 year mine life at 10 Mt per year
- Average annual production of 155 kt HMC (A\$139 M/year)
- A\$146M Capital cost estimate and annual operating cost A\$80M

HMC Price (USD)	\$US724/t
NPV (AUD)	\$208M
IRR	30%
Payback	3.2 years

- Base Revenue Assumptions - Zircon US\$1,123/t at start up , Exchange Rate AUD\$1 = US\$0.75



RECENT SIGNIFICANT ANNOUNCEMENTS

- **7th November** – Tick Hill Mining leases purchased from MIM
(Immediate mining opportunities to exploit & cash flow potential)
- **11th November** – Cyclone Extended acquisition from Image Resources NL
(Adds 53% to resource size and 4-5 years to mine life)
- **17th November** – Cyclone Project TO mining agreement signed
(final step to mining lease grant – negotiated in record time)
- **21st November** – Cyclone Project CAPEX costs reduced (\$77m) and OPEX costs reduced (\$11m) after internal engineering reviews
(Project fundamentals being improved by redesign and using best practice technologies)
- **24th November** – Cyclone Project Mining Lease Granted.
(Big milestone in project progress)

DIATREME RESOURCES: DELIVERING ON PROMISE

CHINA'S MINERAL SANDS DEMAND: STRONGER FOR LONGER?



RUIDOW ANALYSIS, SEPTEMBER 2014*

ZIRCON

“...an average 4-5% growth in building ceramic industry can best explain that China’s ceramic industry has come into a stable development stage.”

HiTi87 & HiTi67

“With the progress of science and technology, the utilisation rate of titanium ore and rutile will be greatly improved.”

“The natural and synthetic rutile market in China will have rapid growth in the future”

“...estimated CAGR of 5-10% for the period during 2015 to 2025.”

“The rutile supply in Chinese market will become tight in the future.”

“...China has a growing demand of ilmenite and rutile which increased from 3.12 million tons in 2009 to around 5.98 million tons in 2013.”

*** (Beijing Ruidow Info Tech Co Ltd (Ruidow) are viewed as the industry’s pre-eminent research and analysis firm on Chinese zircon and titanium domestic and export market trends and pricing)**



ASIA'S URBANISATION CONTINUES

Urbanisation set to increase demand for mineral sands, including zircon:

WORLD BANK REPORT, JANUARY 2015

- Almost 200 million people moved to urban areas in East Asia from 2000-10
- Overall proportion of urbanites rose from 29% to 36% - but less than 1% of region's total land area is urbanised
- World Bank: Potential for “more decades of urban growth to come” – direct link between urbanisation and income growth

Source: <http://www.worldbank.org/en/news/press-release/2015/01/26/world-bank-report-provides-new-data-to-help-ensure-urban-growth-benefits-the-poor>

CRC: “WESTERN AND CENTRAL CHINA THE NEXT CHINA”

- Allan Trench: Eastern seaboard to reach OECD level of urbanisation by 2017, central and western China to reach eastern seaboard level

(Source: <http://thediplomat.com/2014/11/commodities-upturn-seen-by-2016/>)

