



Mineral exploration in the NT – An overview | MINING THE TERRITORY

Ian Scrimgeour
Senior Executive Director, NT Geological Survey

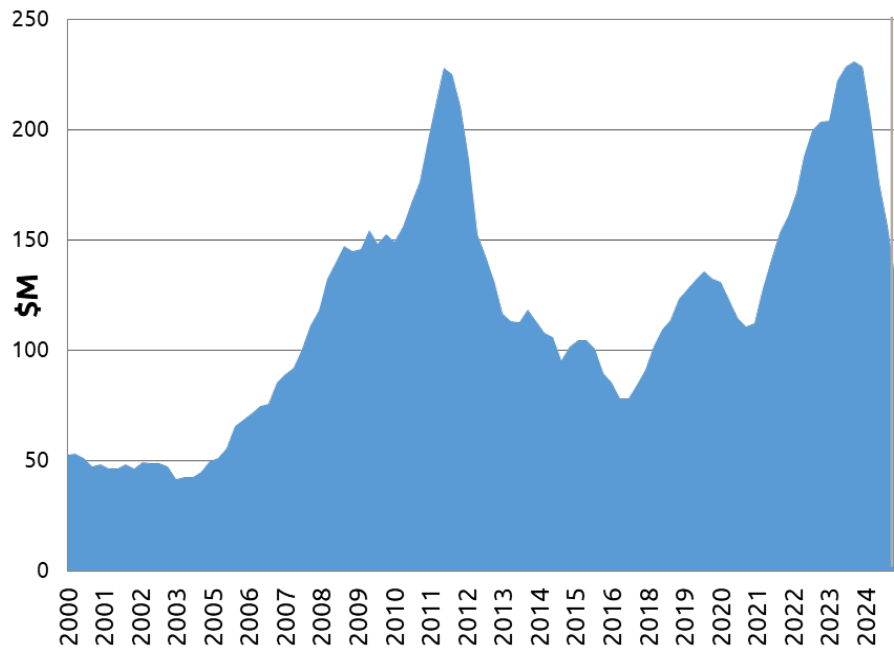
Department of MINING AND ENERGY



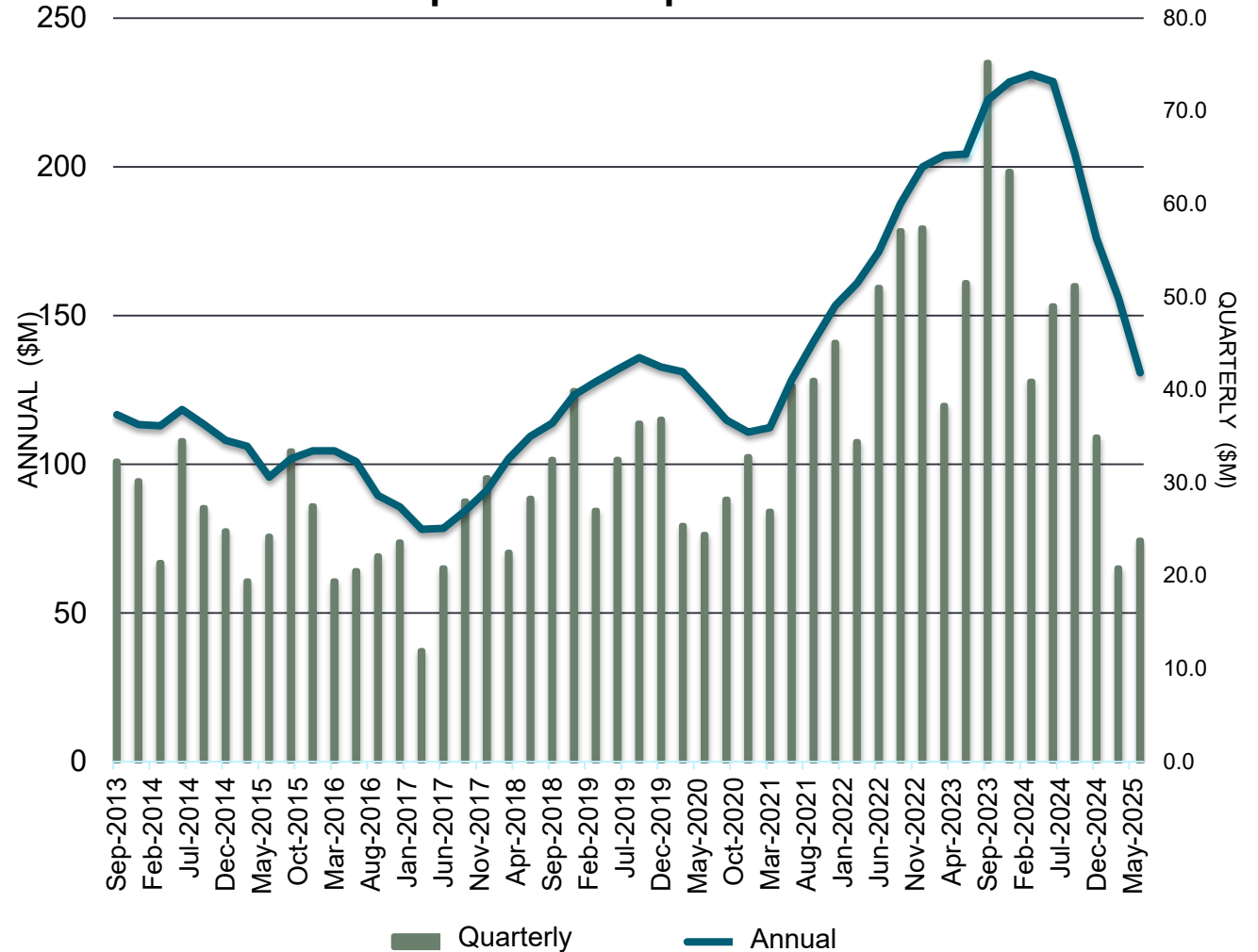
NT mineral exploration expenditure

- Tough year for mineral exploration in the NT
- 43% drop to \$130 million in 2024/25
- Fall led by critical minerals (lithium, rare earths)

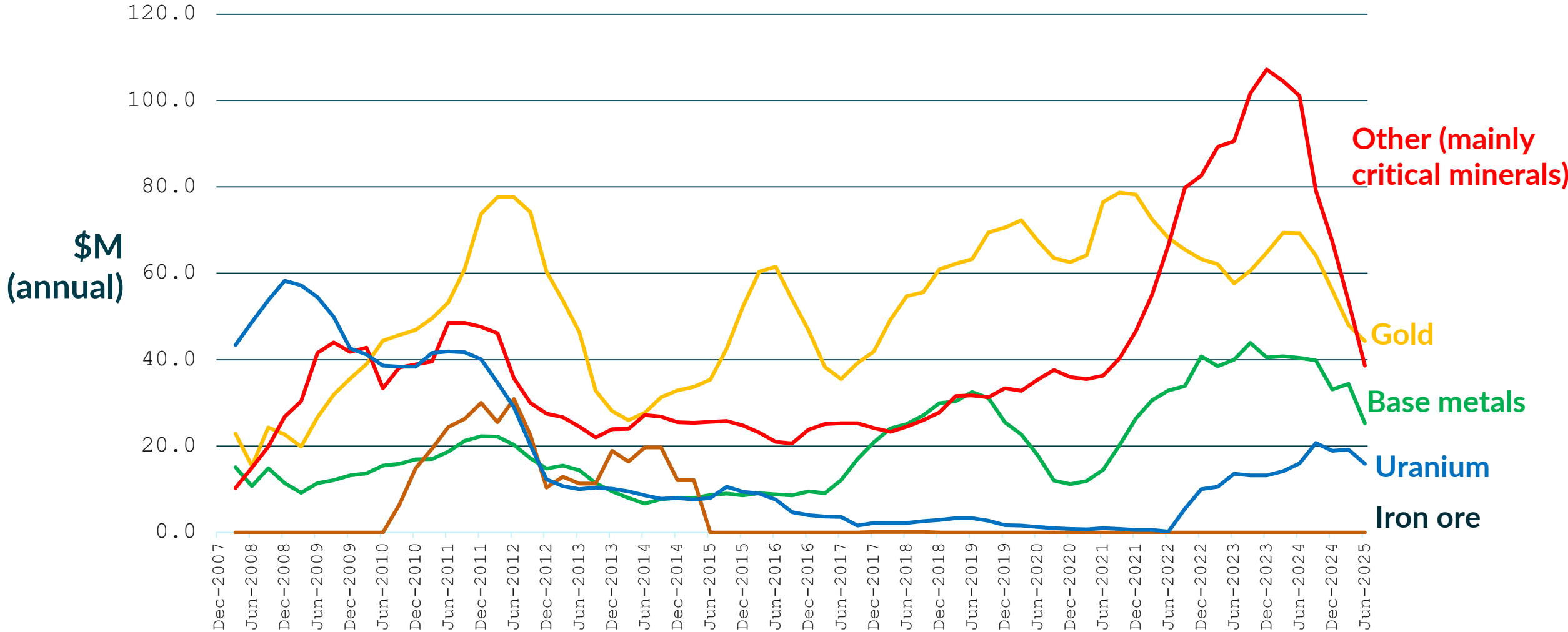
NT Mineral Exploration expenditure since 2000

