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13 March 2013

AJM 13th Annual Mineral Sands Conference Presentation

The Company's Chairman, Mr Tony Fawdon, is today giving a presentation entitled "Mineral Sands – Discovery to Bankable and Beyond" to delegates of the Australian Journal of Mining's 13th Annual Mineral Sands Conference in Melbourne, the key annual gathering for the nation's Mineral Sands mining sector. The Conference includes updates on the most topical issues for mineral sands mining in Australia and around the world.

The presentation (copy attached) discusses:

- **Cyclone (Zircon) Project (WA):** ongoing feasibility study, proposed mining methods and operations, mine products, transport requirements, infrastructure requirements and water sources.
- **Eucla Basin Regional project areas (WA):** prospects close to Cyclone Deposit.
- **Elliston Project (SA):** 25km long topographic feature with known heavy mineral sands.
- **Mandora Project, Canning Basin (WA):** 50km long radiometric anomaly.
- **Cape Bedford (QLD):** 50 – 100m high sand dunes covering an area 50km x 15km with known heavy mineral sands and existing port facility nearby.
- **Grays Hill (QLD):** 8km long prominent basement lineament running parallel to the coast at +20m above sea level in an area with recognised heavy mineral sand deposits. Area also includes the Wasp Porphyry Prospect (prospective for Cu and Mo) immediately to the west.

A copy of the presentation may be accessed on the Company's website at www.diatreme.com.au.

DAVID H HALL
Executive Director - Operations

Attachment: AJM's 13th Annual Mineral Sands Conference Presentation "Mineral Sands – Discovery to Bankable and Beyond"

DIATREME RESOURCES



Mineral Sands

Discovery to Bankable
and Beyond

March 2013

Statements



This presentation contains certain forward-looking statements and forecasts which include without limitation, expectations regarding future performance, exploration, mineral resources, the financial position of Diatreme Resources Limited (the “Company”), industry growth or other trend projections.

Whilst this presentation is based on information from sources which are considered reliable, the Company, its directors, employees and consultants do not represent, warrant or guarantee, expressly or impliedly, that the information in this presentation is complete or accurate. To the maximum extent permitted by law, the Company disclaims any responsibility to inform any recipient of this presentation of any matter that subsequently comes to its notice, which may affect any of the information contained in this document and presentation.

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

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 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 2004 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 2004 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.

Diatreme Resources Limited



A Snapshot

Copper, Gold, Base Metals

Rosevale Porphyry

Clermont, Central Queensland

100% Equity (Antofagasta Minerals earning 60%)

Anabama, South Australia

100% Equity (Braemar Iron Pty Ltd earning 70%)

Gilbert River, North Queensland

100% Equity

Tick Hill, Northwest Queensland

Superior Resources (earning 50%)

Heavy Mineral Sands

100% Equity

Eucla Basin, WA and SA

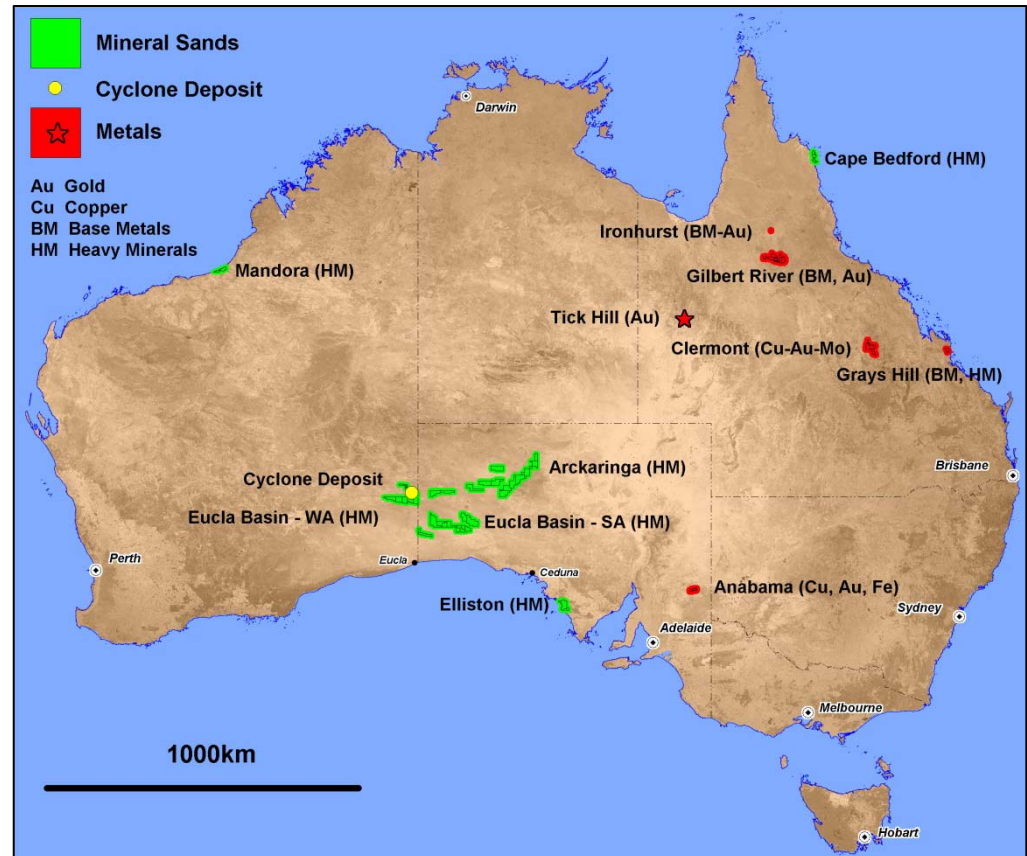
Elliston, SA

Arckaringa Basin

Mandora, WA

Cape Bedford, QLD

Grays Hill, QLD



Cyclone Deposit

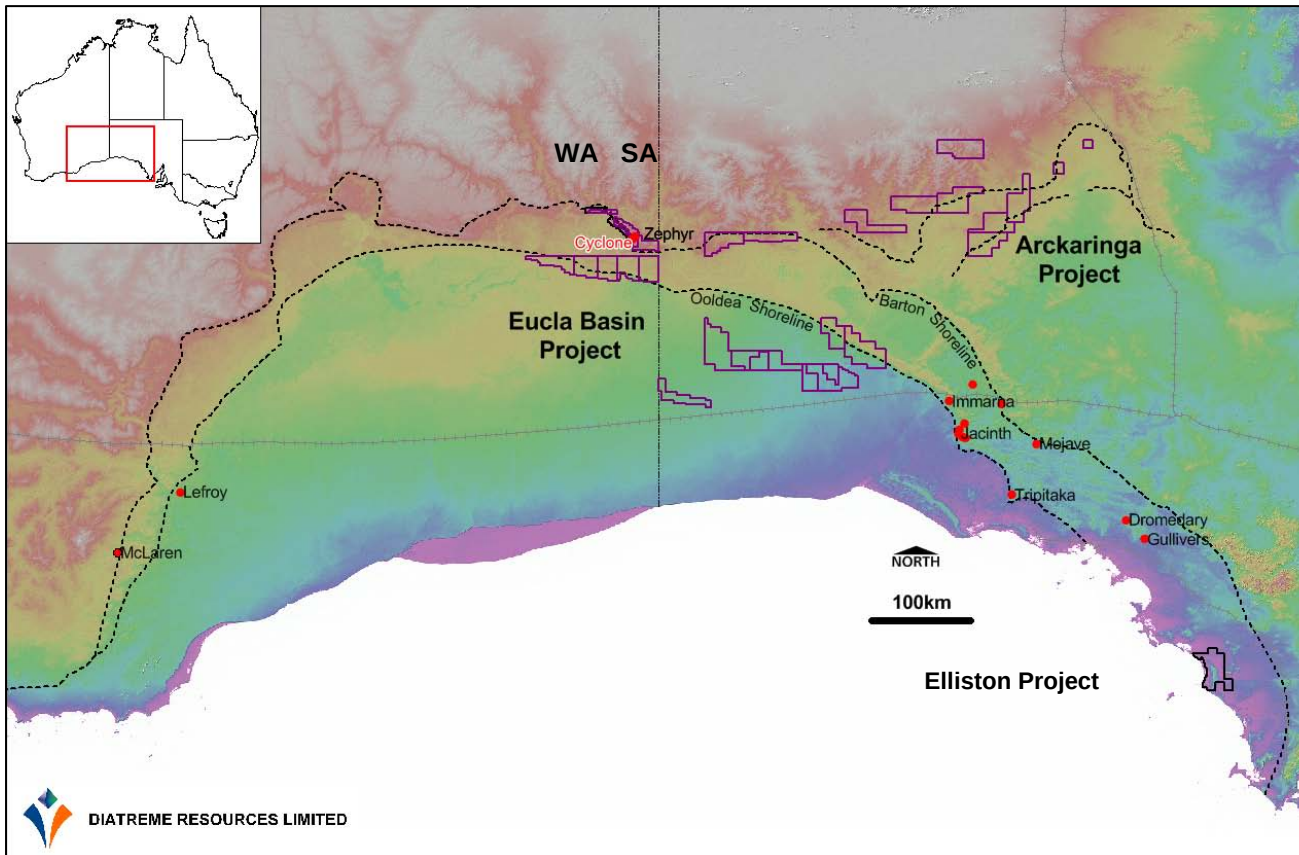
- Advanced Zircon Project located in Western Australia
- Probable Reserve – 97Mt @ 2.5% HM
- 770,000 Tonnes of Zircon in Ground (Reserve)
- Prefeasibility study complete –DFS underway

