

# High-Impact Critical Minerals Exploration

RIU Sydney Resources Round-up



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## **Compliance Statement**

The information in this Presentation that relates to prior Exploration Results for the Rocky Gully Project is extracted from the following ASX Announcements lodged with ASX 16 April 2025, 4 March 2025, 20 November 2024, 1 October 2024, 28 August 2024, 18 April 2024, 19 September 2022, 22 November 2022, 20 March 2023, 8 May 2023, 11 July 2024, 12 March 2024, 29 January 2025 and 19 June 2024 which are available on the Company's website [www.narryer.com.au](http://www.narryer.com.au) and the ASX website (ASX code: NYM). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. The Company confirm that form and context in which the Competent Person's finding are presented have not been materially modified from the original market

## **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Dr Gavin England, a Competent Person who is a member of the Australian Institute of Mining and Metallurgy and the Australian Institute of Geosciences. Dr England is the Managing Director of Narryer Minerals Limited. Dr England declares in accordance with the transparency principles of the JORC Code that he has a personal financial interest in Narryer Mineral Limited. Dr England has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr England has consented to the inclusion in this Public Report of the matters based on his information in the form and context in which it appears.

# CORPORATE OVERVIEW

| STOCK CODE                          | ASX:NYM     |
|-------------------------------------|-------------|
| Current Shares on Issue             | 176,054,803 |
| Market Cap (@ 3.1 cents 25/04/2024) | ~5.46M      |
| Cash (31 March 2025)                | \$1,860,000 |
| Options (@ \$0.10, 2026-2027)       | 3,500,000   |
| Options (@ \$0.30, 2025-2027)       | 12,000,000  |
| Performance Rights                  | 4,710,000   |

## RECENT SHARE TRADING



## SHAREHOLDER COMPOSITION

|                               |       |
|-------------------------------|-------|
| Horley Pty Ltd                | 17.0% |
| Directors and related parties | 5.2%  |
| Top 10 Shareholders           | 41.9% |

## BOARD OF DIRECTORS



**Richard Bevan**  
*Executive Chairman*



**Dr Gavin England**  
*Exec Director (Technical)*



**Philip Warren**  
*Non-Executive Director*

# CRITICAL MINERALS ACROSS KEY JURISDICTIONS

Advancing a portfolio of critical minerals projects across Australia and Canada.

The Rocky Gully Project in WA has delivered a high -grade scandium, gallium , and REEdiscovery linked to a potential carbonatite system .

In South Australia, the Muckanippie Project , a JV with Petratherm, has delivered a titanium -rich heavy mineral sands discovery.

Exploring for lithium-bearing pegmatites in Canada's Northwest Territories , a highly prospective and underexplored region.

01

## ROCKY GULLY PROJECT

HIGH-GRADE  
SCANDIUM, GALLIUM  
& REEDISCOVERY

Western Australia

02

## MUCKANIPPIE PROJECT

JV with Petratherm (ASX:PTR)  
TITANIUM-RICH HEAVY  
MINERAL SANDS

South Australia

03

## CRITICAL MINERALS

STRATEGIC LITHIUM &  
CRITICAL MINERALS  
PROJECTS IN NORTH-  
WEST TERRITORIES

Canada



# ROCKY GULLY PROJECT (100% NYM)

## A New Critical Mineral Deposit

- Assays up to 1.8 % Total Rare Earth Oxide (TREO) and high-grade 512 ppm Scandium oxide (Sc2O3) and 104 ppm Gallium oxide Ga2O3.
- REE mineralisation up to 0.6% MREO (magnet REE)
- Aircore drilling results include 5m at 0.7 % TREO and 20m @ 420 ppm Sc2O3
- Shallow mineralisation hosted in unconsolidated regolith clays. Favourable for low-cost mining and processing
- Potentially for discovery of larger carbonatite system

With export restrictions on Sc, Ga and REE by China, Rocky Gully is a potential new, low -cost source



Drilling confirms multi-commodity critical minerals project



High value REE, Scandium Gallium and Vanadium mineralisation



Follow -Up program to extend high -grade mineralization and test new targets



# FOCUS ON HIGH VALUE CRITICAL MINERAL PRODUCTS

- Narryer to focus on high value Magnetic REE, Gallium and Scandium
- Drilling has identified large mineralised system at surface, where the Company will investigate a path to production
- Metallurgy and beneficiation studies to determine processing options
- Evidence for the potential for a larger critical mineral system in the bedrock, that the company will equally focus



## Praseodymium

EST PRICE – **US \$51 / Kg**  
ROCKY GULLY MAX  
GRADE – 1128 ppm  
 $\text{Pr}_6\text{O}_{11}$

## Neodymium

EST PRICE – **US \$51 / Kg**  
ROCKY GULLY MAX  
GRADE – 4467 ppm  
 $\text{Nd}_2\text{O}_3$

## Dysprosium

EST PRICE – **US \$193 / kg**  
ROCKY GULLY MAX  
GRADE – 180 ppm  
 $\text{Dy}_2\text{O}_3$

## Terbium

EST PRICE – **US \$817 /Kg**  
ROCKY GULLY MAX  
GRADE – 44 ppm  $\text{Dy}_4\text{O}_7$

## Scandium

EST PRICE – **US \$3200/ Kg**  
ROCKY GULLY MAX  
GRADE – 582 ppm  
 $\text{Sc}_2\text{O}_3$

## Gallium

EST PRICE – **US \$405/ Kg**  
ROCKY GULLY MAX  
GRADE – 104 ppm  
 $\text{Ga}_2\text{O}_3$

## SHANGHAI METAL MARKET PRICES



## GALLIUM

China sanctions makes western supplies vital

Used in electronics, with manufacture of semi-conductor wafers, diodes, LEDs, photo detectors and solar cells



## SCANDIUM

Makes aluminium stronger

Critical Minerals List – Australia, Canada, United States of America and Europe



## MAGNETIC RARE EARTHS

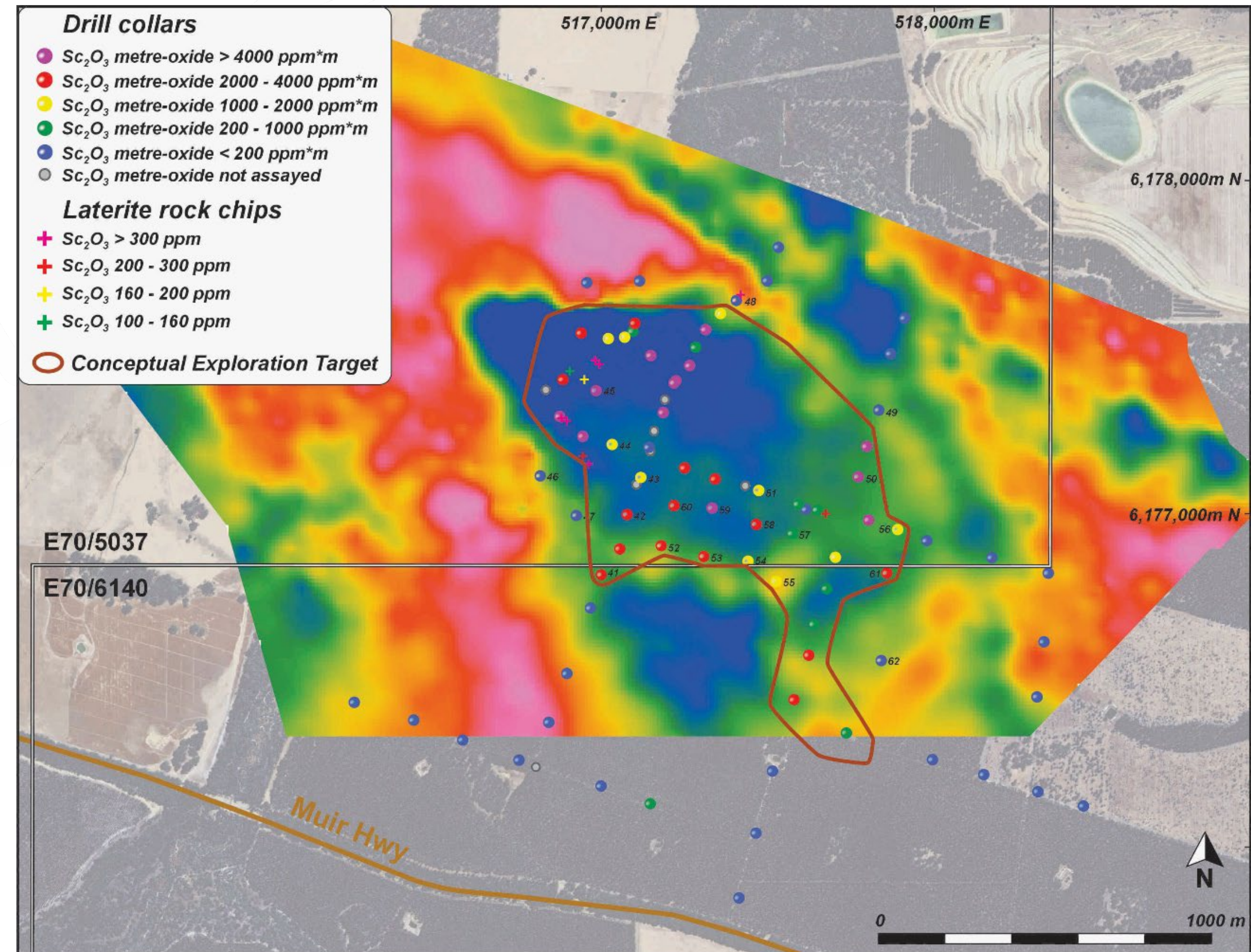
High-Value REE

Critical application in REPMs used in high-end and ultra-efficient motors for electric vehicles and wind turbines

