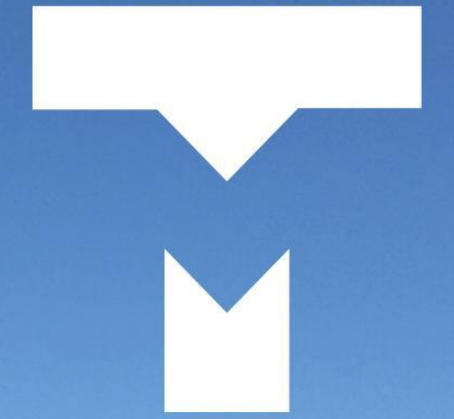


A COMBINATION VANADIUM AND RARE EARTHS DISCOVERY IN NORTHERN BARKLY



TRANSITION
MINERALS

AGES2023 Presentation
April 2023



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TRANSITION MINERALS: HIGHLIGHTS



UNMATCHED, FIRST-MOVER, PRE-IPO RARE EARTHS AND VANADIUM OPPORTUNITY

First-Mover Advantage

New NT REE + V district
32 ELs granted
Expansive holding 100% of
2.5 million hectares

Flagship High-Grade

Barkly Clay-Hosted Rare Earths
Exploration Target JORC [2012]*
70–420Mt @ 1,300–1,950ppm TREO
with overlying vanadium

Blue Sky Potential

Barkly Vanadium prospects with
drilling results to **0.51% V₂O₅**
with underlying REE deposit
and rock chips up to **1.26% V₂O₅**
surface anomaly over 100's km²

*The potential quantity and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

Market-Leading NdPr Ratio 33% Critical Material for:

- permanent magnets
- electric vehicles
- wind turbines
- energy transition & decarbonisation

Potential Supply Game Changer Rare Earths and Vanadium

- low strip
- bulk mining
- low OPEX

Future Upside: Giant Cu/Pb/Zn/Au System in Emerging District Discovery Holes Results:

7 m @ 1.1 g/t Au
6 m @ 4173 ppm Cu incl. 2 m @ 9250 ppm
4 m @ 1525 ppm Cu, 9 m @ 1749 ppm Cu
4 m @ 2420 ppm Zn and 775 ppm Pb

NT is a Top Mining Destination

Solid history of large-scale,
fully developed mining projects

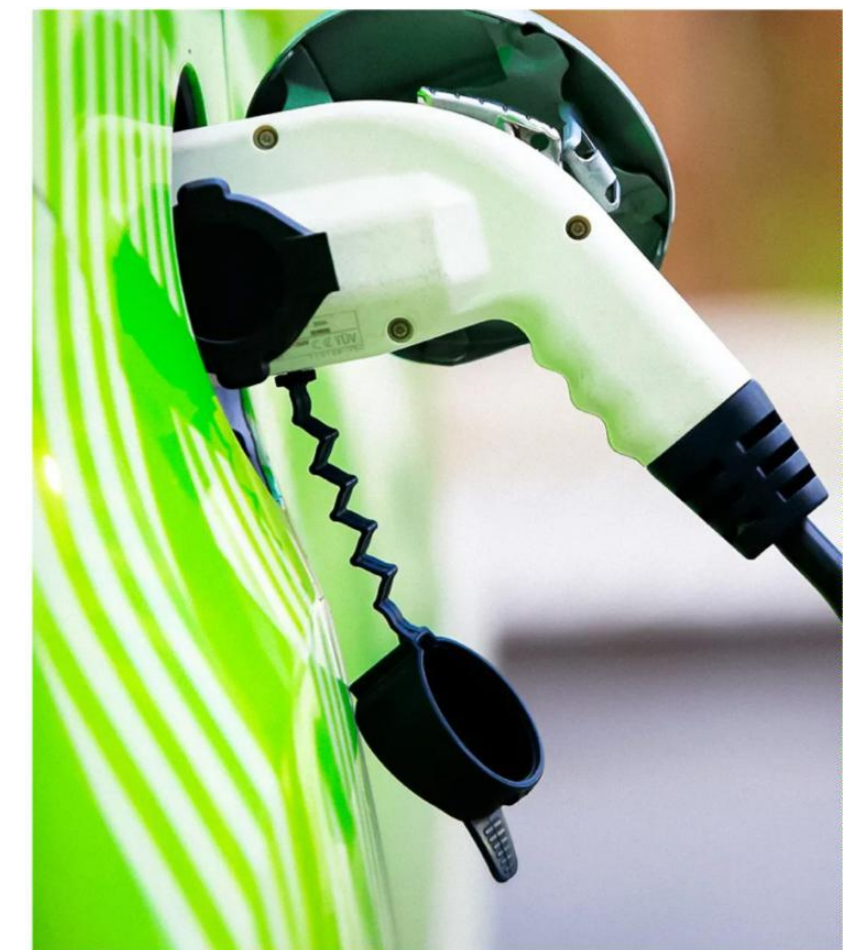
Rapidly Expanding Demand

REE: global electrification, rejection
of Chinese monopoly

Vanadium: stored-energy,
aerospace and steel markets

Experienced Technical and Management Team

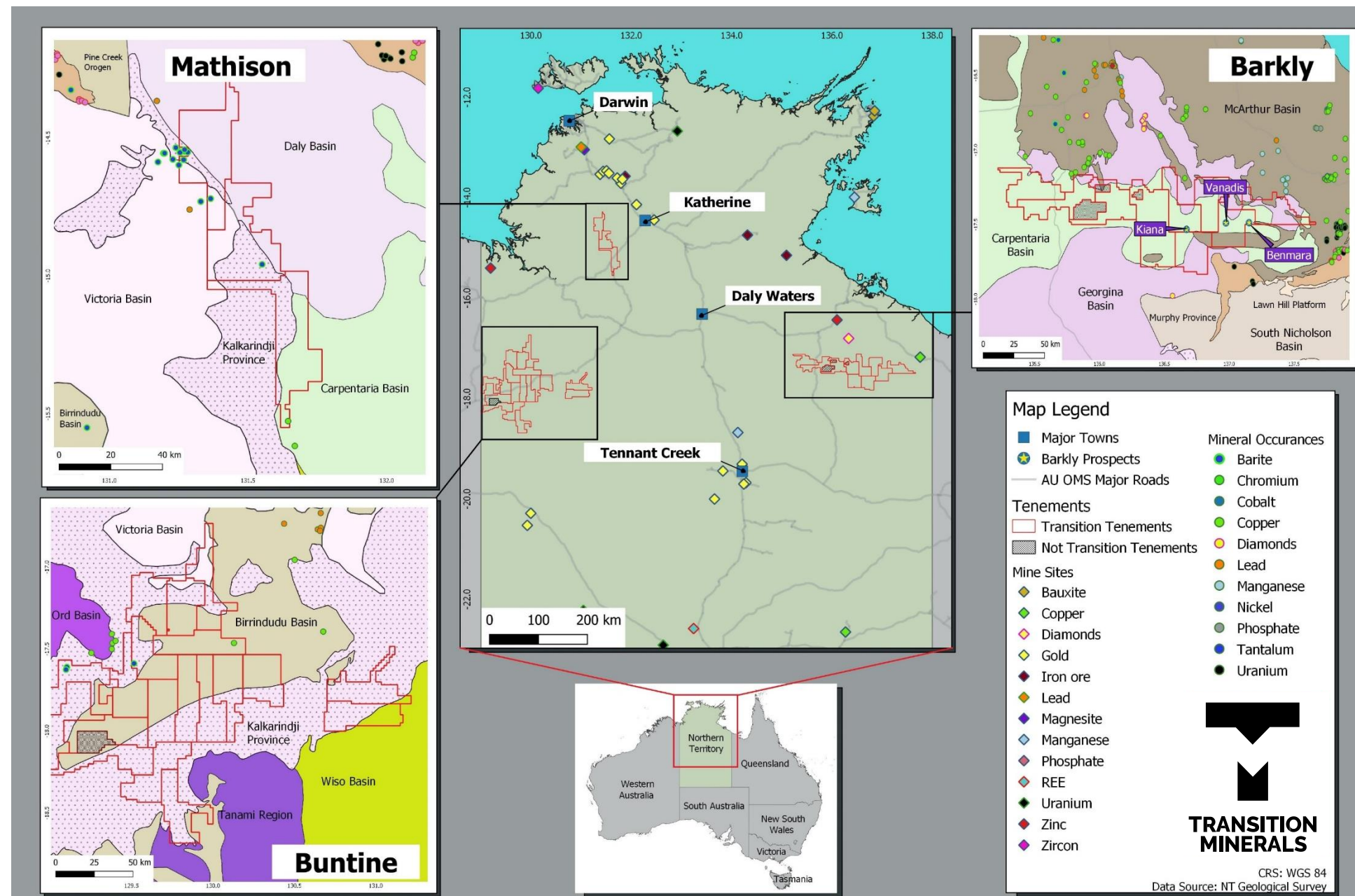
Proven track record
of discovery



HIGH-QUALITY ASSET: NEW MINERAL DISTRICT BOX SEAT

IN THE LAND OF GIANTS — SEDIMENT-HOSTED RARE EARTHS, VANADIUM & BASE METALS

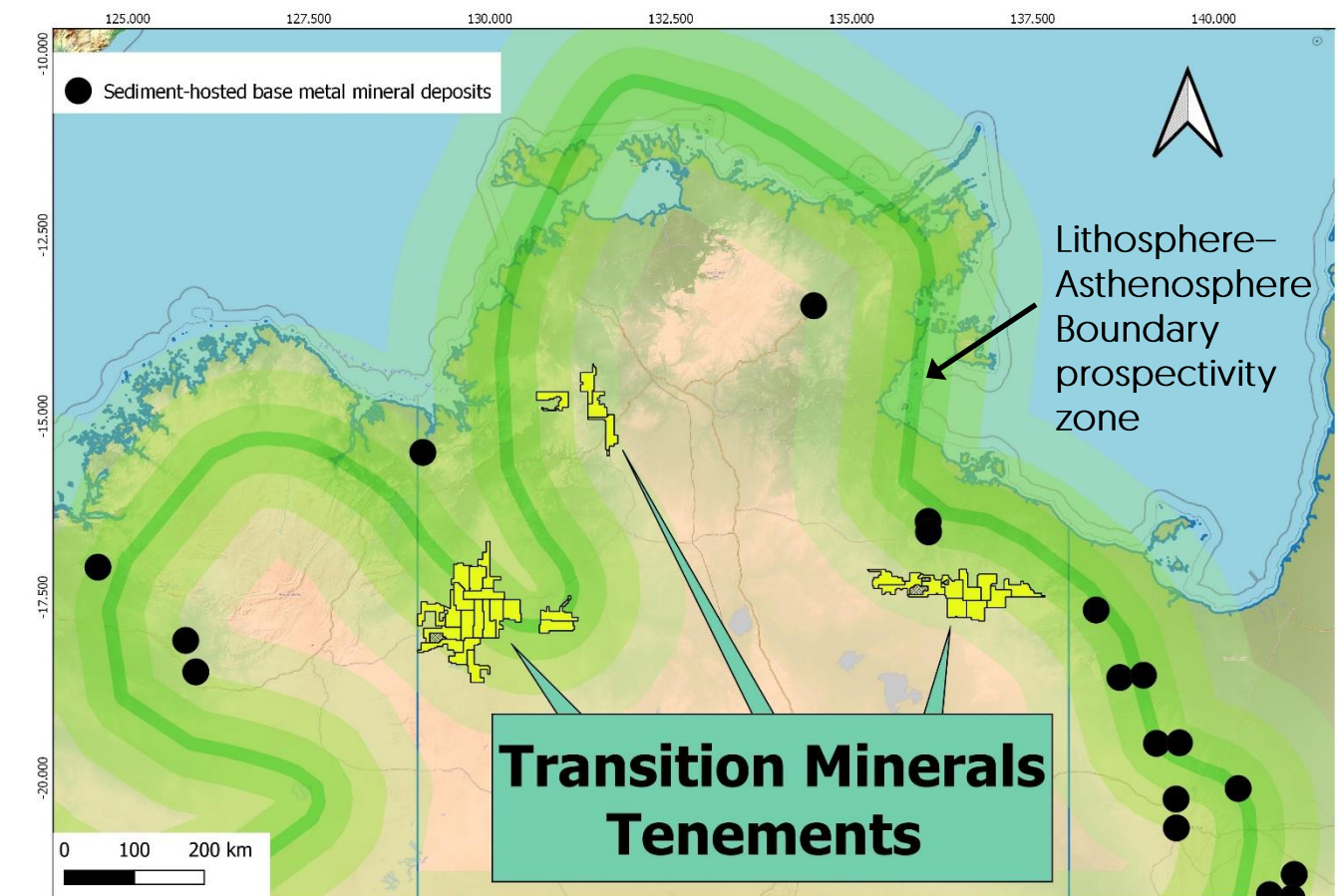
TRANSITION MINERALS TENEMENTS: 2% OF NORTHERN TERRITORY



WHY WE ARE HERE

“85% of the world’s sediment-hosted base metals, including all giant deposits (>10 Mt of metal), occur within 200 km of the edge of thick lithosphere”.

https://spiral.imperial.ac.uk/bitstream/10044/1/81277/2/134991_00_0.pdf





WORK COMPLETED

WORK COMPLETED TO DATE



2022 SEASON DRILLING RESULTS

BARKLY ZONE — VANADIS, KIANA AND BENMARA PROSPECTS



98 Air Core holes for 1,553 m



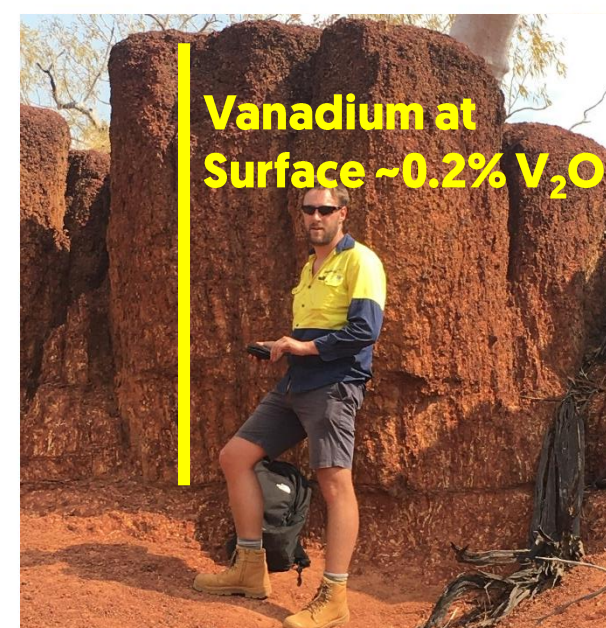
Discovery of a new rare earth element deposit: clay-hosted, grades to 4,836 ppm TREO, standout concentrations of payload elements Nd+Pr



