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READY TO GET RACING

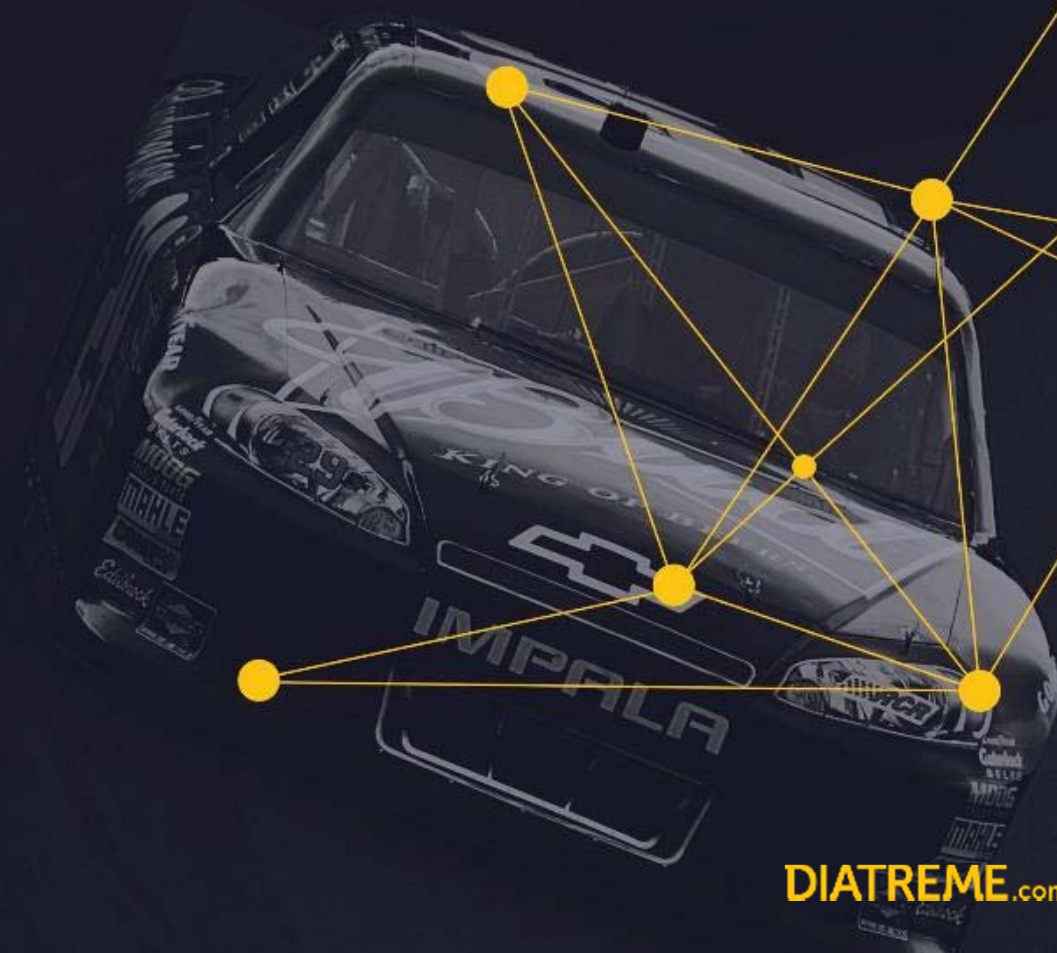


Company Presentation

Diatreme Resources
(ASX:DRX)

August 2018

SLIDE | 1



DIATREME.com.au

DISCLAIMER



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Cautionary Statement

Whilst Diatreme Resources has concluded that it has a reasonable basis for providing the forward looking statements included in this presentation, Diatreme Resources advises that given the current price of zircon and the company's current market capitalisation (compared to the capital expenditure required in connection with the Cyclone Zircon Project), the production targets and forecast financial information contained in this presentation do not provide an absolute assurance of economic development at this stage. The stated production targets and forecast financial information contained in this presentation are based on detailed PFS studies and Diatreme Resources' current expectations of future results or events, including sourcing of project development finance within the targeted timeline and/or attracting suitable project major financial partners and should not be relied upon by investors when making investment decisions

Additional Information

This presentation should also be read in conjunction with the DRX Annual Report for 2017 and the June 2018 Quarterly Activities report together with any announcement made by Diatreme in accordance with its continuous disclosure obligations under the Corporations act including:

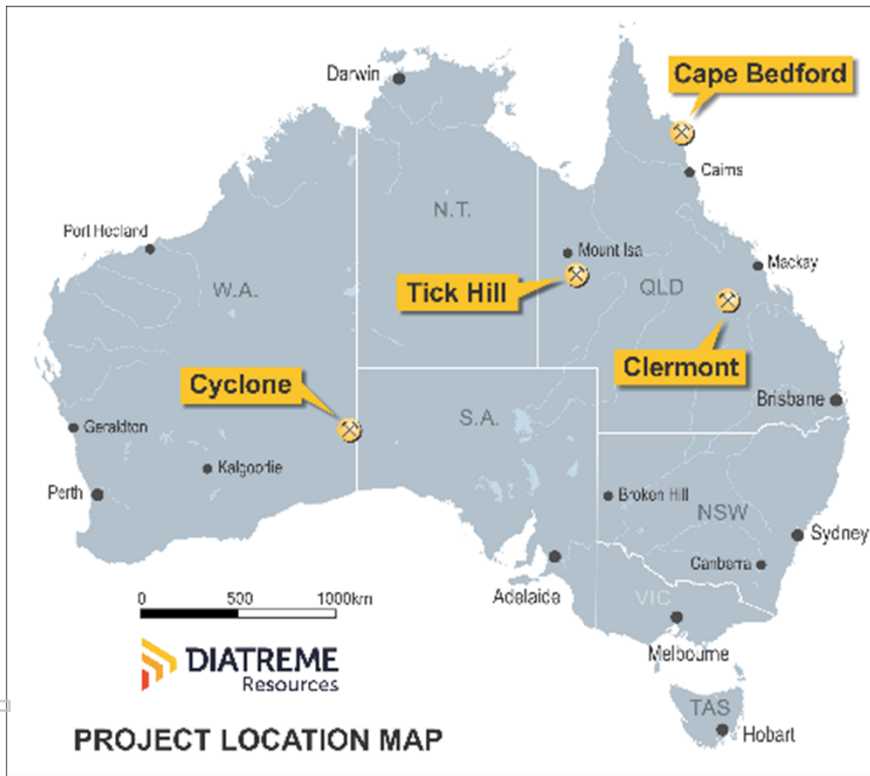
- ASX release regarding Cyclone Resource Update – dated 23rd January 2012
- ASX release regarding Cyclone Maiden Ore Reserve Estimate – dated 7th February 2012
- ASX release regarding Cyclone PFS Results – dated 20th March 2012
- ASX release regarding Cyclone Native Title Agreement executed – dated 17th November 2014
- ASX release regarding Cyclone Mining Lease granted – dated 24th November 2014
- ASX release regarding Acquisition of Cyclone Extended increase Cyclone mine life – dated 14th December 2015
- ASX release regarding Cyclone Project Enhancement Study by Sedgman – dated 15th June 2016
- ASX release regarding Cyclone Environmental Approval granted – dated 9th of January 2017
- ASX release regarding Cape Bedford Maiden Resource – dated 13th August 2018
- ASX release regarding Cape Bedford Bulk Sample Testwork Results – dated 16th August 2018

WHY INVEST IN DIATREME?



- **SILICA: Cape Bedford Silica/Heavy Mineral Sands Project, Qld**
 - Maiden Inferred Resource – 21m tonnes high-quality silica sand > 99%
 - Adjacent to world's largest silica sand mine at Cape Flattery & 2km from loading facility
 - Low capex with quick pathway to production within potentially 20 mths
 - Diatreme can develop in-house, in partnership with traditional owners
- **ZIRCON / TITANIUM: Cyclone Zircon Project, Eucla Basin, WA**
 - Definitive feasibility study due 3rd qtr 2018
 - Positive outlook for mineral sands prices, with supply deficit predicted
 - De-risked project, targeting production by 2020
- **ATTRACTIVE VALUATION VS PEERS:**
 - Re-rating potential based on upcoming milestones

DIATREME – AT A GLANCE



- ASX-listed, mineral sands/silica sand development company
- Short-term pathway to cashflow via low capex Cape Bedford project, targeting production by 2020
- Flagship Cyclone Zircon Project de-risked with DFS due soon, high interest for funding and offtake from Asian investors
- Further potential upside from non-core copper/gold assets (Clermont, Tick Hill)

CORPORATE SNAPSHOT



Capital Structure

Shares on Issue	1.09 Billion
Options on Issue (Unlisted)	8.0 Million
Share Price (27 August 2018)	A\$0.024
Market Capitalisation (as at 27 August 2018)	A\$26 Million

Directors

Position

Gregory Starr	Non-Executive Chairman
William Wang	Non Executive Director
Andrew Tsang	Non Executive Director
Daniel Zhuang	Non Executive Director

Substantial Shareholders (10th Jul 2018)

Interest

Mr Yufeng (Daniel) Zhuang	14.64%
Mr Andrew Tsang (and related parties)	10.05%
Mr Zhenbin Jian	7.46%
VW Pty Ltd	6.94%
Total Interest of Top 20 Shareholders	68.70%
Directors' Interest	24.60%

Management

Position

Neil McIntyre	Chief Executive
Neil Forbes	Chief Geologist
Phil McMurtrie	Project Manager
Tuan Do	Financial Controller/CFO