CYCLONE DEPOSIT

EUCLA BASIN
WESTERN
AUSTRALIA



Location - Eucla Basin



- Large tenement package within Eucla & Arckaringa Basins, prospective for heavy mineral sands

- The Cyclone Deposit is in the highly prospective Eucla Basin

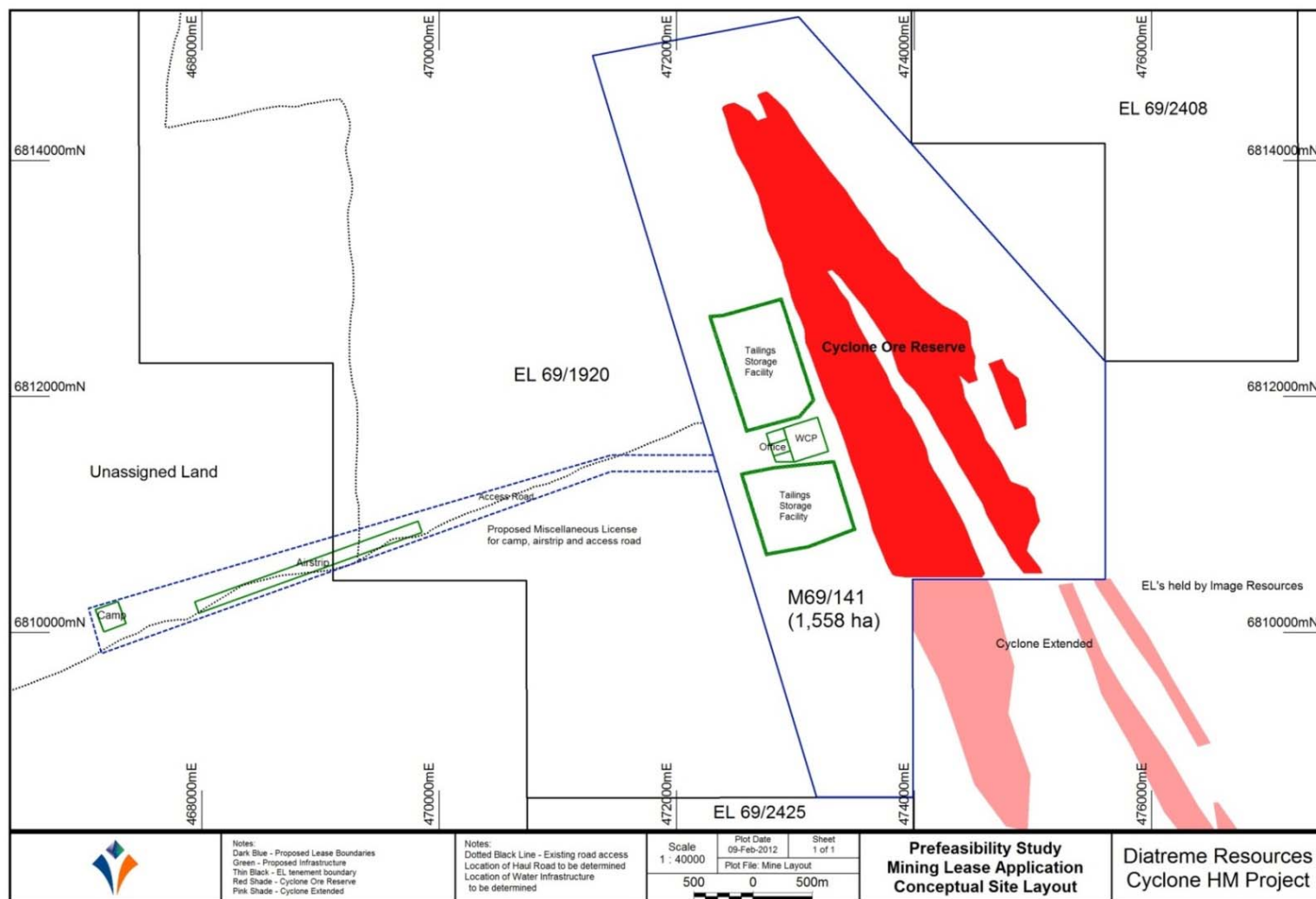
- Eucla Basin known for very high value mineral sand deposits including Iluka's Jacinth-Ambrosia Project.

- Single underlying landowner who is committed to development.

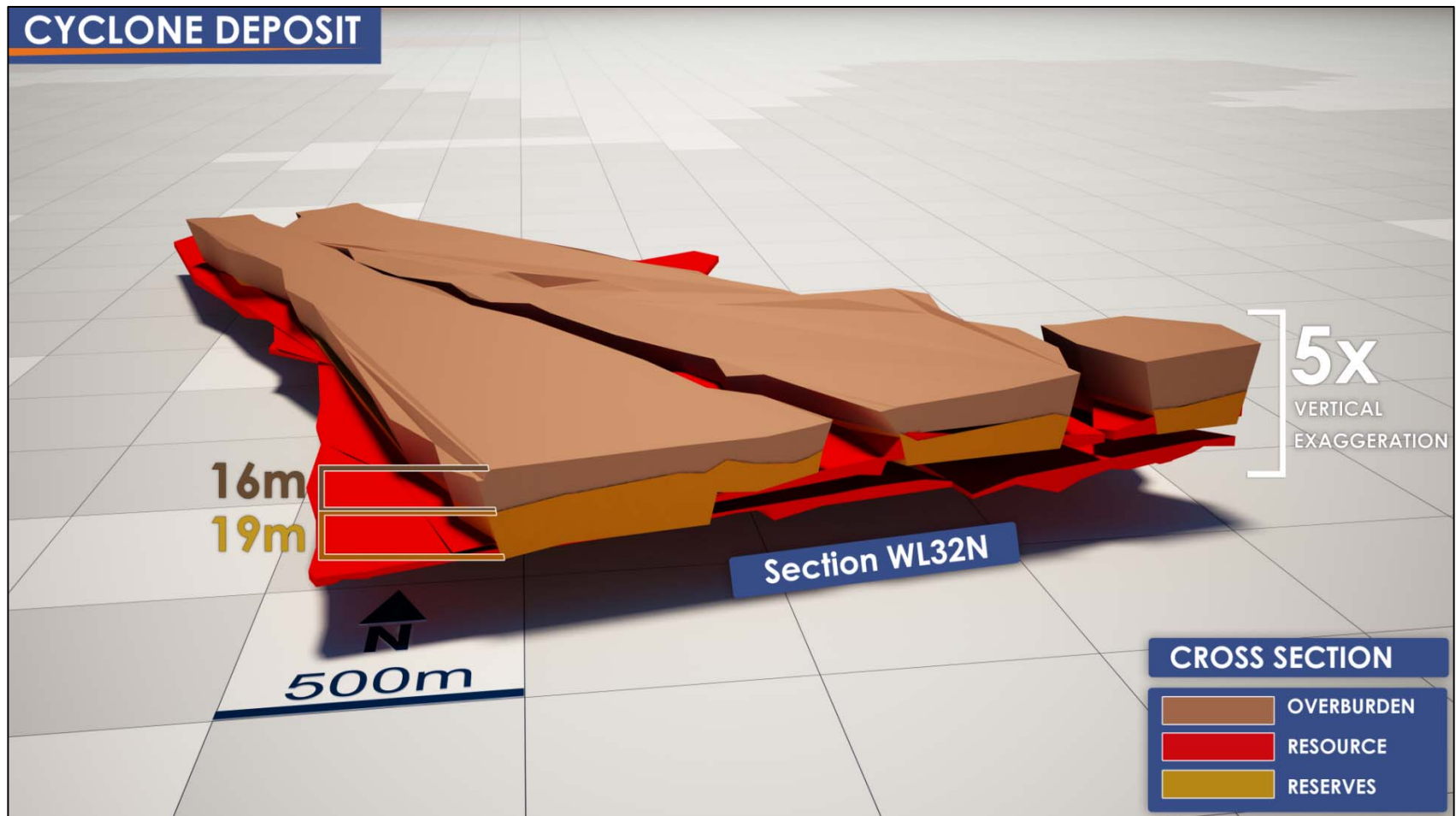
- Port options by standard gauge railway.

- Western Australia – well known mining state.