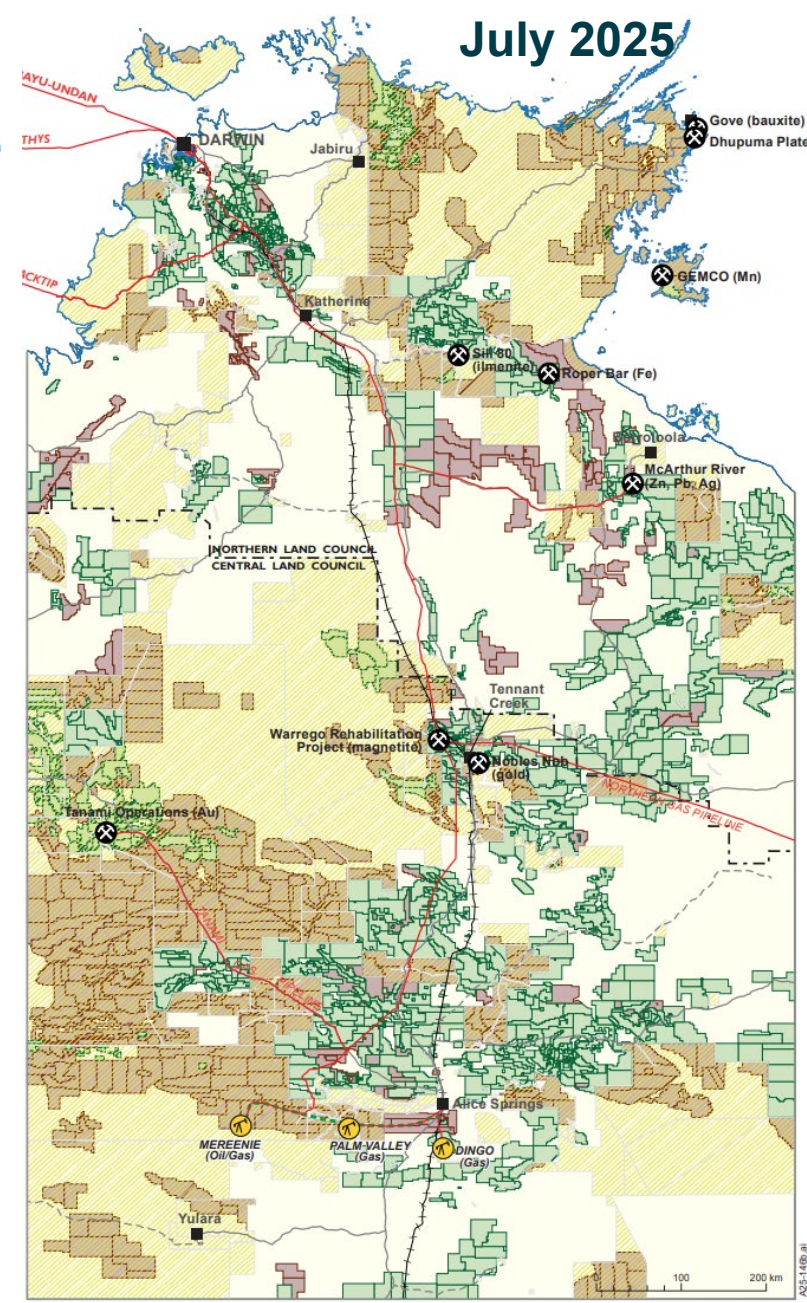
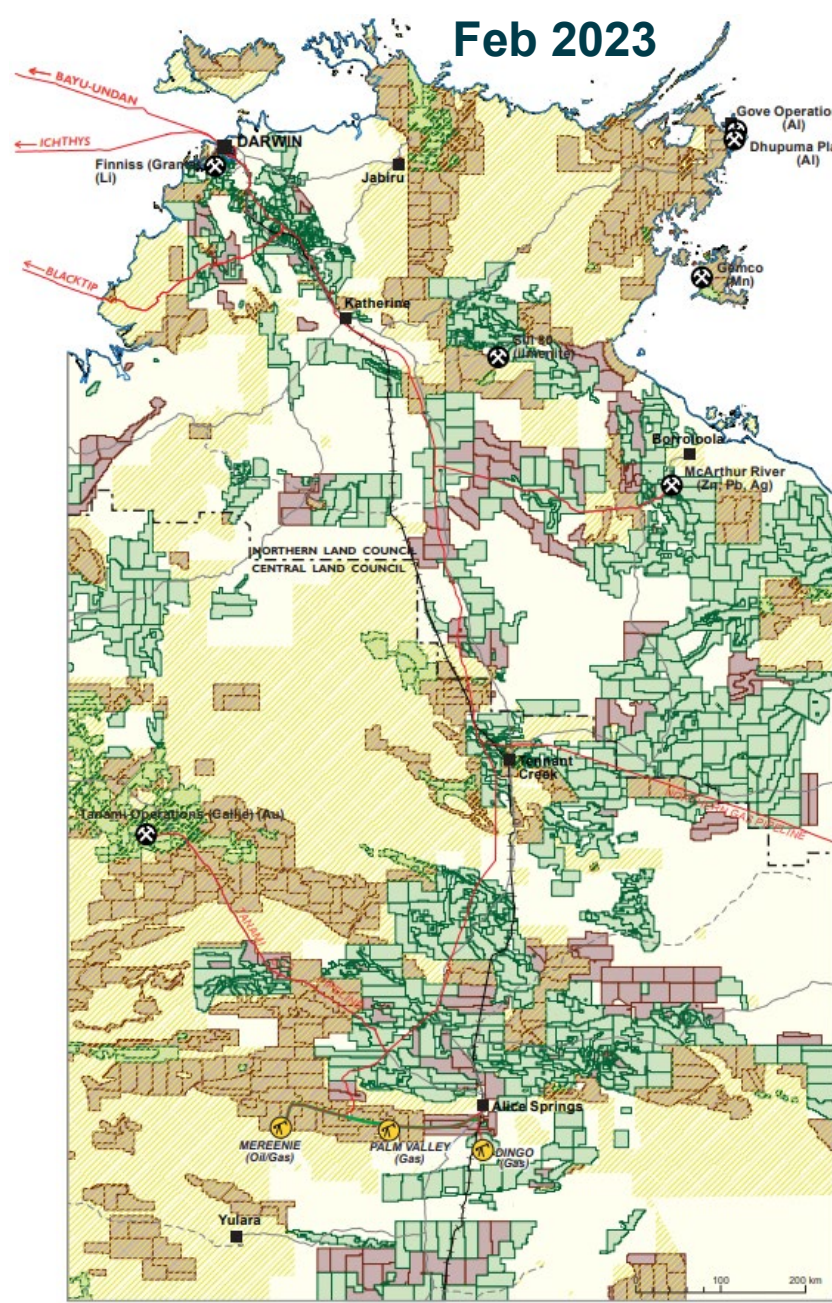
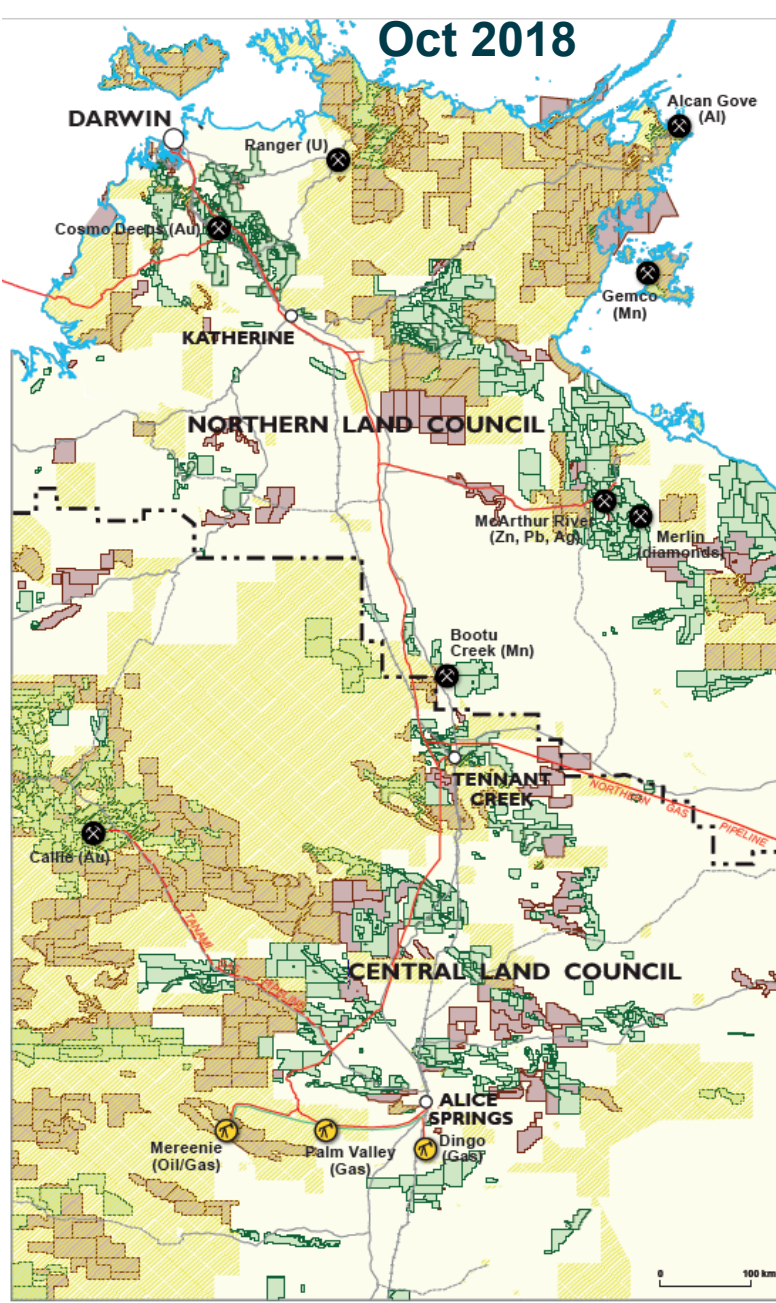