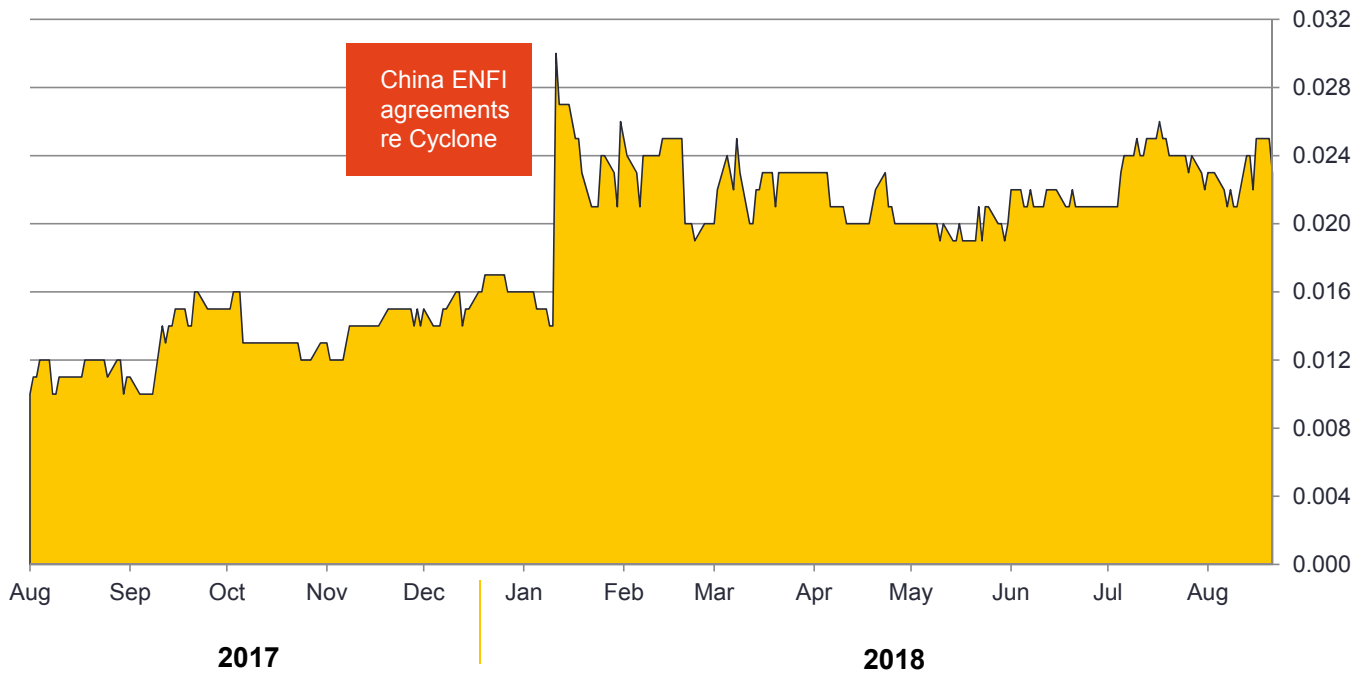
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ASX PERFORMANCE

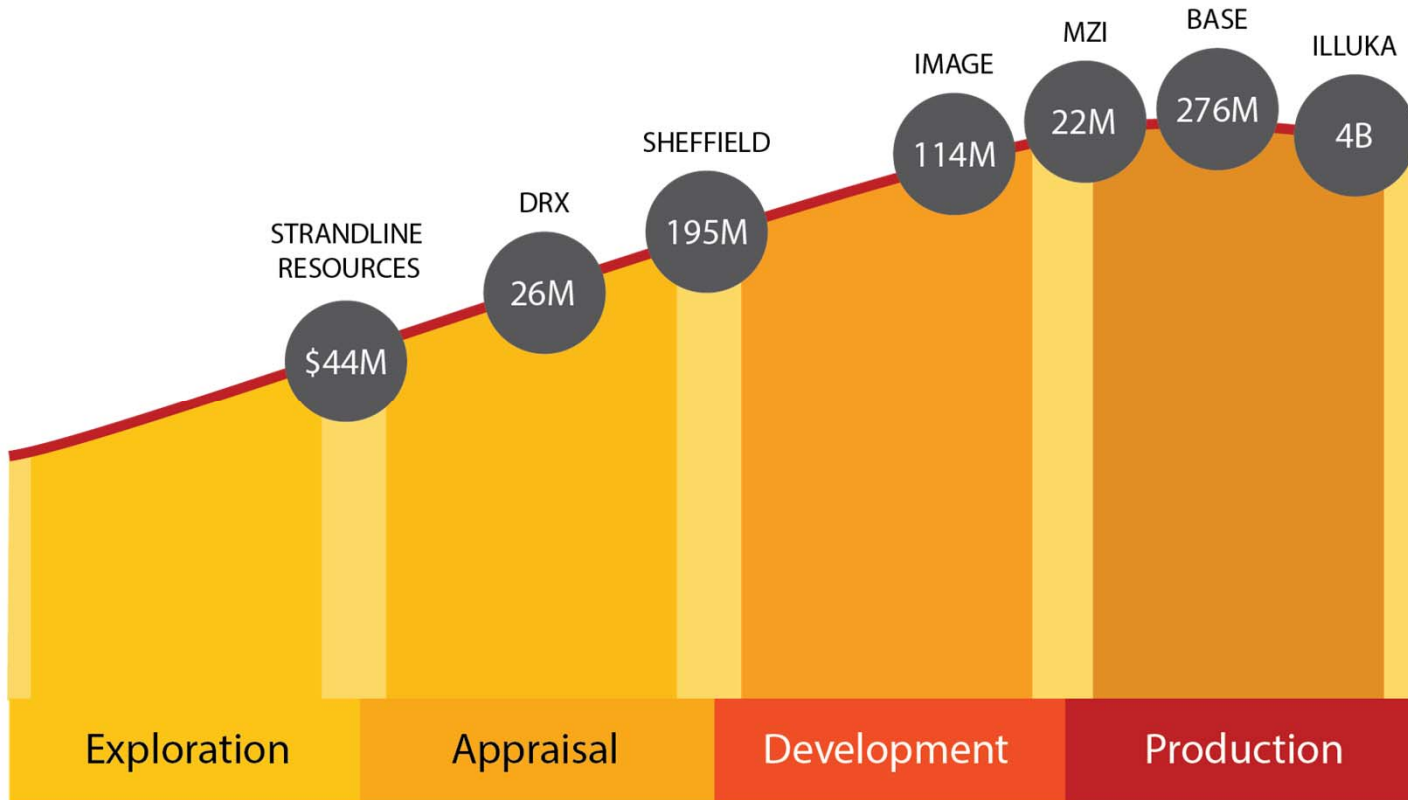


Share price \$



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ATTRACTIVELY VALUED VS PEERS



Relevant ASX market capitalisations as at 24 August 2018

EXPERIENCED BOARD



- **Mr Gregory Starr – Chairman** (non-executive director)
 - Extensive 25yrs plus senior management experience in minerals exploration, managing operating mines, asset acquisitions/divestments and project finance
- **Mr Cheng (William) Wang** (non-executive director)
 - Extensive Chinese SOE management and negotiating experience, including 15 years as head of international commodities at CITIC. Director of China Century Capital Ltd, Jupiter Mines Ltd & Gulf Alumina Ltd
- **Mr Yufeng (Daniel) Zhuang** (non-executive director)
 - Significant DRX shareholder – Ex-Ping An Securities Beijing & Fujian Mingxing Group Zhangzhou, China
 - Construction, hotels and food manufacturing interests in China
- **Mr Andrew Tsang** (non-executive director)
 - Significant long-term DRX shareholder; construction, engineering and property interests in China/Australia
 - Non-executive director Mindax Ltd and extensive Chinese business network

EXPERIENCED MANAGEMENT TEAM



- **Mr Neil McIntyre – CEO**, 25 yrs experience in banking, finance, resources
 - 4 years as Diatreme CEO and 3 years as non-executive director
 - Led Cyclone de-risking, traditional owner negotiations, permitting and approvals process
 - Ex-MD Pacific Capital Ltd, State Manager (Structured & Asset Finance) QIDC
 - Ex-Chairman Niuminco Ltd (PNG gold assets); executive director Belvedere Ltd (Yanderra PNG copper/gold assets) and Indon Energi Ltd
- **Mr Phil McMurtrie – Project Manager, Cyclone Project**; 35 yrs experience mining, 25 yrs mineral sands
 - Mining engineer with experience at Hammersley Iron, Qld Nickel and ex-mine manager at Consolidated Rutile's Stradbroke Island operation
 - Now Cyclone Project Manager for PFS/DFS studies and project implementation planning
- **Mr Neil Forbes – Geologist**, 25 yrs in exploration/mining
 - Extensive exploration experience in gold, base metals, coal and silica
 - Previous exploration manager for Metallica and Metro Coal; led Metro Coal team that delineated 4Bt of thermal coal
- **Mr Tuan Do – Financial Controller/CFO**, 30 yrs experience, 10 yrs resources sector
 - Chartered accountant, with senior corporate accounting experience at Peabody Australia and Intrepid Mines
 - Experienced in financial reporting, treasury management, capital raisings and start-up operations in mining sector

CAPE BEDFORD

SILICA/HEAVY
MINERAL SANDS
PROJECT



SILICA, CONSTRUCTION SAND



Silica sand is primarily quartz broken down over time into fine granules. Main end uses glass industry, foundry, hydraulic fracturing, filtration and abrasives.

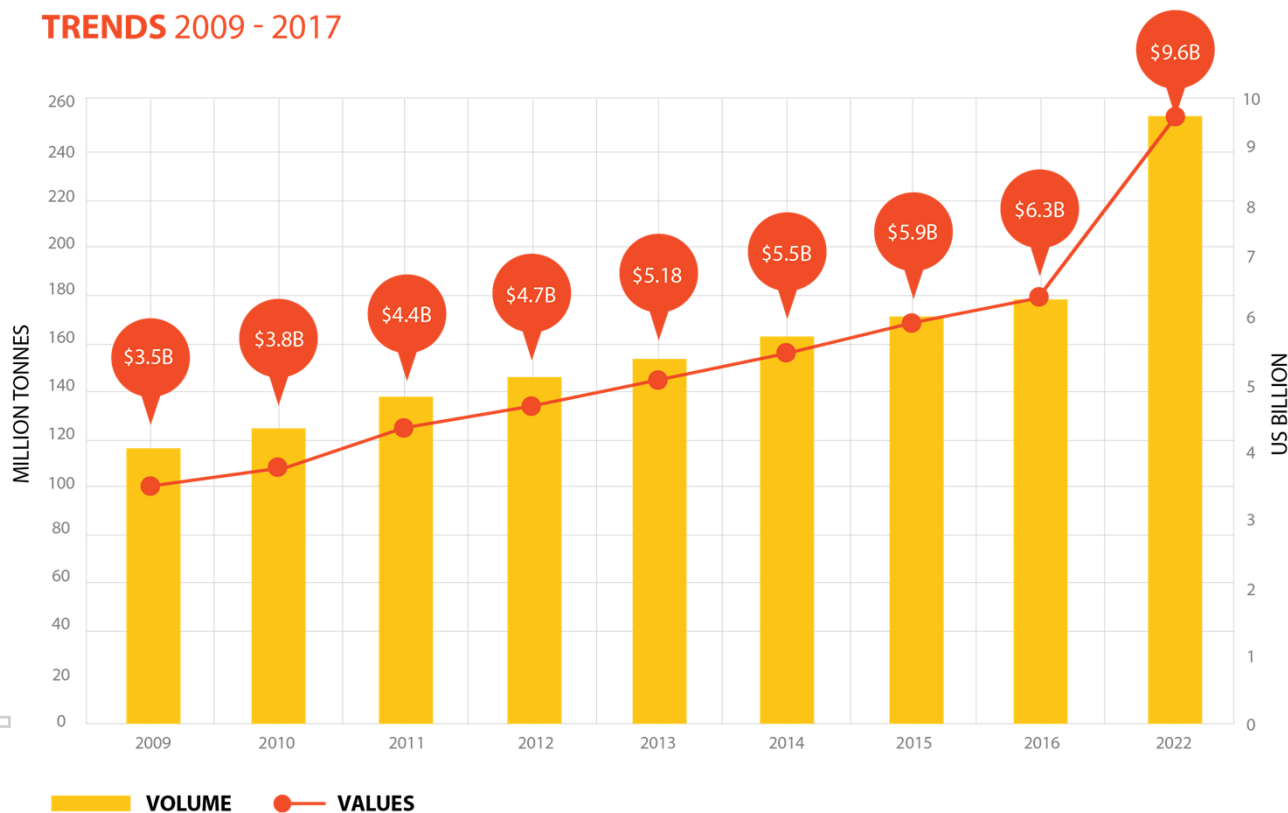


Construction sand is a major global industry, with more than 15Bt of sand mined for construction in 2017. Main component in various building/construction products.