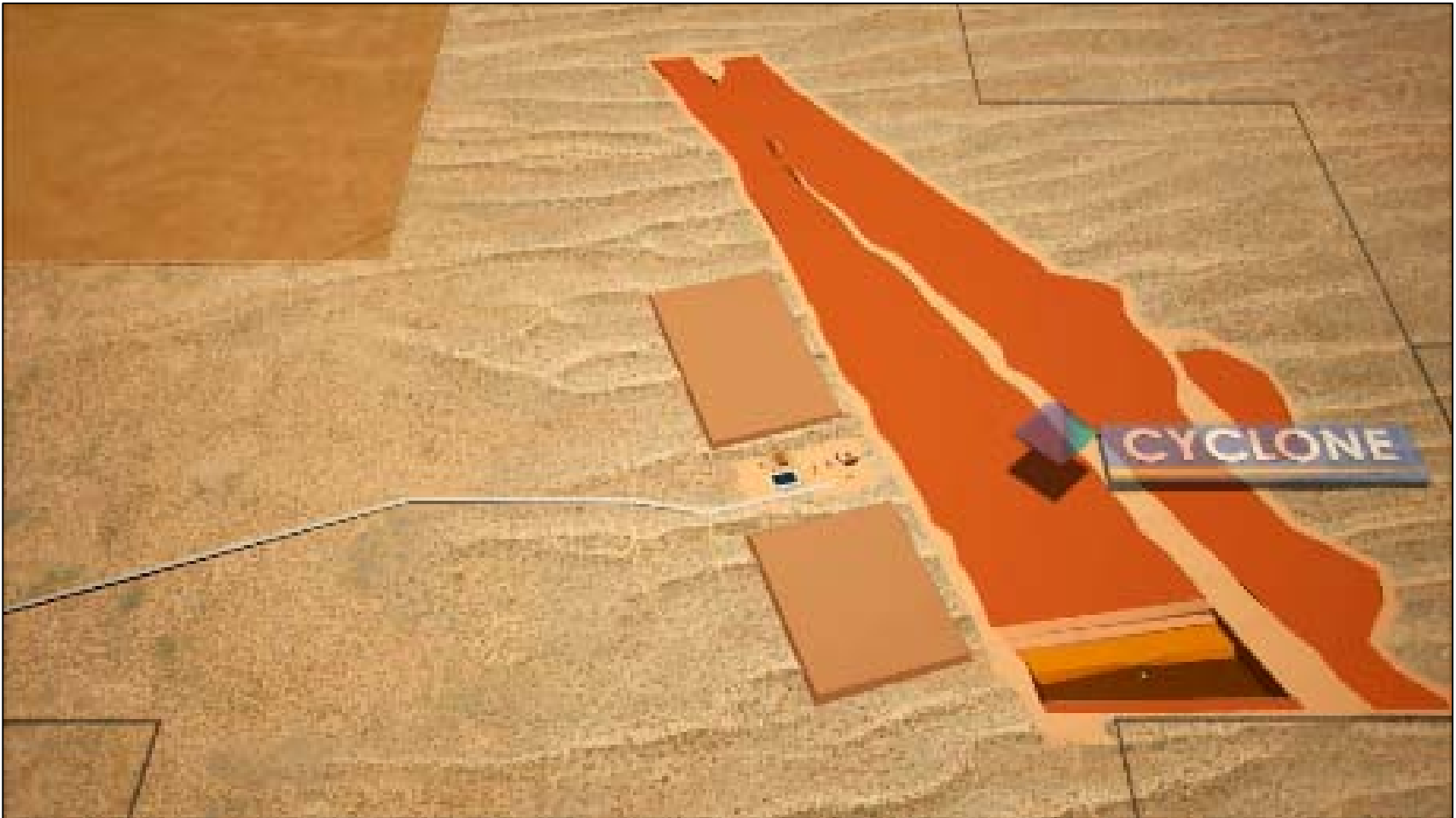
Cyclone Mining Lease Application



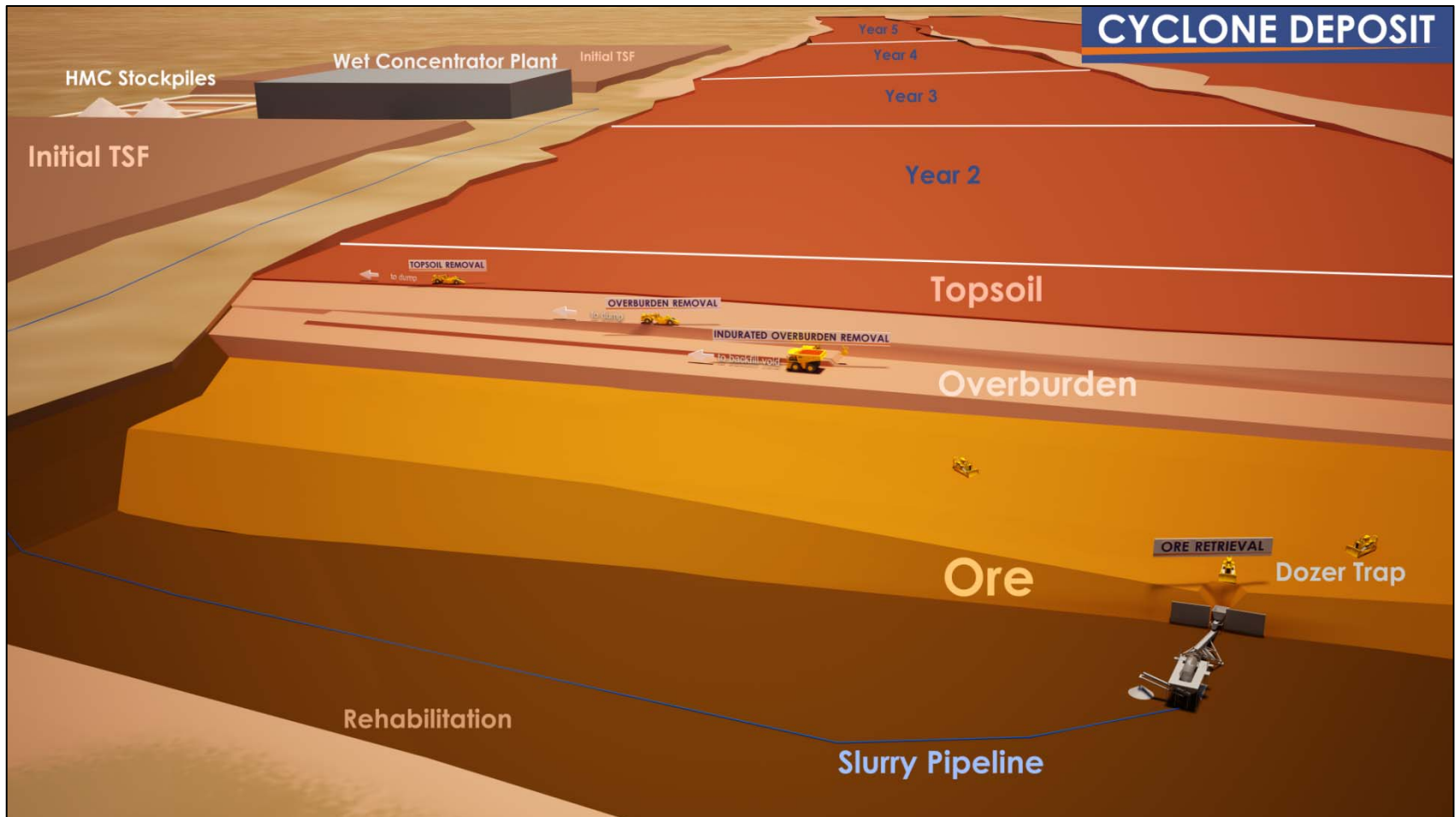
Cyclone Deposit – 3D



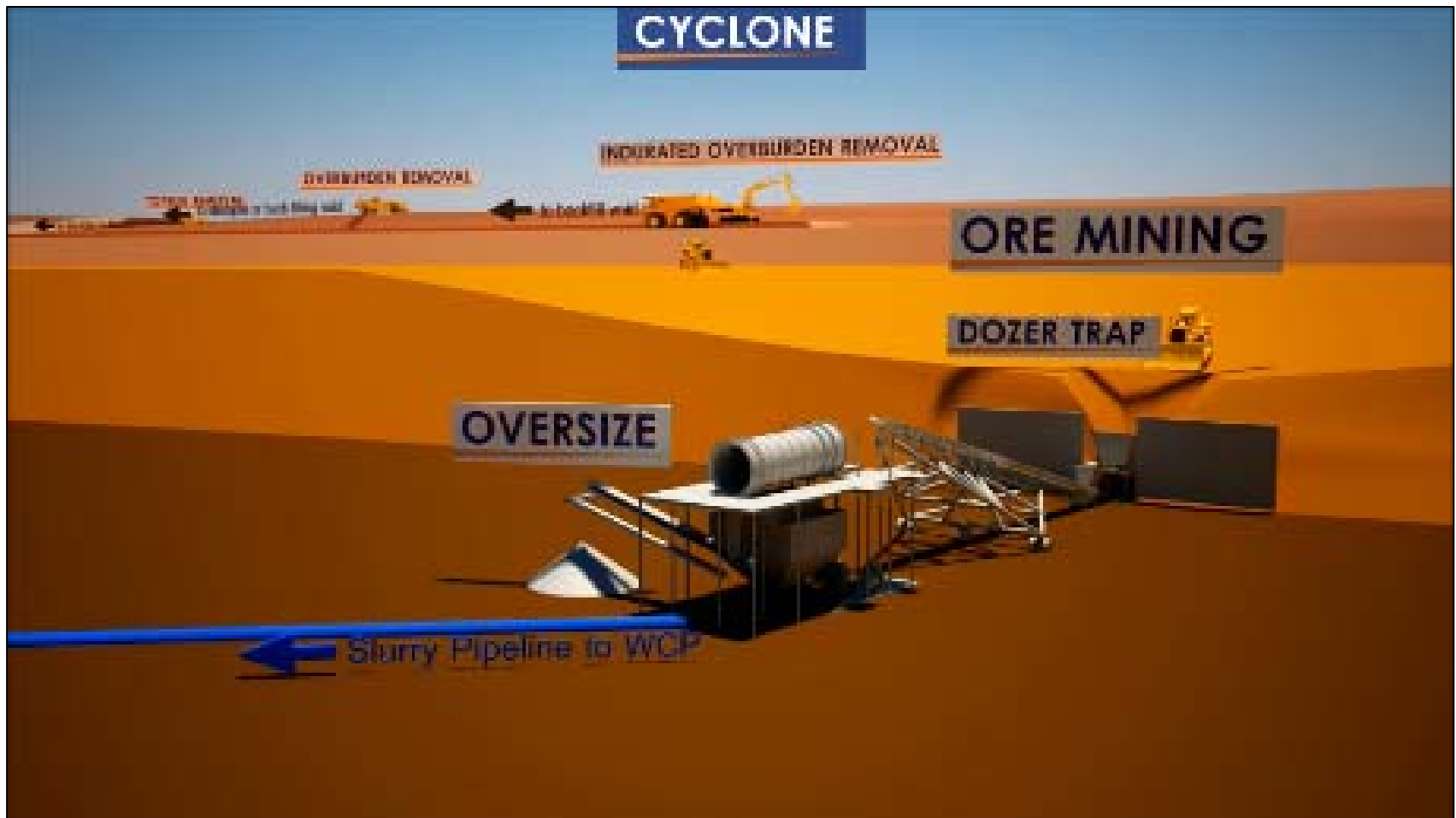
Cyclone Deposit – Layout



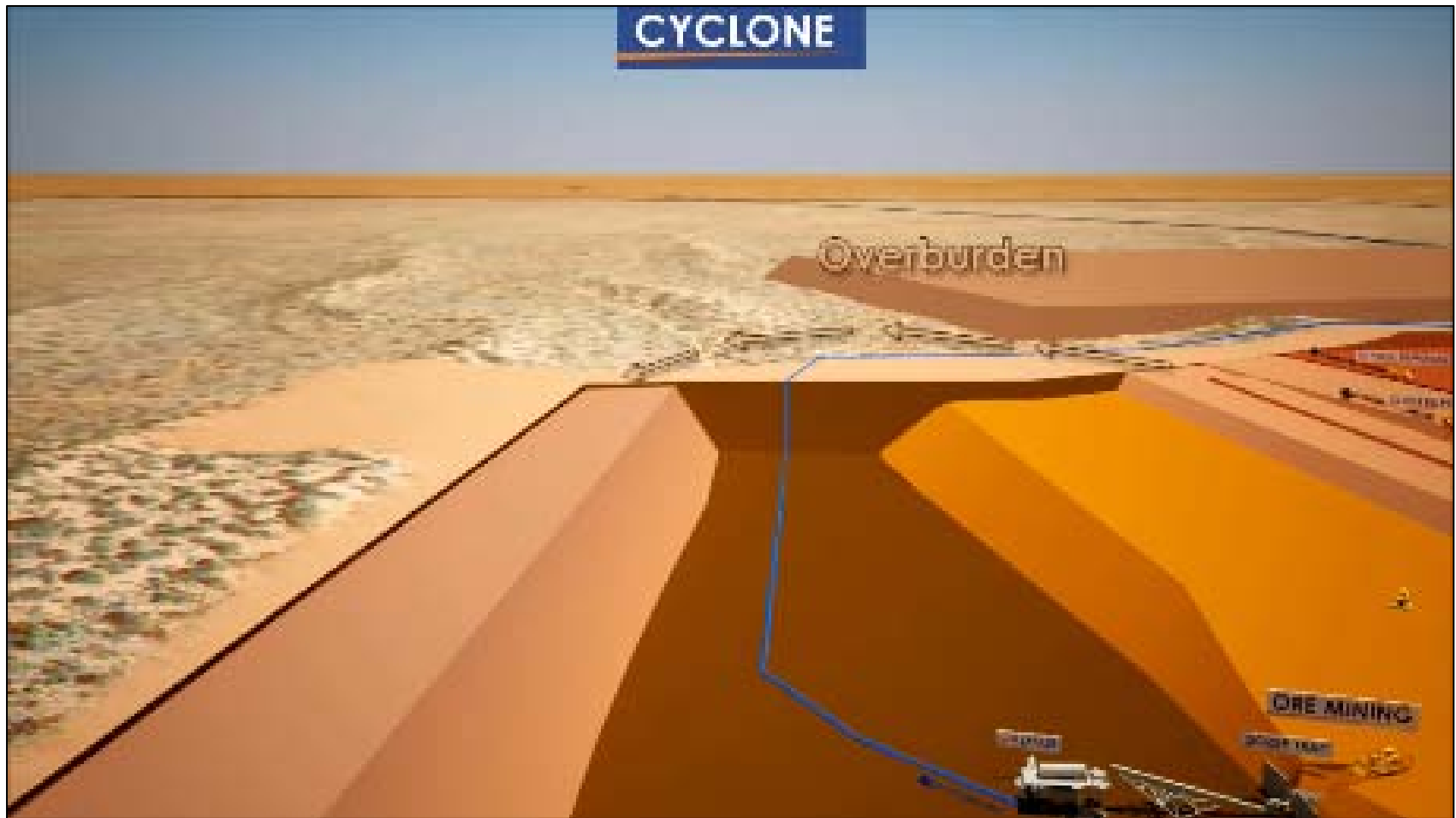
Proposed Mining Methods



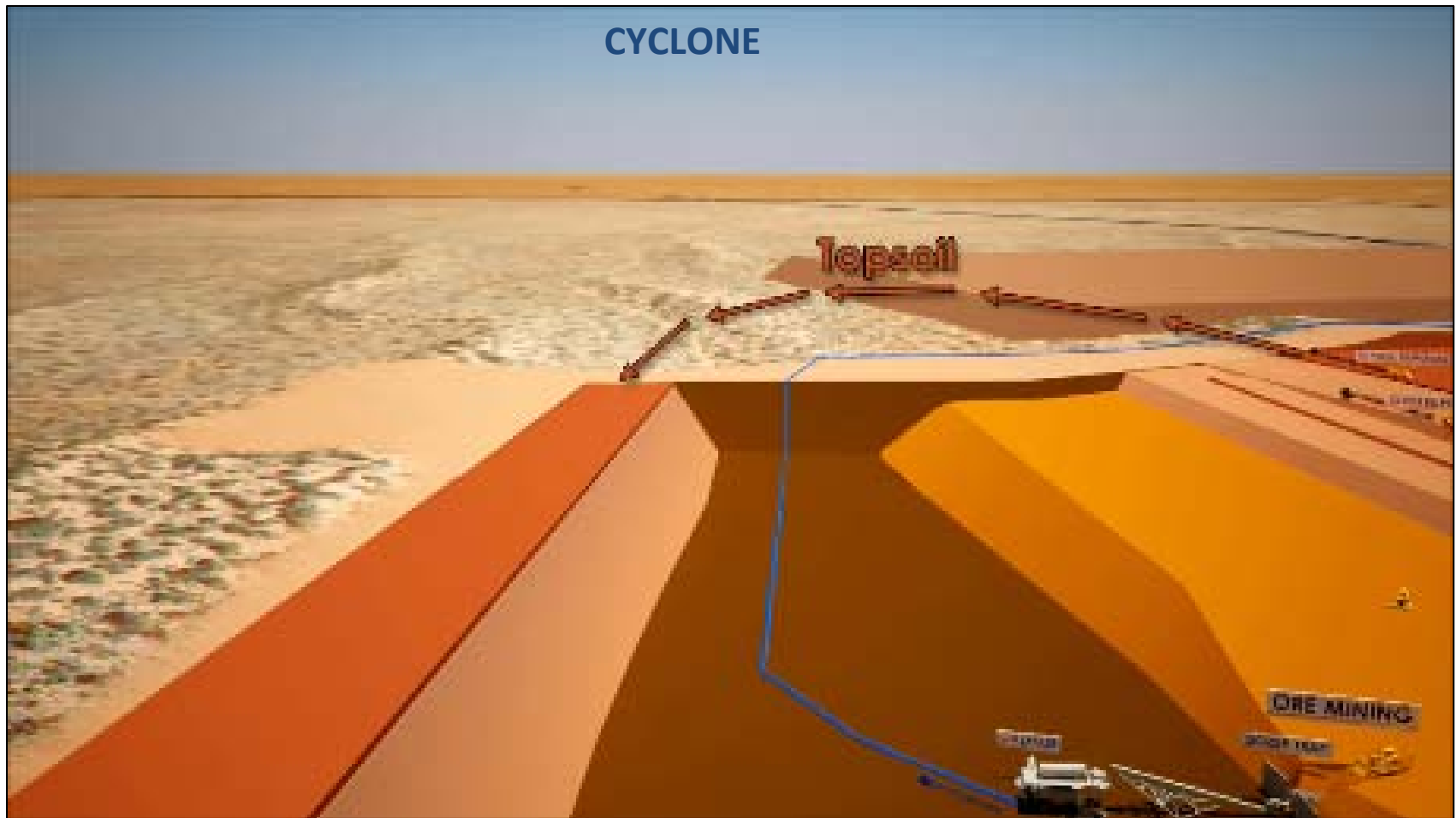
Mining Operations



Overburden Removal



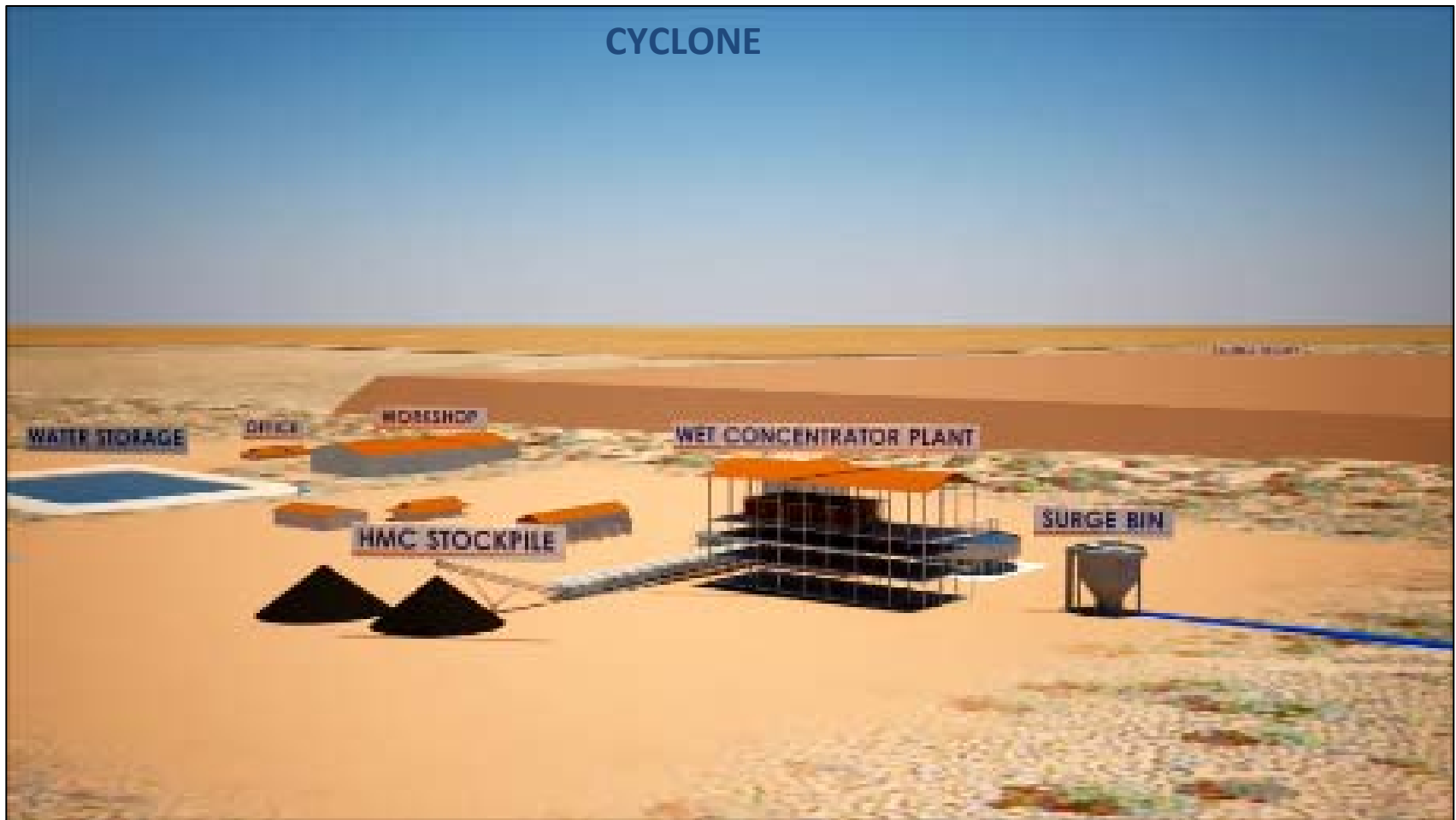
Top Soil Removal



Slurry Ore to Plant



Wet Concentration Plant



Cyclone Products



Zircon: 65,000 tonnes per year

ZrO ₂ %	Fe ₂ O ₃ %	SiO ₂ %	Al ₂ O ₃ %	TiO ₂ %	P ₂ O ₅ %	U+Th ppm	CeO ₂ %
66.0	0.10	32.8	0.20	0.31	0.07	369	0.020

HiTi87: 10,000 tonnes per year

TiO ₂ %	Fe ₂ O ₃ %	SiO ₂ %	Al ₂ O ₃ %	ZrO ₂ %	MgO %	MnO %	CaO %	CR ₂ O ₃ %	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 per year