Confirmation of continuous zones of enriched vanadium mineralisation, with drill intercepts up to 0.51% V_2O_5 at Vanadis and Kiana prospects



Mineralisation open in all directions



RARE EARTHS & VANADIUM PROJECT

COMBINATION REE + V PROJECT TARGETING:



economic, rare earth element deposit



superior scale: 70–420 Mt



superior grade: 1,300–1,950 ppm TREO



superior NdPr%: decarbonisation Holy Grail



overburden = vanadium deposit
as credit to offset mining cost:
10–50 Mt @ 0.16–0.20% V₂O₅



bulk mining, very low strip



low-cost, modern, heap-leach process recovery

REE Exploration Target
(JORC, 2012)*

V Exploration Target
(JORC, 2012)*

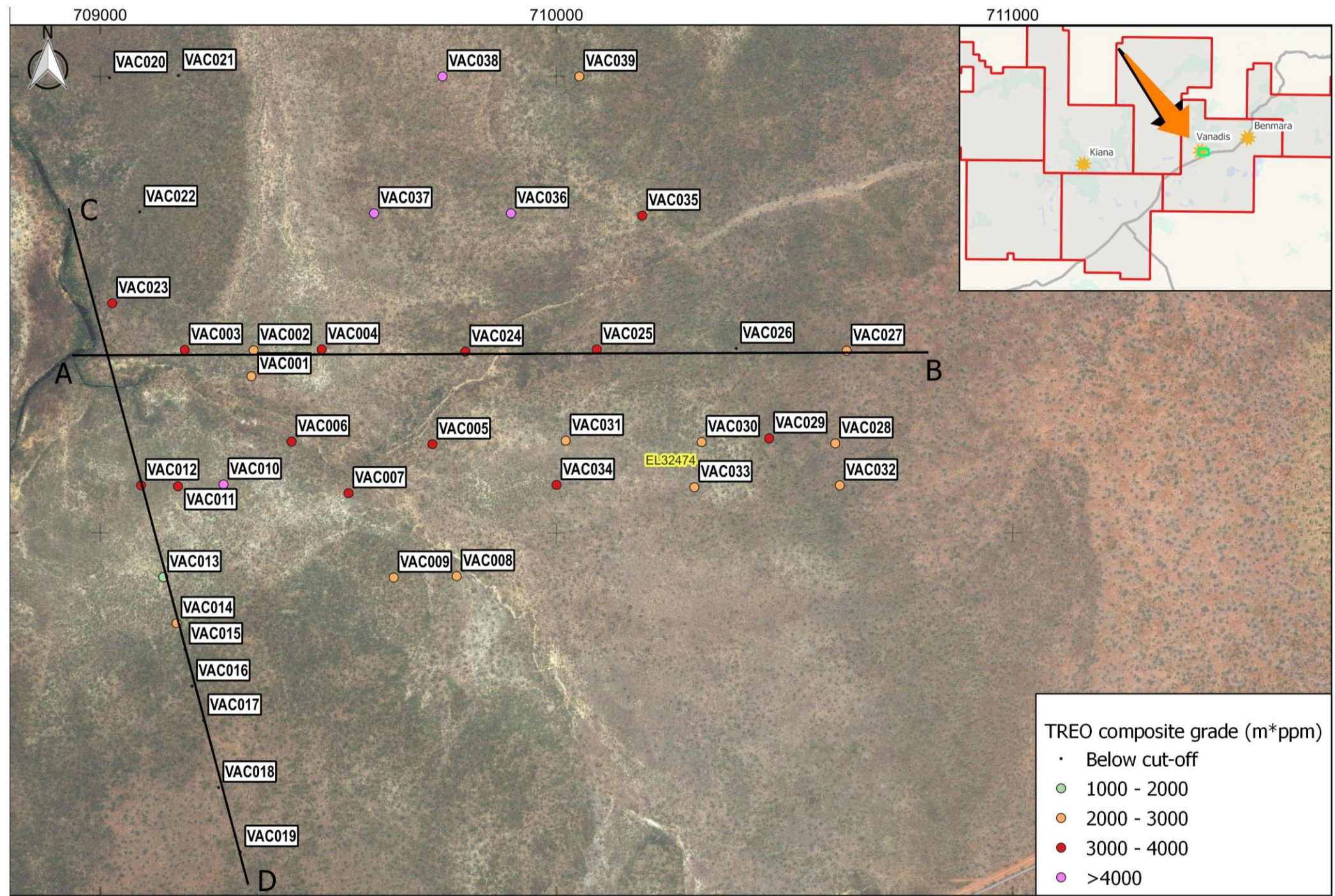
*Ref: [JORC Table 1](#). The potential quantity and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource. For original announcements and full disclosure, refer to company announcements at www.transitionminerals.com/announcements

VAC002		Interval (m)	V ₂ O ₅ (%)	TREO (ppm)
Vanadium		0–0.5	0.391	194
		0.5–1.0	0.459*	222*
		1.0–1.5	0.255	125
		1.5–2.0	0.158	129
		2.0–2.5	0.146	192
		2.5–3.0	0.019	101
		3.0–3.5	0.027	85
		3.5–4.0	0.054	82
		4.0–4.5	0.064	70
		4.5–5.0	0.105	81
REE		5.0–5.5	0.009	638
		5.5–6.0	0.017*	2896*
		6.0–6.5	0.010*	2541*
		6.5–7.0	0.007	867
		7.0–7.5	0.011	408
		7.5–8.0	0.095	236
		8.0–8.5	0.019	186
		8.5–9.0	0.020	184
		9.0–9.5	0.016*	1132*
		9.5–10.0	0.006	447

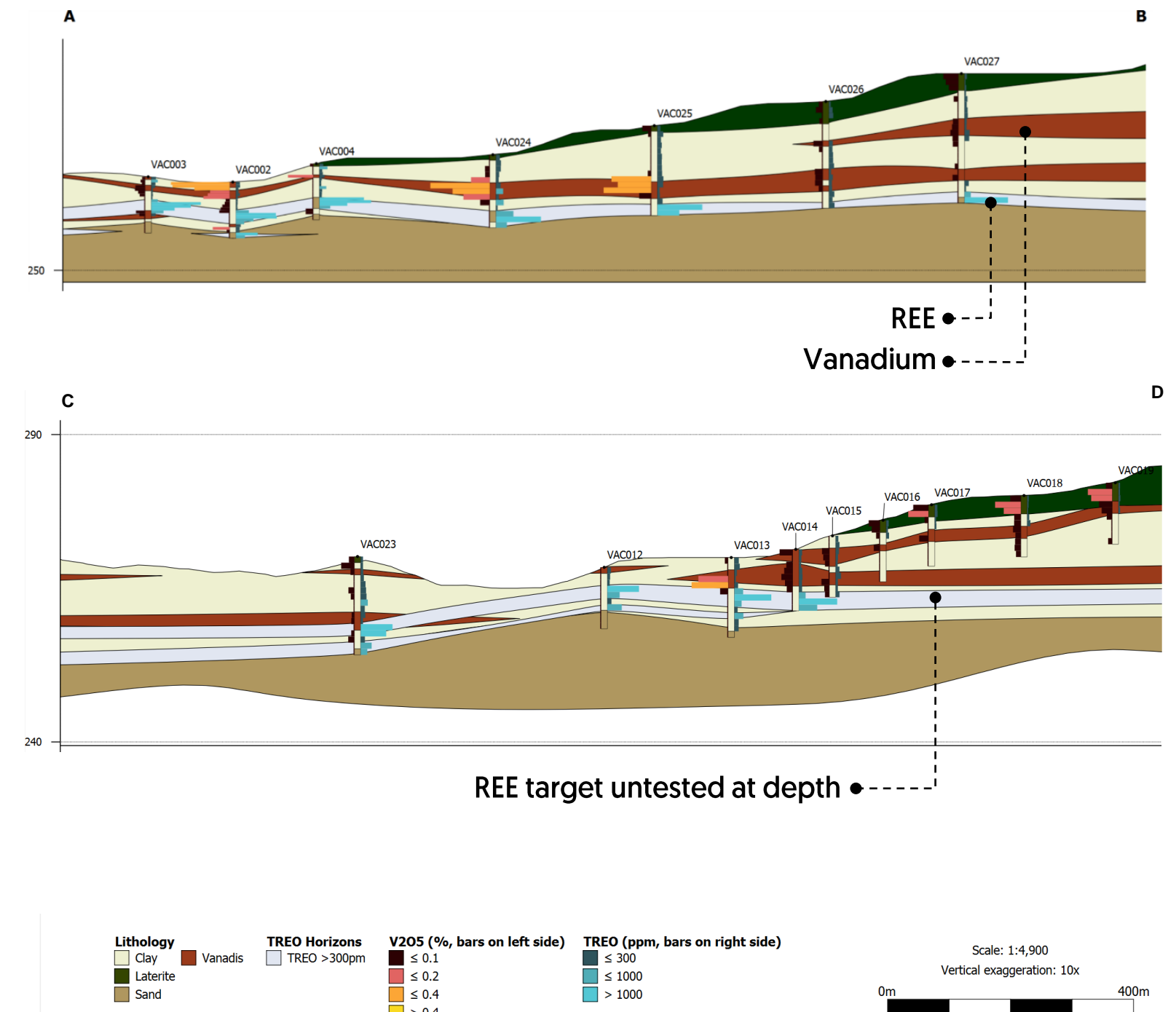
*following Li-Borate fusion analysis ME-MS81

NEW REE + V DISCOVERY

EXPANSIVE MINERAL POTENTIAL

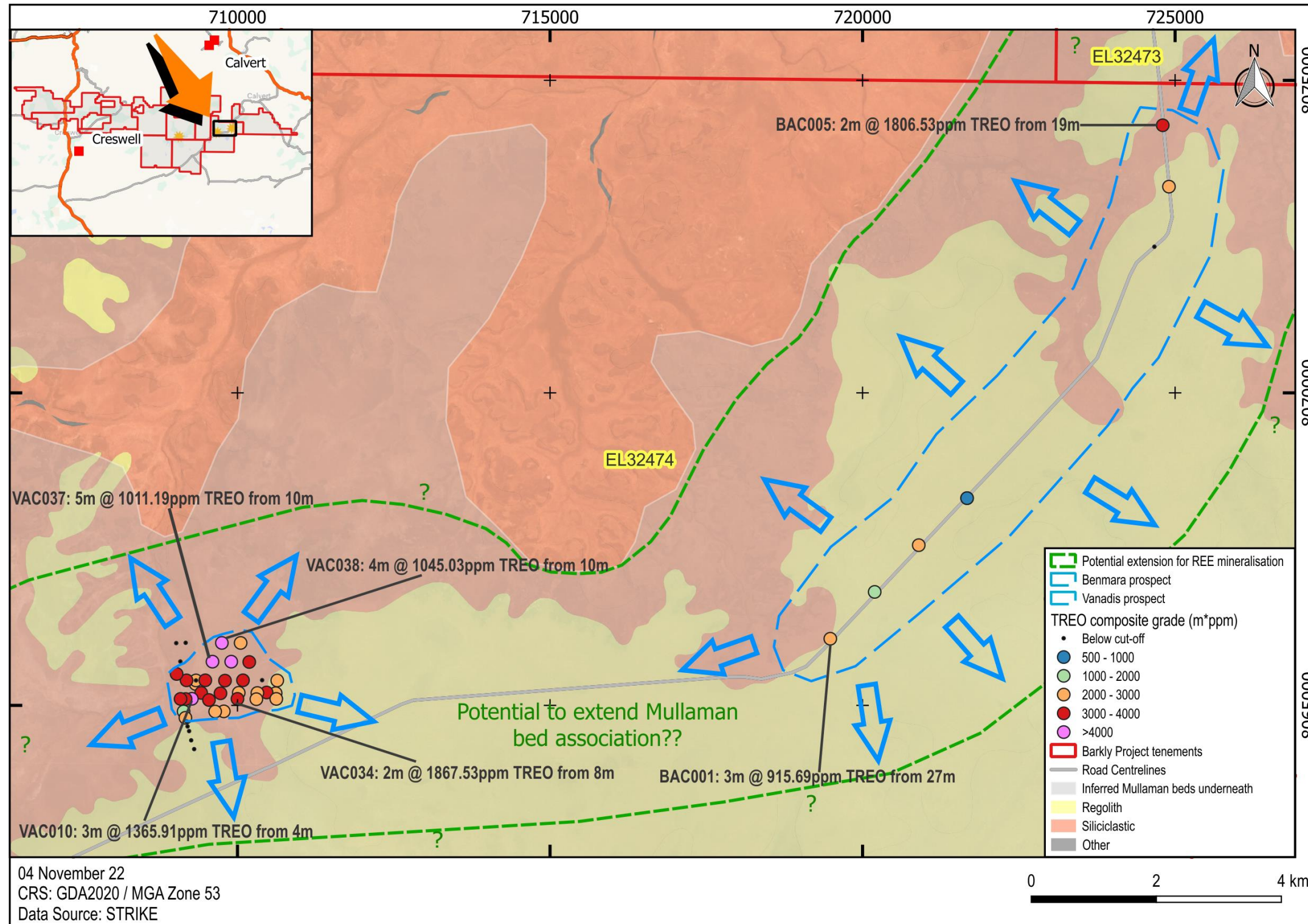


22 November 22
CRS: GDA94/zone53
Data Source: Bing Aerial



NEW REE + V DISCOVERY

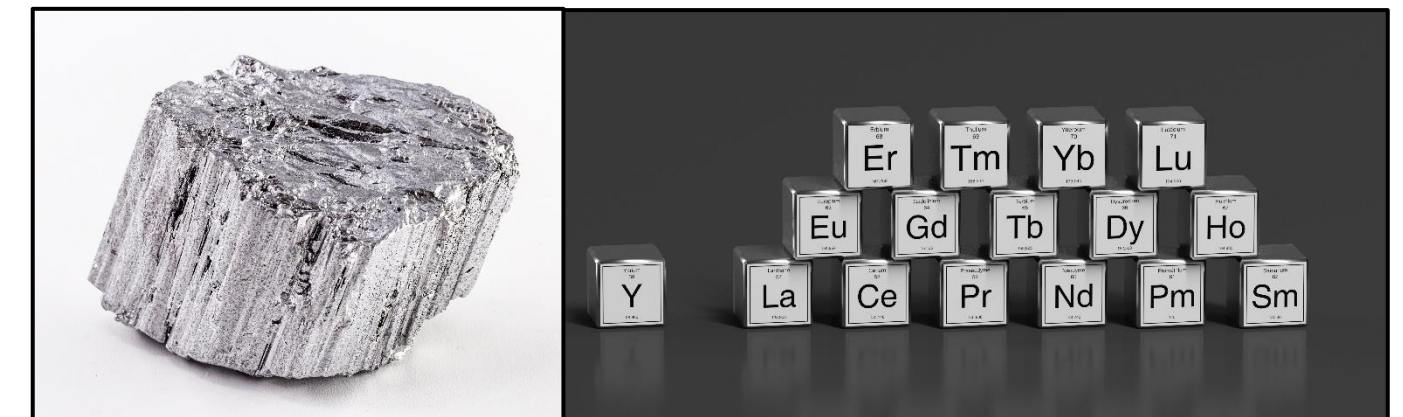
RARE EARTHS MINERALISATION OPEN IN ALL DIRECTIONS