SILICA IN DEMAND



GLOBAL SILICA SAND MARKET VOLUME AND VALUE
TRENDS 2009 - 2017

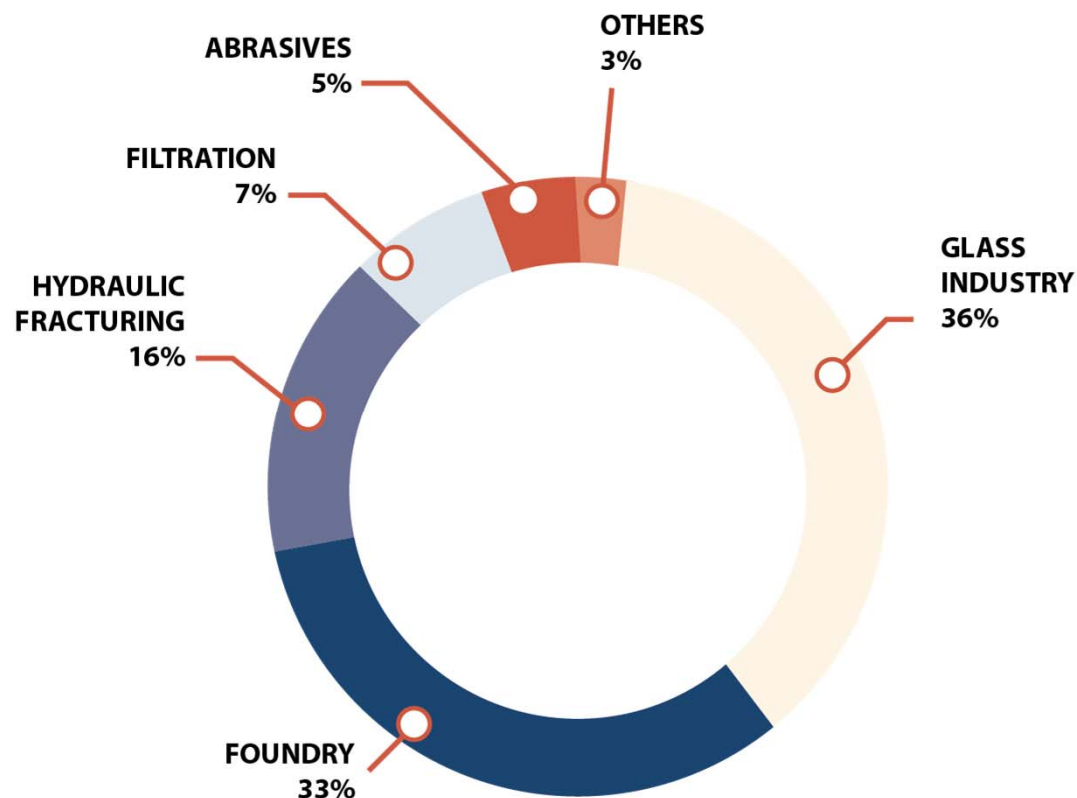


- IMARC* forecasts CAGR of 7.2% p.a. through to 2022, reaching US\$9.6B revenues
- Increasing demand from automotive, construction industries
- No direct substitutes in majority of applications

* Refer DRX announcement, 30 November 2017

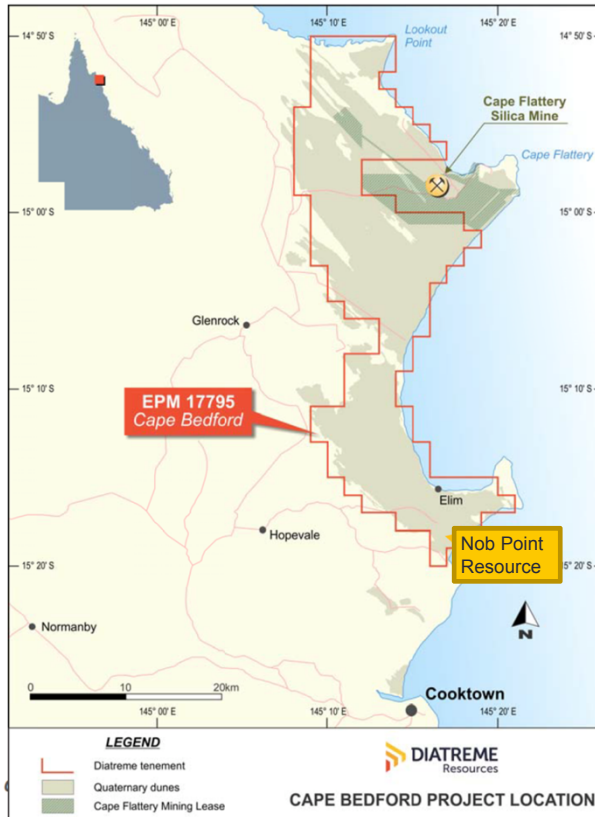
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SILICA MARKETS



- IMARC expects high growth in demand from North America, Latin America & Western Europe due to increasing hydraulic fracturing
- Increasing demand also from emerging markets such as China and India from foundry and construction industries

CAPE BEDFORD PROJECT - SUMMARY



- High-grade silica sand/heavy mineral sands, located near world's biggest silica sand mine & 2km from potential loading facility
- Maiden Inferred Resource Aug. 2018 – Nob Point Prospect – 21.6Mt @ > 99% silica
- Bulk sample testwork shows high 88% recovery rate, low level of slimes (3%) and HMS (0.19%)
- Initial production est. 300,000-500,000 tpa
- Commercial and permitting studies underway

CONCEPT OPERATION



- Mining a simple operation with spiral separator to remove heavy minerals (0.19%)
- Product to be trucked via 1.5km haul road to trucking compound and barge ramp
- Delivered onto barge ships for transshipment onto 15,000t vessel, just 3km from shipping lane and delivery to export market

PATHWAY TO CASHFLOW



Upcoming milestones include:

- Completion of commercial and permitting studies
- Environmental and regulatory approvals, including Mining Lease Application and EIS
- Nob Point resource to be developed as long-life operation, allowing exploration to expand north and west with aim of identifying additional silica or heavy mineral sands

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CYCLONE

WORLD-CLASS
ZIRCON PROJECT



HEAVY MINERAL SANDS

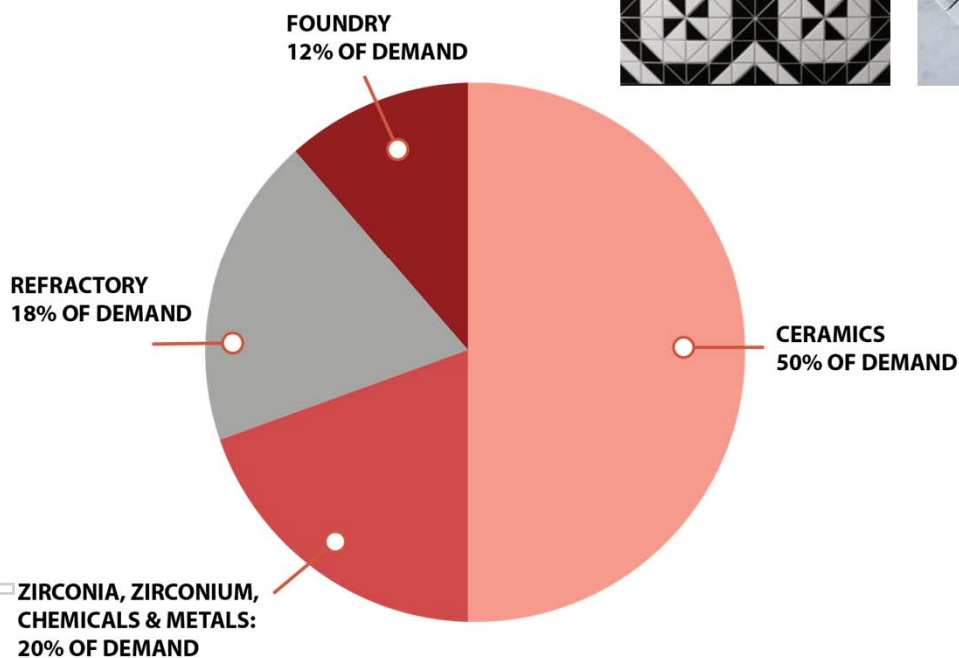


Zircon is an opaque, hard wearing, inert mineral, with around 1.1Mt produced globally in 2014. It is primarily used to produce ceramic tiles, as well as specialty applications.



Titanium dioxide is mined as ilmenite, rutile or leucosene. 7.25Mt of titanium feedstocks were produced in 2014 for pigments in paints, plastics, paper and titanium metal.