# ROCKY GULLY CRITICAL MINERALS DISCOVERY

## Ivar Prospect

- High-grade REE, Sc and Gallium (Ga) mineralisation in drilling
- Mineralisation from surface to 30m depth over an area 1400m by 800m
- Hosted in unconsolidated clays, favourable for simple mining and metallurgy
- **Scandium** - some of the highest grades of  $\text{Sc}_2\text{O}_3$  reported (>500 ppm) in WA
- High grade **Gallium** (> 50 ppm  $\text{Ga}_2\text{O}_3$ ) over widths of 10 to 20m
- **REE** - High grade (> 1% TREO), with significant % in high-value Magnet Rare Earths
- Mineralisation grades generally higher than typical clay hosted projects in Australia



Magnetic image with Scandium oxide x metre shows extent of REE content

## Ivar Prospect Drilling Results

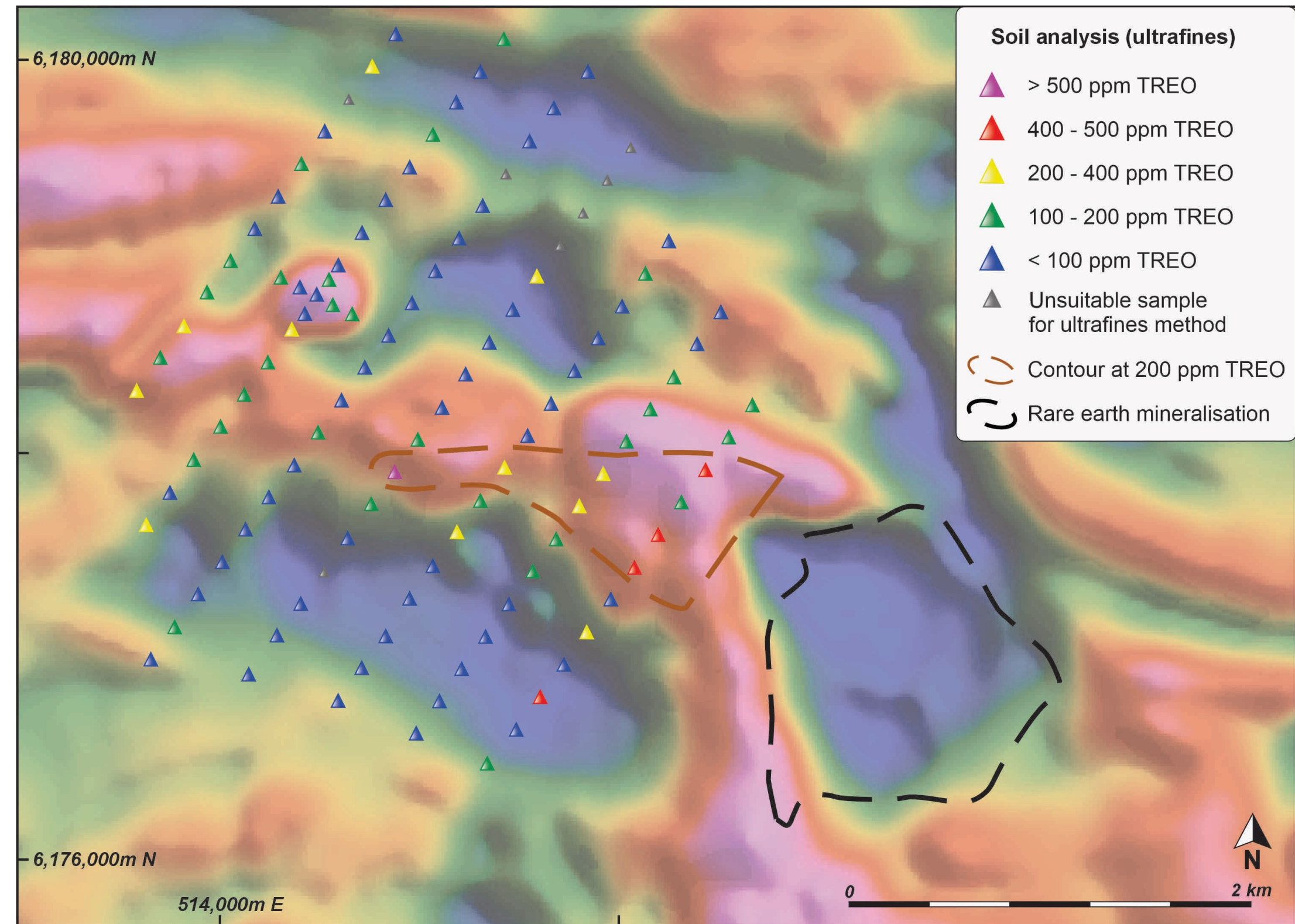
- Recent aircore drilling at the Ivar Prospect continues to demonstrate significant scandium and gallium mineralisation at near surface
- Scandium and Gallium intersection highlights include:
  - **26m @ 249 ppm  $\text{Sc}_2\text{O}_3$ , 59 ppm  $\text{Ga}_2\text{O}_3$  including 16m @ 295 ppm  $\text{Sc}_2\text{O}_3$ , 66 ppm  $\text{Ga}_2\text{O}_3$  (RGAC050)**
  - **14m @ 207 ppm  $\text{Sc}_2\text{O}_3$ , 60 ppm  $\text{Ga}_2\text{O}_3$  including 4m @ 327 ppm  $\text{Sc}_2\text{O}_3$ , 69 ppm  $\text{Ga}_2\text{O}_3$  (RGAC042)**
  - **10m @ 229 ppm  $\text{Sc}_2\text{O}_3$ , 51 ppm  $\text{Ga}_2\text{O}_3$  including 4m @ 281 ppm  $\text{Sc}_2\text{O}_3$ , 58 ppm  $\text{Ga}_2\text{O}_3$  (RGAC052)**
  - **16m @ 169 ppm  $\text{Sc}_2\text{O}_3$ , 64 ppm  $\text{Ga}_2\text{O}_3$  including 2m @ 492 ppm  $\text{Sc}_2\text{O}_3$ , 64 ppm  $\text{Ga}_2\text{O}_3$  (RGAC060)**
- Further drilling planned, with aim in developing maiden JORC Resource



# FORWARD EXPLORATION PROGRAM AT ROCKY GULLY

## New Soils Survey Demonstrates Potential Extension of Mineralisation

- NYM exploring extension of potential carbonatite system
- Recent ultrafine<sup>tm</sup> soils survey identifies 1.5km long TREO anomaly on the magnetic edge of the T1 magnetic target area<sup>1</sup>
- Scandium anomalism also occurs along similar trend
- This new soil anomaly may represent an extension to the Ivar mineralisation
- Metallurgical studies underway



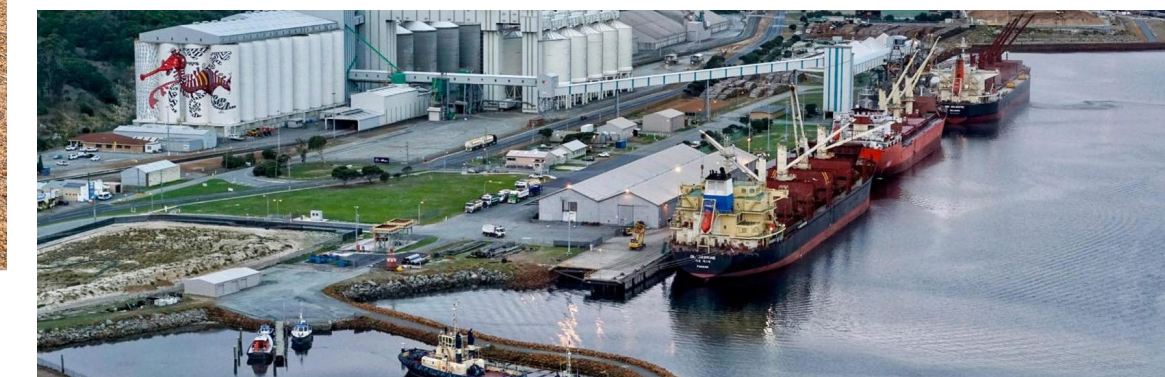
<sup>1</sup> NYM ASX Announcement 8 May 2025