NT mineral exploration expenditure since 2013



NT mineral exploration by commodity since 2008





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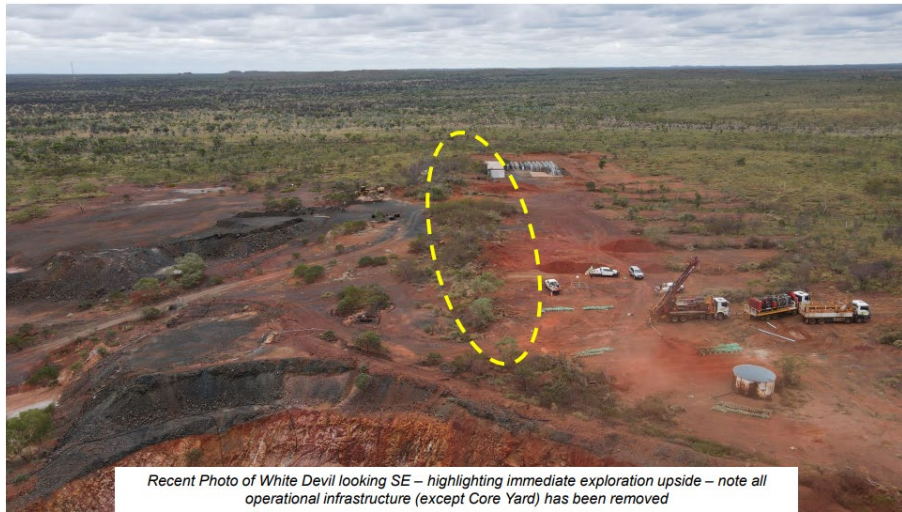
Revitalisation of mining at Tennant Creek

⁷⁹Au
Nobles
Nob
Gold



Tennant Mines – Nobles gold project is underway

- 840ktpa gold processing plant commenced operation in May 2025
- Commencing with processing surface material at Nobles Nob; progressing to other resources in Tennant Creek field
- November 2024 – acquisition by Pan-African Resources PLC
- Indicated and Inferred Resources (2024 FS): **14.1 Mt @ 2.83 g/t Au**
- Initial mine life of 8 years – strong potential for 15 years +



Recent Photo of White Devil looking SE – highlighting immediate exploration upside – note all operational infrastructure (except Core Yard) has been removed

Tennant Mines/Emmerson Resources – White Devil Au

- New Resource: **4.6 Mt @ 4.2 g/t Au** for **611,000 ounces Au**
- Scoping study complete on a 7 year mine life producing 64,000 oz per year
- Further drilling in progress

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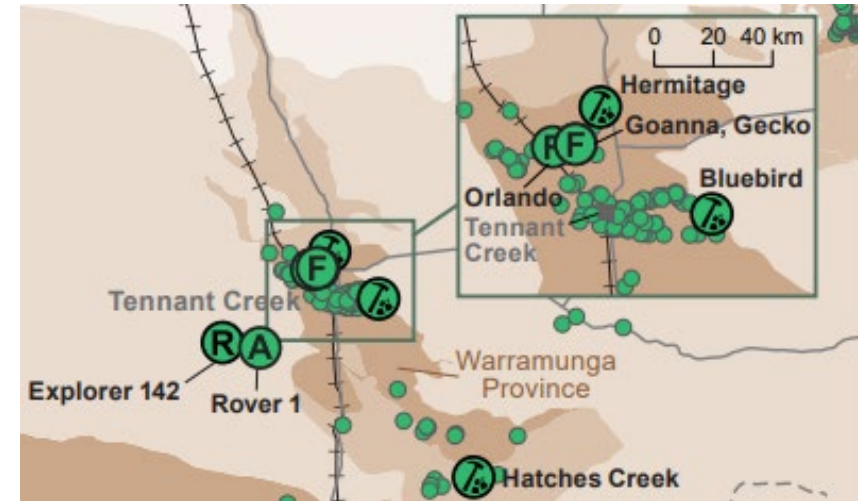
Copper-gold-(Co-Bi) at Tennant Creek

Tennant Mines - Stage 2, Warrego Project Gold & Copper

- Scoping addition of a copper float circuit (~840ktpa) to produce a copper concentrate of ~20% Cu. Future production of ~15 ktpa Cu

CuFe Ltd - Gecko-Orlando

- Increase in Gecko MRE to **18.4 Mt @ 2.01% Cu, 0.25 g/t Au**
- Brings total Gecko-Orlando MRE to **24.3 Mt @ 1.80% Cu, 0.56 g/t Au**



CuFe Ltd, Tennant Minerals and Emmerson Resources

- Strategic alliance formed to assess development options including multi-user processing facility for copper, gold and critical minerals

Castile Resources Ltd - Rover 1

- Proposing refinery (on site or in Darwin) to produce copper, cobalt and gold from concentrate, initially from Rover 1, SW of Tennant Creek



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Gold

Pine Creek

Hanking Australia – Feasibility study released for *Mount Bundy*

Vista Gold – updated feasibility for *Mount Todd*

Patronus Resources – Fully approved for *Fountain Head* mine and gold plant (282 koz)