ZIRCON USES



- Most valuable heavy mineral with current prices US\$1,580/t (up from US\$1,030 a year ago)
- Approx. 1.1m tonnes produced globally in 2014
- Used primarily in production of ceramic tiles
- Other applications include refractories, foundry casting
- Speciality applications in nuclear fuel rods, jet turbine blades

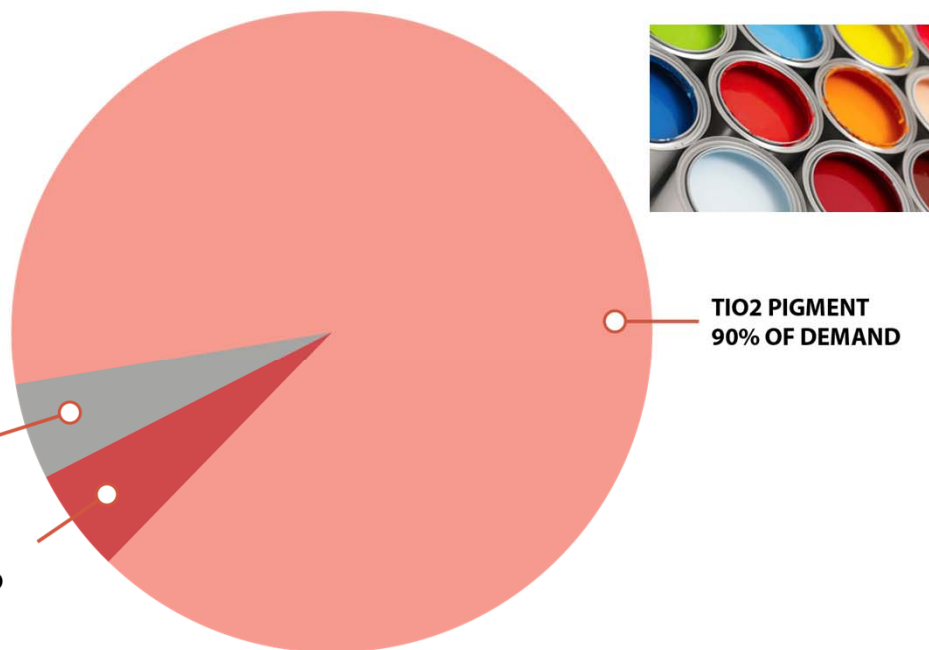
TITANIUM USES



**TITANIUM METAL:
5% OF DEMAND**



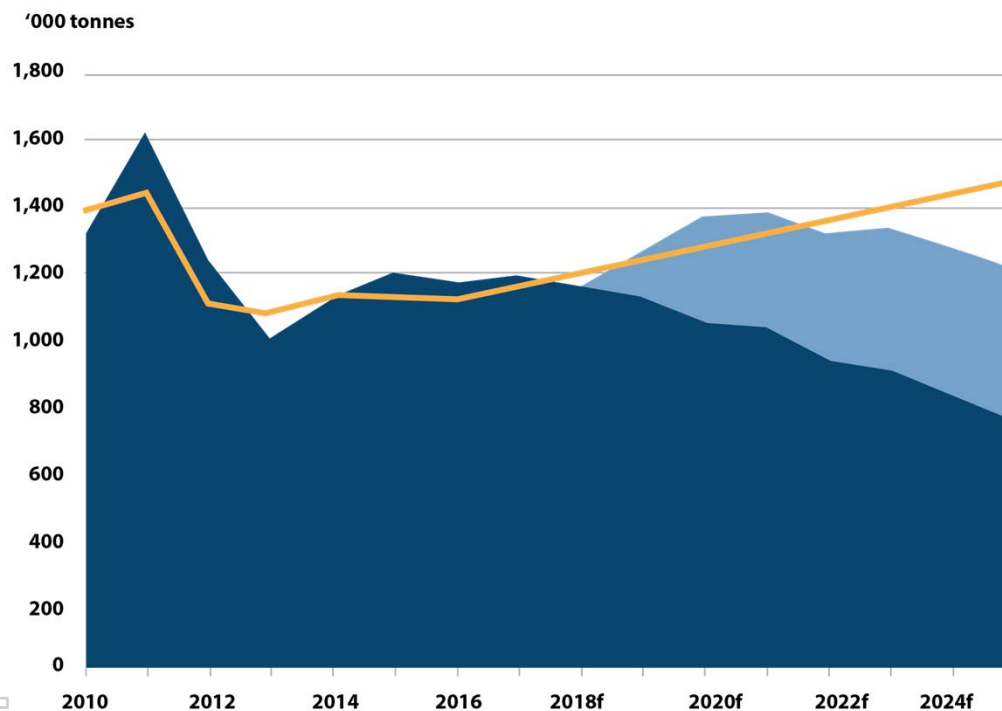
**WELDING ROD:
5% OF DEMAND**



**TIO2 PIGMENT
90% OF DEMAND**

- Around 7m tpa global market
- Used primarily in pigments
- Demand increasing due to China's higher environmental standards and technological advancements
- Rutile prices up 20% on H1 2017 & 14% increase in H2 2018

ZIRCON IN DEMAND



Source: TZMI, May 2017

- Increasing demand driven by urbanisation and global growth
- Supply constrained with depleting supply and grade/assemblage decline
- Lack of new high-grade projects with challenges including technical issues, costs and sovereign risk
- TZMI predicts structural deficit to widen from 2019 amid estimated 2.1% CAGR through to 2021

PROJECT OVERVIEW

JORC Mineral Resource

- 203 million tonnes
- 2.3% valuable heavy mineral (VHM)

JORC Ore Reserve

- 138 million tonnes
- 2.6% heavy mineral

High Zircon mineral assemblage

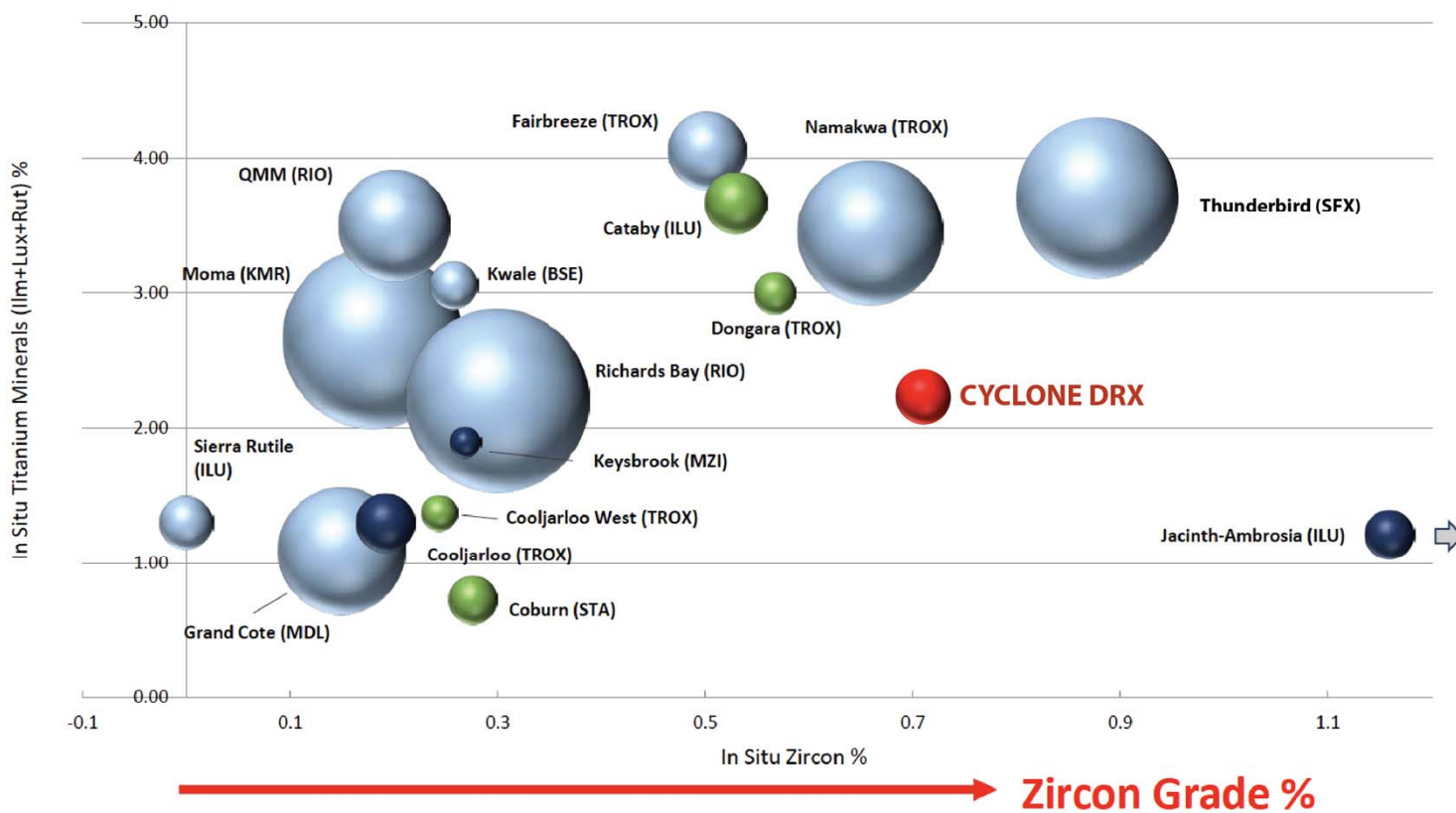
- 30% of VHM is zircon
- 80,000t zircon per year (first 3 years)

One of only 3 significant zircon discoveries in the last decade



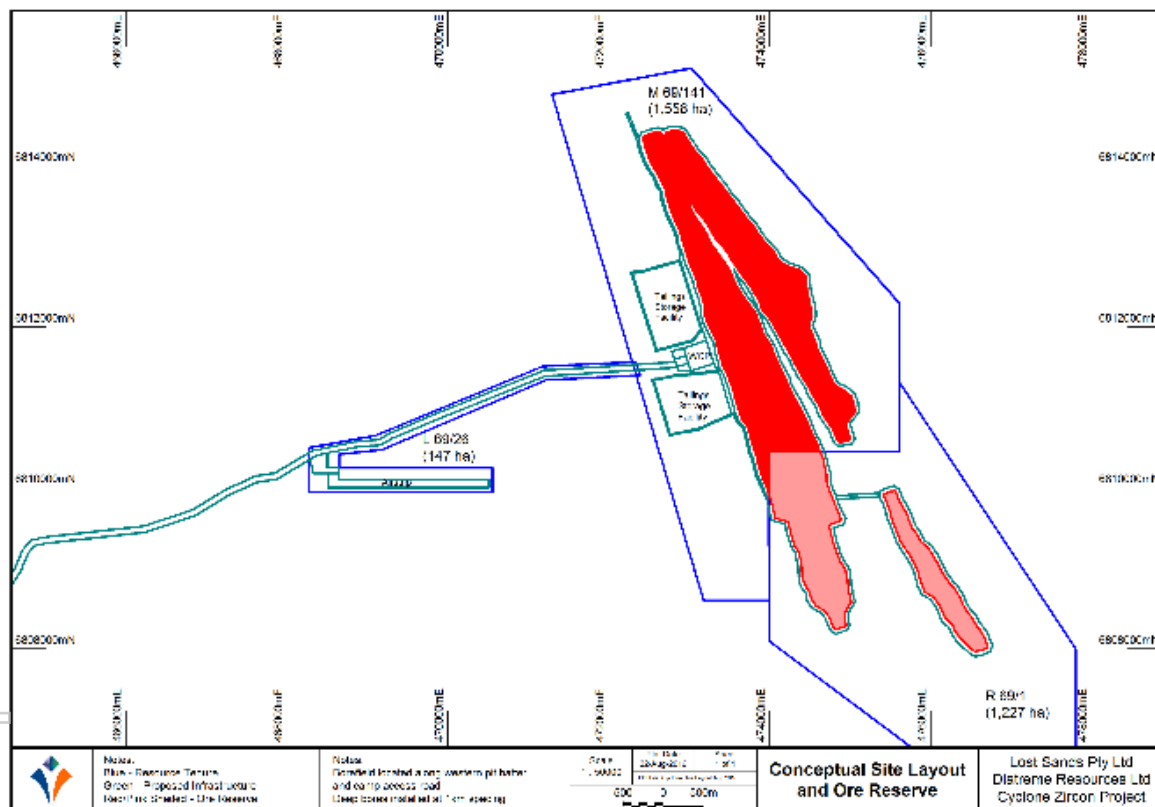
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CYCLONE VS PEERS