## Regional Infrastructure

- Significant advantages for development of a critical mineral project, with existing infrastructure in SW Western Australia
- Positioned along the Muir Highway, only 50km west of the town of Mt Barker
- The excellent road network provides multiple options to transport to precincts designated by the WA Government for critical minerals development
- Recently announced\* Strategic Industrial Areas (SIA) include:
  1. Mirambeena near Albany, 86 km SE by road
  2. Shotts, near Collie, 217km by road to the NW
  3. Kemerton near Bunbury, 260km NW by road
- The existing ports of Albany, Bunbury and Kwinana



Muir Hwy, Rocky Gully



Port of Albany

\*Source - <https://www.wa.gov.au/government/publications/western-australias-strategic-industrial-areas>

# MUCKANIPPIE PROJECT (NYM/PTR JV)

## A New World-Class Titanium Discovery

- Rosewood Prospect represents 15km<sup>2</sup> area of high-grade titanium heavy mineral mineralisation
- Narryer JV Tenement contains > 40% of the current Rosewood mineralised area
- Rosewood mineralisation open in multiple directions
- Other mineralised targets at Claypan, Nardoo and Dukes sit on Narryer JV tenement
- Best Rosewood intersection - 16m @ 12.1% HM from 14m, incl. 8m @ 19.6% HM from 15m
- High Value product, dominant in rutile and leucoxene

### Potential for Tier -1 Titanium Project in South Australia



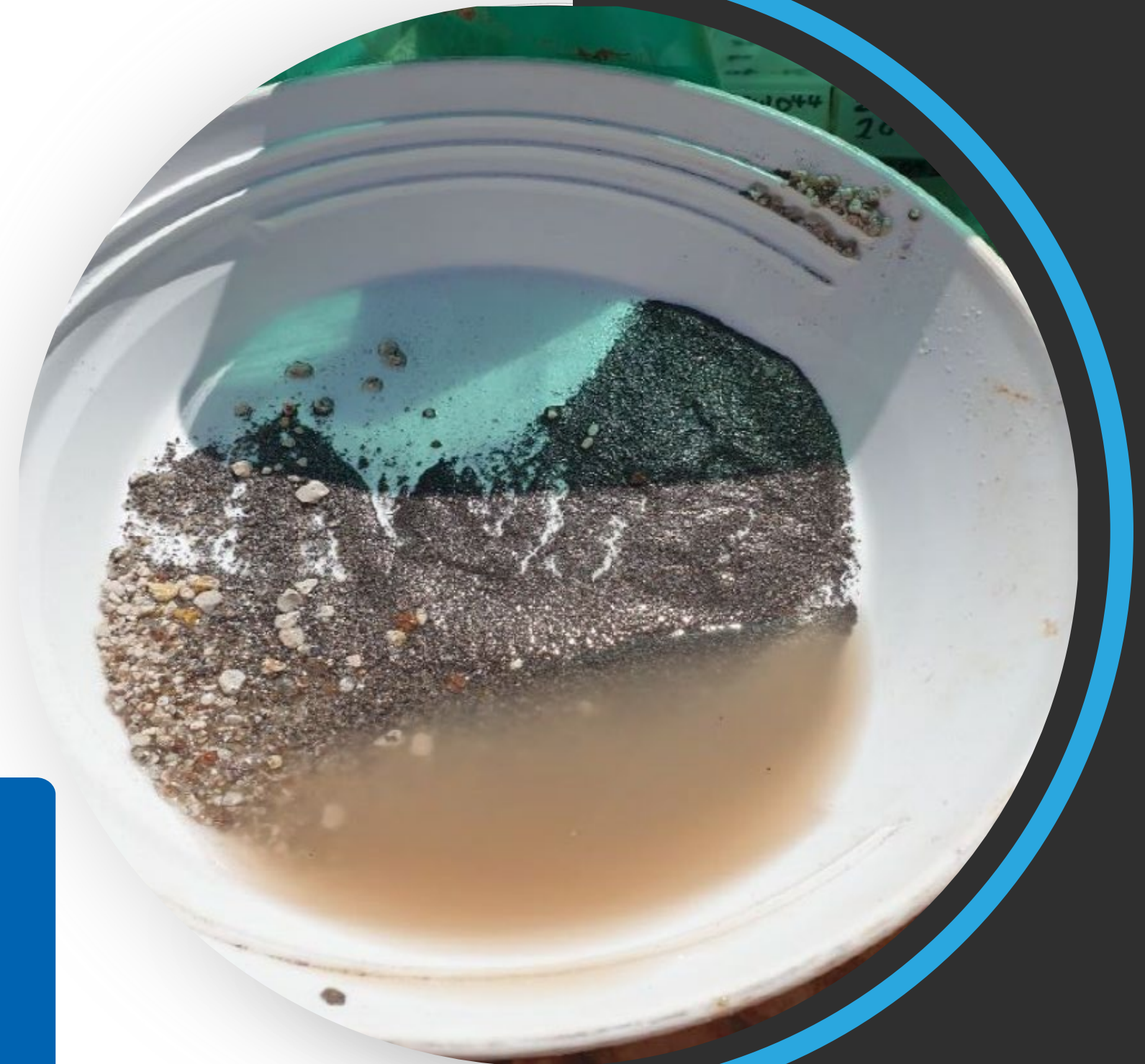
Drilling confirms high-grade Heavy Minerals Concentrates



High-Value \$ Titanium products identified



Follow-Up program to extend high-grade mineralisation and test new targets



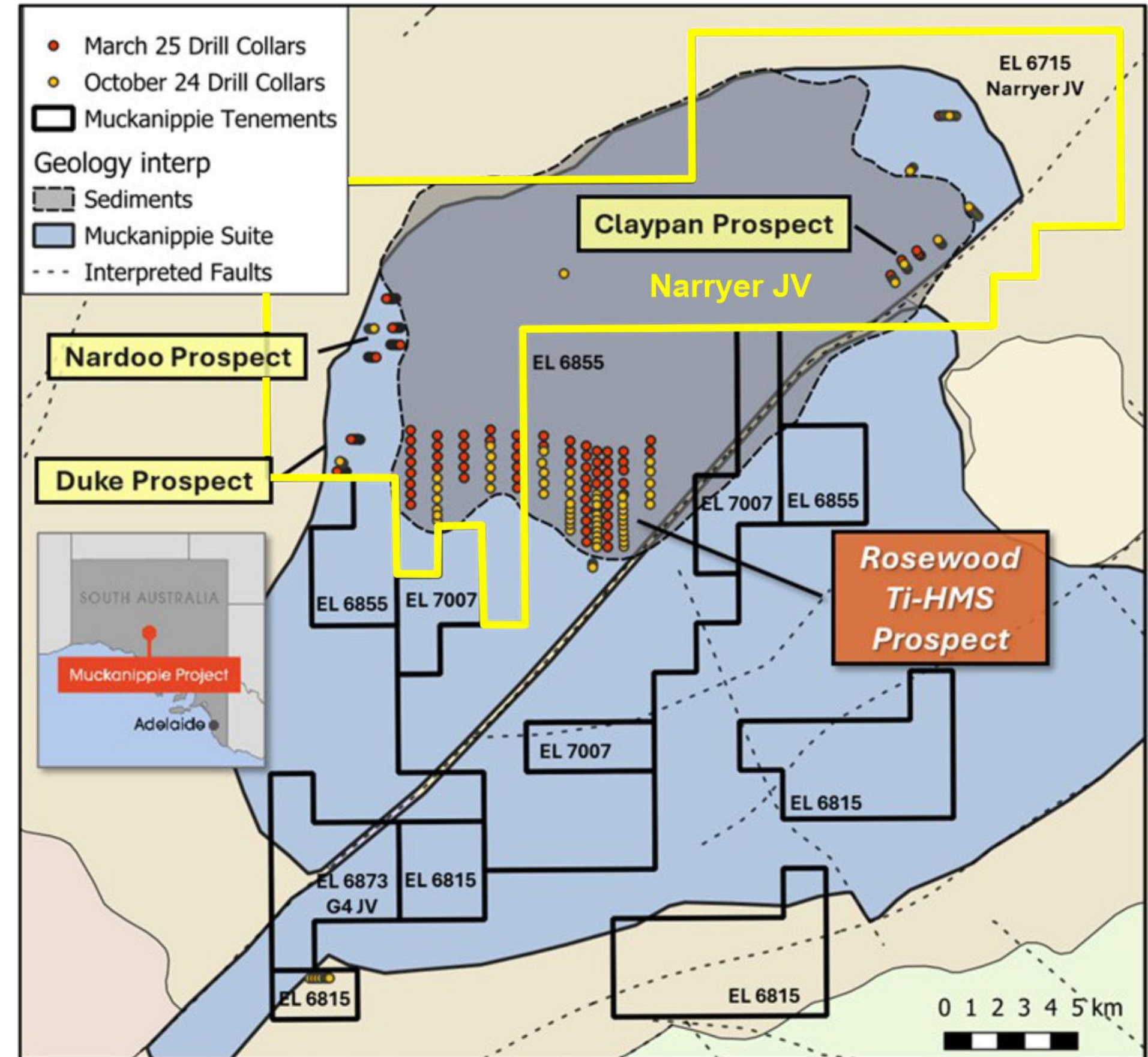
- High grade titanium rich heavy mineral sands (HMS) striking over 8km, ~ 3.5 km of which sits within the NYM JV tenure at Rosewood Prospect<sup>1</sup>
- Mineralisation is **thick** (averaging ~12m), **near surface** and is **open in multiple directions**
- **High Grade** - Trial heavy mineral separation test on NYM tenure show significant Heavy Mineral (HM) grades, up to 28% HM<sup>1</sup>
- **High value Titanium Product** - Early stage XRD analyses of HM fraction at Rosewood indicates 19-21% Rutile, 4-7% Anatase and 68-70% Pseudorutile<sup>2,3</sup>.
- **Coarse grained** - Preliminary analysis show HM particle size ideal for low-cost extraction (90% > 75 micron)<sup>4</sup>
- Source rock most likely the underlying Bushveld-type layered intrusive, which contain Ti-V magnetite rich units
- The weathered saprolite clays of this source rock also produces a Ti product<sup>5</sup>
- Early-stage heavy mineral separation showing thick intersection (40-60m) giving grades up to 29% HM at Nardoo, Dukes and Claypan Prospect area. All on NYM JV tenure<sup>5</sup>
- Titanium is on the critical minerals list for Australia, US and EU and has uses in electric vehicles and battery storage, wind technology, pigments, and as an alloy in steel and superalloys.