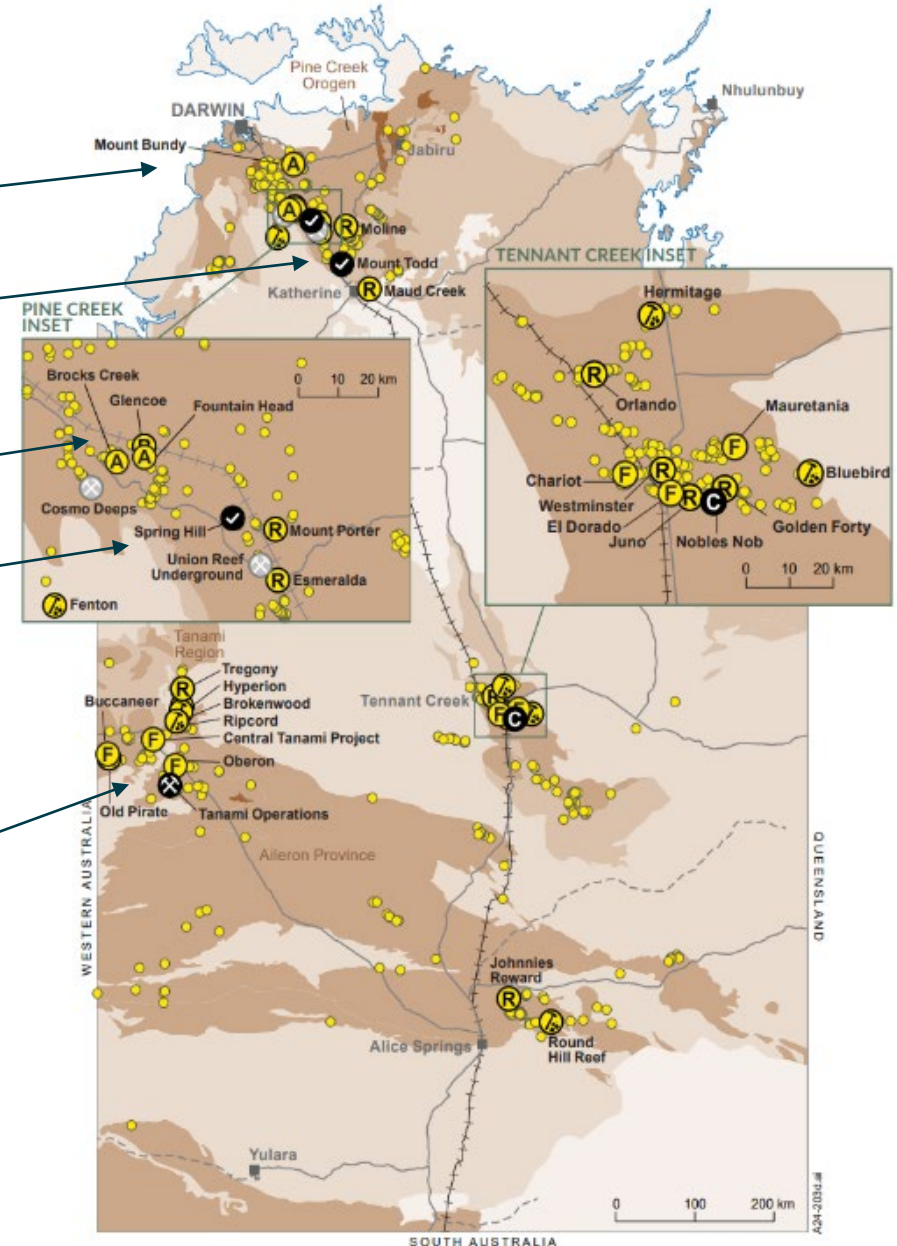
PC Gold – Fully approved for development of *Spring Hill* (821 koz) – working towards IPO

Agnico Eagle – drilling at Pine Creek, Maud Creek

Tanami

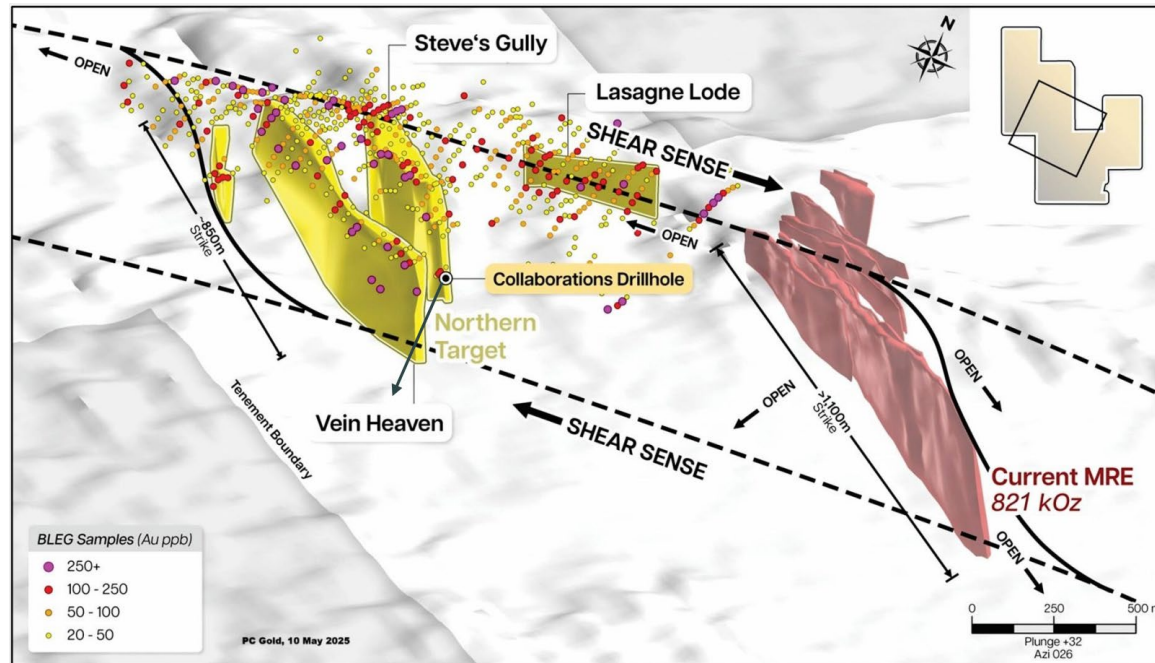
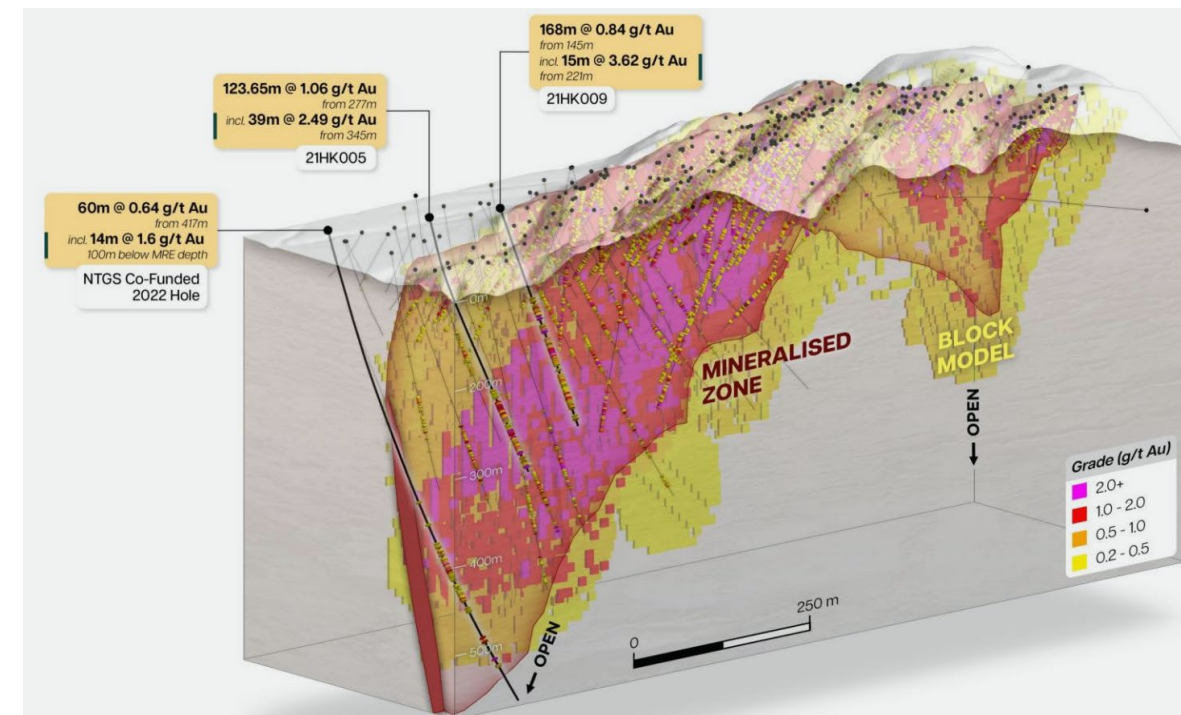
Newmont's US\$1.7 billion expansion to be complete in 2027