Source: Sheffield Resources, August 2018

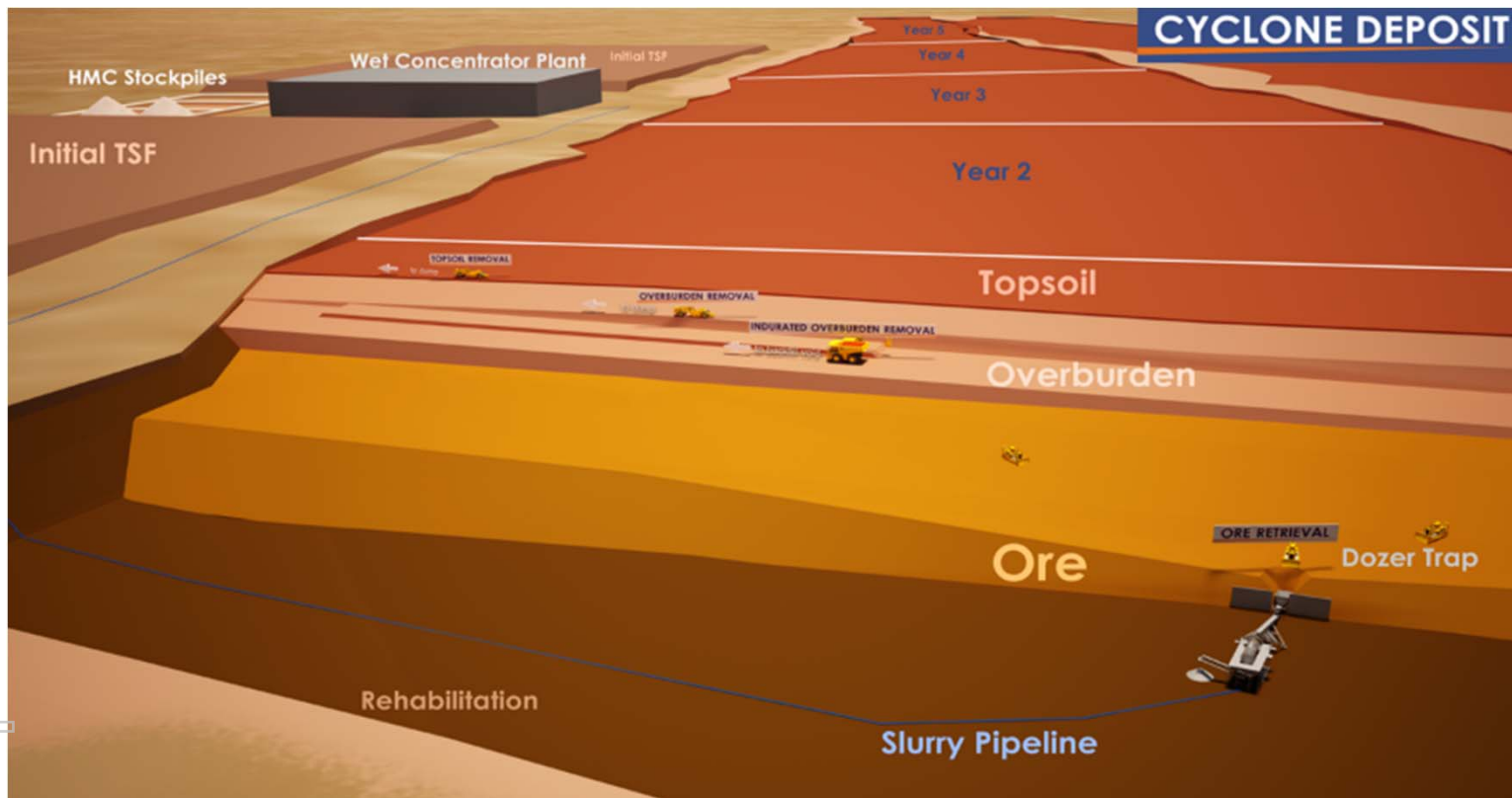
MINING LEASE & LAYOUT



- Mining Lease M69/141 was granted Nov 2014 for the Cyclone Ore Reserve (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 (pink) is secured under a Mineral Retention Licence (R69/1).
- Miscellaneous Licence L69/26 for the site access road, accommodation camp, airstrip, and borefield was granted in July 2016.
- Implementation of the mining project and associated activities including the proposed haul road have all been approved by the WA Minister for Environment.

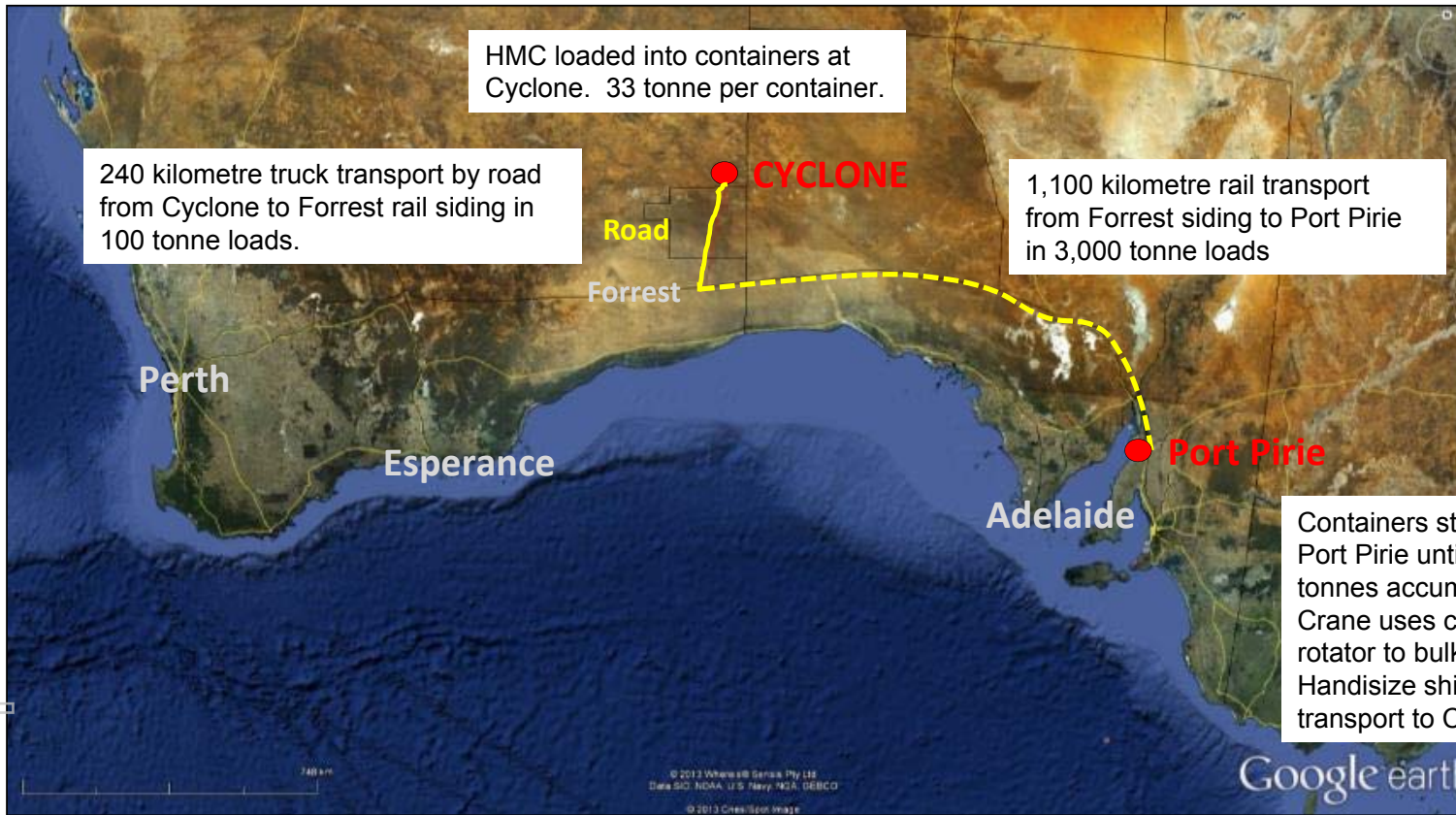
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PROPOSED MINING METHOD



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MINERAL TRANSPORT DETAILS



MINING PROPOSAL



Mining & Logistics	
Strip Ratio	1 : 1
Mining Rate (Dry)	1,300 tonnes per hour – 2 x Dozer traps
Wet Concentrator Plant Product	20 Tonnes / Hour HMC production 144,000 tpa @ 96% HM Concentrate
Transport - Road	240km - 100 tonne loads to Forrest
Transport - Rail	1,100km – 3,000 tonne loads to Port Pirie

Project Development Options	
Mineral Separation Plant in Australia – Final products from Australia	
Mineral Separation Plant in China or other country	
Direct sale of HMC within Australia	
Direct sale of HMC offshore	

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PROPOSED PROJECT TIMELINE



Milestone	Date
Pre-Feasibility Study	March 2012 - Completed
Bankable Feasibility Study	Q3 2018
Project Financing	Q3/4 2018
Construction & Development	2019
Mining & Production	2019-2020



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PRODUCTS

AVERAGE ANNUAL PRODUCTION and PRODUCT QUALITY



ZIRCON	65,000 tonnes	ZrO2 %	FE2O3 %	SiO2 %	Al2O3 %	TiO2 %	P2O5 %	U+Th ppm	CeO2 %
		66.0	0.10	32.8	0.20	0.31	0.07	369	0.020

HiTi87	10,000 tonnes	TiO2 %	FE2O3 %	SiO2 %	Al2O3 %	ZrO2 %	MgO %	MnO %	CaO %	CR2O3 %	U+Th ppm
		86.6	2.6	5.0	1.01	3.3	0.04	0.02	0.03	0.06	84

HiTi67	46,000 tonnes	TiO2 %	FE2O3 %	SiO2 %	Al2O3 %	ZrO2 %	MgO %	MnO %	CaO %	CR2O3 %	U+Th ppm
		67.3	20.1	6.3	1.75	0.5	0.10	0.42	0.07	0.08	94

PROJECT FUNDAMENTALS



- **All primary project approvals in place**
Mining Lease, TO Agreements, Environmental Approvals.
- **Sufficient reserves to support a long mine life**
Currently 14 years at 10Mt pa
Strand mineralisation gives options for high grading
Substantial resource base to support potential long term expansion
- **Support of Traditional Owners to develop project**
Strong relationship, mining agreement signed
- **No competing land use**
Quaternary dune field, Great Victoria Desert

CHINA ENFI BANKABLE FEASIBILITY STUDY



Diatreme and ENFI are under contract to work together to advance the Cyclone Project to an efficient and profitable mining operation using the combined expertise from both organisations.