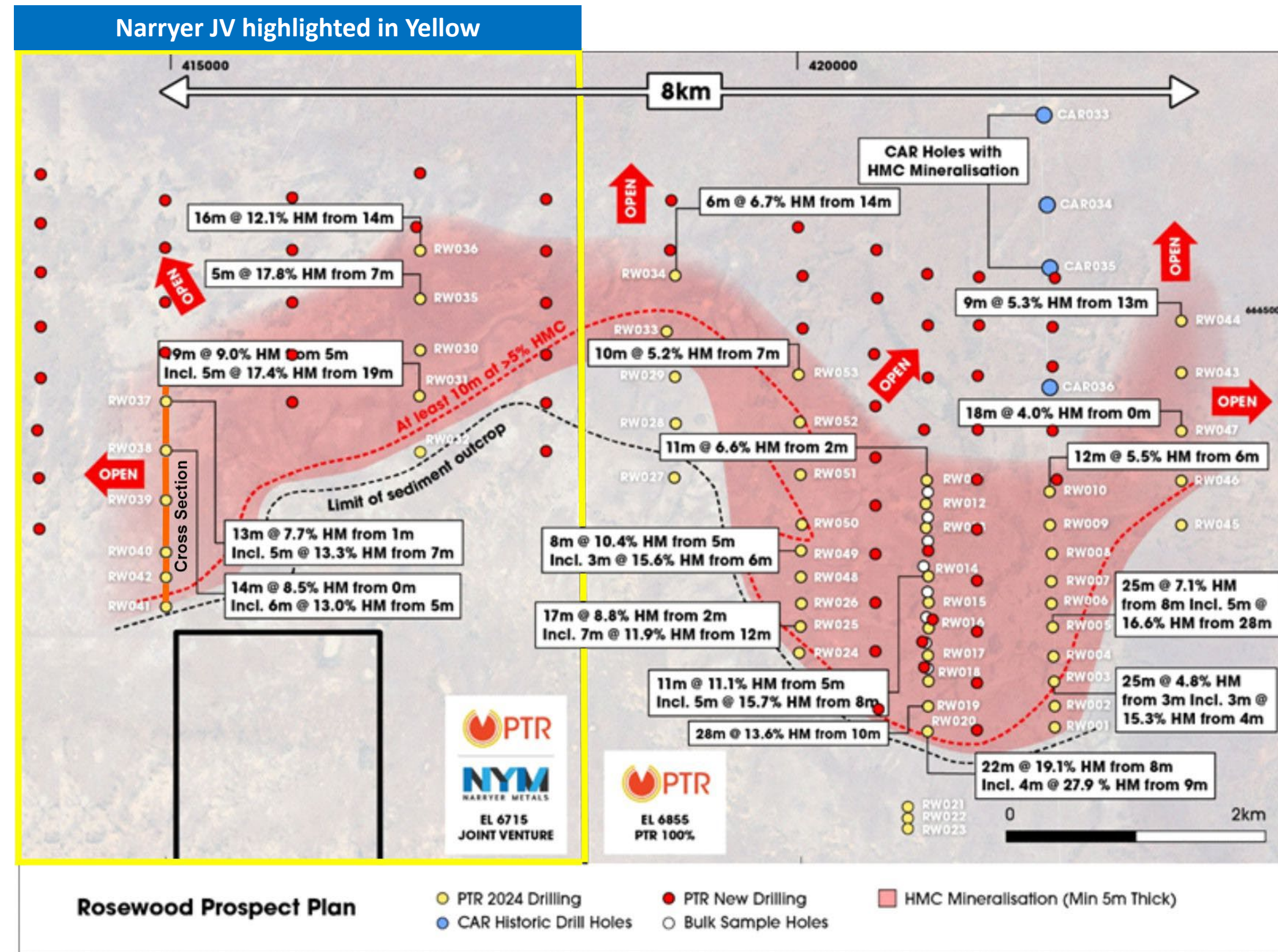
<sup>1</sup>Petratherm Limited ASX announcement 6 February 2025; <sup>2</sup> Petratherm Limited ASX announcement 19 November 2024; <sup>3</sup> Petratherm Limited ASX announcement 20 January 2025; <sup>4</sup> Petratherm Limited ASX announcement 5 March 2025; <sup>5</sup> Petratherm Limited ASX announcement 19 February 2025

# MUCKANIPPIE JOINT VENTURE TENEMENT WITH ASX:PTR

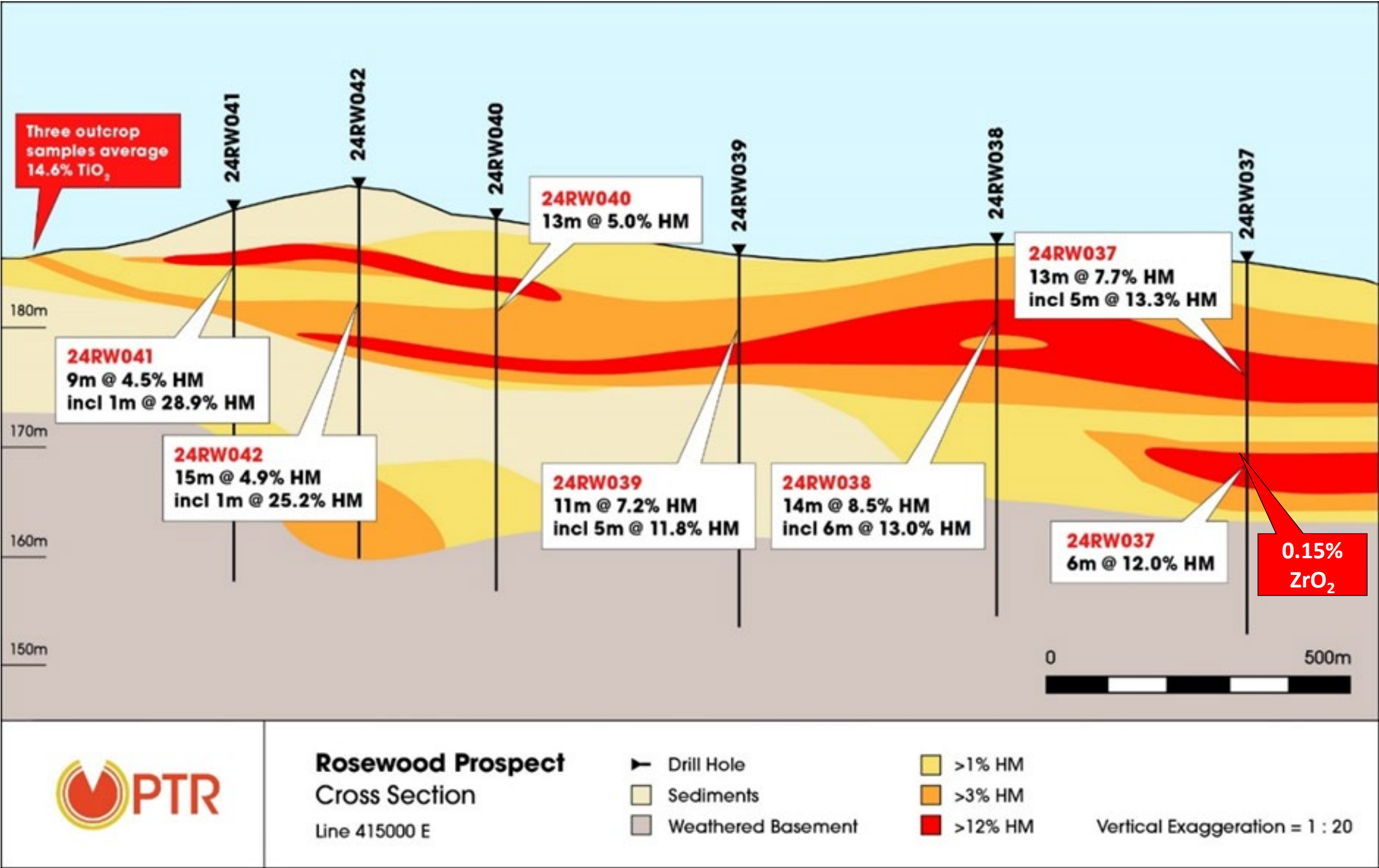
- Muckanippie Project formed by two tenements EL6715 and EL6855. Gawler Craton, SA
- JV arrangement covers EL6715
- Narryer currently owner of EL 6715 with PTR earning in
  - Stage 1 – PTR to spend \$200,000 to earn 51% (**Stage 1 achieved**)
  - Stage 2 – PTR to spend \$300,000 to earn additional 19%
- NYM can then elect to co-fund maiden JORC 2012 Mineral Resource Estimate or PTR can earn additional 10% by sole funding