Vanadium

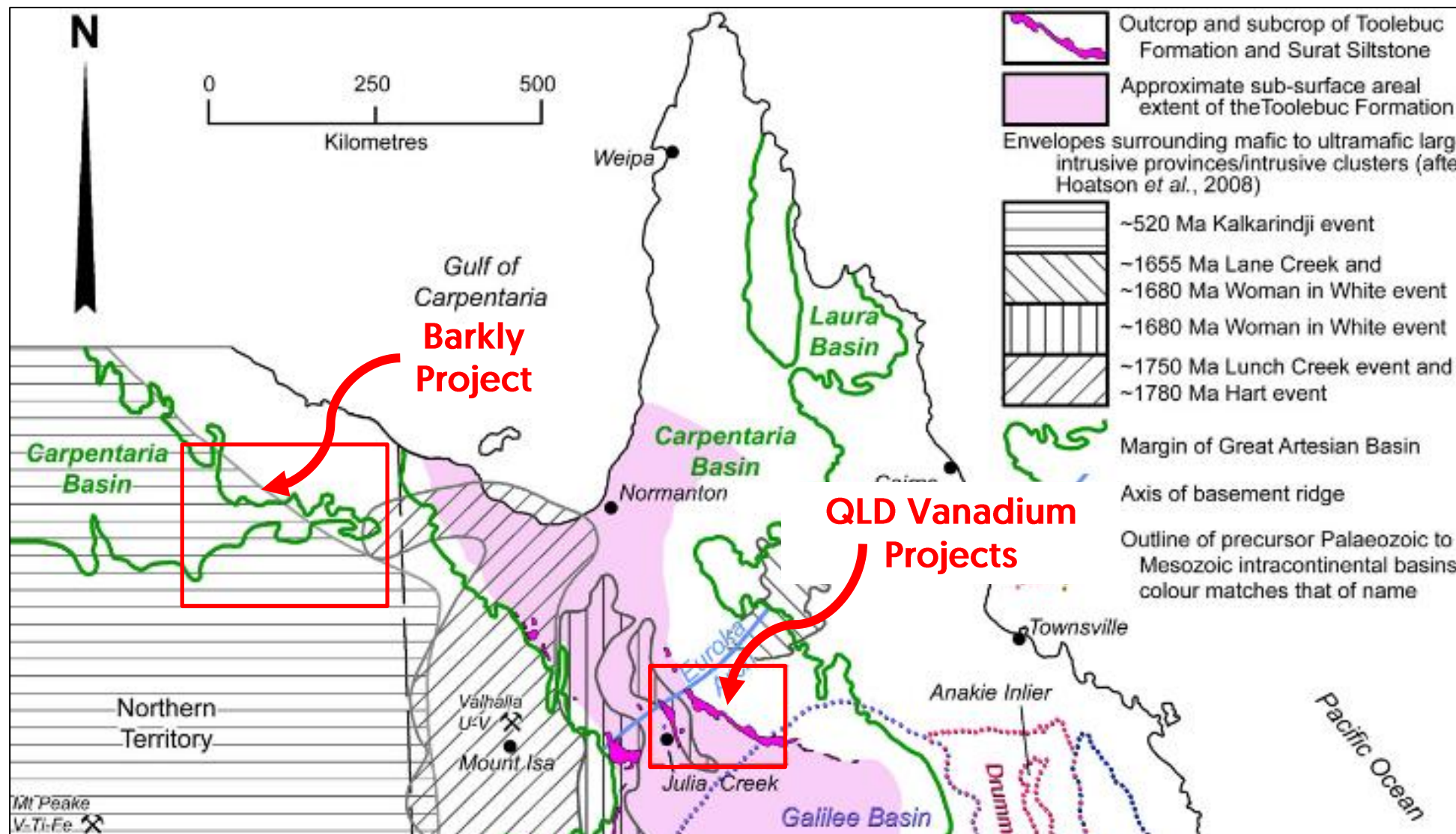


Rare Earths

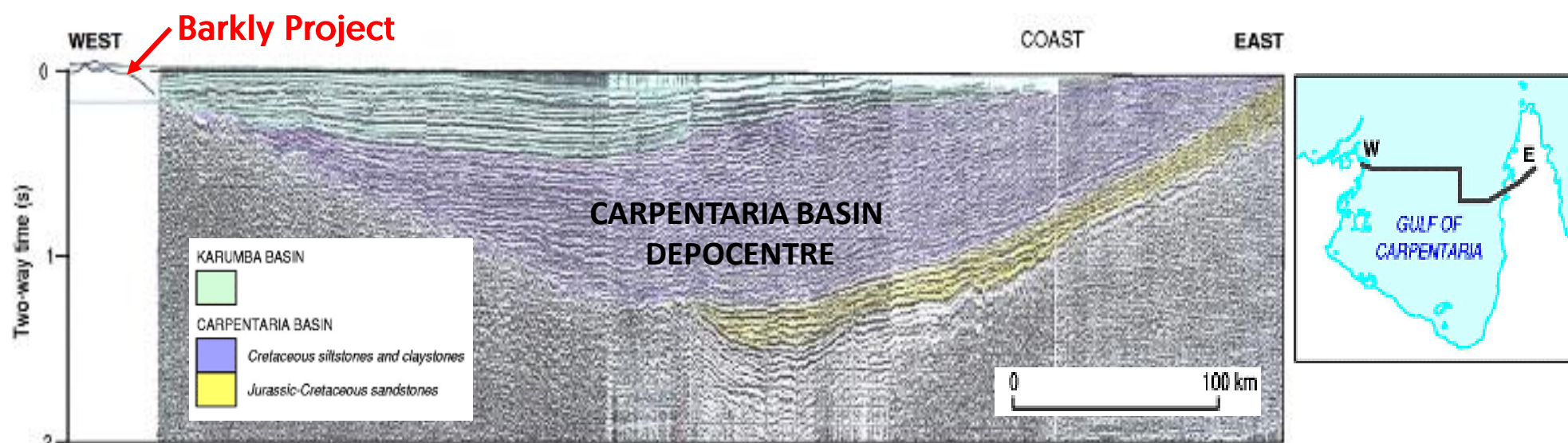


NEW REE + V DISCOVERY

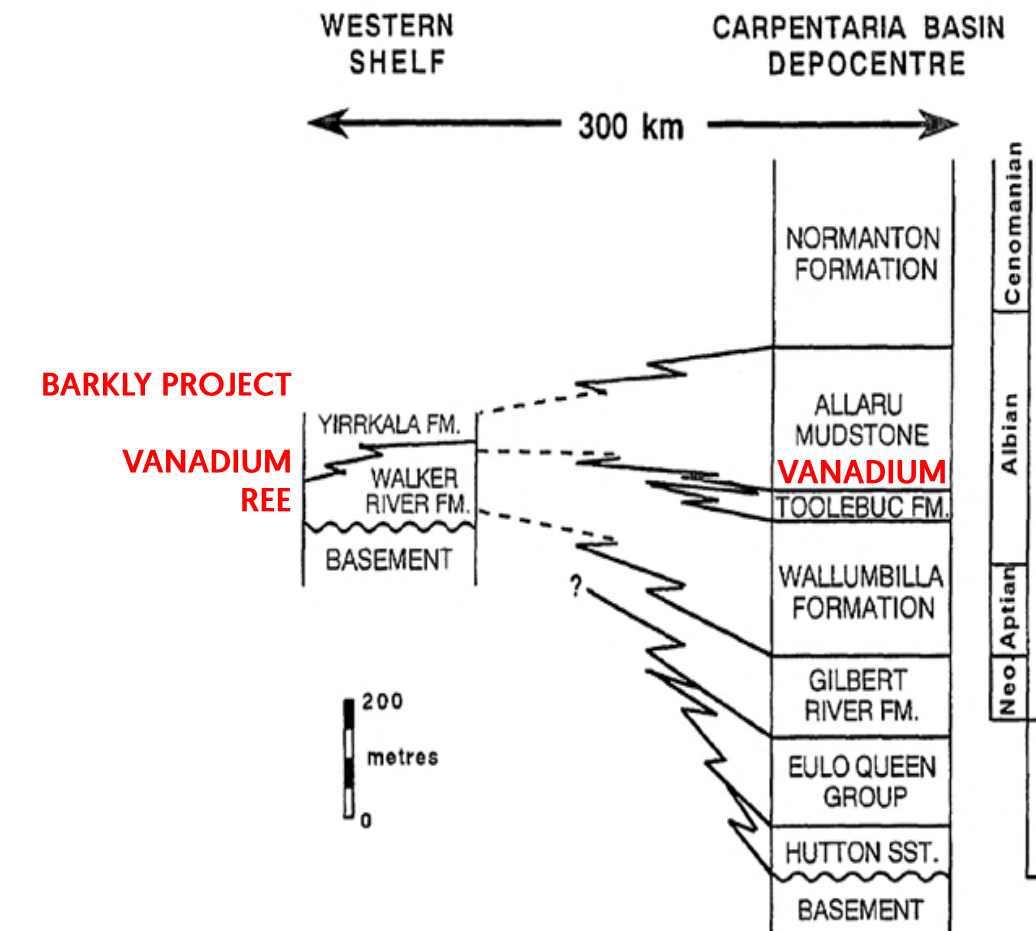
BARKLY PROJECT REGIONAL SETTING



Geological setting of the northern portion of the Carpentaria Basin (PorterGeo database image).



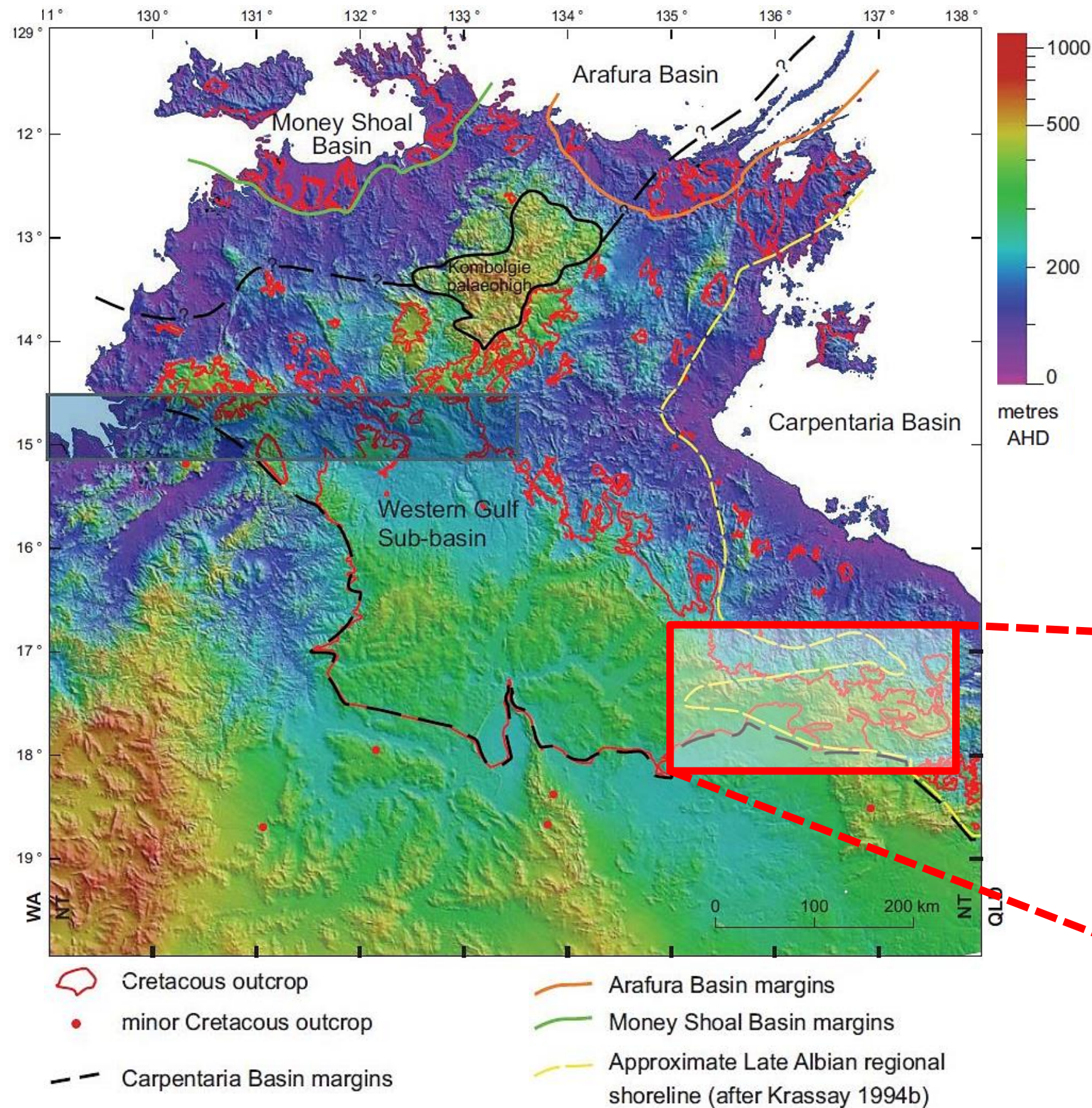
Carpentaria Basin regional cross-section (Geoscience Australia)