TiO ₂ %	Fe ₂ O ₃ %	SiO ₂ %	Al ₂ O ₃ %	ZrO ₂ %	MgO %	MnO %	CaO %	CR ₂ O ₃ %	U+Th ppm
67.3	20.1	6.3	1.75	0.5	0.10	0.42	0.07	0.08	94

Transport Options



Transport Corridor



Transport Corridor



Siding at Forrest, WA



Haul Road Corridor

Initial Environmental Surveys - Completed

Initial Cultural Heritage Surveys - Completed

Formal Referral to the EPA - Completed

Referral for Environmental Approval Process -

Underway

Cyclone Project Financials – PFS



Capital Investment (including PFS & DFS)	AUD\$223 Million
Average Annual Sales Revenue	AUD\$191 Million
Average Annual Operating Costs	AUD\$88 Million
Average Annual Tax Payable	AUD\$24 Million
Average Annual Operating Cash Flow After Tax	AUD\$78 Million
Payback Period (Years)	2.1
IRR	32%
NPV (10%) Base Case	AUD\$194 Million

Cyclone Project Timeline



Schedule	Date
Pre-Feasibility Study	Completed - March 2012
Definitive Feasibility Study	Q4 2014
Project Financing	2015
Construction & Development	2015
Mining & Production	2016



Cyclone Mining Stats – PFS



Strip Ratio	1.1 : 1
Mining Rate (Dry)	1,300 tonnes per hour – 2 x Dozer traps
Mine Site	26 Tonnes / Hour
Wet Concentration Plant Product	147,000 Tonnes PA @ 98.5% 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

Drilling for Water - Cyclone



Drilling for water at Cyclone

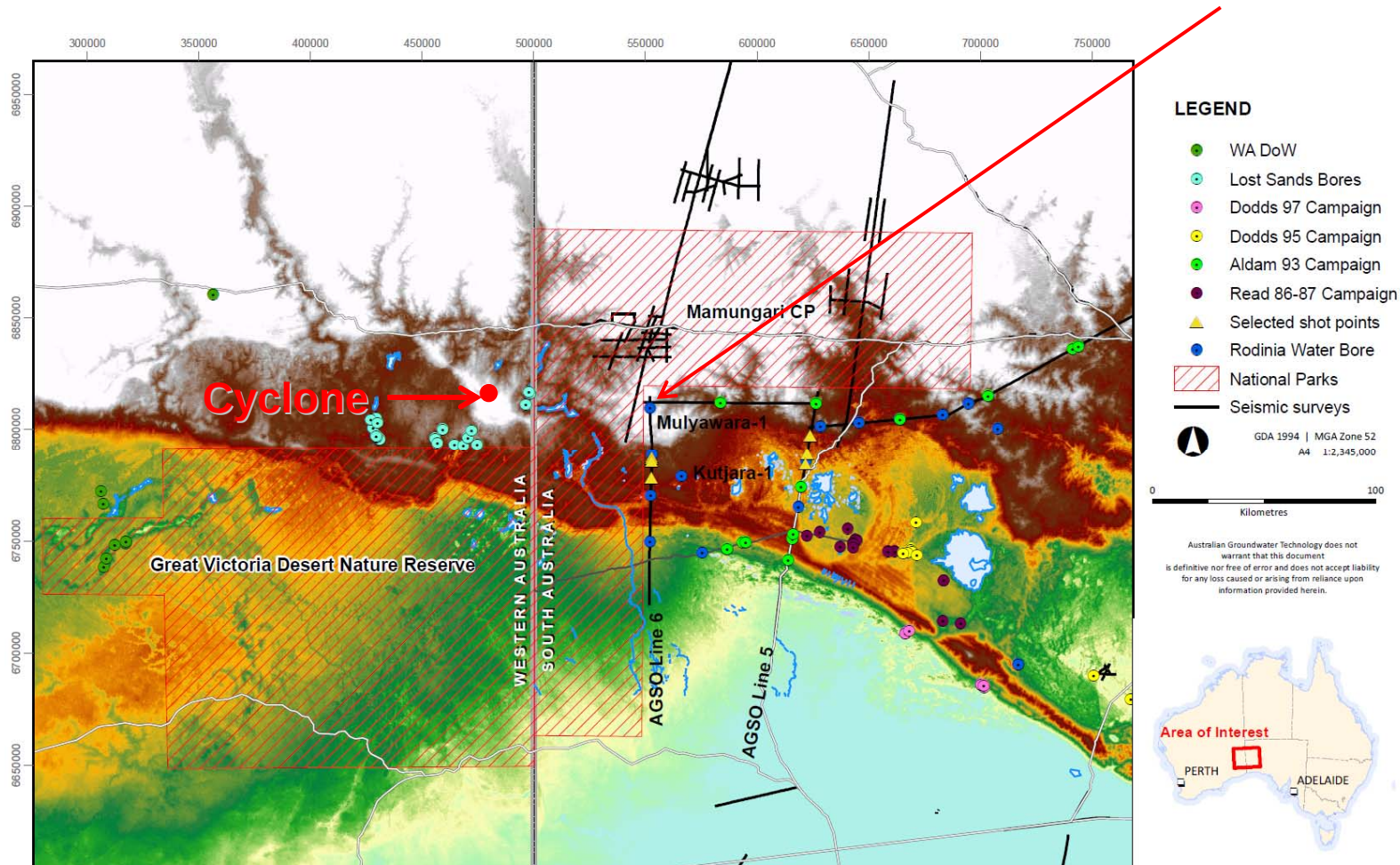


Drilling for water at Cyclone

Drilling for Water



Rodinia Oil intersected considerable flow rates from the Murnaroo Formation at 730m depth. Flow rates of 27-40L/s with salinity of <15,000mg/L within Mulyawara 1 well.