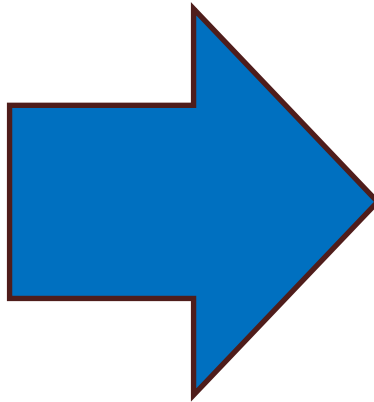
- Highlights from the Narryer JV tenure drilling at Rosewood (11 holes over 2 lines, 2km apart) include:
  - 24RW036** - 16m @ 12.1% HM from 14m, incl. 8m @ 19.6% HM from 15m
  - 24RW038** - 14m @ 8.5% HM from 0m, incl. 6m @ 13.0% HM from 5m
  - 24RW039** - 11m @ 7.2% HM from 0m, incl. 5m @ 11.8% HM from 5m
  - 24RW031** - 19m @ 9% HM from 5m, incl. 5m @ 17.4% HM from 19m
  - 24RW041** – 9m @ 4.5% HM from 0m incl. 1m @ 28.9% HM from 4m
  - 24RW037** - 13m @ 7.7% HM from 1m, incl. 5m @ 13.3% HM from 7m and 6m @ 12.0% HM from 16m (incl. 3m @ 17.0% HM from 17m) with high level of ZrO<sub>2</sub> in heavy mineral concentrate (Model analysis underway)
  - 24RW035** - 5m @ 17.8% HM from 7m (incl. 3m @ 25.7% from 9m)



CROSS SECTION ON JV TENURE<sup>1</sup>



Open



<sup>1</sup>Petratherm Limited ASX announcement 6 February 2025

## ALL ON JV GROUND<sup>1</sup>

- Drilling results from 42 aircore holes on the JV tenure at Nardoo, Dukes and Claypan Prospects
- Shallow high-grade heavy mineral (HM) concentrates (up to **30% HM** concentrates and up to 30% TiO<sub>2</sub> assays)
- Preliminary Heavy Mineral separation tests have returned thick (**40 to 60m**) high-grade results from all four holes tested. Drill intersections returned:

### Nardoo Prospect:

*24ND003 - 44m @ 29.4% HM from surface to EOH*

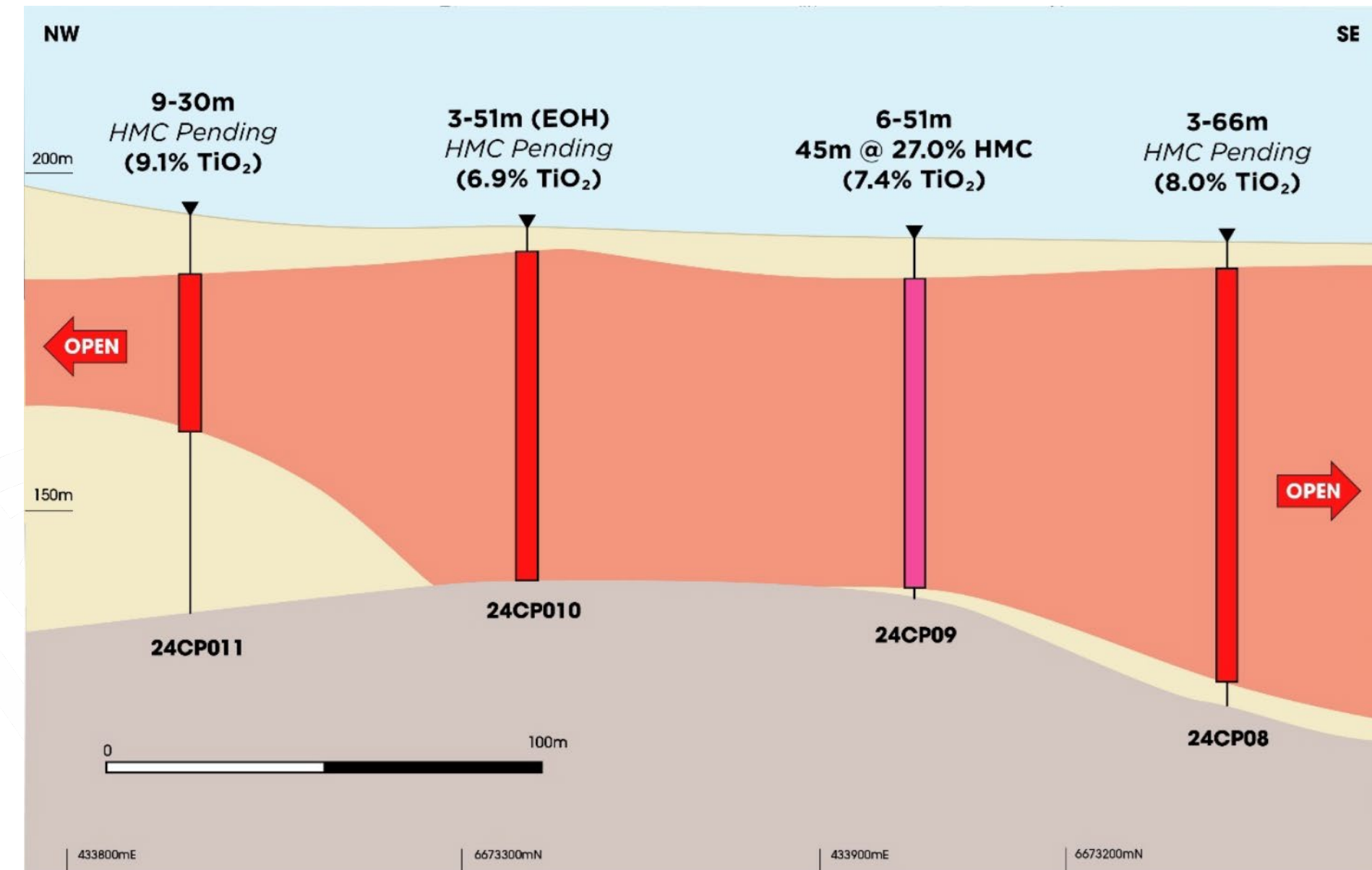
### Duke Prospect:

*24DK004 - 61m @ 19.7% HM from surface EOH*

### Claypan Prospect:

*24CP009 – 45m @ 27.0% HM from 6m*

*24CP004 – 48m @ 23.5% HM from 10m to EOH*



Claypan  
Section 73250

Interpreted HM Zone  
(Using >3% TiO<sub>2</sub> Proxy)