DIATREME'S PROJECT PIPELINE



DIATREME RESOURCES LIMITED

PROJECT LOCATION

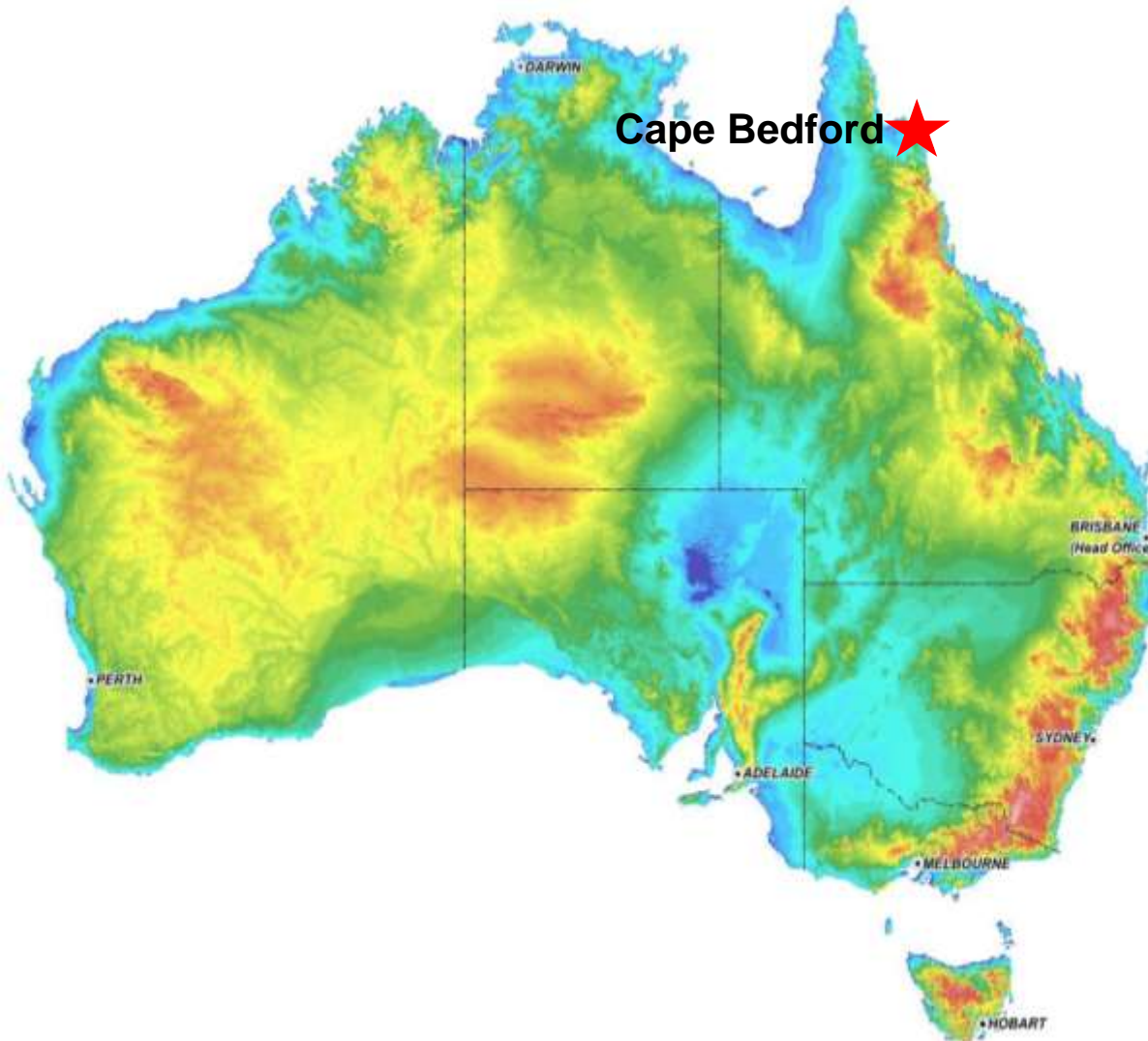




EXPLORATION OVERVIEW

- Consolidation of exploration tenure – currently **8** exploration properties (incl. 1 application) and **1** ML, down from 29 (incl. 13 applications) in March 2014
- Mineral sands exploration tenure comprises Cyclone (WA), Yeppoon (Qld) and Cape Bedford (Qld application)
- Focus on progressing Cyclone development milestones and delivering value to shareholders.