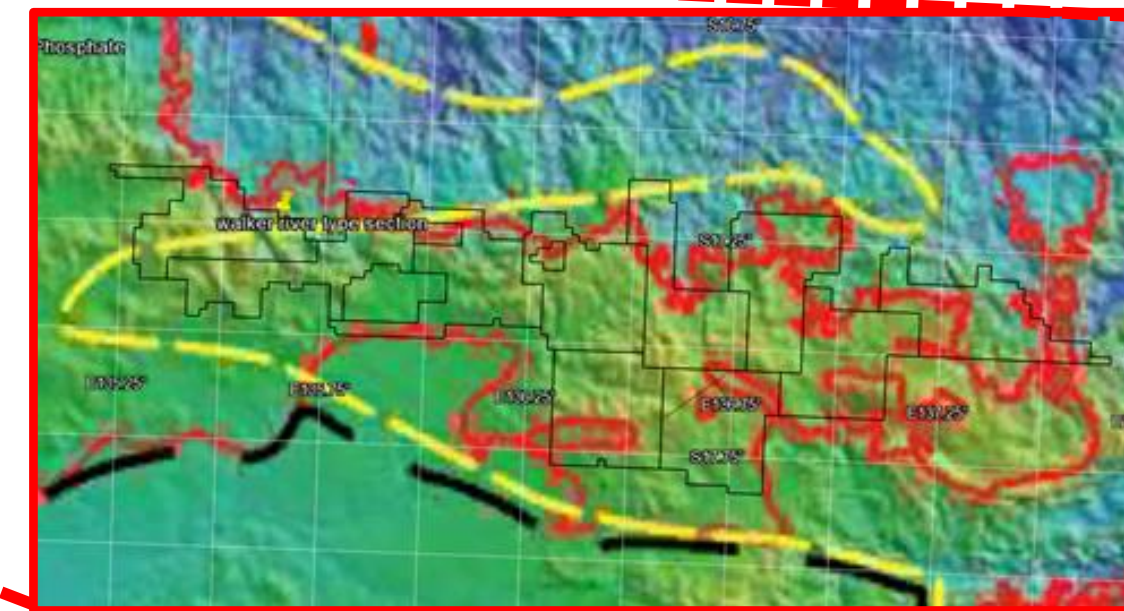
- At its depocentre, the Cretaceous Carpentaria Basin comprises stratigraphic units which host stratabound vanadium mineralisation and hydrocarbons within carbonaceous shales of the Toolebuc Formation (e.g., Burgess, I.R., 1984) (cf. Julia Creek, Richmond, St Elmo projects in Queensland).
- The Barkly Project lies on western shelf of the basin where the REE and corresponding vanadium units are confined and condensed to just two stratigraphic units developed at the basin edge (S. K. Skwarko, 1966).

NEW REE + V DISCOVERY

BARKLY PROJECT REGIONAL SETTING



- A large marine embayment is thought to have facilitated slack-water conditions that allowed for the deposition of pyritic mudflats that later oxidised. The Fe-oxide (mix of haematite and goethite) was preferentially enriched in vanadium (the Vanadis unit).
- The REE deposit may be a supergene enrichment that developed in the same embayment and that resulted from the shoreline retreating and becoming sub-aerially exposed at the Albian/Aptian transition (hiatus).

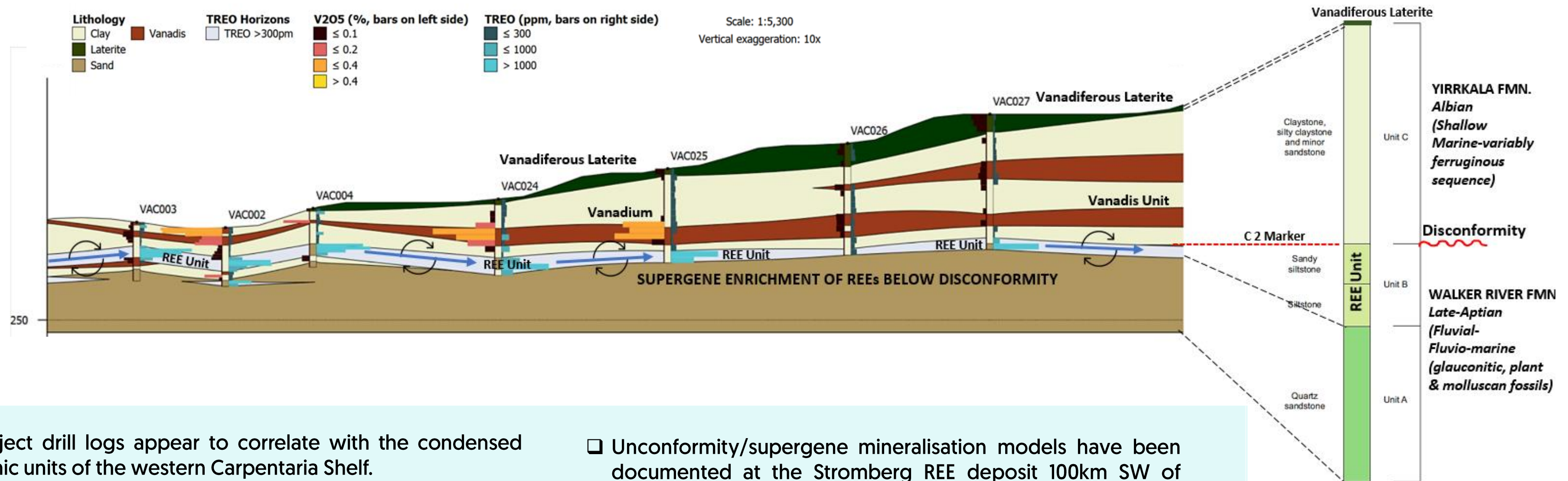


BARKLY PROJECT

(after Munson, T.J., Ahmad, M., and Dunster, J. N., 2013)

NEW REE + V DISCOVERY

DEPOSITIONAL & MINERALISATION MODELS



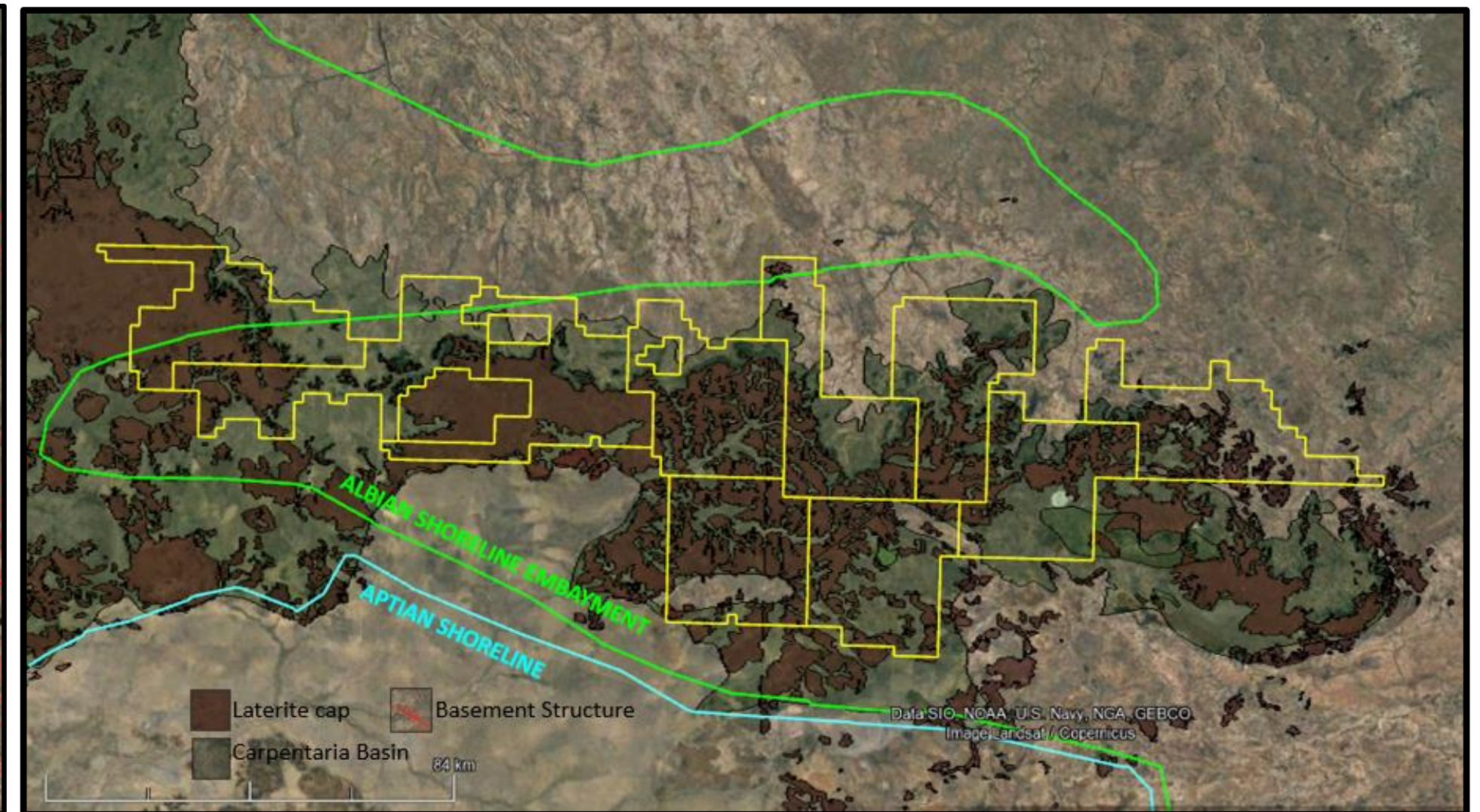
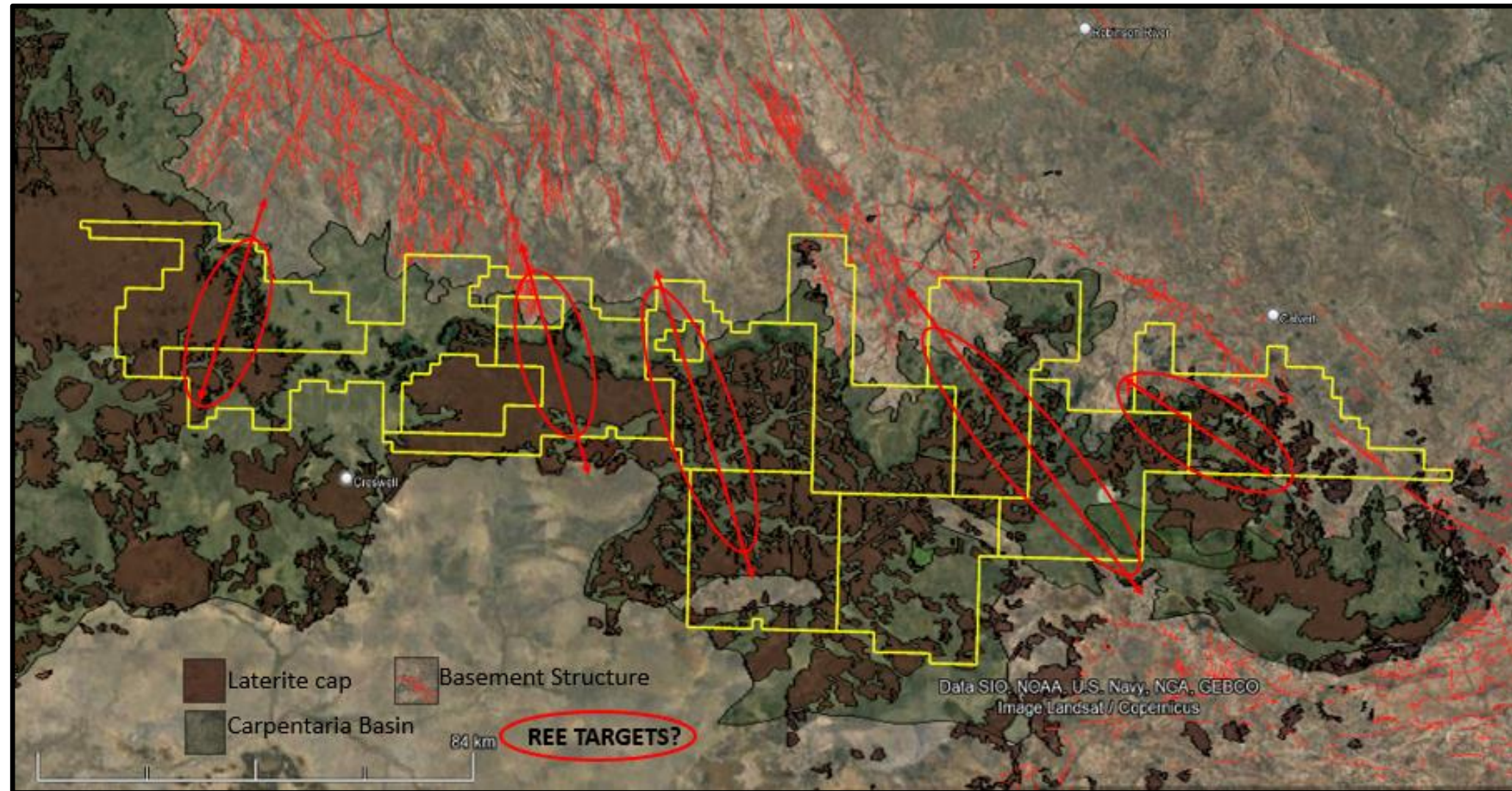
(Stratigraphic unit classification after Skwarko, 1966; Munson et al., 2013)

- ❑ Barkly Project drill logs appear to correlate with the condensed stratigraphic units of the western Carpentaria Shelf.
- ❑ Vanadium mineralisation appears to be confined to the marine sediments of the Yirrkala Formation, while the REE deposit appears to have developed below a disconformity overlying the Walker River Formation. Supergene enrichment of permeous sandstone and siltstones may have occurred during this depositional hiatus.
- ❑ The Barkly REE deposit is not an ionic adsorption clay deposit.
- ❑ The source of the REEs at Barkly is unclear. Discriminative SEM and microprobe work is ongoing.

- ❑ Unconformity/supergene mineralisation models have been documented at the Stromberg REE deposit 100km SW of Pinecreek, NT., where basement growth faults may have supplied some of the REE-rich hydrothermal fluids.
- ❑ At Barkly, there are three possible end-member mineralisation models being considered:
 - a) purely supergene processes.
 - b) a primary feature of the sedimentary host rock.
 - c) hydrothermal systems, or a shallow supergene expression of a deeper hydrothermal system.