Drill Hole

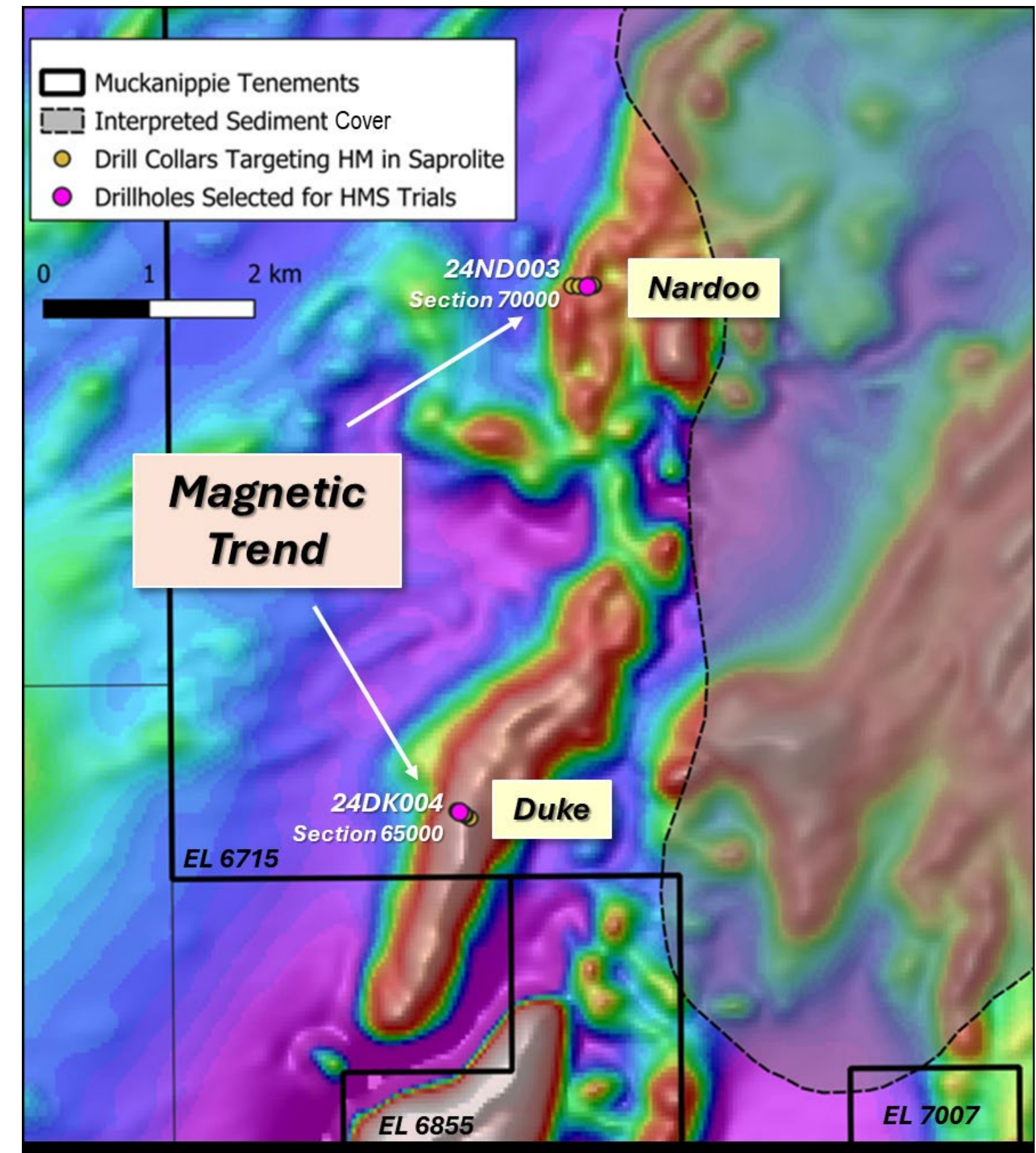
Saprolite Zone

Basement Zone

## Claypan Cross Section

# MUCKANIPPIE JV– NARDOO, DUKES & CLAYPAN PROSPECTS

- Has the potential to be very large tonnage project
- Mineralisation is hosted in soft, easily minable saprolite clay
- Style of mineralisation is analogous to the Sovereign Metals (ASX: SVM) Kasiya Deposit in Malawi. This project plans to use similar processing methods to that of conventional heavy mineral projects.
- The mineralisation at Duke and Nardoo Prospects occurs along a prominent magnetic trend, that is **16 kilometres of strike, most remains unexplored**
- Claypan Prospect shows high-grade titanium mineralisation assoc. with discrete magnetic features, but mineralisation may also be present in untested non-magnetic zones
- Visual estimates suggest predominantly ilmenite but also contains associated higher valued leucoxene



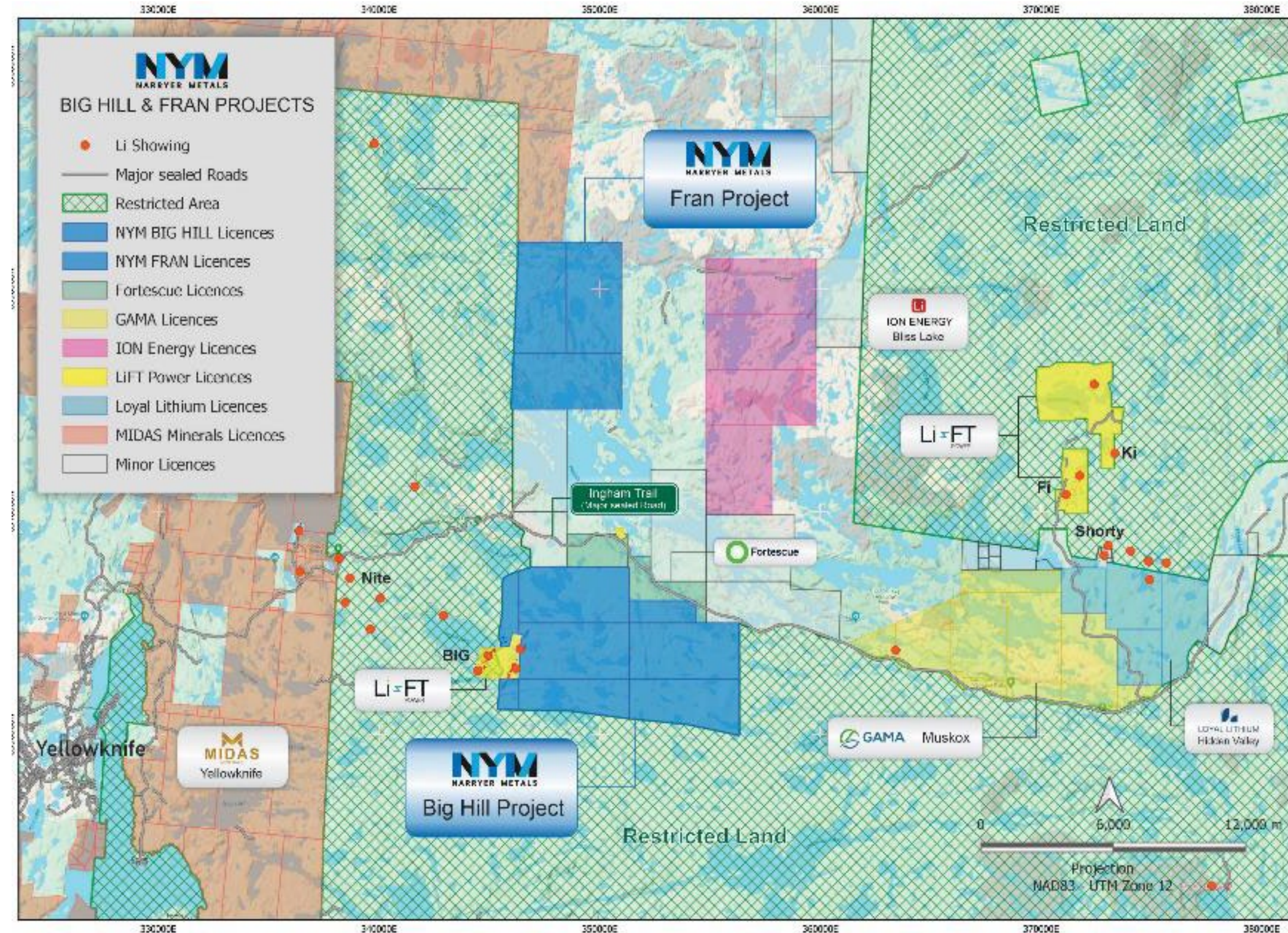
## Rosewood Drilling Area

- At Rosewood, **Phase 2** drilling completed (26 holes on the NYM JV ground) to test ~1.2km extension to the north and infill to existing drill lines. **Results expected in May**
- **Phase 3** - Additional drilling planned for late June to test prospective ground further north of current program area at Rosewood
- **New Drilling** also completed at the Nardoo, Dukes and Claypan magnetic target areas (13 hole). **Results expected in May**