CAPE BEDFORD, QLD



Cape Bedford ★

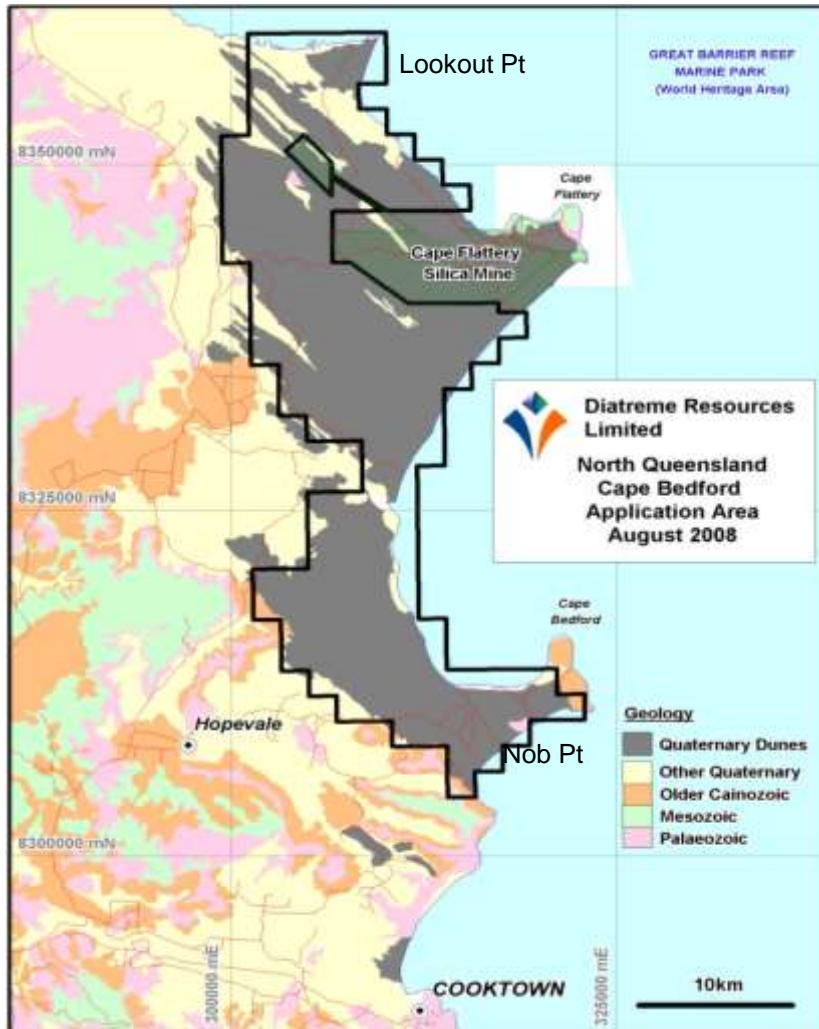
Cape Bedford, QLD
Silica Sand,
Heavy Mineral Sands

EPM Application
Conditions for grant
agreed with Traditional
Owners

Size: 554 sq. km



CAPE BEDFORD, QLD



Large sand dune system with known silica sand and mineral sand occurrences over an area 50km x 15km in dunes up to 100m high.

Historical exploration indicates HM mineralised horizons in sand mass

High grade silica in previous drilling samples. Samples indicate areas with a high value assemblage of zircon, rutile & ilmenite. Existing public access port at Cape Flattery.

Cape Flattery silica sand operation has established a mining culture with the Aboriginal landowners.

Traditional owners have agreed terms for supporting the tenement approval.