NEW REE + V DISCOVERY

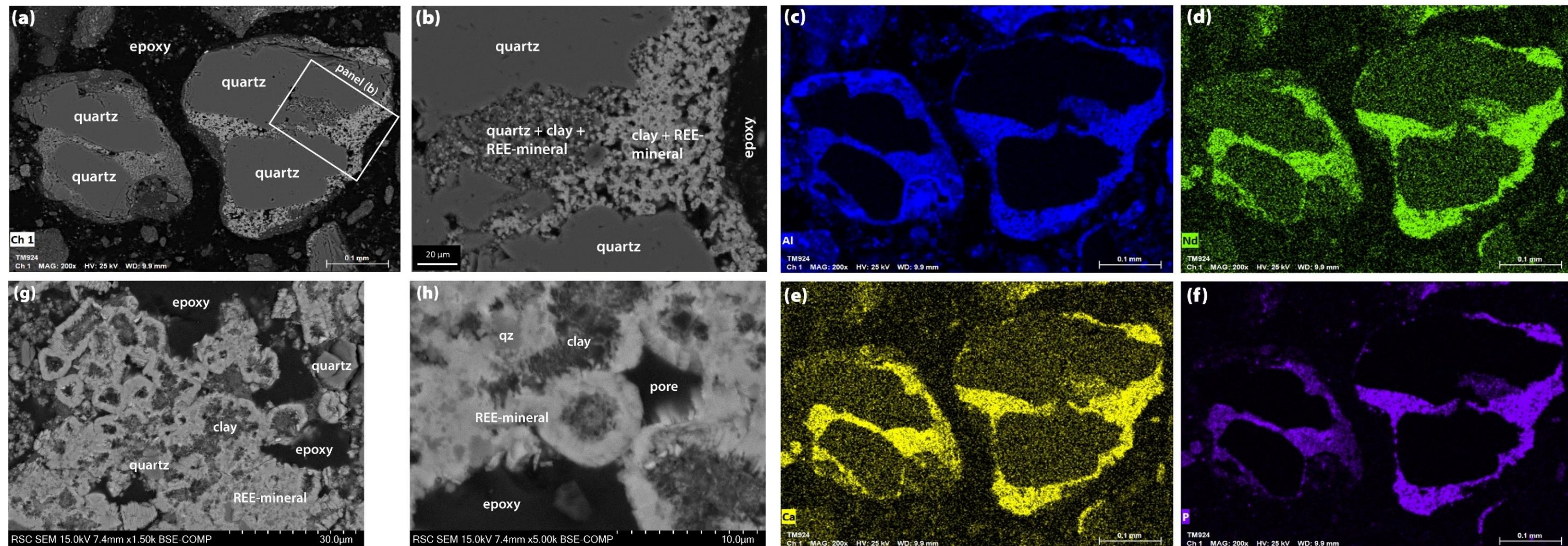
DEPOSITIONAL & MINERALISATION MODELS



- ❑ Barkly REE mineralisation may be linked to a magmatic source of REEs which ascended through basement growth faults (top left) and then interacted with meteoric water in supergene conditions at a redox boundary within open-pore (permeable) sediments (cf. Stromberg mineralisation model).
- ❑ Alternatively, with no magmatic source for the REE enrichment, an intra-basinal sedimentary source is invoked (marine phosphate host?) (i.e. depositional controls only, top right).
- ❑ The lack of radiogenic minerals at Barkly may suggest the REE fluids are non-magmatic in nature (no monazite etc), or alternatively, that the uranium component has since been remobilised.
- ❑ There is no identified carbonatite source.

NEW REE + V DISCOVERY

MINERALOGY & MINERAL SYSTEMS

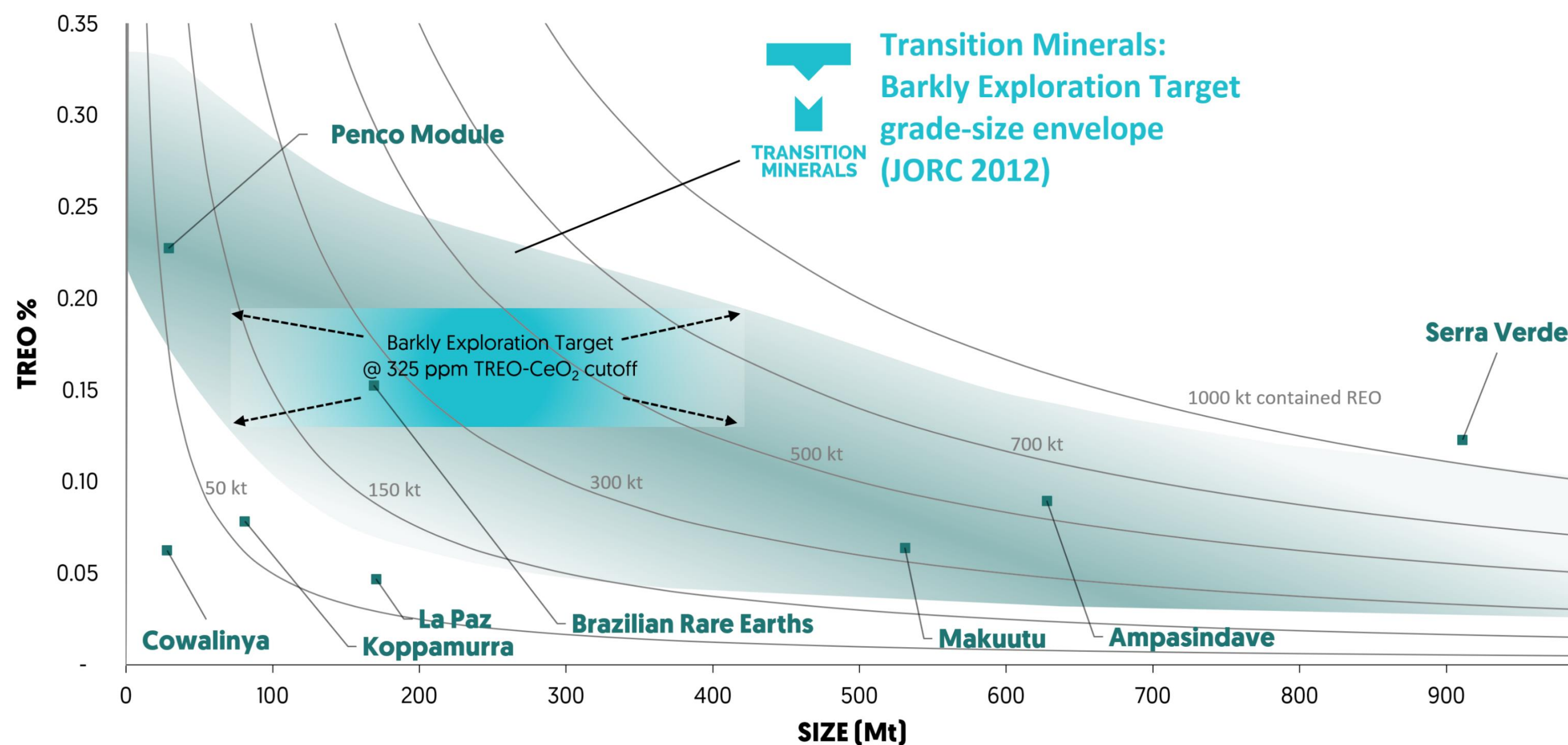


- ❑ Back-Scatter Electron (BSE) images (left) of REE minerals show them to be predominantly overgrowths on rims of quartz grains, and intergrowths with clay and quartz.
- ❑ The REEs appear to occur as a suite of aluminium-phosphate-sulphur (APS) minerals, subject to ongoing work for positive identification.
- ❑ The main REE-bearing mineral has been identified as an aluminophosphate. Elemental analyses of these minerals identify Ca, Al, Ba, REE and S.

TRANSITION: A STANDOUT REE DEPOSIT

GRADES AND TONNES

Clay-Hosted REE Resources: Grade (TREO) vs Size (Mt)
contoured by contained rare earth oxide (kt)



NOTE: It is the Company's intent to list on a securities exchange, as yet undefined.

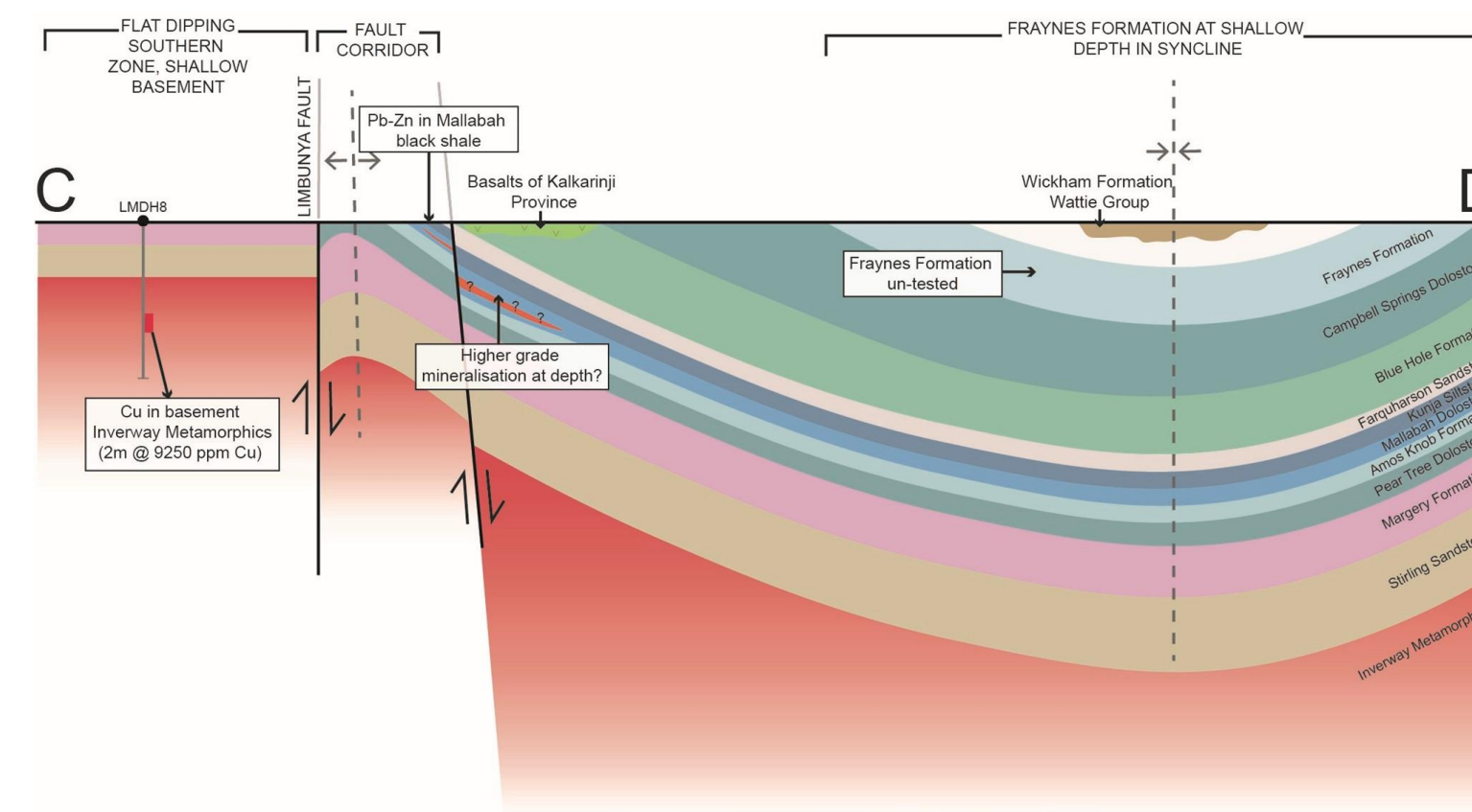
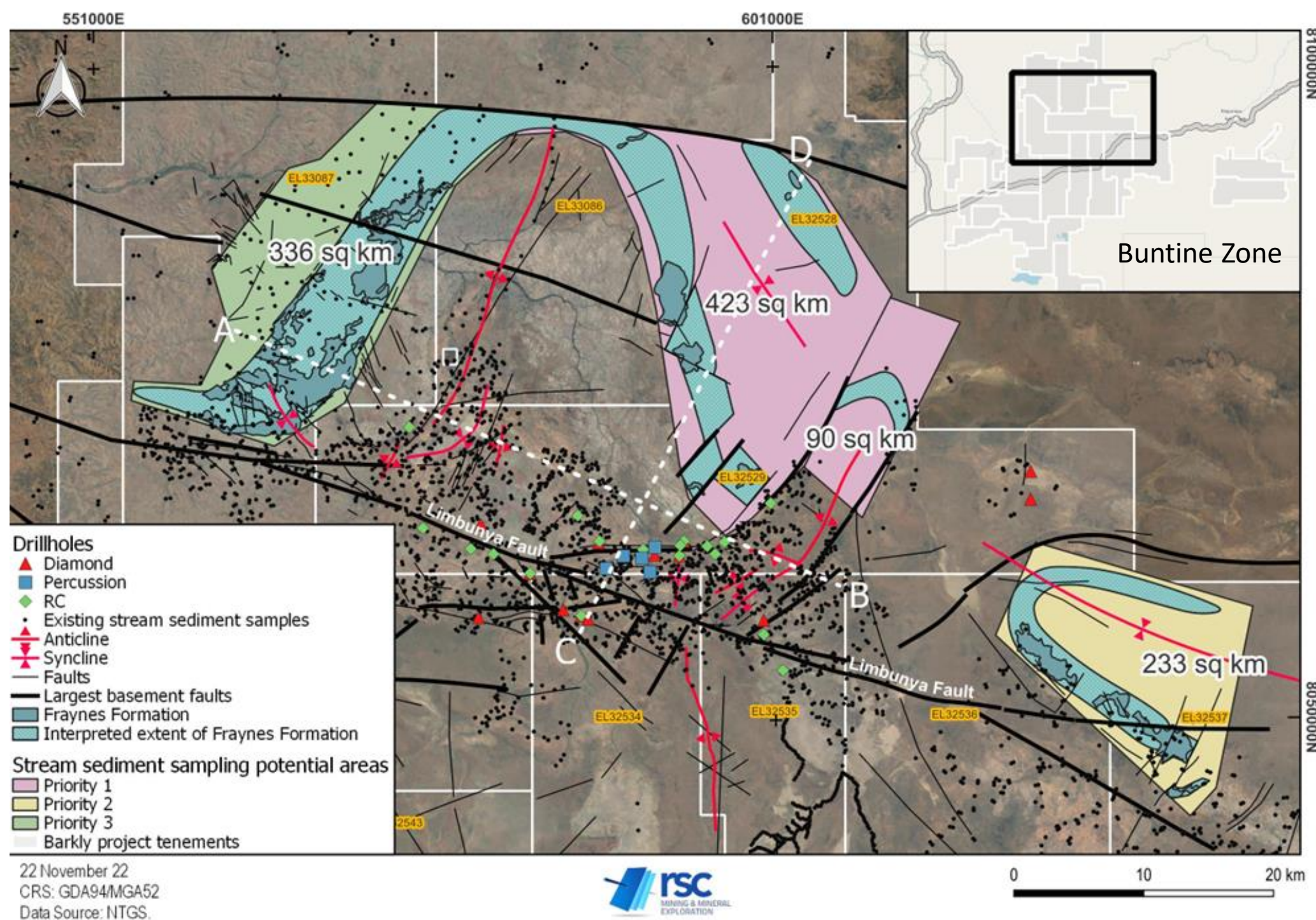
The peer comparison on this page is in accordance with ASX Compliance Update no. 08/18 [19 September 2018] and the Company confirms that in its comparison, it has not used inappropriate reference points, has clearly disclosed the different resource categories that are included (refer to Appendix A), has not biased the selection of data points to benefit the disclosing entity, has clearly disclosed differences in the stage of projects, and has disclosed all material assumptions in this announcement.