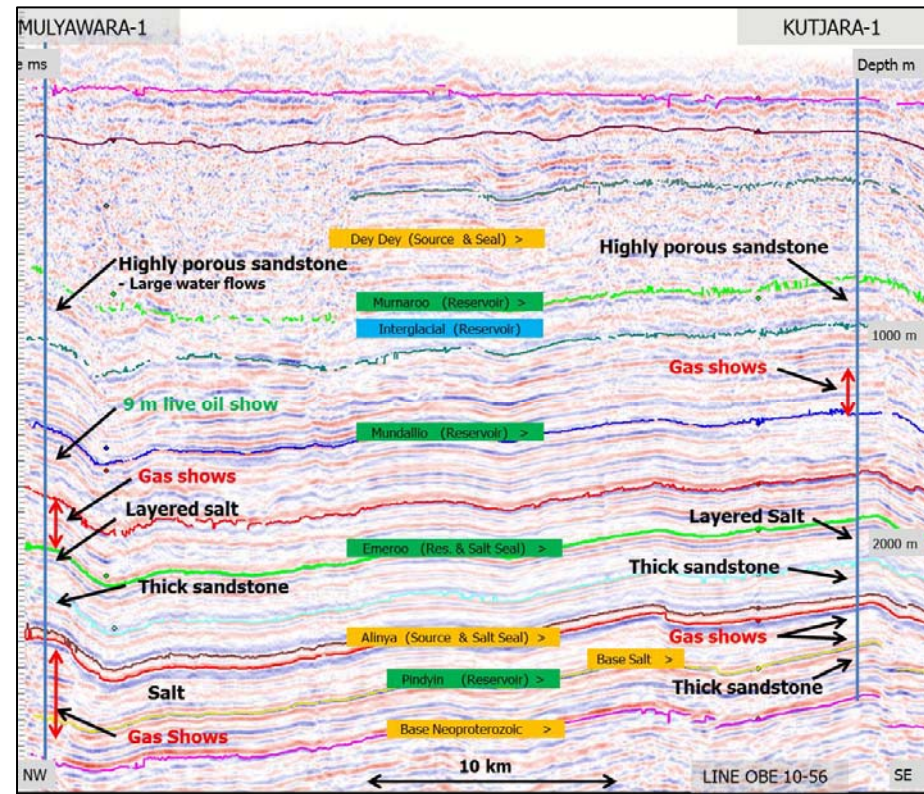


Drilling for Water

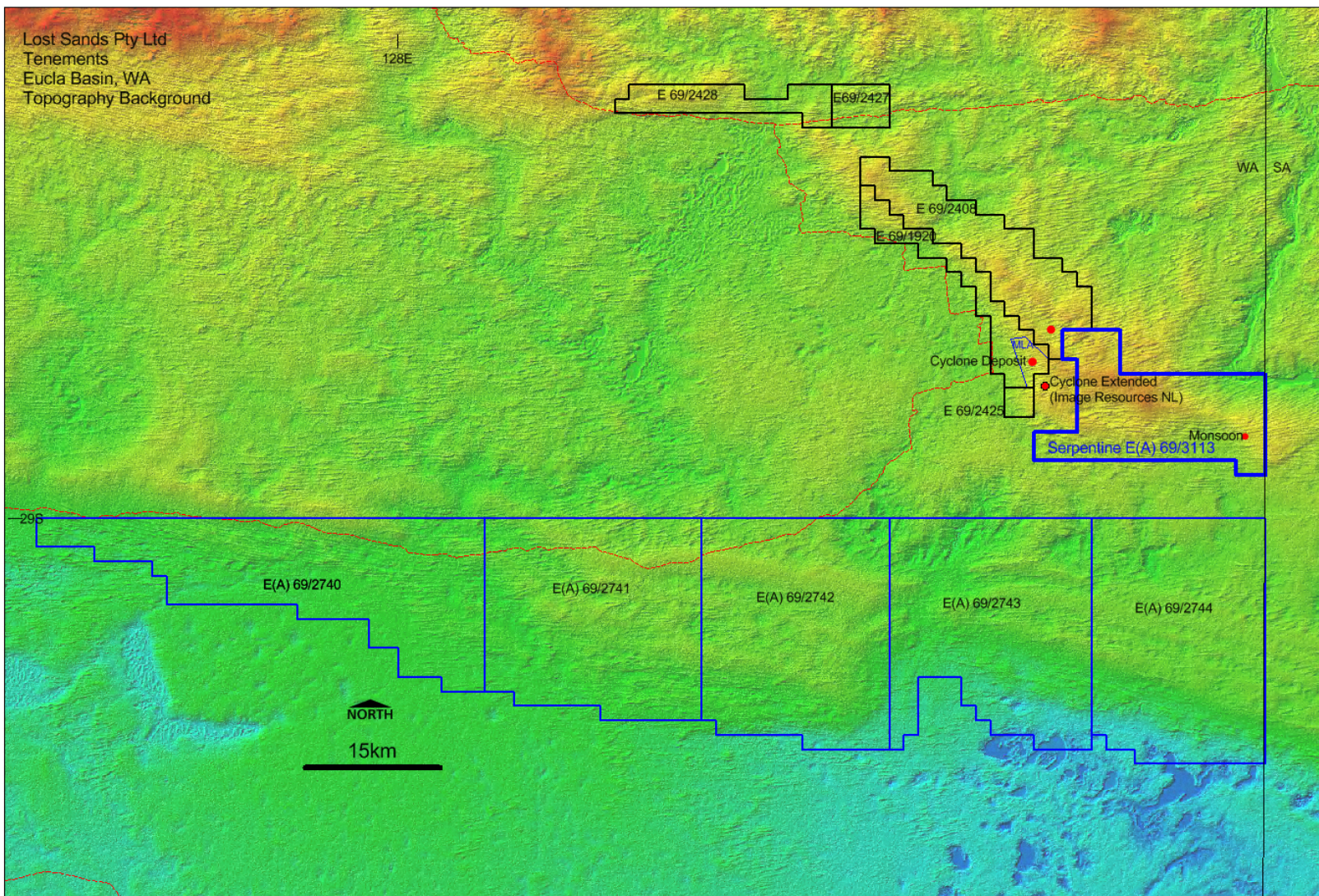


Rodinia Oil Corp drilling for Oil in the Officer Basin, <100km east of Cyclone. Stratigraphy expected to extend to the west beneath Cyclone Deposit. Significant water intersected during the drilling at 730m depth. Aquifer confined. Water expected to be available from much shallower depths.

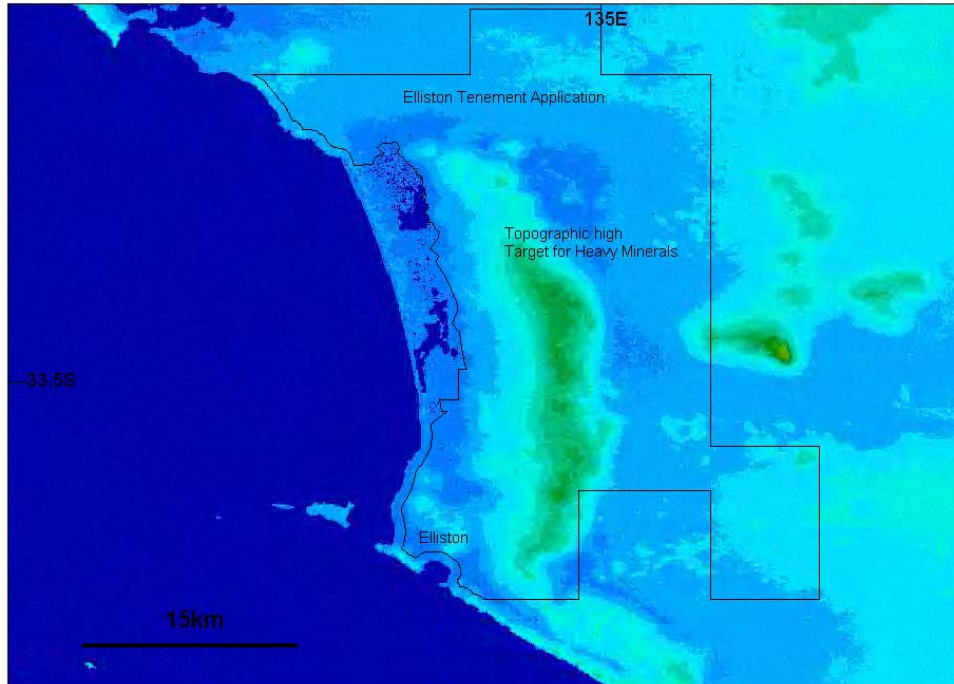
Mulyawara 1 Well – Rodinia Oil



Eucla Basin Tenements, WA

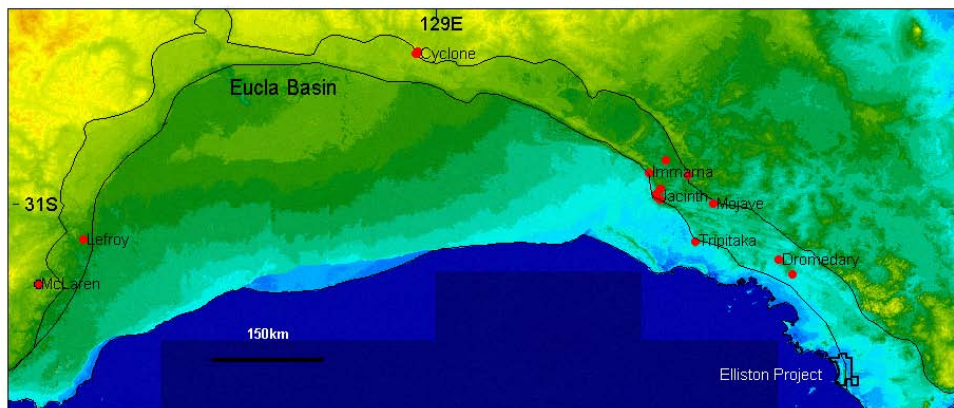


Elliston Project, SA



Elliston Project, Eucla Basin, SA

- Eucla Basin known for very high value mineral sand deposits.
- Large topographic feature with known heavy mineral sands occurrences from BHP drilling.
- High zircon content within historic intercepts with mineralisation open at depth.
- Close to the deep water port at Port Lincoln.
- Exploration to commence mid year when tenement is granted.