CAPE BEDFORD, QLD



CAPE BEDFORD, QLD



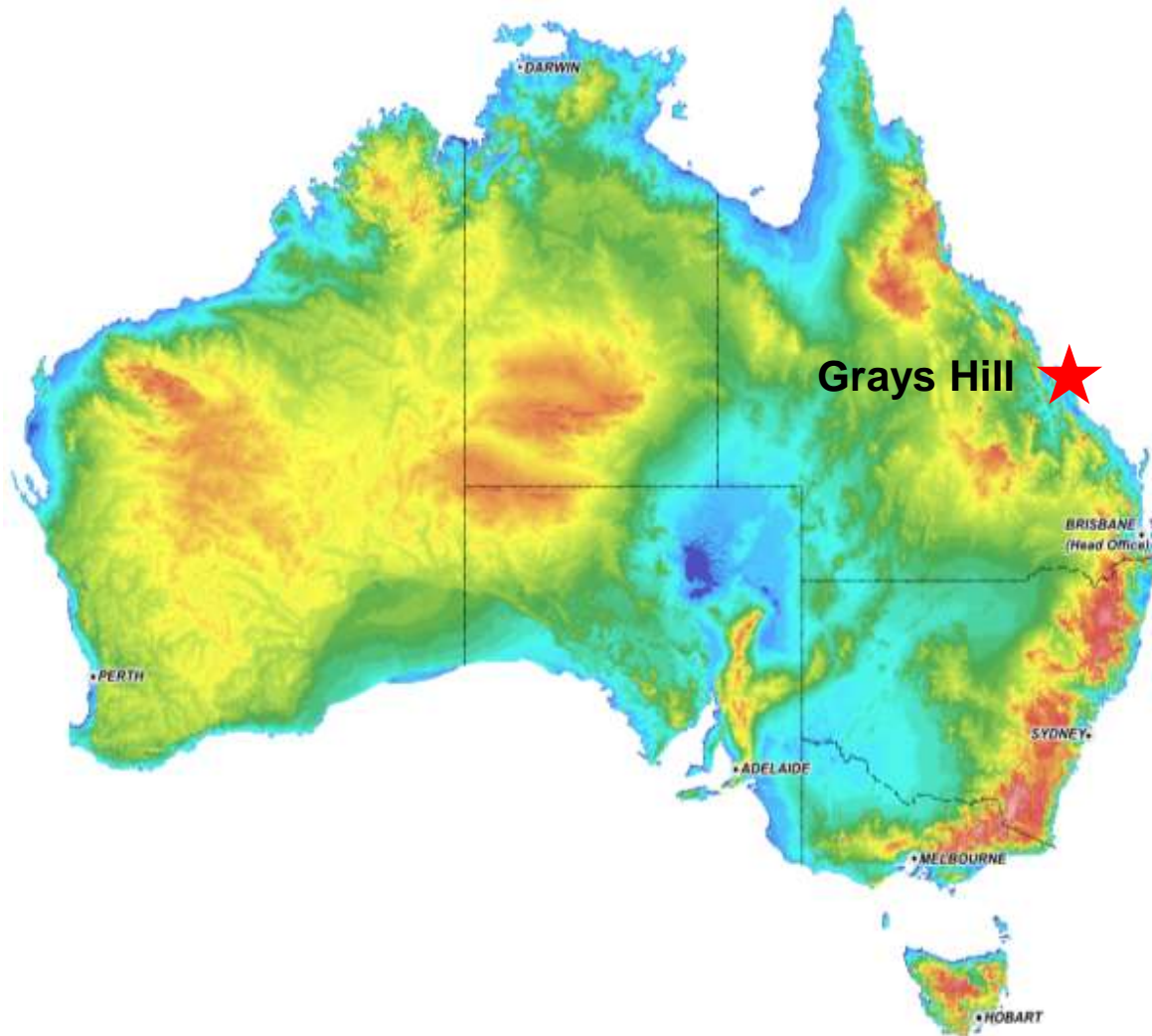
Mineralisation on the current beach shedding from the dunes

CAPE BEDFORD, QLD



Major dune field with high grade silica sand overlying heavy mineral sand potential