FUTURE OPPORTUNITY: NEW LEAD-ZINC TARGET

IDENTIFICATION OF NEW, REGIONAL-SCALE, SEDIMENT-HOSTED BASE METALS SYSTEM

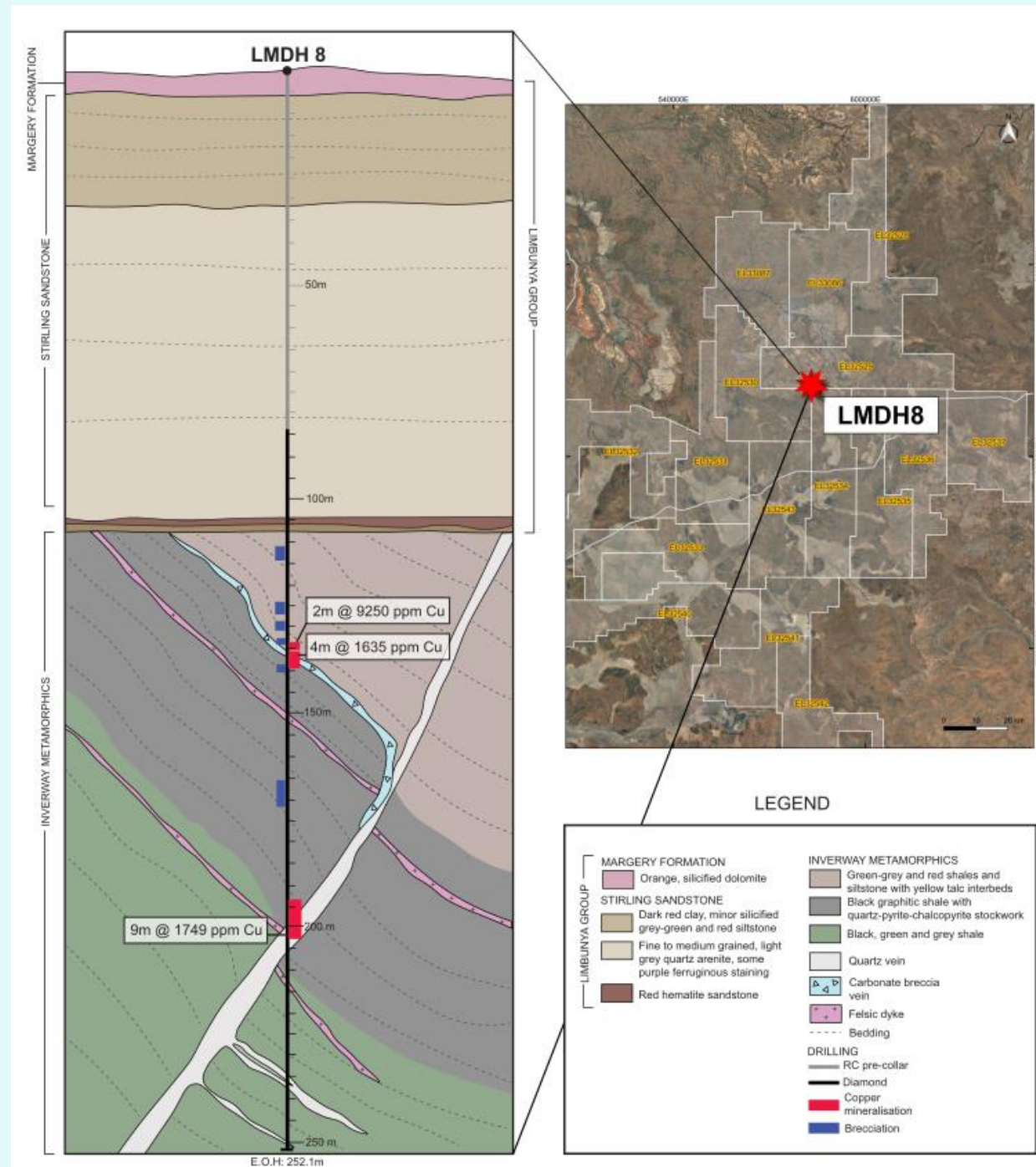
The Limbunya area has all the important geological ingredients to host a sediment-hosted Pb-Zn deposit

Dr Michael Gazley
RSC



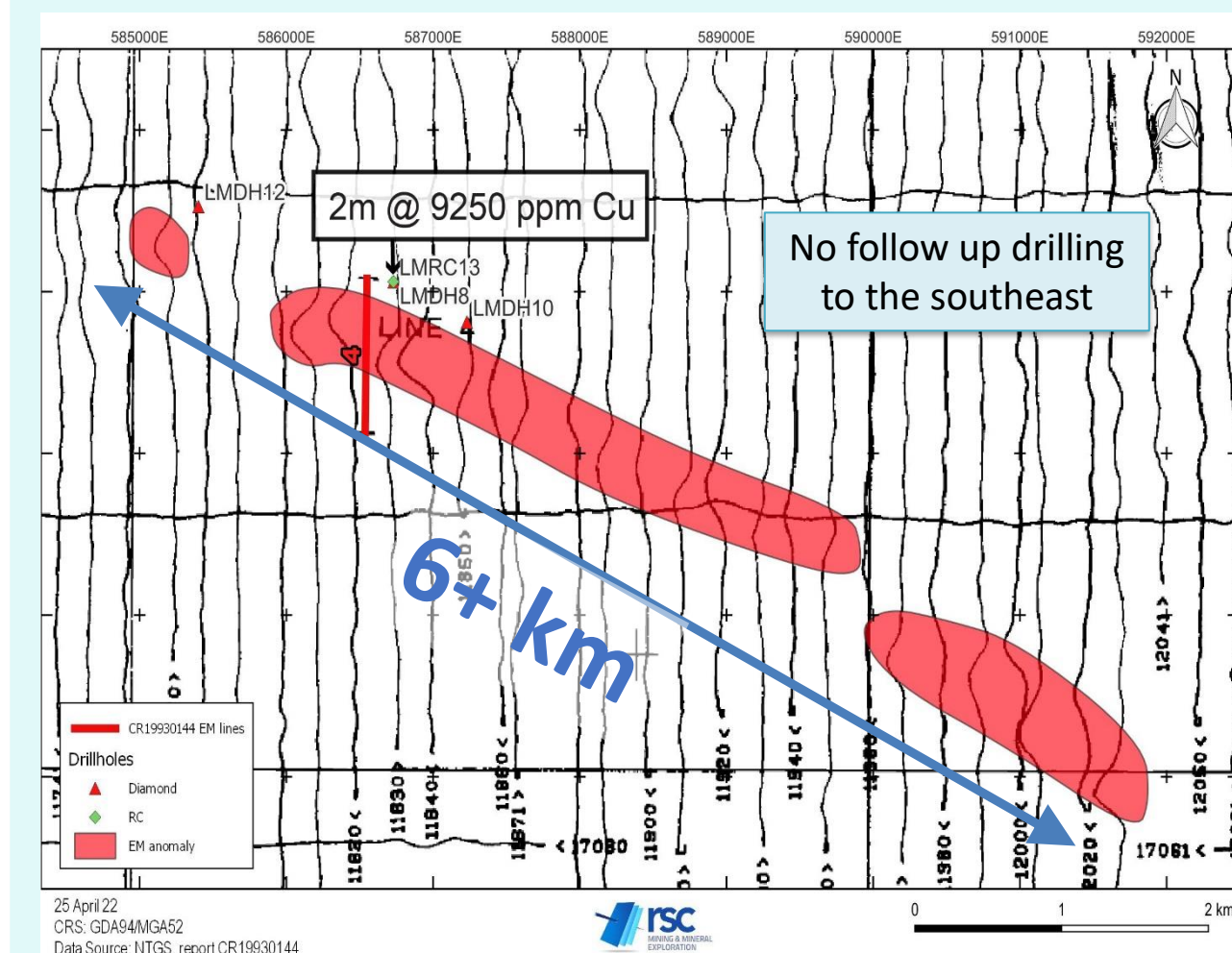
FUTURE OPPORTUNITY: BASEMENT COPPER TARGET

COPPER DRILL INTERCEPTS ON EM ANOMALY



Copper, Gold, Cobalt, Manganese Exploration Opportunities for Follow-Up

- ✓ Begging for modern exploration techniques to be applied
- ✓ Copper mineralisation in basement rocks under cover at 100–200 m explorable depths
- ✓ EM anomaly associated with copper mineralisation open and untested along 6 km strike extent
- ✓ Opportunity to utilise modern EM techniques to define new targets
- ✓ Basement rock potential correlates with the highly endowed Tanami Province



DISCOVERY DRILLHOLE HIGHLIGHTS

LMDH8: 6 m @ 4173 ppm Cu incl. 2 m @ 9250 ppm
 4 m @ 1525 ppm Cu
 9 m @ 1749 ppm Cu