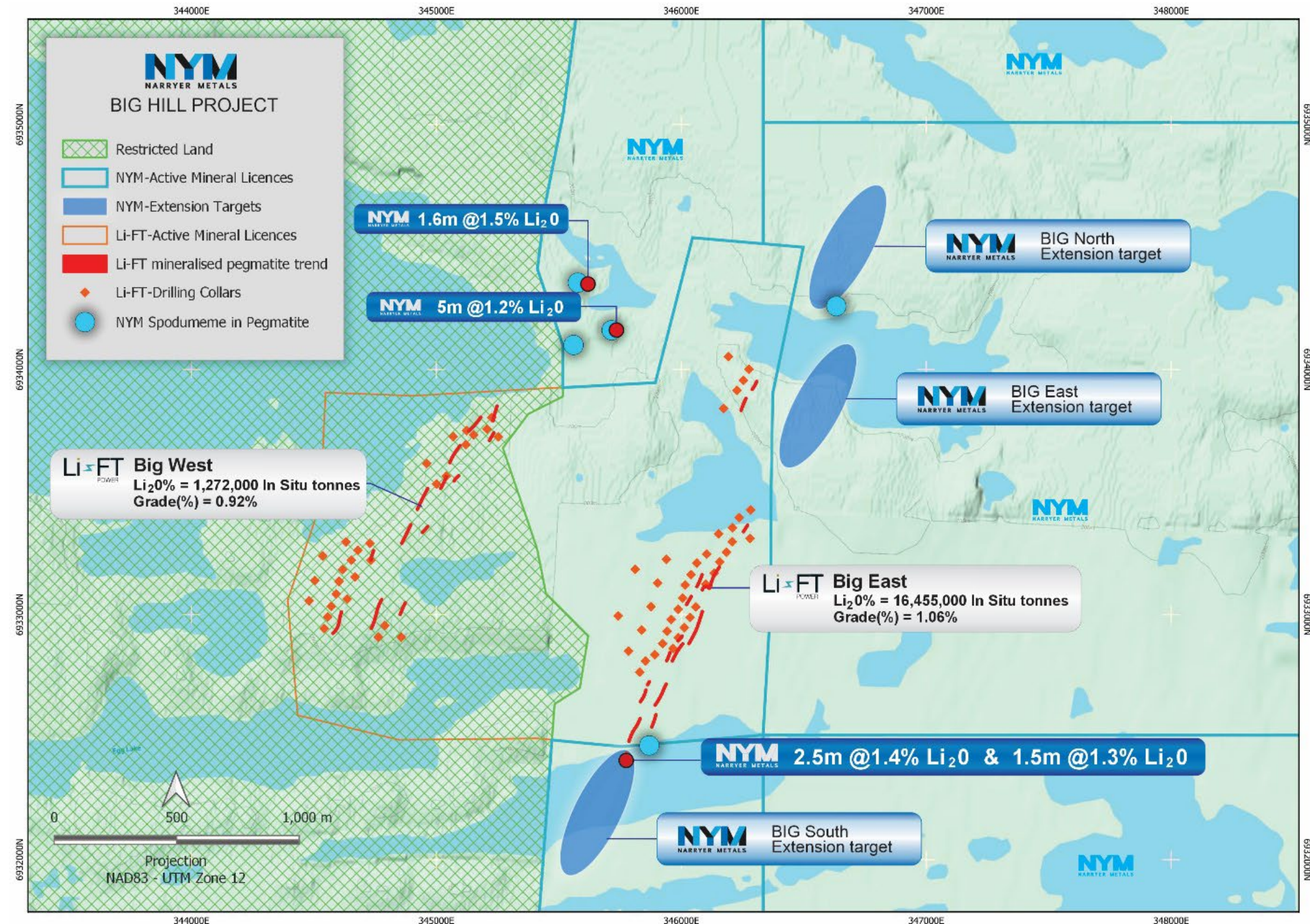
# A Lithium Hotspot

- Current Lithium exploration activity in the Slave Craton
  - **Li-FT Power** – Yellowknife Project combined resources over 50 Mt @ 1%  $\text{Li}_2\text{O}^1$  (TSXV:LFF)
  - **Loyal Lithium/Patriot Battery Metals JV** (ASX:LLI,PMI)
  - **Blackbird Minerals (Gama Exploration)** (CSE:BBRD)
  - **Trinex Minerals** (ASX:TX3)
  - **Fortescue Minerals** (ASX:FMG)



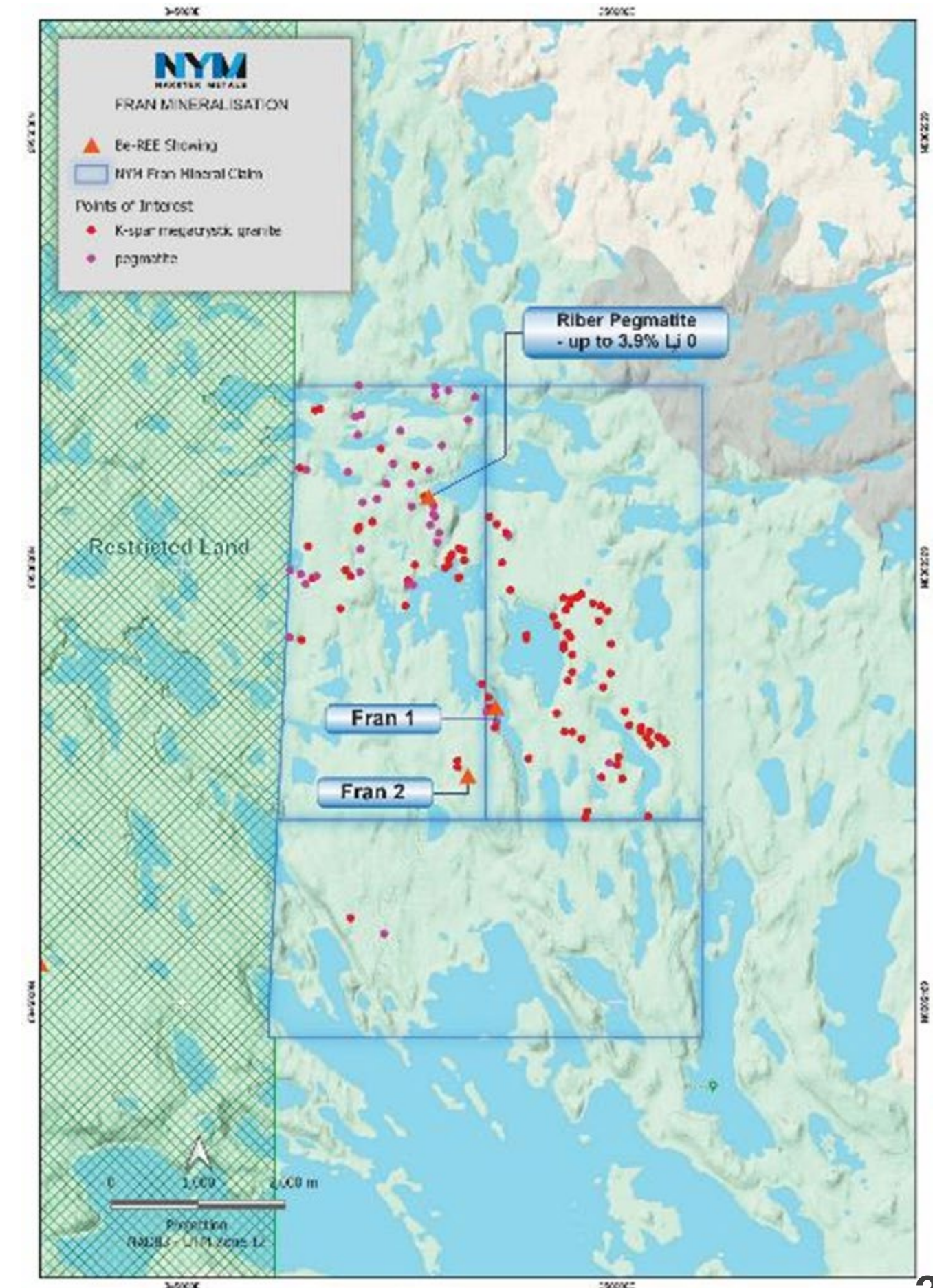
# BIG HILL PROJECT (NYM 70%)

- **Less than 30km from Yellowknife**, with excellent infrastructure and access
- NYM ground along strike to LIFT Power Big East Inferred Resource at 16.5Mt @ 1.06%  $\text{Li}_2\text{O}$  and Big West 1.2Mt @ 0.925  $\text{Li}_2\text{O}$ <sup>1</sup>
- NYM ground with known occurrences of spodumene-hosted pegmatites proximal to claim boundary (channel sample of up to **5m@ 1.2%  $\text{Li}_2\text{O}$** )<sup>2,3</sup>
- LIFT claim area is only 2.9 km<sup>2</sup>
- Land to the west falls under an unresolved First Nation land claim and is excluded from staking
- NYM claims can provide adequate footprint for any future mining development