GRAYS HILL, QLD



Grays Hill, Qld

Copper, Gold

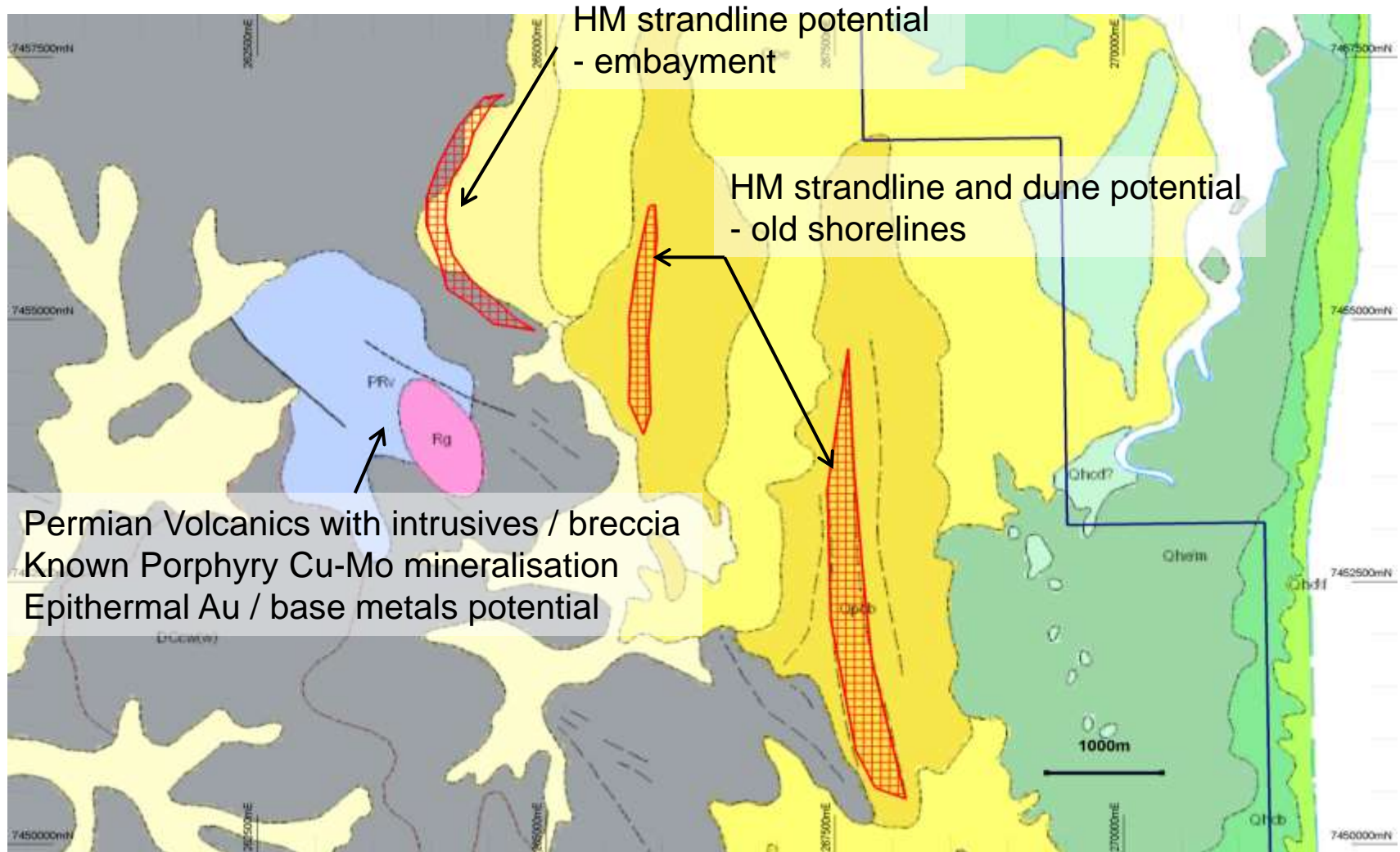
Mineral Sands

Granted EPM25117

Size: 237 sq. km



GRAYS HILL, QLD – EXPLORATION POTENTIAL





DIATREME: DELIVERING VALUE

- Diatreme streamlined and refocused on its major project - Cyclone
- Cyclone advancing through approvals and DFS
- Cyclone resource expanded and project costs reduced
- Attractive project fundamentals for further investment
- Diatreme focused on delivering value from Cyclone and project pipeline
- Solid medium-term outlook for mineral sands, based on Asia's urbanisation and increasing number of product end uses
- **CYCLONE PROJECT: ADVANCING TO A MINE**