LMBD2: 7 m @ 1.1 g/t Au

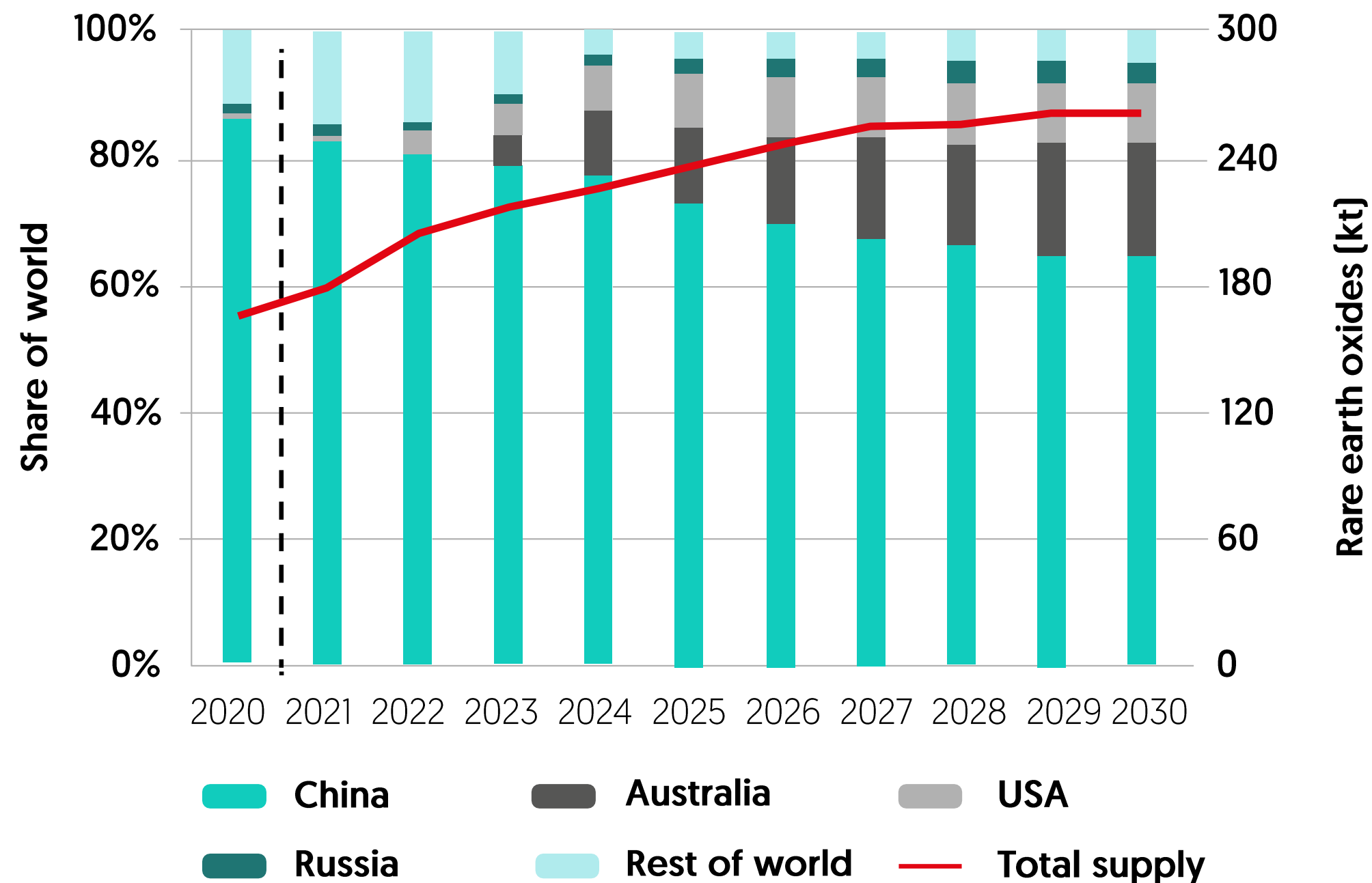


MARKETS & POINTS OF DIFFERENCE

RARE EARTH MARKET

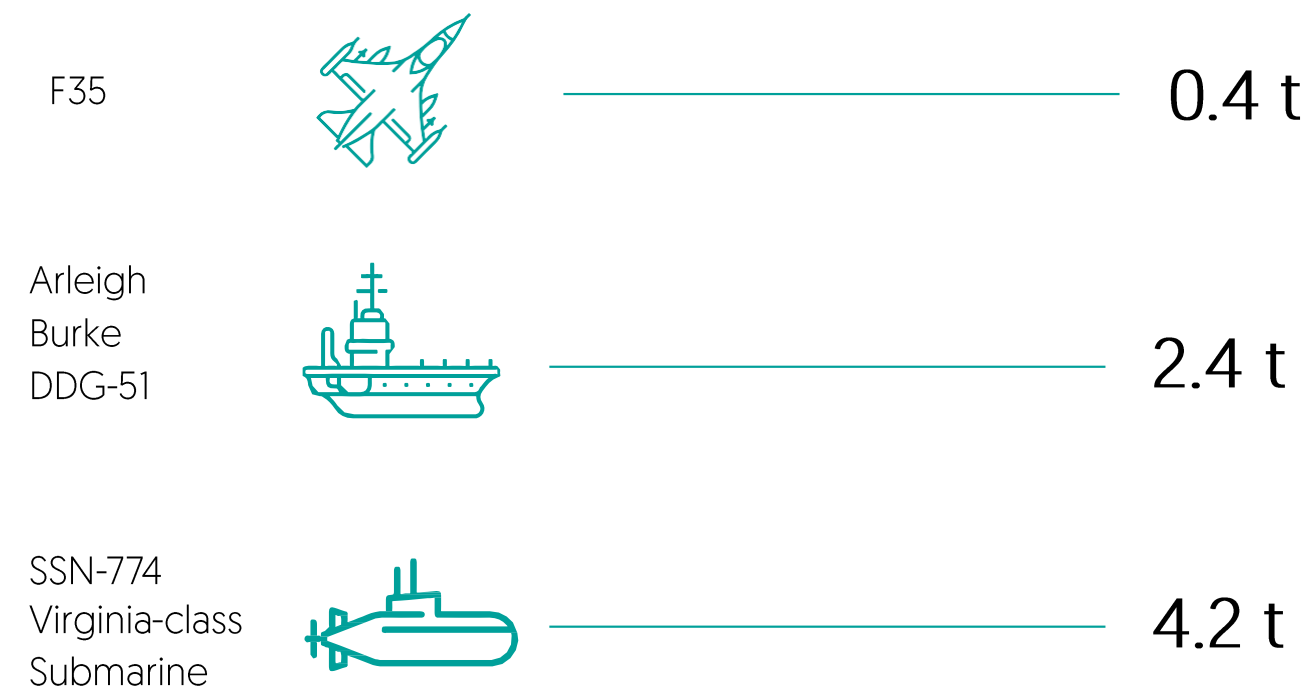
SOVEREIGN ACTORS PROMOTING RELIABLE SUPPLY SOURCES

Projected rare earths mine production by country



Source: Roskill [2021]; Department of Industry, Science, Energy and Resources [2021]

Rare earth materials used to make each



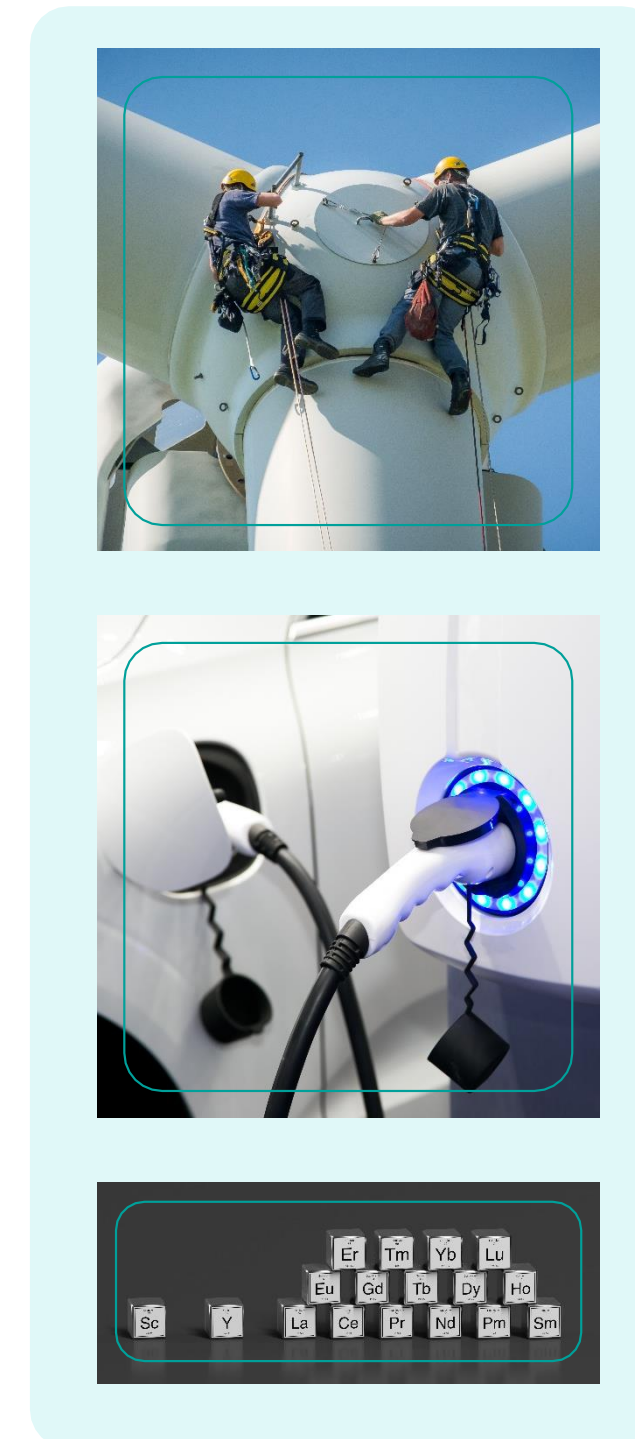
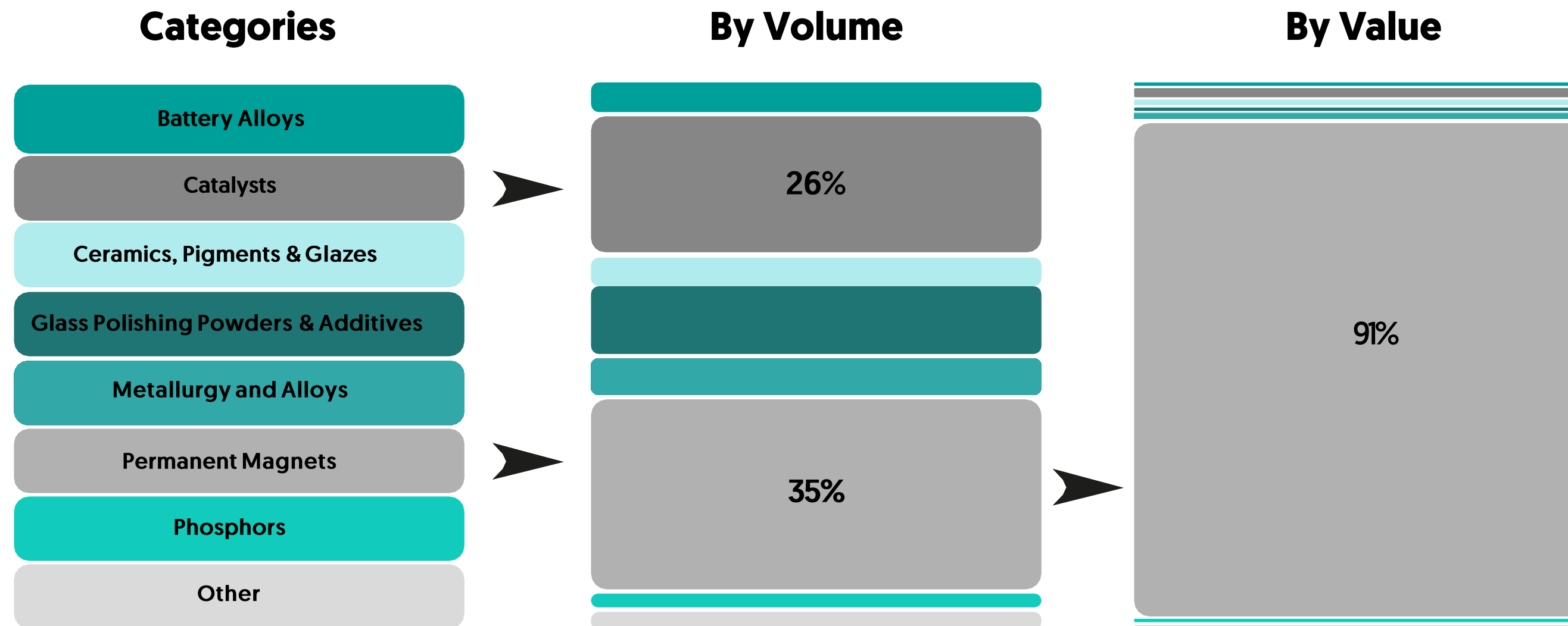
Source: Congressional Research Service/Ionic Rare Earths

16 August 2022 US Inflation Reduction Act “reclaiming critical minerals chains”; tax incentives for renewable energy and support for addressing climate change.

— only applicable if the materials used come from either the US or nations with which the US has Free Trade Agreements.

RARE EARTH MARKET

THE HOTTEST MARKET RIGHT NOW: DRIVING THE DECARBONISATION AND GREEN ENERGY TRANSITION



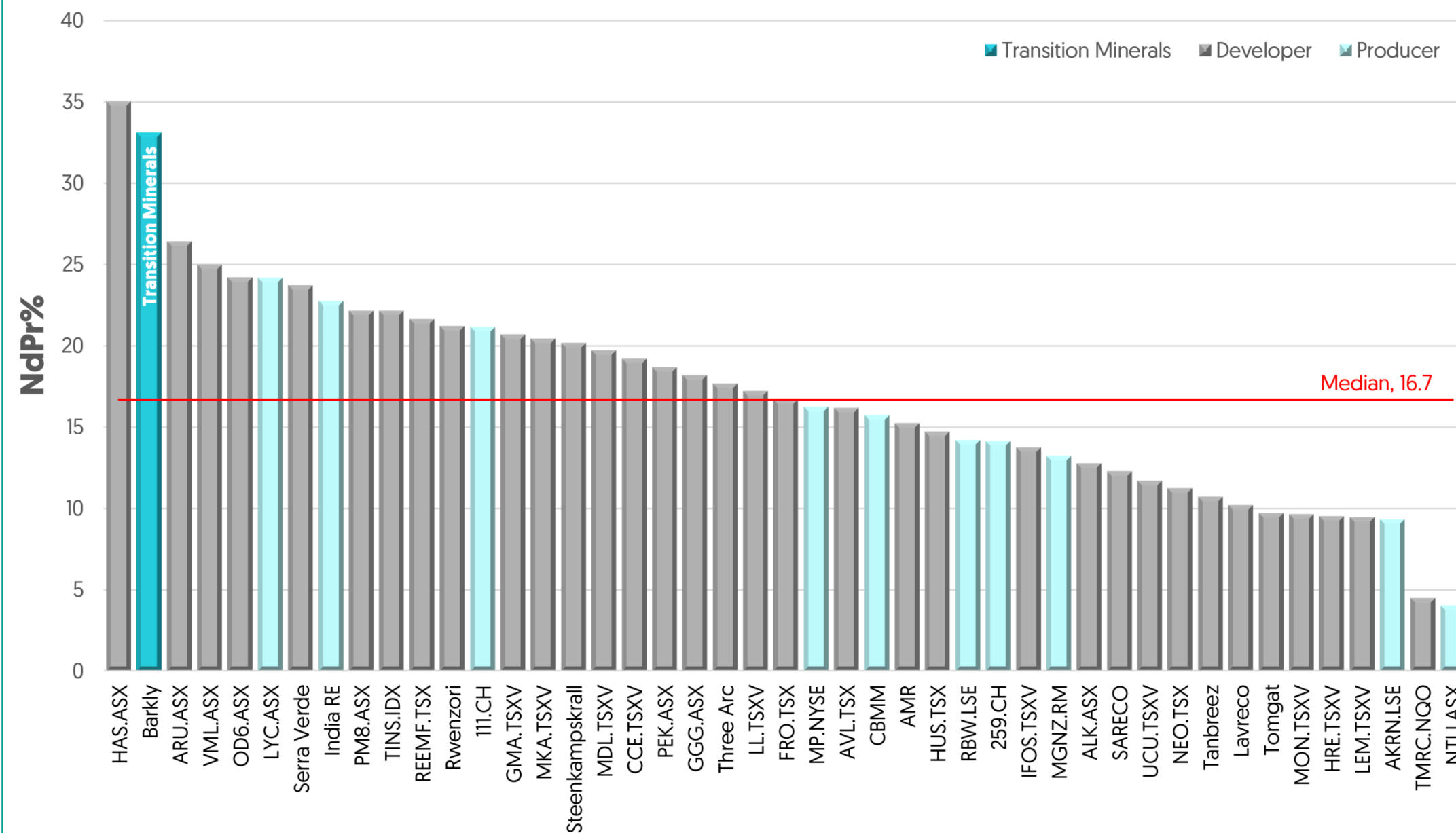
“Not only does demand for neodymium, praseodymium, dysprosium and terbium make up the lion’s share of global value today, but in the years ahead demand for these four rare earth elements is expected to grow faster than demand for all other rare earth elements, challenging the ability of the supply-side to keep up.”