To assist Diatreme develop the Cyclone Project, ENFI will:

- Use project relevant expertise to prepare a first class Chinese BFS report which will recommend the most cost effective solution for the project
- Assist sourcing suitable debt & equity funding for the project based on robust financial results presented in the BFS report
- Assist sourcing potential Chinese customers for the high quality zircon and titanium products from the Cyclone project
- May also participate in project implementation during construction & operation

CYCLONE PROJECT CURRENT FINANCIALS



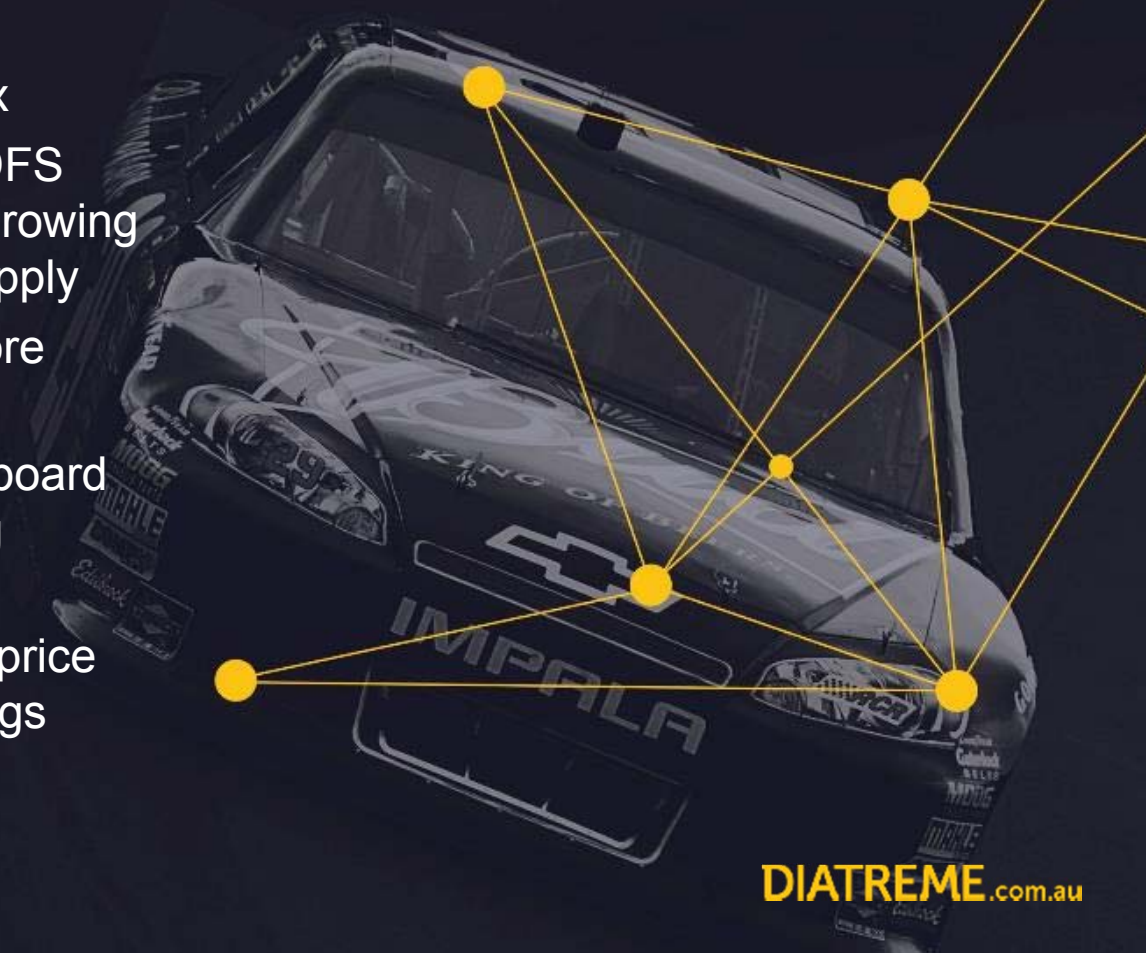
CAPEX	A\$161 M
Average Annual Sales Revenue	A\$130 M
Average Annual Operating Costs	A\$73 M
Average Annual Operating Cash Flow After Tax	A\$43 M
Payback Period (Years)	2.3
IRR	30%
NPV (8%) Base Case (Valuation)	A\$190 M

Based on 2016 Sedgman Project Enhancement and Update Study (refer ASX announcement 15 June 2016) and updated zircon price (USD1,500 per tonne)

INVESTMENT OPPORTUNITY



- Near-term silica sand production at Cape Bedford, with low capex and opex
- Cyclone Zircon Project de-risked with DFS pending; coming into production amid growing supply deficit and lack of high-grade supply
- Further potential upside through non-core copper/gold assets
- Australia-focused with an experienced board and management focused on delivering shareholder value
- Market has re-rated DRX (100% share price gain over past year) and further re-ratings expected on positive news flow



DIATREME CONTACT DETAILS

Neil McIntyre, Chief Executive
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neil.mcintyre@diatreme.com.au

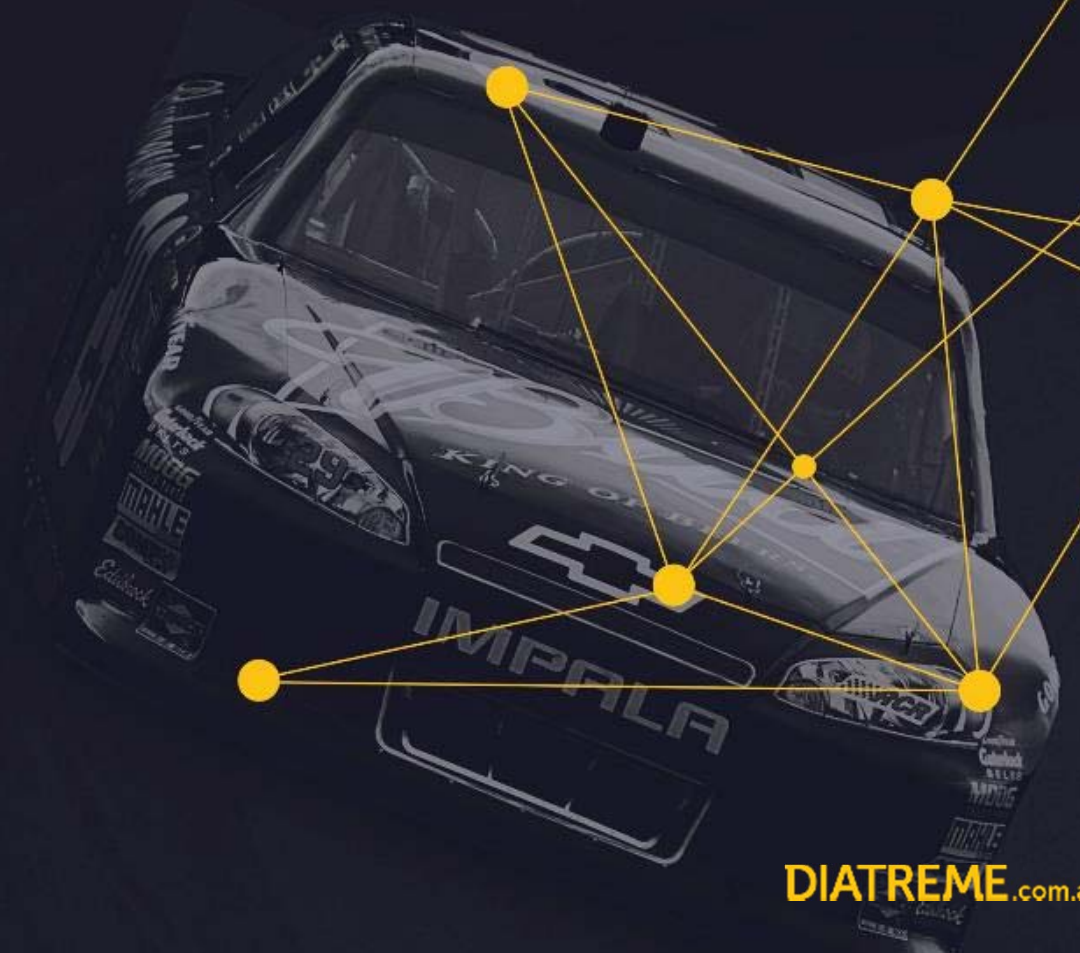
Greg Starr, Chairman
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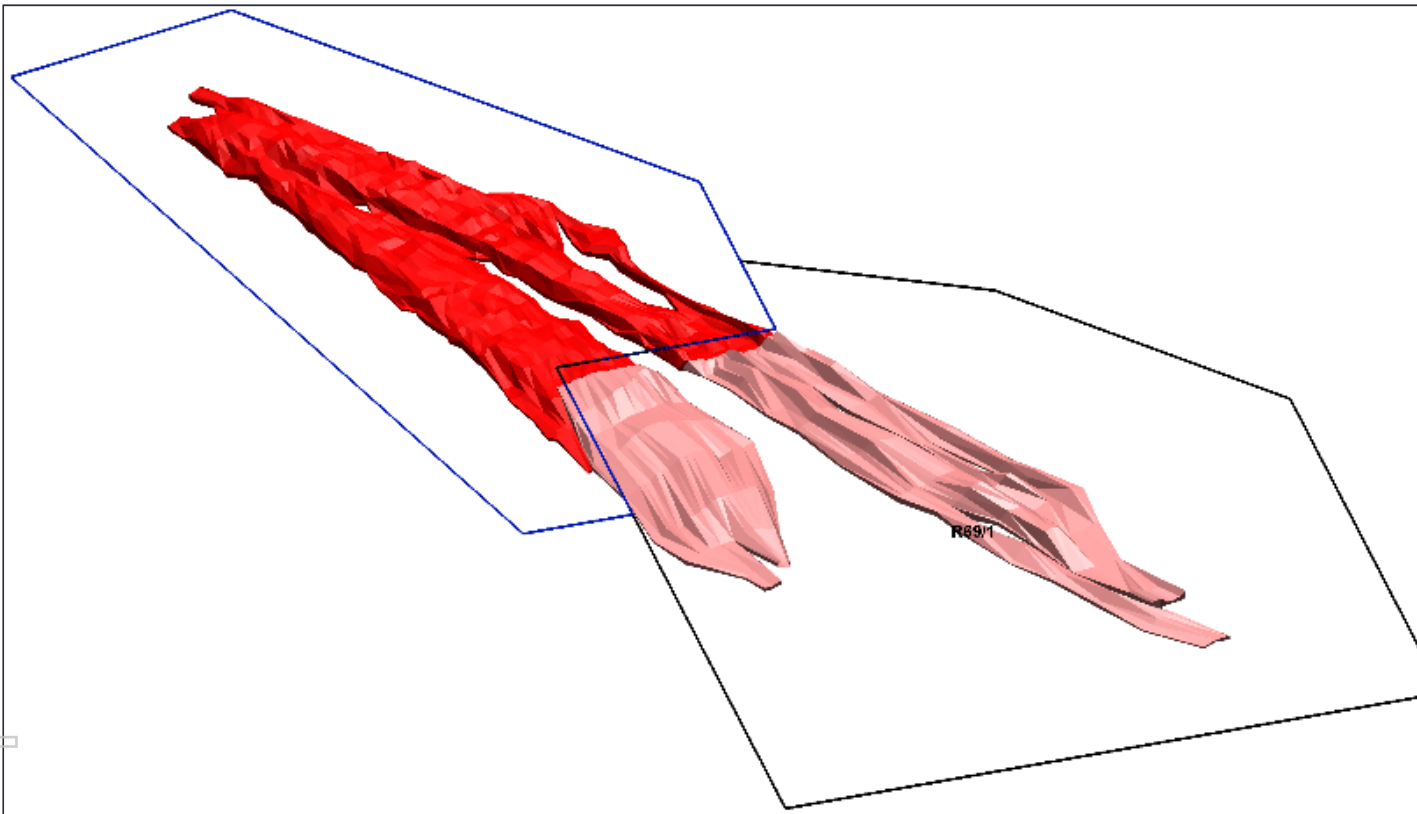