Substantial exploration ongoing by **Newmont, Central Tanami JV and Prodigy Gold**



PC Gold – Spring Hill

- 25 km north of Pine Creek
- Existing 821 koz gold resource with an Exploration Target of an additional 1-2 Moz
- Fully permitted for open-pit mining; potential for variation for standalone processing plant
- PC Gold listing on ASX on 7 October 2025
- Aim to raise \$10-15 million to support ongoing 34,000m drill program



Multi-commodity exploration in the Tanami

Prodigy Gold Ltd – Updates to Hyperion and Tregony mineral resources – total Tanami North MRE now **11.7 Mt @ 1.4 g/t Au**. Mineral Lease application over Hyperion

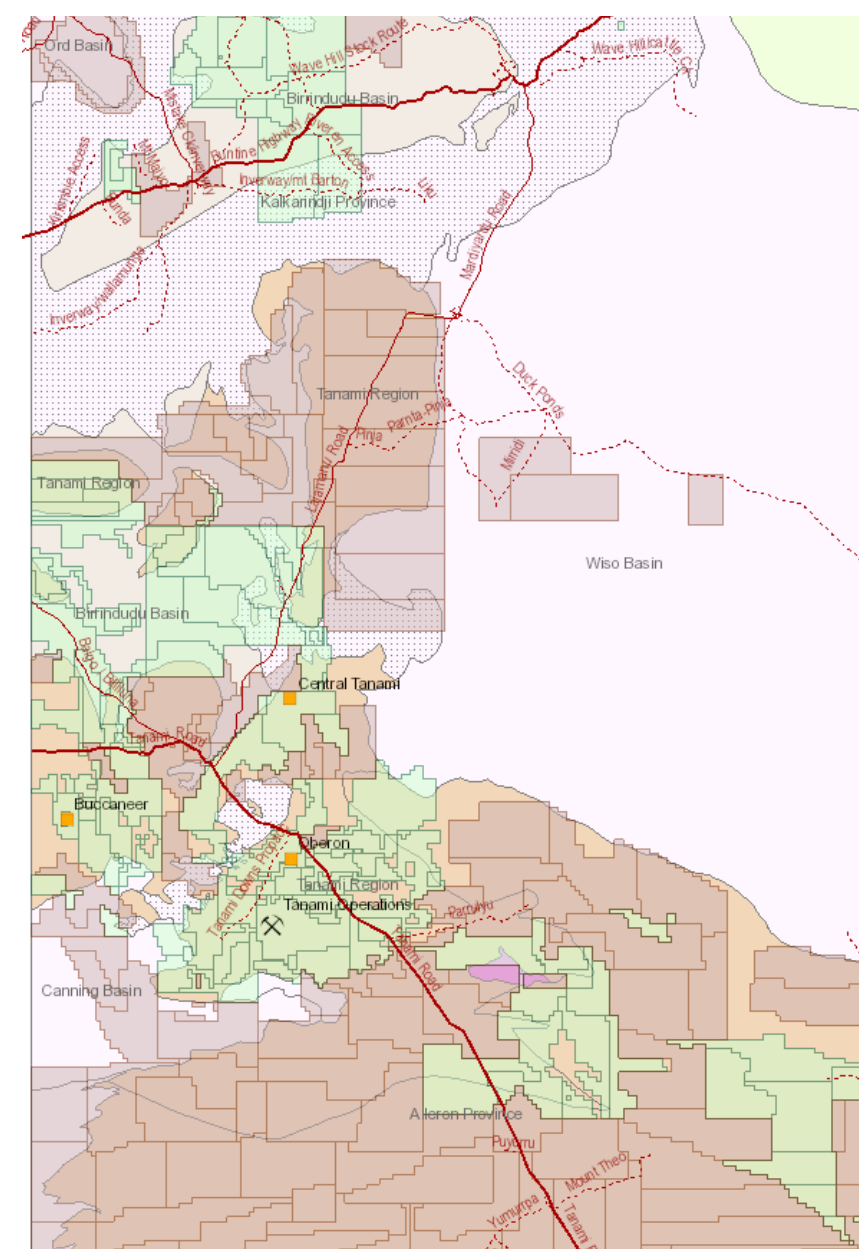
Mount Gibson Iron Ltd – agreement to purchase Northern Star Resources' 50% share of the **Central Tanami JV** (and 100% Northern Star ELs) for \$50 million – seeking to move towards a development decision in next 12-18 months

Northern Minerals and Iluka Resources – exploration for rare earths

Rio Tinto Exploration – large tenement holding in NE Tanami

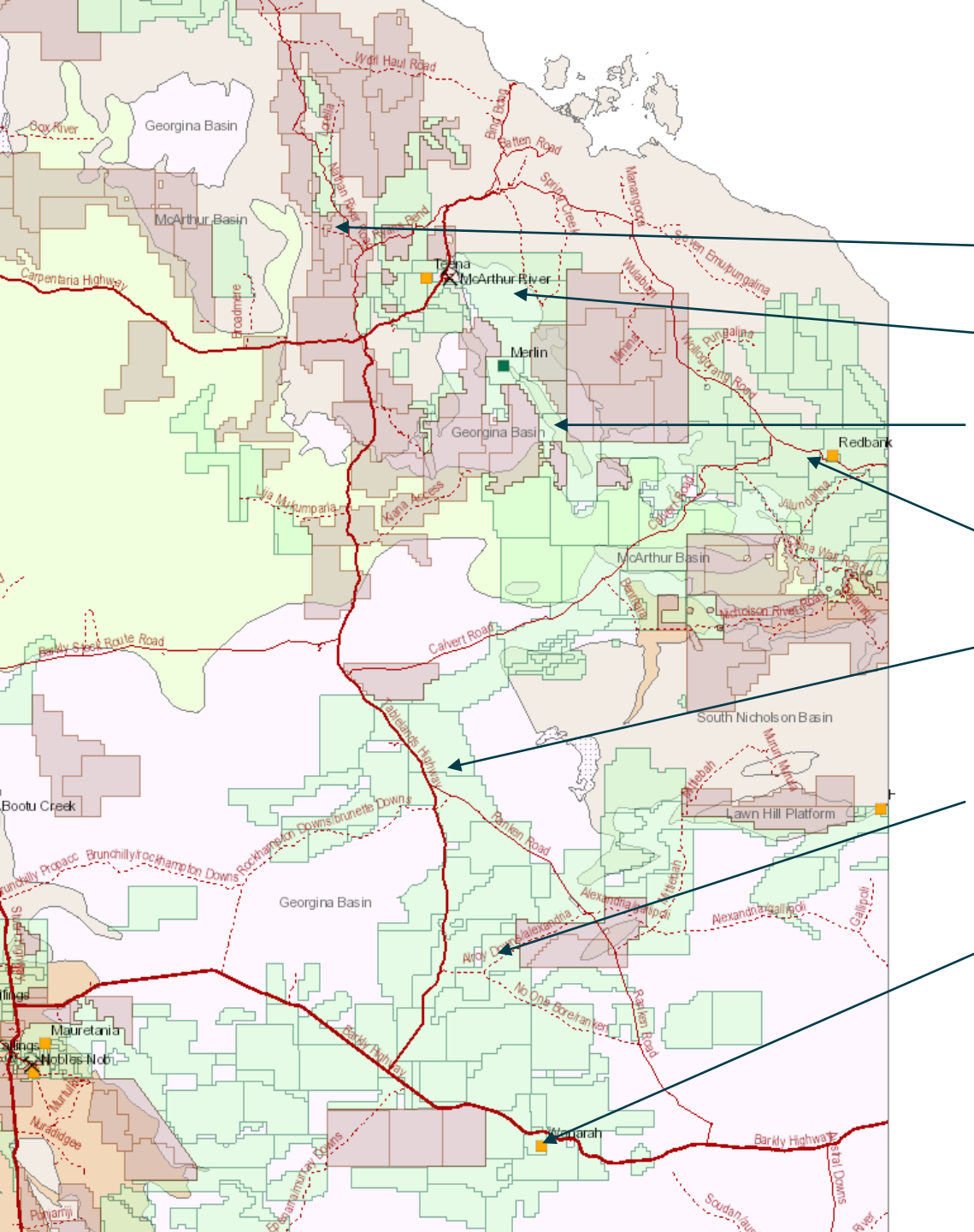
Gold Fields – large landholding north of Tanami