# FRAN CRITICAL MINERALS PROJECT (NYM 70%)

- Fran is prospective for critical minerals (Li, Ta, Rb, Ga, Ge) identified in a highly fractionated and evolved pegmatite system
- 3 Claims located 10km north of Big Hill and covering 36km<sup>2</sup>
- Historic rare earth occurrences identified at Riber pegmatite, Fran 1 and Fran 2
- The Riber Prospect demonstrates potential for high value **Gallium and Germanium**
- Like gallium, germanium is a technology metal and has similar China trade restrictions in place. Germanium trades at US \$3000-\$3300 / kg<sup>2</sup> and has risen 115% since 2022<sup>1</sup>
- The Riber pegmatite provided high grade grab samples<sup>2</sup> of up to **114 ppm Ga<sub>2</sub>O<sub>3</sub> and 42 ppm GeO<sub>2</sub>** (as well as 3.95% Li<sub>2</sub>O, 0.4% Cs<sub>2</sub>O, 2% Rb<sub>2</sub>O)
- Initial work has identified > 40 pegmatites and 89 pegmatitoid granites on the property intruding metasediment<sup>3</sup>
- LIDAR and fieldwork planned for 2025 field season



<sup>1</sup> Source; <https://www.fastmarkets.com/insights/war-instability-impact-defense-metals-supply-chains/>; <sup>2</sup> Narryer Metals ASX announcement 12 March 2024; <sup>3</sup> Narryer Metals ASX announcement 19 June 2024;



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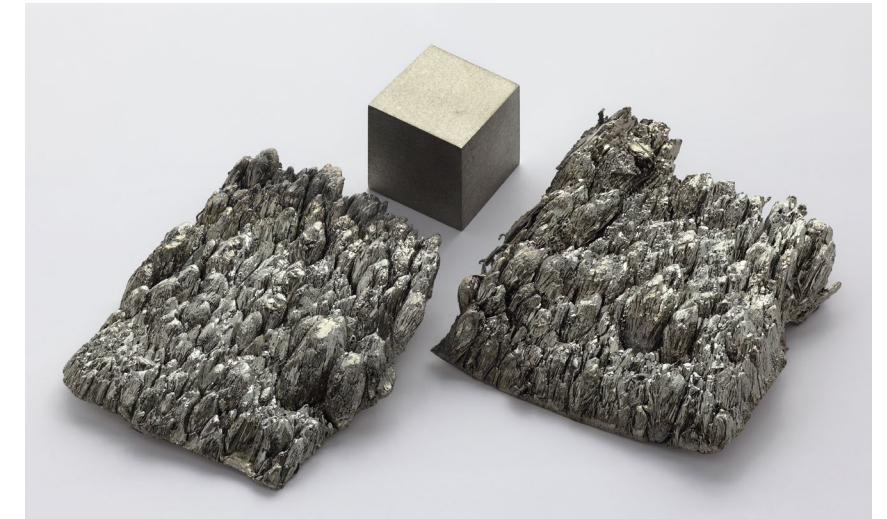
ASX:NYM

# APPENDICES



# Scandium – High-Value REE Makes Aluminium Stronger

- Scandium (Sc) is on the Australian, Canadian, US and EU critical minerals list
- Key use is in the production of highly specialised aluminium-scandium (Al-Sc) alloys.
- Historically used in the high-tech and military aviation industry (jet fighters)
- Growing applications in the aerospace industry, energy sector as a key component in solid oxide fuel cells (SOFC), automotive industry, sporting equipment (high-end bicycles) and in 3D printing technology
- Most of the world's scandium is sourced from China, which has now placed trade restrictions
- Western economies have a limited source of scandium and as its application to new technologies grows, reliable, long-term sources will be required from countries like Australia
- Rio Tinto recognise the importance of Scandium and is becoming a major player in the Scandium Market, with the purchase of Australian Sc project and entering production from its refineries in Canada<sup>1</sup>
- The USGS quote **price \$2,100 to \$3,900** per kg for scandium oxide<sup>2</sup>

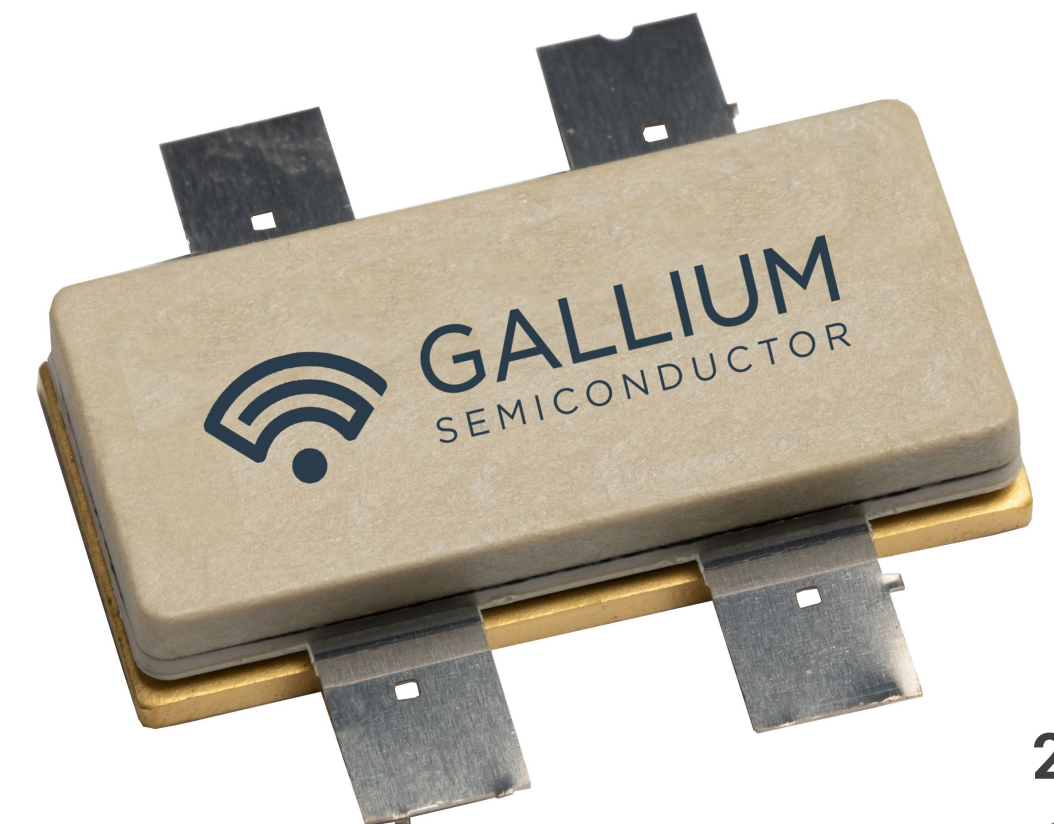


<sup>1</sup> Source - <https://www.riotinto.com/en/can/products/scandium>;

<sup>2</sup>USGS Scandium Fact Sheet 2024. See <https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-scandium.pdf>

## China Sanctions Makes Western Supplies Vital

- Gallium (Ga) is a critical mineral used in electronics, with the manufacture of semiconductor wafers, diodes, LEDs, photo-detectors and solar cells
- Gallium Nitrate (GaN) will also have increased use in light weight and higher speed chargers, as they produce less heat as conventional silicon-based chargers
- According to the US Geological Survey<sup>1</sup>, China has > 90 % of the global production and hold ~86% of the World Reserves
- **In late 2024, China placed an export control ban on Gallium**
- Alternate sources are required for manufacture of high-end electronics globally
- Gallium is at a high price and an in-demand commodity, up ~50% in price since **Aug 2023 to currently \$400/Kg US<sup>2</sup>** in China and over **\$500 / Kg delivered to Europe<sup>3</sup>**



<sup>1</sup>Source USGS - <https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-gallium.pdf>; <sup>2</sup> Source of Gallium oxide price - <https://tradingeconomics.com/commodity/gallium>; <sup>3</sup> Bloomberg New, 3 April 2024

# Magnetic Rare Earths

## High Value REE

- Magnet Rare Earth Elements consist of Praseodymium (Pr), Neodymium (Nd), Dysprosium (Dy) and Terbium (Tb) and capture > 90% of the value in the REE market
- Critical application in rare earth permanent magnets (REPMs), used in high end and ultra-efficient motors for electric vehicles and wind turbines
- Magnet REE are also important for use in semiconductors and other electronic components (e.g. Mobile Phones and computing), high temperature fuel cells, military equipment, nuclear reactors, and medical equipment (X-ray)
- China has implemented export restrictions on magnet rare earth elements – as well as permanent REE magnets – with supply now critical to the western world
- Announcements in Australia regarding the requirement for a REE stockpile<sup>1</sup>
- Tesla Optimus Gen 2 robot contains ~3.5 kg of Nd magnets. Production has now been hindered. Projected 1 million robots per year to be produced by 2030<sup>2</sup>. Tesla will need to source 3.5 tonnes of Nd magnets.



<sup>1</sup>Source : <https://stockhead.com.au/resources/high-voltage-miners-welcome-aussie-1-2bn-critical-minerals-stockpile-plan/> :

<sup>2</sup>Source - <https://www.reuters.com/business/autos-transportation/musk-says-teslas-optimus-humanoid-robots-affected-by-chinas-export-curbs-rare-2025-04-23/>