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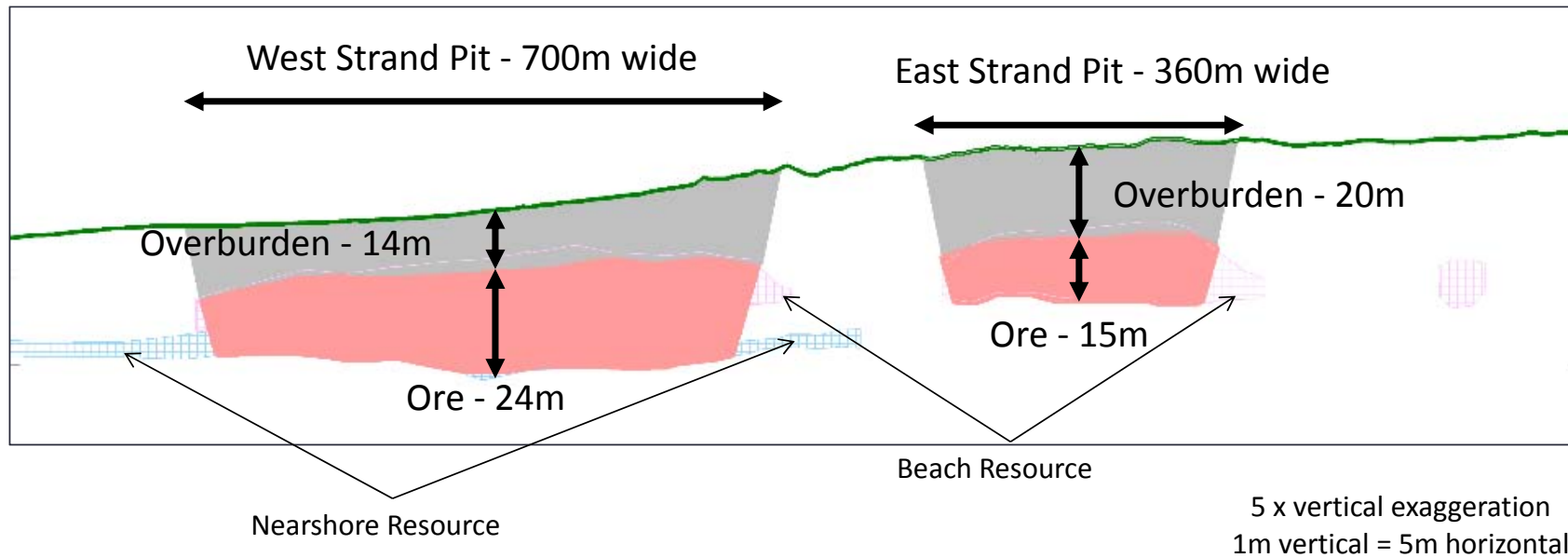
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CYCLONE ZIRCON RESOURCE – OBLIQUE VIEW



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CYCLONE RESOURCE – TYPICAL CROSS SECTION



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TICK HILL

GOLD PROJECT



DIATREME
Resources

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LOCATION

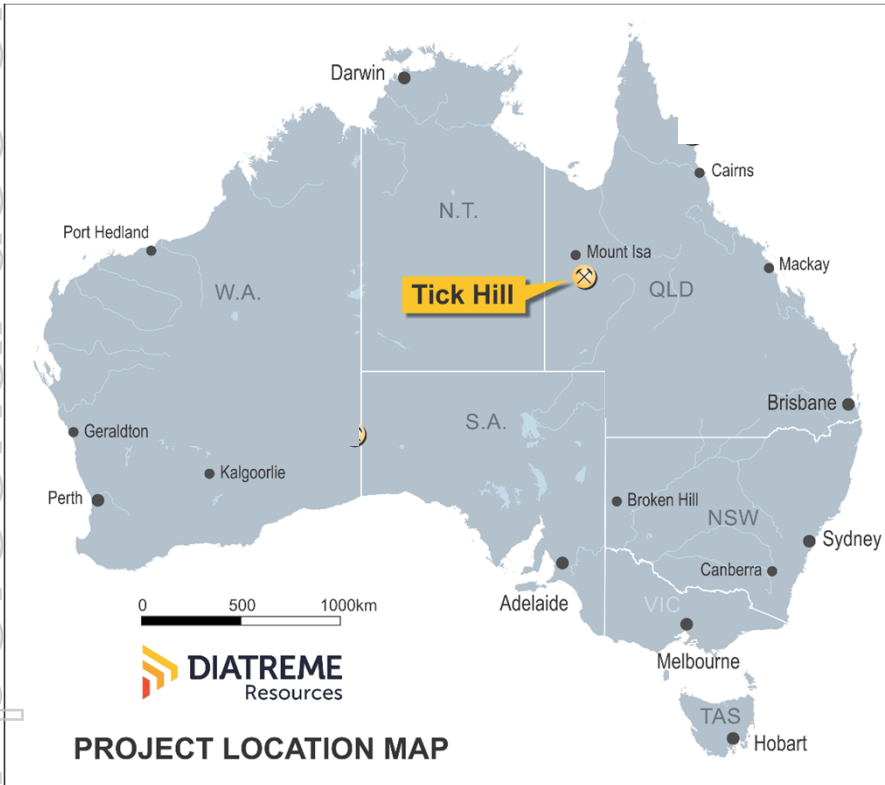


Tick Hill, Qld

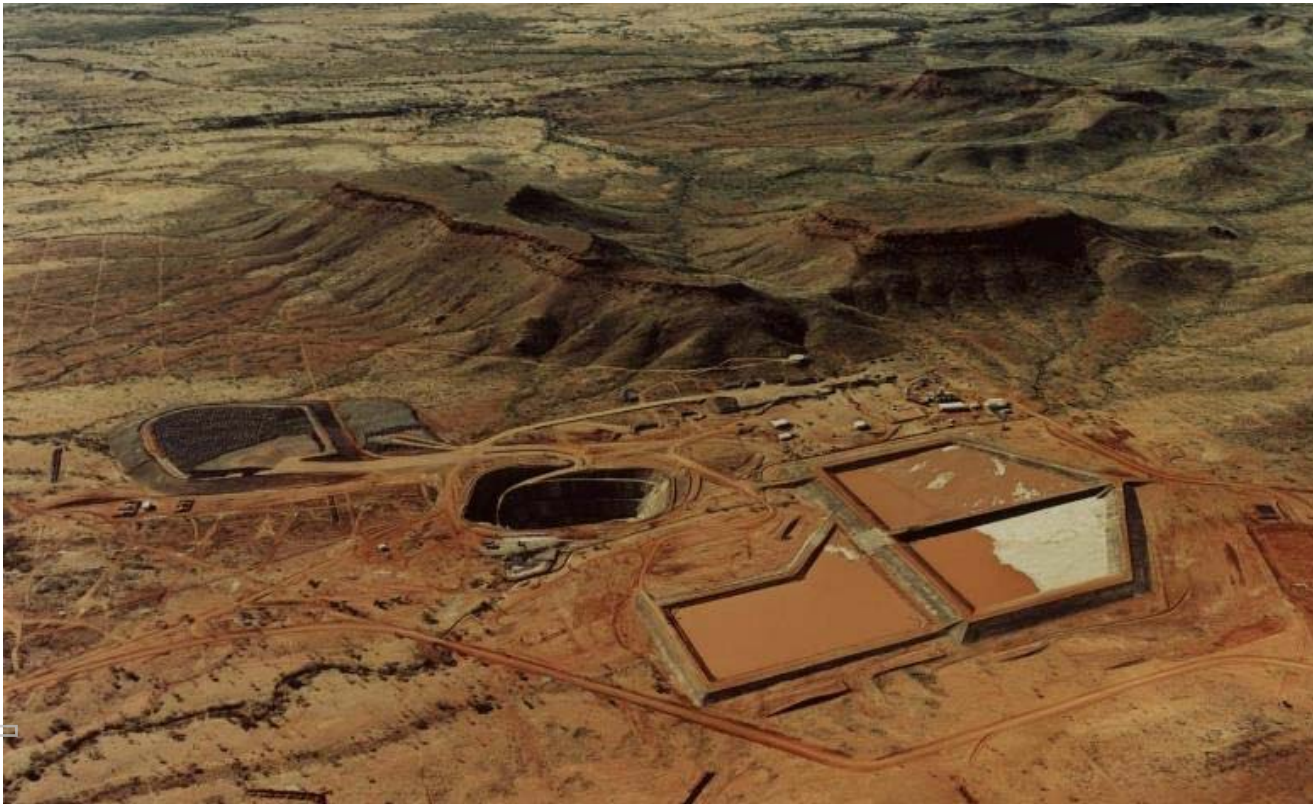
Gold

3 Granted Mining Leases

Size: 3.9km²



PROJECT OPERATION (1993)