IGO Ltd – recently granted tenements in Raptor projects, SE of Tanami



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Barkly and Gulf



Rio Tinto Exploration – new EL application in Batten FZ

Maverick2 Pty Ltd – exploration earn-in Emu East

E79 Gold Mines – co-funded drilling at Mountain Home

Golden Horse Minerals – agreement to purchase Redbank and Wollogorang projects

South 32 – Encounter - Geophysical surveys underway, further drilling planned in late 2025

Inflection Resources – Purchased Newmont (ex Newcrest) tenements in East Tennant region

Avenira Ltd – approved for DSO rock phosphate operation; first shipment planned in 2026

Central Australia

URO Corporation

- Beryllia drilling commencing targeting Be, Sn, F, Li

iTech Minerals

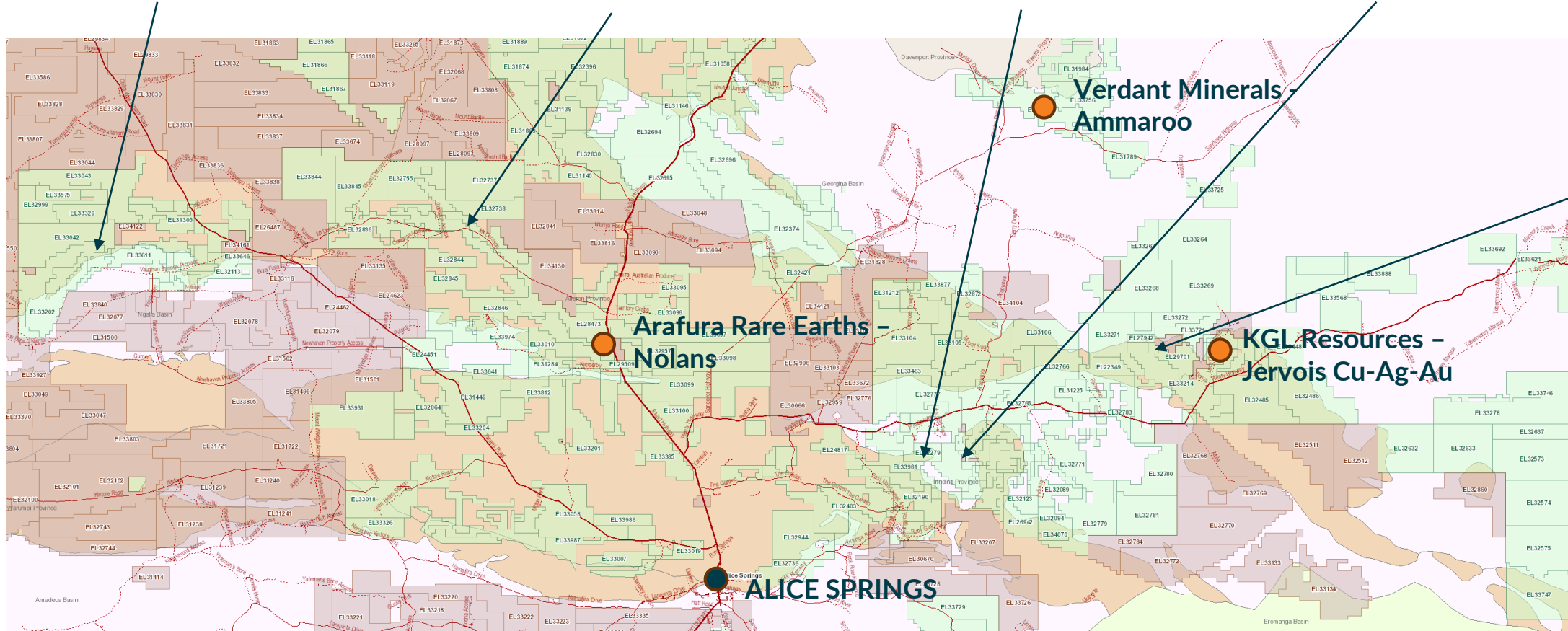
- Gold-antimony prospects in Reynolds Range area

Litchfield Minerals

- Drilling at Oongalabi copper deposit

New Frontier Resources

- Planning drilling of REE-Nb pegmatites



Tivan Ltd

- Drilling of large high-grade fluorite veins - MoU with Sumitomo Corporation

Plutonic Ltd

- Drilling of enigmatic epithermal mineral system

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Lithium

Core Lithium - Finniss

- 250% increase in contained Li since start of 2023
- Mineral Resource now **48.5 Mt @ 1.26% Li₂O**
- New discovery in 2024 at Blackbeard – 63m @ 1.67% Li₂O

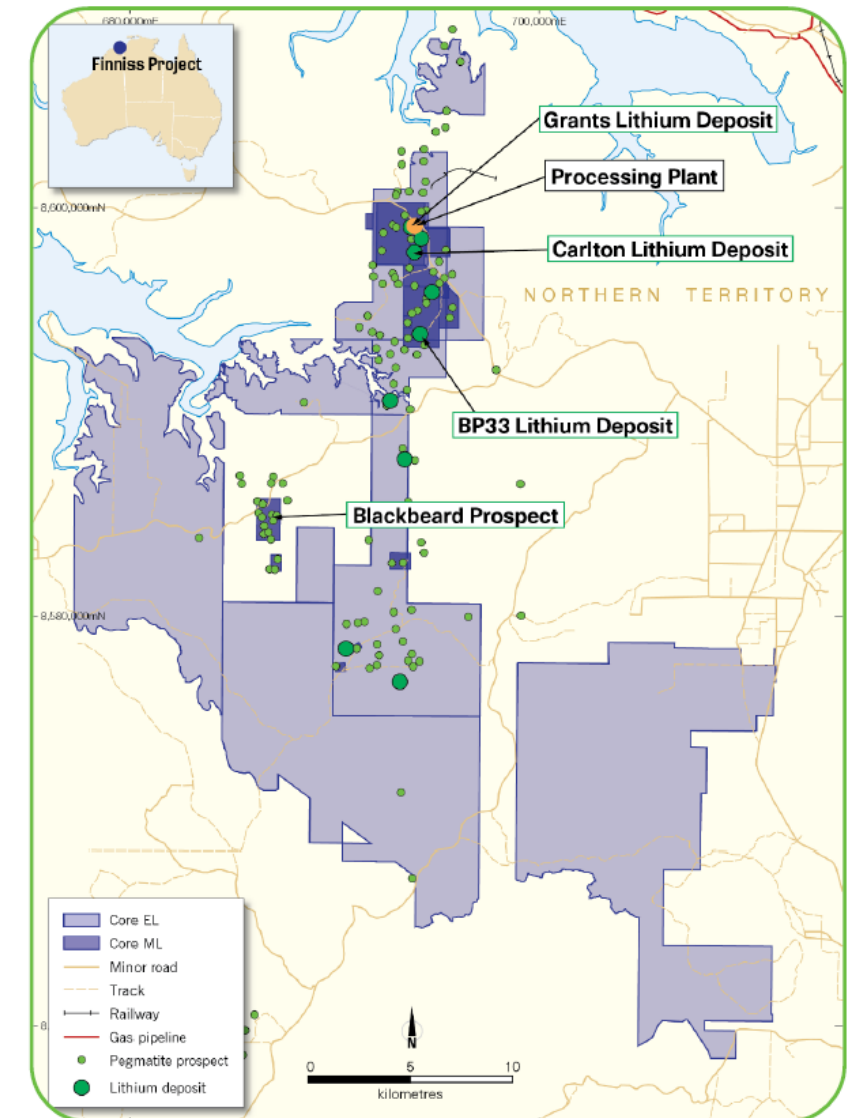
Updates in May 2025:

- 60% of future offtake now available
- Restart study released showing significant cost reductions for mining and processing
- Planning up to 205,000 tpa spodumene concentrate production in 10 year mine life, with potential for 20 years

Lithium Plus – Lei

Mineral Resource - **4.1 Mt @ 1.43% Li₂O**

Environmental approvals commenced



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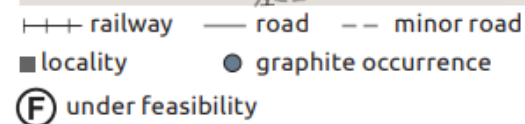
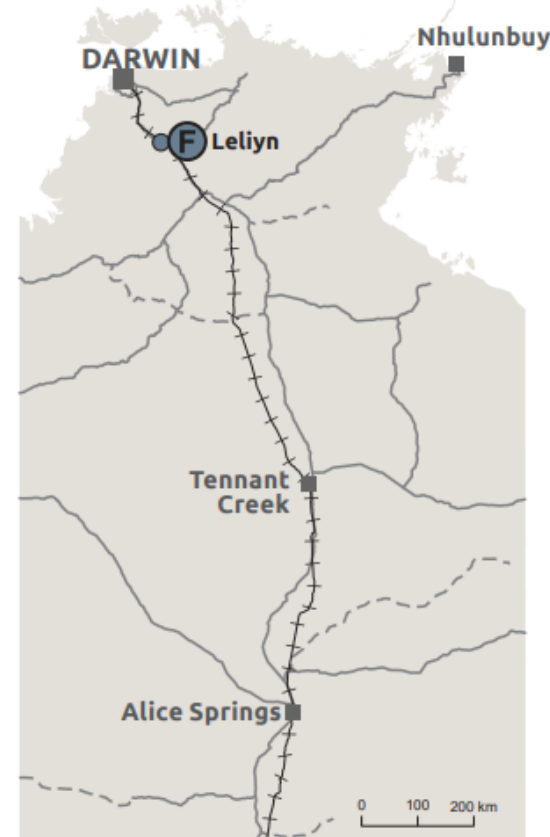
Emerging critical minerals in the Top End

Kingsland Minerals Ltd – Leliyn graphite

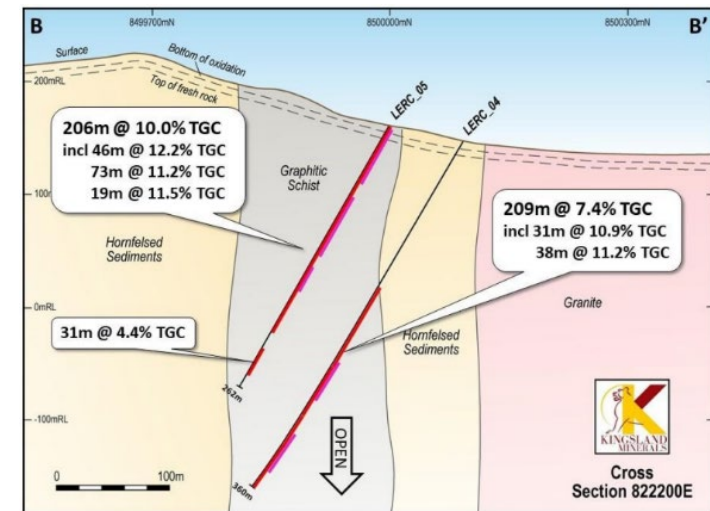
- Australia's largest graphite resource – discovered in 2023, high grade graphite over substantial widths.
- Indicated & Inferred Resource: **192.5 Mt @ 7.3% TGC**
- Successful metallurgical testing producing 99.97% purified spherical graphite
- Strategic partner Quinbrook scoping downstream graphite processing facility in Darwin
- July 2025 – added **gallium** and **titanium** to JORC Exploration Target

Thessally Resources – Huandot magnesite

- Located near Batchelor
- Substantial increase to magnesite resource in 2025
- Bulk sample underway for potential offtakers

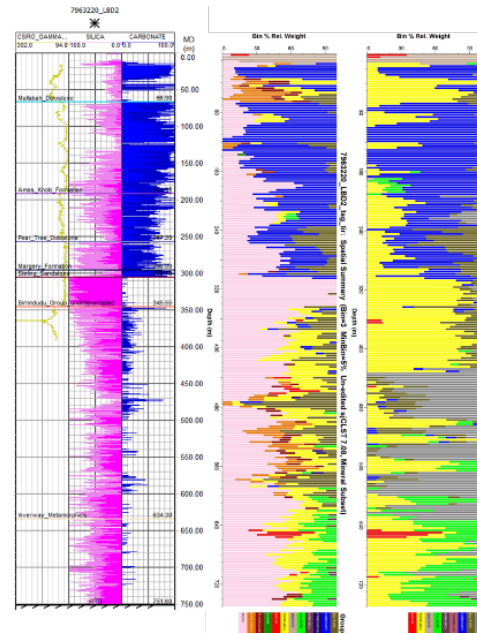
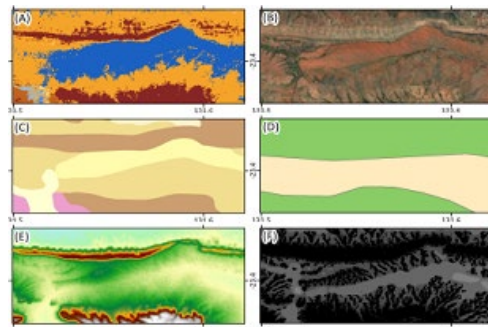
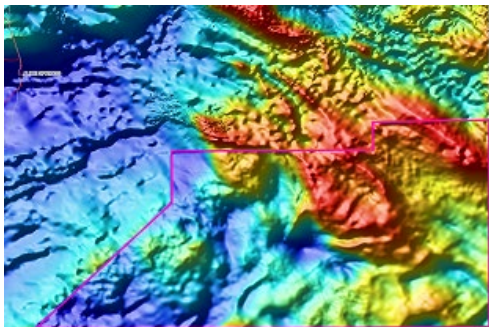