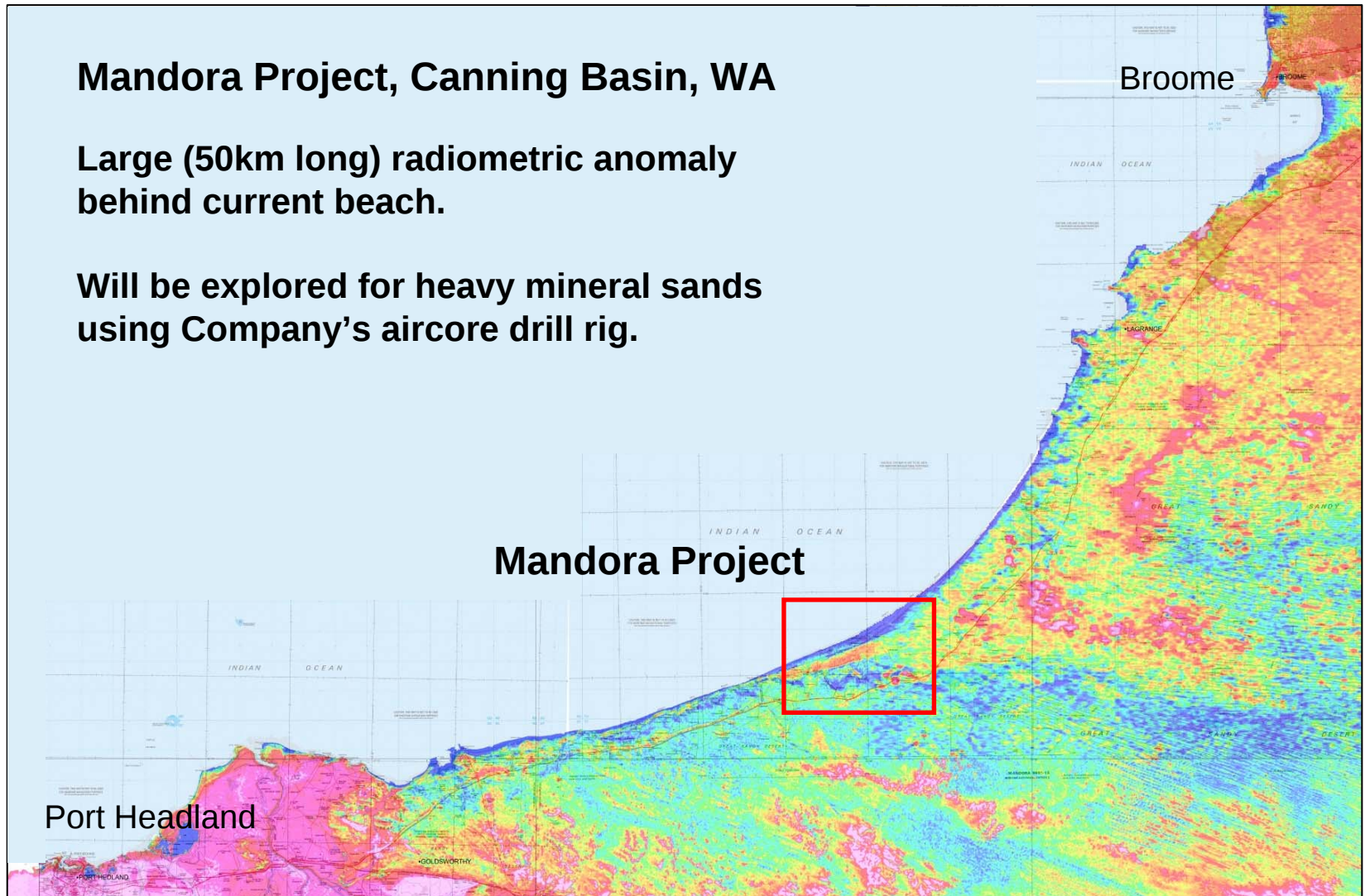
Mandora, WA



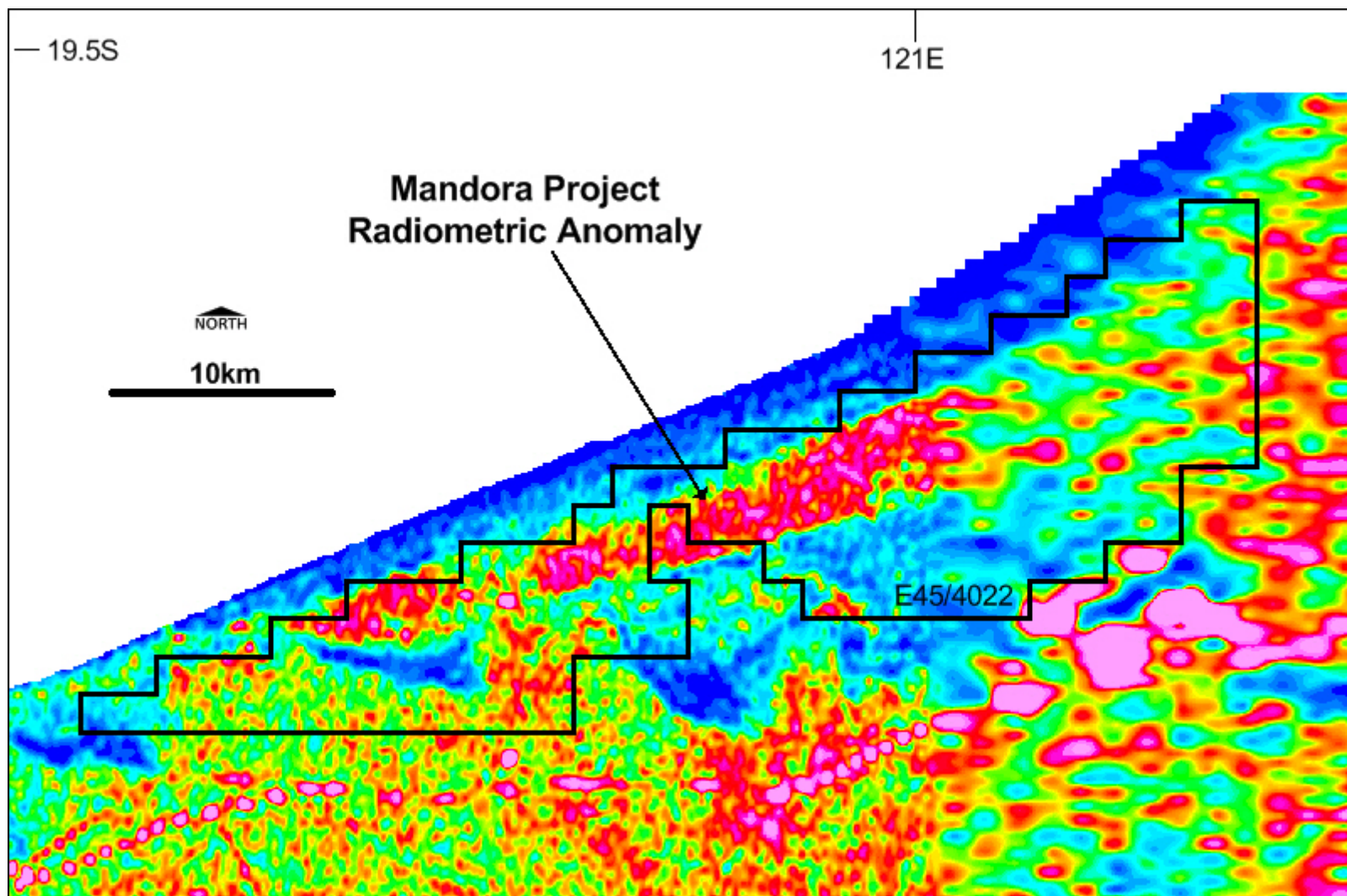
Mandora Project, Canning Basin, WA

Large (50km long) radiometric anomaly behind current beach.

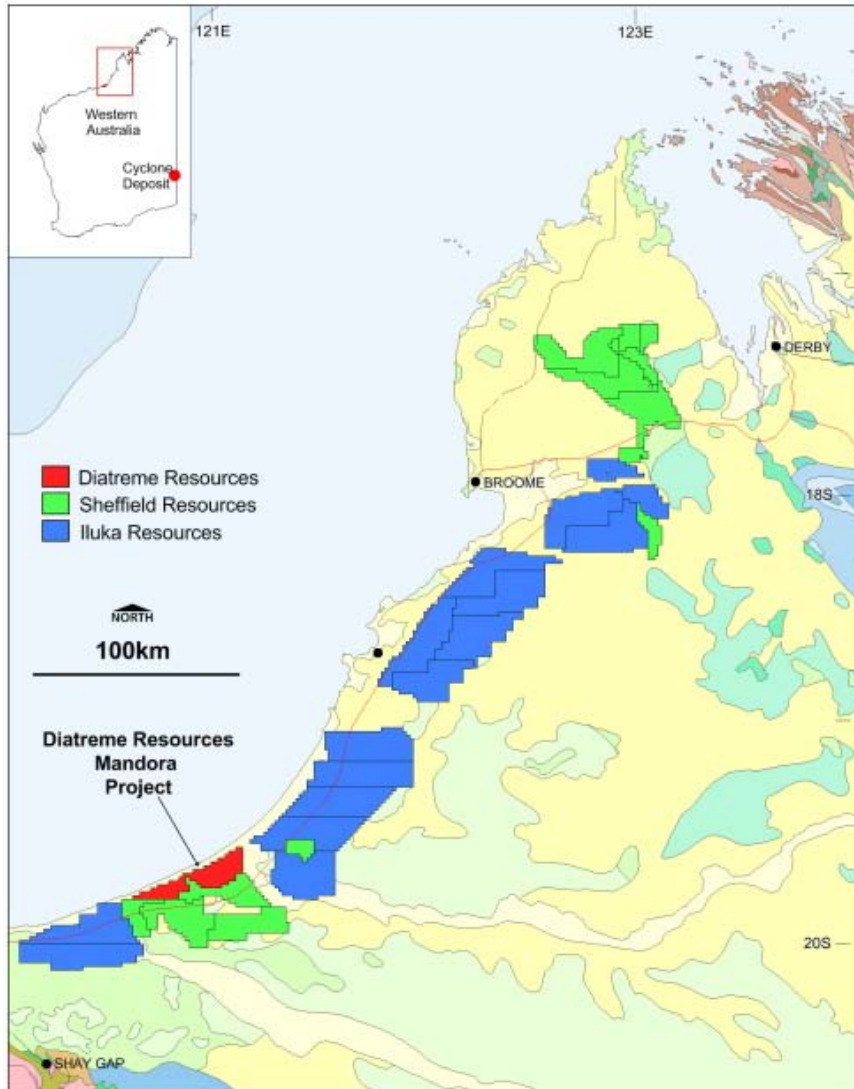
Will be explored for heavy mineral sands using Company's aircore drill rig.