- Produced 500,000 oz. gold from 700,000 tonnes of ore at 22.6g/t Au
- Project vested into upcoming IPO by Carnaby Resources
- DRX to receive 4.5% of Carnaby's market cap on listing

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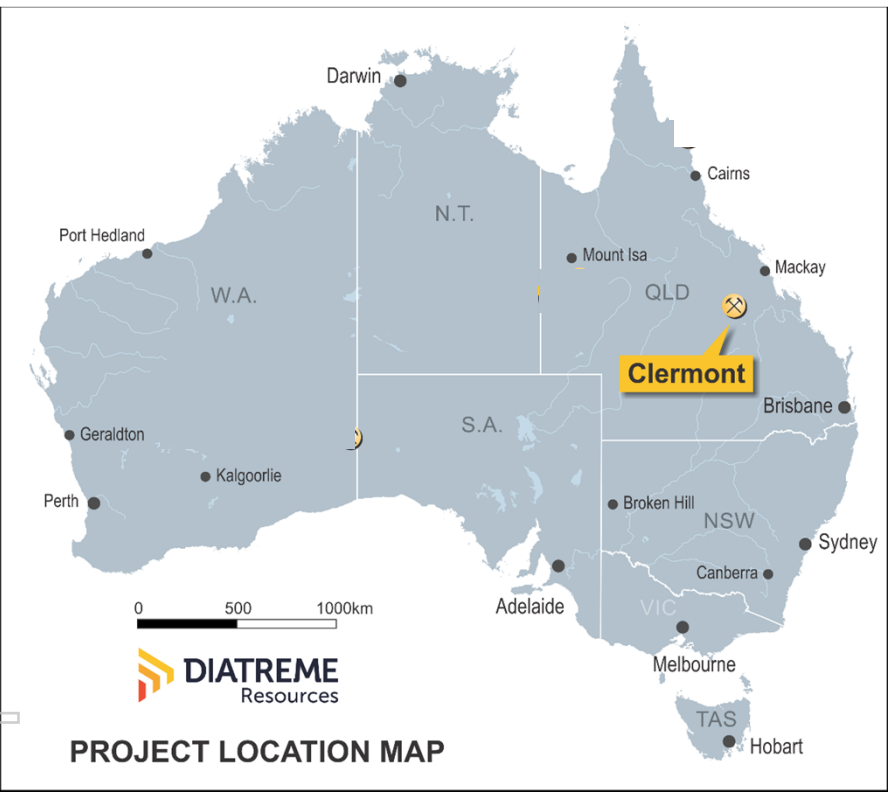
CLERMONT

COPPER-GOLD PROJECT



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LOCATION



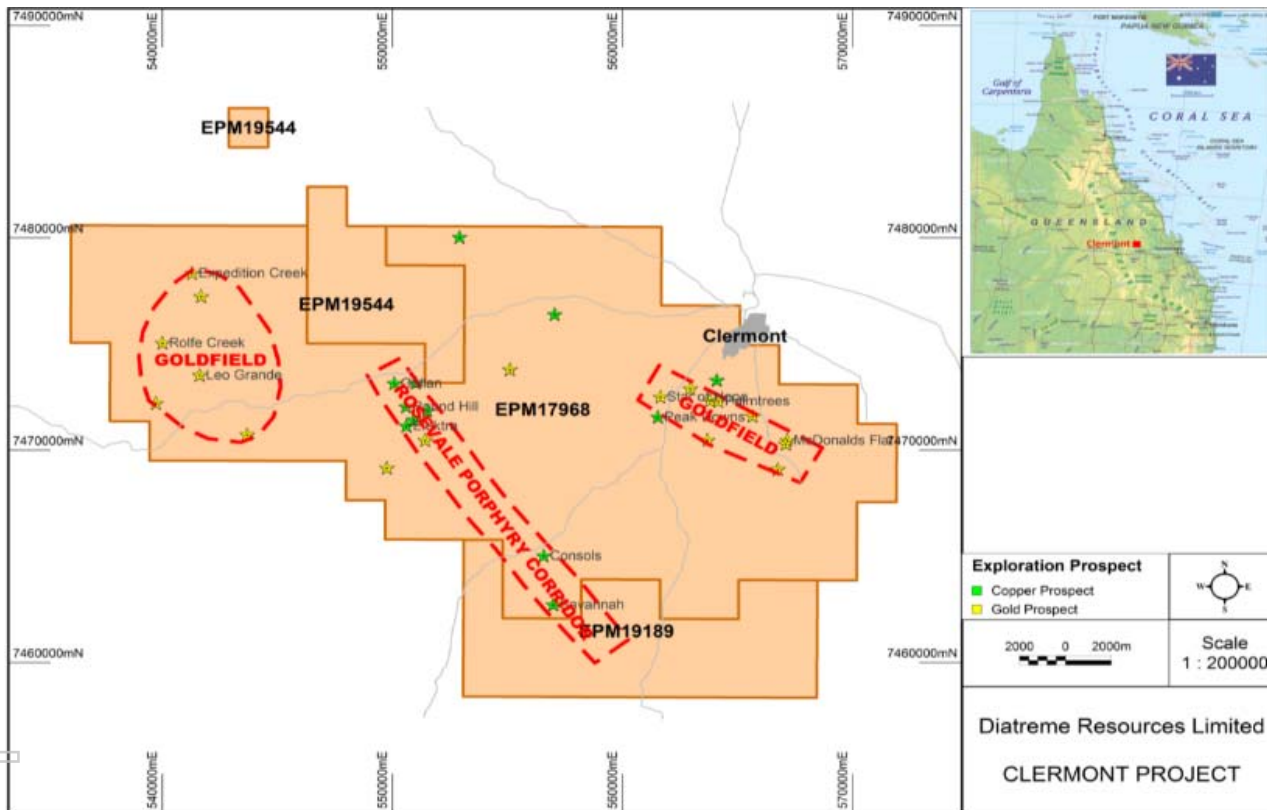
Clermont, QLD

Gold, Copper

3 Granted EPM's

Size: 524km²

EXPLORATION TARGETS



- Project has attracted previous drilling from UK-listed Antofagasta PLC
- Potential for further investor interest due to attractive AUD gold and copper prices

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COMPETENT PERSONS



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 was 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.

APPENDIX 1

Cyclone Project Resource & Reserve Estimate



Category	HM cut-off %	Material Mt	HM %	HM Mt	Slime %	OS %	Head Grade						Zircon Kt
							Zircon %	Rutile %	Leuc %	HiTi %	Alt Ilm %	Si TiOx %	
CYCLONE MINERAL RESOURCE ESTIMATE													
MEASURED	1.0	156	2.4	3.81	4.2	5.0	0.69	0.07	0.16	0.58	0.30	0.53	1,079
INDICATED	1.0	48	1.9	0.89	4.4	5.1	0.38	0.04	0.09	0.62	0.30	0.34	183
TOTAL	1.0	203	2.3	4.70	4.2	5.0	0.62	0.06	0.14	0.59	0.30	0.49	1,262
Mineral Assemblage							27%	3%	6%	26%	13%	21%	
CYCLONE ORE RESERVE ESTIMATE													
PROBABLE		138	2.6	3.52	4.6	5.3	0.72	0.07	0.17	0.59	0.32	0.57	990
TOTAL		138	2.6	3.52	4.6	5.3	0.72	0.07	0.17	0.59	0.32	0.57	990
Mineral Assemblage							28%	3%	7%	23%	13%	22%	

Notes:

- For more details, refer to DRX ASX Releases 15 June 2016 "Cyclone Study Reaffirms Project Profitability"
- Rounding may generate differences in last decimal place
- A constant SG of 1.7 has been used to derive material tonnes
- Slime refers to material typically <53um
- OS refers to material typically >2mm
- Mineral Assemblage derived from QEMSCAN® analysis
- High Titanium Oxides (HiTi) – Ti-oxides containing 70 - 95% TiO₂, Altered Ilmenite (Alt Ilm) – Ti-oxides containing <70% TiO₂, Siliceous Ti-Oxide (Si TiOx) – Ti-oxides containing >10% silica rich Ti minerals.
- Resources are inclusive of Reserves.

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APPENDIX 2

Cape Bedford Inferred Mineral Resource

	Silica Sand (Mm ³)	Resource Area (Mm ²)	Average Thickness (m)	Density (t/m ³)	Silica Sand (Mt)
Total	13.5	0.83	16.3	1.6	21.6

Notes:

It is anticipated that due to the nature of the assessment all of the 99% silica sand volume will be used as product and therefore will be included in the Resource assessment. As such, the estimated in situ volumes are equivalent to "Mineral Resources" as defined by the JORC Code (2012).

In accordance with the JORC Code (2012) the classification of mineral resources is a function of the level of geological knowledge and confidence. With increasing level of geological knowledge and confidence the mineral resources are classified as "Inferred", "Indicated" and "Measured Mineral Resources". Both the geological knowledge and the level of confidence are a function of the complexity of the mineral resource and the amount of exploration/investigation carried out.

Available exploration data for the Cape Bedford Silica Sand Project indicates that the sand mass has a relatively uniform lithological composition and its extent and volume can be relatively easily estimated using readily available topographic data sets. Based on available subsurface information and the reliability of the geological model, the calculated mineral resources, as shown in **Table** above, are considered as an in situ "**Inferred Mineral Resource**".

APPENDIX 3

Tick Hill Tailings Resource Estimate

Category	Location	Au cut-off g/t	Material Volume '000 m ³	Material Density	Material '000 t	Au g/t	Au kg	Au t oz
INDICATED	West Paddock	0.5	245	1.4	345	0.80	275	8,800
INDICATED	East Paddock	0.5	205	1.4	285	1.42	405	13,000
INDICATED	TOTAL	0.5	450	1.4	630	1.08	680	21,800

Notes:

- Refer to DRX ASX Release 19 January 2016 "Maiden Gold Resource for Tick Hill Tailings" for more detail