Source: <http://www.adamasintel.com/wp-content/uploads/2019/06/Adamas-Intelligence-Rare-Earths-Small-Market-Big-Necessity-Q2-2019.pdf>

TRANSITION: A REE MARKET LEADER

GLOBALY SIGNIFICANT NdPr RATIO AT BARKLY

NdPr% of Rare Earth Projects

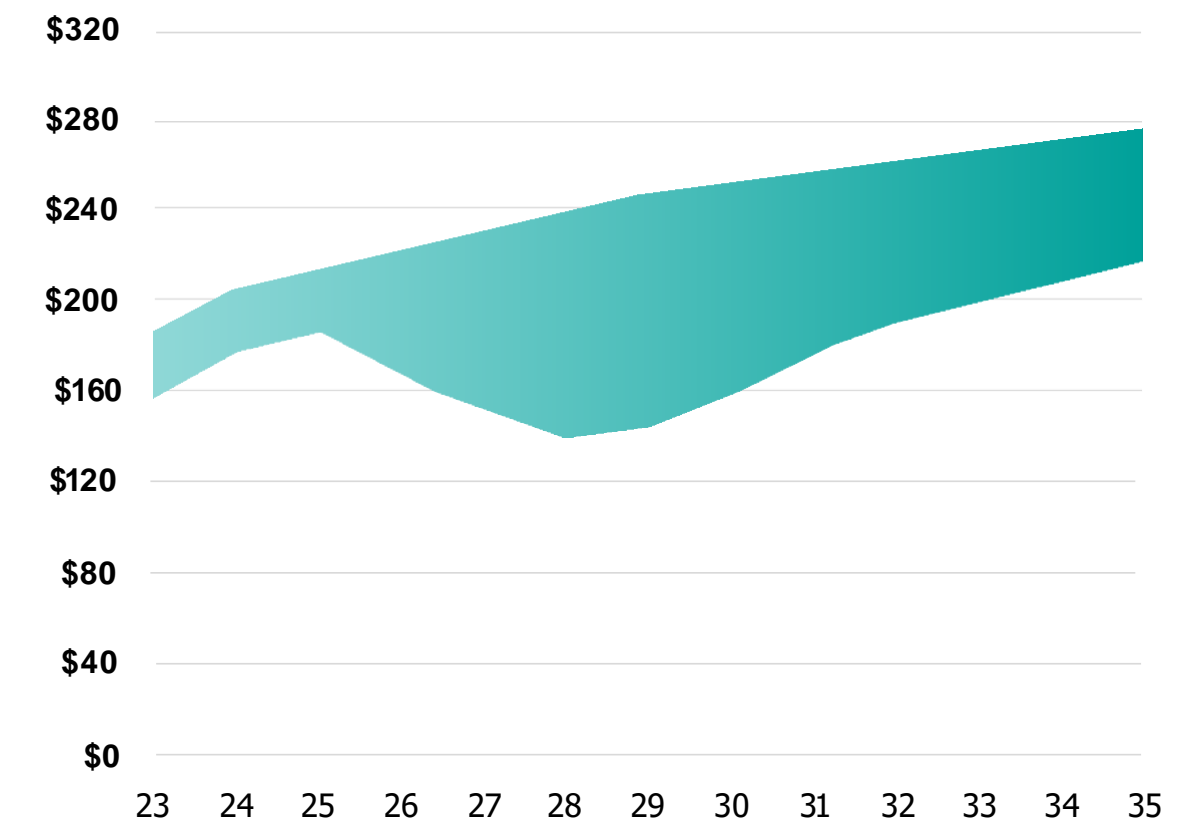


Source: Hastings Technology Metals Ltd

Transition's Barkly Project contains more of the most sought after Rare Earth Elements.

NdPr/TREO: major value influence

Forecast NdPr Oxide Price (US\$/kg)



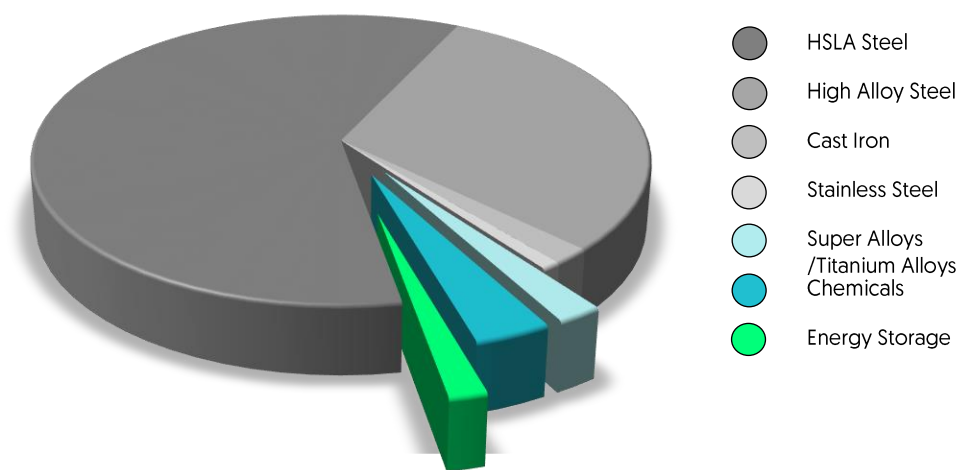
Source: Adamas Intelligence as reported by Peak Rare Earths

VANADIUM MARKET

INVESTMENT RATIONALE: PRIME POSITIONING

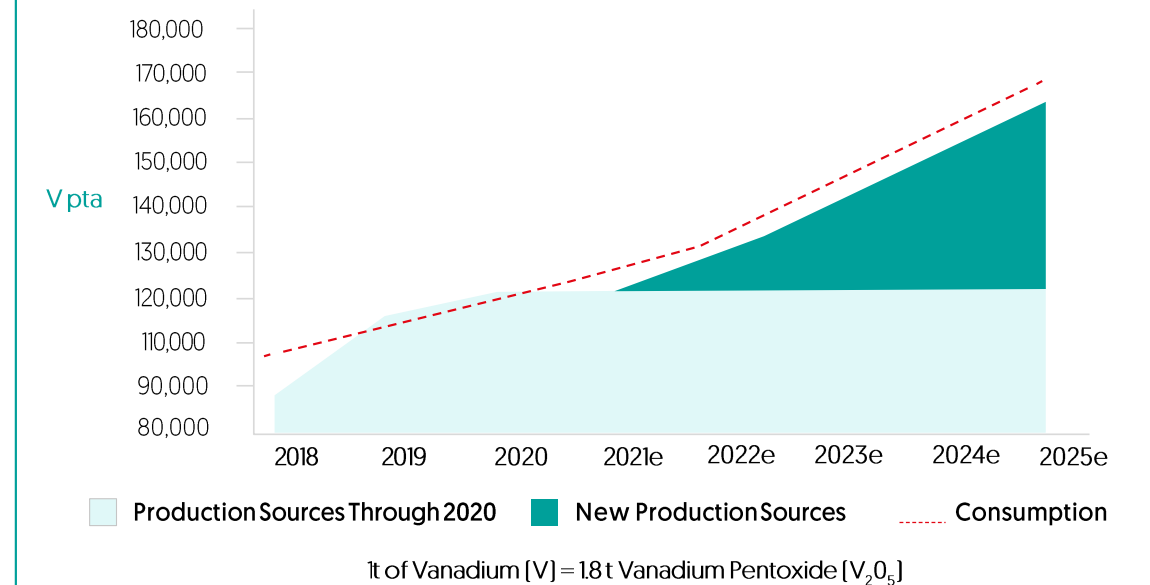


2021 Vanadium Consumption: 118,000 MtV



Source: TTP Squared

Vanadium Demand And Consumption



Source: Technology Metals Australia & TTP Squared

Vanadium Energy Storage Market

The World Bank Group forecasts that by 2050, vanadium demand from energy storage alone could consume nearly twice the 2018 global vanadium production.

[Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition; World Bank Group 2020]

According to Guidehouse Insights, annual VRFB installations will reach ~15,000 MWh in 2027, equating to ~82 kt vanadium annual consumption.

Hornsedale Power Reserve image by Image propriété Neoen [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/)



FUTURE

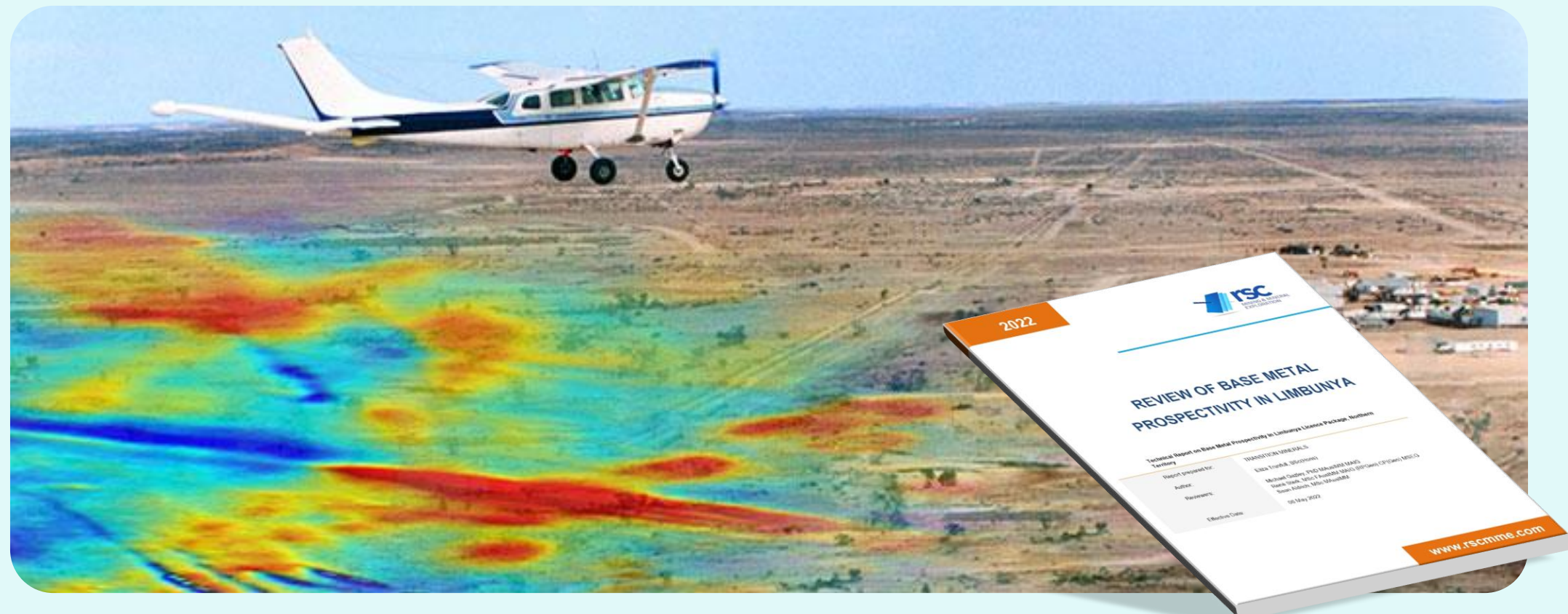
WORK PLAN


VALUE GENERATION AHEAD



Clear Goals for Value Generation 2023

- ✓ IPO
- ✓ Drilling — AC and RC for resource extent and definition
- ✓ Resource reporting [JORC 2012]
- ✓ Regional reconnaissance exploration
- ✓ Further discovery
- ✓ Marketing:
 - Limbunya Base Metals Project promotion
 - Potential offtake partnering
- ✓ Geophysics
- ✓ Metallurgy & Mineralogy
- ✓ Preliminary Scoping





**TRANSITION
MINERALS**



+61 460 344 628



admin@transitionminerals.com



13–15 Rheola St, West Perth WA 6005 Australia



www.transitionminerals.com



Clay-Hosted, REE, Resource Data References

This appendix includes the most recent clay-hosted, rare earth mineral resources reported under different codes by companies at different stages of development, as at 5 December 2022.

Company	Project	Stage	Citation	Details	Code	Link
Aclara Resources Inc. [TSX:ARA]	Penco Module	PEA, advancing EIA	Aclara Resources Inc. TSX News Release 1 December 2022, Table 2	29.2 Mt @ 0.2275 ppm TREO [Measured 21.3 Mt @ 2315 ppm; Indicated 6.2 Mt @ 2212 ppm; Inferred 1.7 Mt @ 1999 ppm]	NI 43-101	https://www.sedar.com/GetFile.do?lang=EN&docClass=8&issuerNo=00053428&issuerType=03&projectNo=03469247&docId=5326562
American Rare Earths Limited [ASX:ARR]	La Paz	Advancing PEA	American Rare Earths Limited ASX announcement 3 August 2021, Table 1	170.6 Mt @ 469 ppm TREO [Indicated 35.2 Mt @ 459 ppm; Inferred 135.4 Mt @ 472 ppm]	JORC 2012	https://americanrareearths.com.au/wp-content/uploads/2021/08/20210803-ASX-Release.pdf
Australian Rare Earths Limited [ASX:AR3]	Koppamurra	Resource definition	Australian Rare Earths Limited ASX announcement 4 July 2022	81.4 Mt @ 785 ppm TREO [Indicated 45 Mt @ 835 ppm; Inferred 36 Mt @ 721 ppm]	JORC 2012	https://ar3.com.au/4-7-22-104-increase-in-mineral-resource-at-koppamurra-project/
Brazilian Rare Earths Limited	Not specified	Not specified	Financial Review media report	169 Mt @ 1526 ppm TREO [category not reported]	JORC [edition not specified]	https://www.ginarinehart.com.au/gina-rinehart-tips-into-ipo-hopeful-brazilian-rare-earths/
Heavy Rare Earths Limited [ASX:HRE]	Cowalinya	Exploration	Heavy Rare Earths Limited prospectus lodged with ASX 5 July 2022, Table 5.1, Appendix 7, Annexure A: Cowalinya Resource Report 11 February 2022	Inferred 28 Mt @ 625 ppm TREO	JORC 2012	https://wcsecure.weblink.com.au/pdf/HRE/02556236.pdf
Ionic Rare Earths Limited [ASX:IXR]	Makuutu	Advancing Ore Reserve	Ionic Rare Earths Limited ASX announcement 3 May 2022, Table 1	532 Mt @ 640 ppm TREO [Indicated 404 Mt @ 670 ppm; Inferred 127 Mt @ 540 ppm]	JORC 2012	https://wcsecure.weblink.com.au/pdf/IXR/02517527.pdf
Mineração Serra Verde [Denham Capital]	Serra Verde	Plant construction	Denham Capital presentation, August 2016	911 Mt @ 0.123% TREO [Measured 22 Mt @ 0.21%; Indicated 368 Mt @ 0.15%; Inferred 521 Mt @ 0.10%] including Reserves [Proven 22 Mt @ 0.21%; Probable 329 Mt @ 0.15%]	NI 43-101	https://clientesinterativa.com.br/bccc-events/uploads/files/2017-03/58c6d7b3e9c66.pdf
Reenova Investment Holding Limited	Ampasindave	Resource definition	Tantalus Rare Earths AG Updated NI 43-101 10 June 2016, Table 1-1	627.7 Mt @ 895 ppm TREO [Measured 40.1 Mt @ 975 ppm; Indicated 157.6 Mt @ 878 ppm; Inferred 430 Mt @ 894 ppm]	NI 43-101	https://reenovagroup.listedcompany.com/newsroom/20160722_174543_5EC_LHQ3DXU7H7RN0R9F.2.pdf