Mandora, WA



Mandora, WA



Easily accessible for exploration

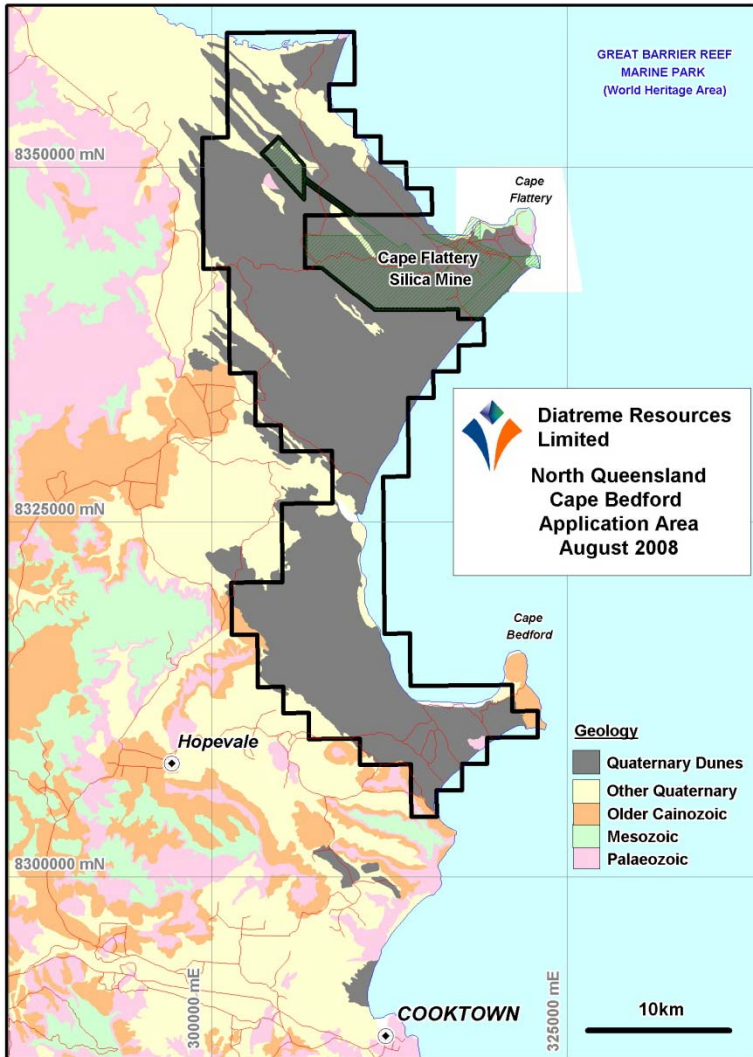


Diatreme first mineral sands company into the Southern Canning Basin.

Good network of tracks and fence lines for access



Cape Bedford, QLD



Large Sand Dune System with known heavy mineral sand occurrences throughout.

**Sand dunes cover an area 50km x 15km.
50 – 100m high.**

Previous exploration for silica sand indicates heavy minerals are present in a number of horizons.

Existing port at Cape Flattery.

Culture of Mining with indigenous landowners with Cape Flattery Silica Sand Mining Operation.

Cape Bedford, QLD



Sand Dunes, Cape Bedford.

Cape Bedford, QLD



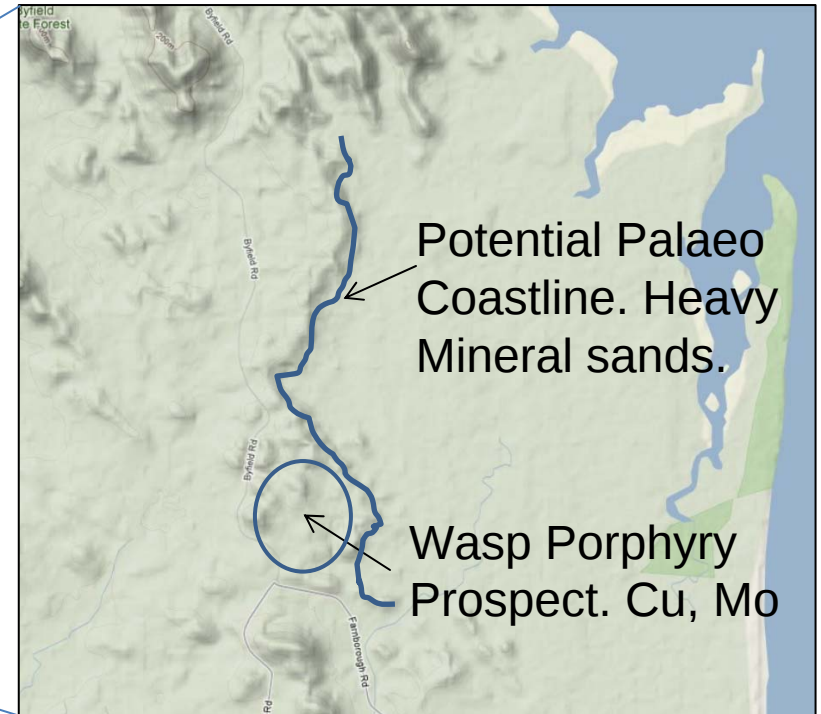
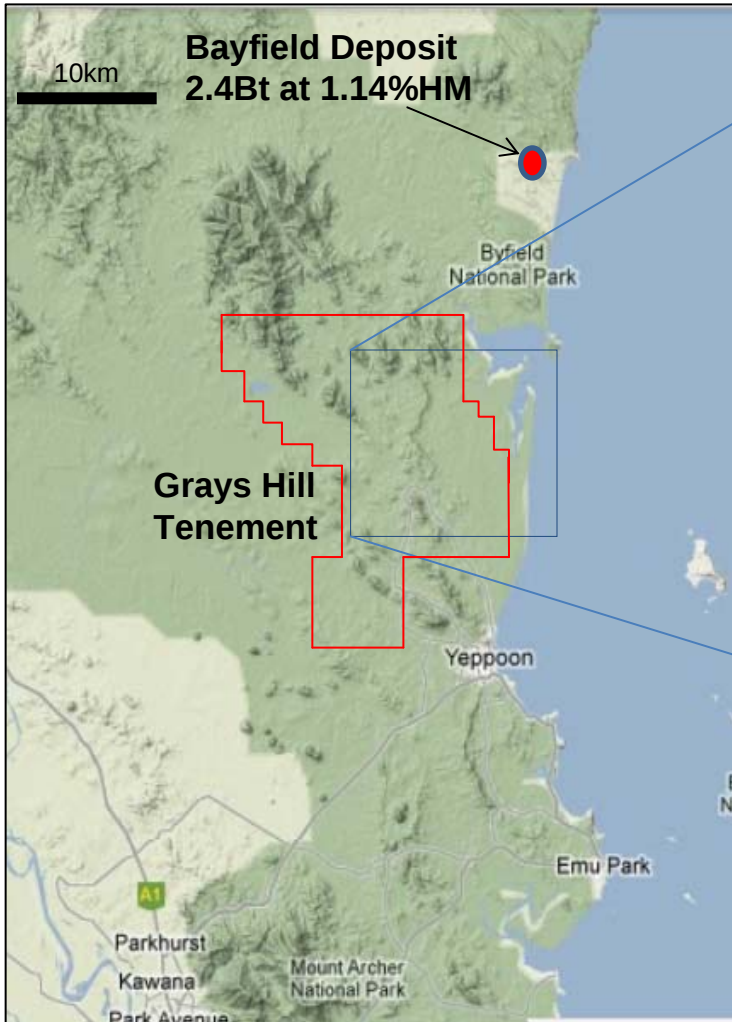
Heavy Minerals on beach, Cape Bedford.

Cape Bedford, QLD



Mineralisation on the current beach shedding from the dunes

Grays Hill, QLD



Situated in well known area for heavy mineral sands with Bayfield to the north and Middle Island to the south. Grays Hill area has not been explored for heavy mineral sands in the past.

A prominent basement lineament sits at +20m above sea level for a length of approximately 8km in a north south direction and 6km inland from the present coast.

Wasp Porphyry prospect lies directly behind above lineament and has potential for Cu and Mo.

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