Outcropping Graphitic Schist



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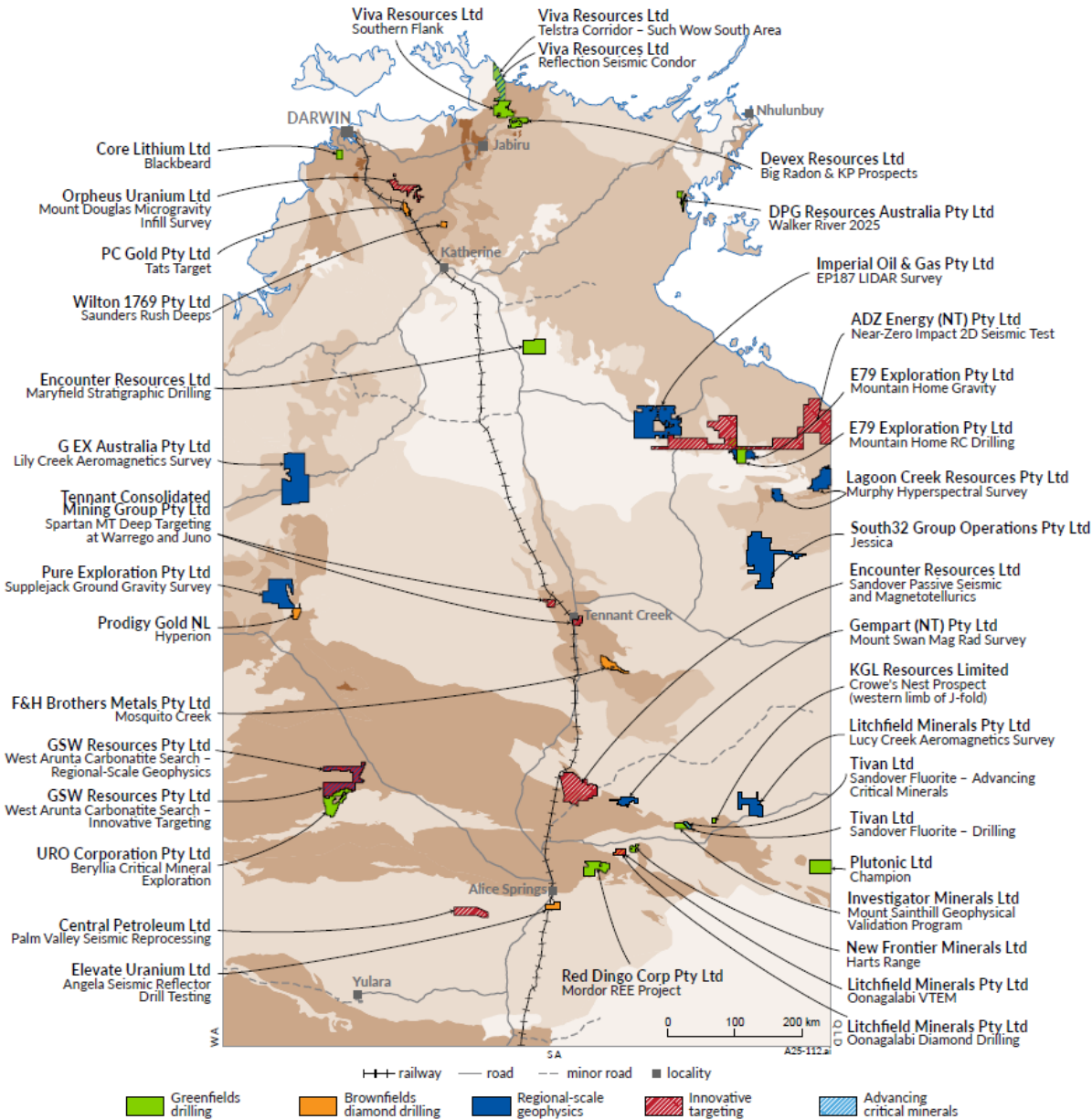
Northern Territory Geological Survey - support for minerals and energy exploration



Strategic themes:

- Providing competitive grants to stimulate exploration success
- Accelerating resource development in known mineral provinces
- Underpinning exploration success through enhanced geophysics
- Attracting and supporting resource exploration in frontier areas
- Applying geoscience to support a low emissions future
- Modernising geoscience data to support a digitally enabled industry
- Promoting the Territory's prospectivity and investment potential.

SUCCESSFUL PROJECTS ROUND 18 (2025)
GEOPHYSICS AND DRILLING COLLABORATIONS PROGRAM



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Geophysics and Drilling Collaborations grants

- Co-funds projects up to 50% of direct claimable project costs capped at specific amounts
- 2025 grants: 38 projects from 30 companies awarded exploration grants totalling \$3.9 million
- Program expanded to include early stage metallurgical testwork for critical minerals

Round 19 (2026/27)

- Applications open **17 Feb 2026**
- Closing date **22 April 2026**

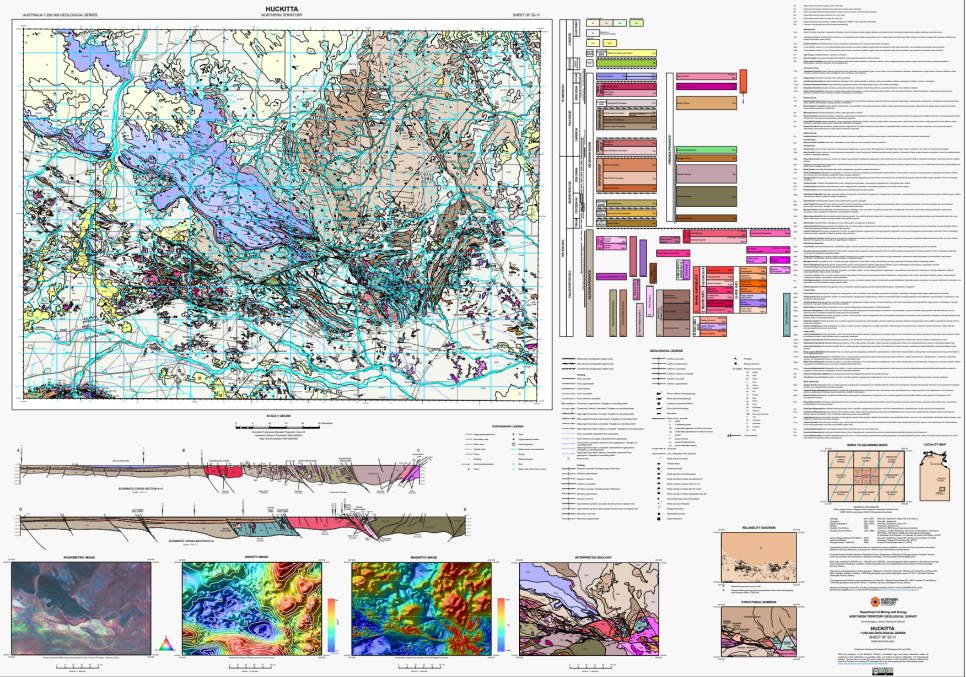
Eligibility Categories	Capped co-funding amount
Greenfields drilling	\$200 000/\$150 000/\$100 000
Brownfields diamond drilling	\$150 000
Regional-scale geophysics	\$150 000
Innovative targeting	\$100 000
Advancing critical minerals	\$50 000

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New pre-competitive geoscience

- Major multi-disciplinary campaign in Pine Creek
- GA-NTGS Northwest NT Seismic Survey released; ongoing focus on Birrindudu Basin area
- Onshore CCS potential
- Field programs in Amadeus Basin and Pine Creek
- Collaboration with Commonwealth's *Resourcing Australia's Prosperity* program

HUCKITTA 1:250k map and notes

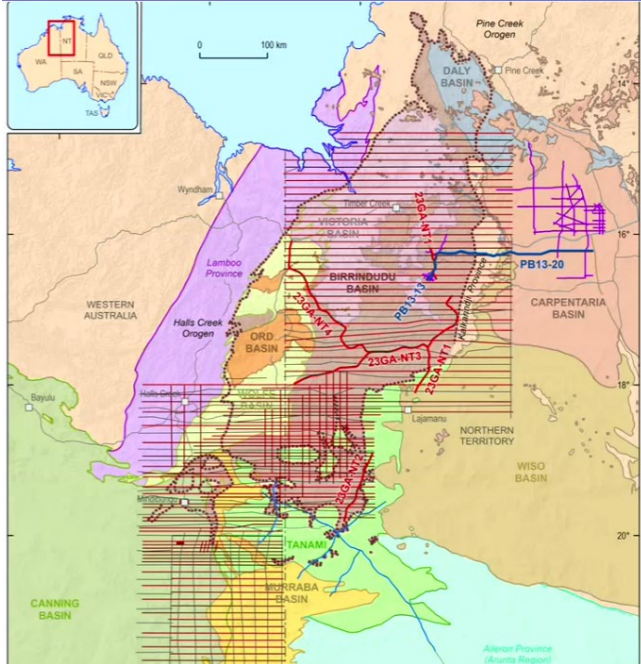


NTGS RECORD 2025-005
From Fold to Gold: Reinterpretation, 3D visualisation and mineral systems analysis of Pine Creek, Northern Territory

The visualization shows a 3D model of the geological structure, with different layers and features highlighted in various colors. It includes a cross-section and a top-down view of the terrain.

G Mitjans and S Micklethwaite

Logos for The University of Queensland Australia, Northern Territory Government, and Resourcing the Territory are displayed at the bottom.



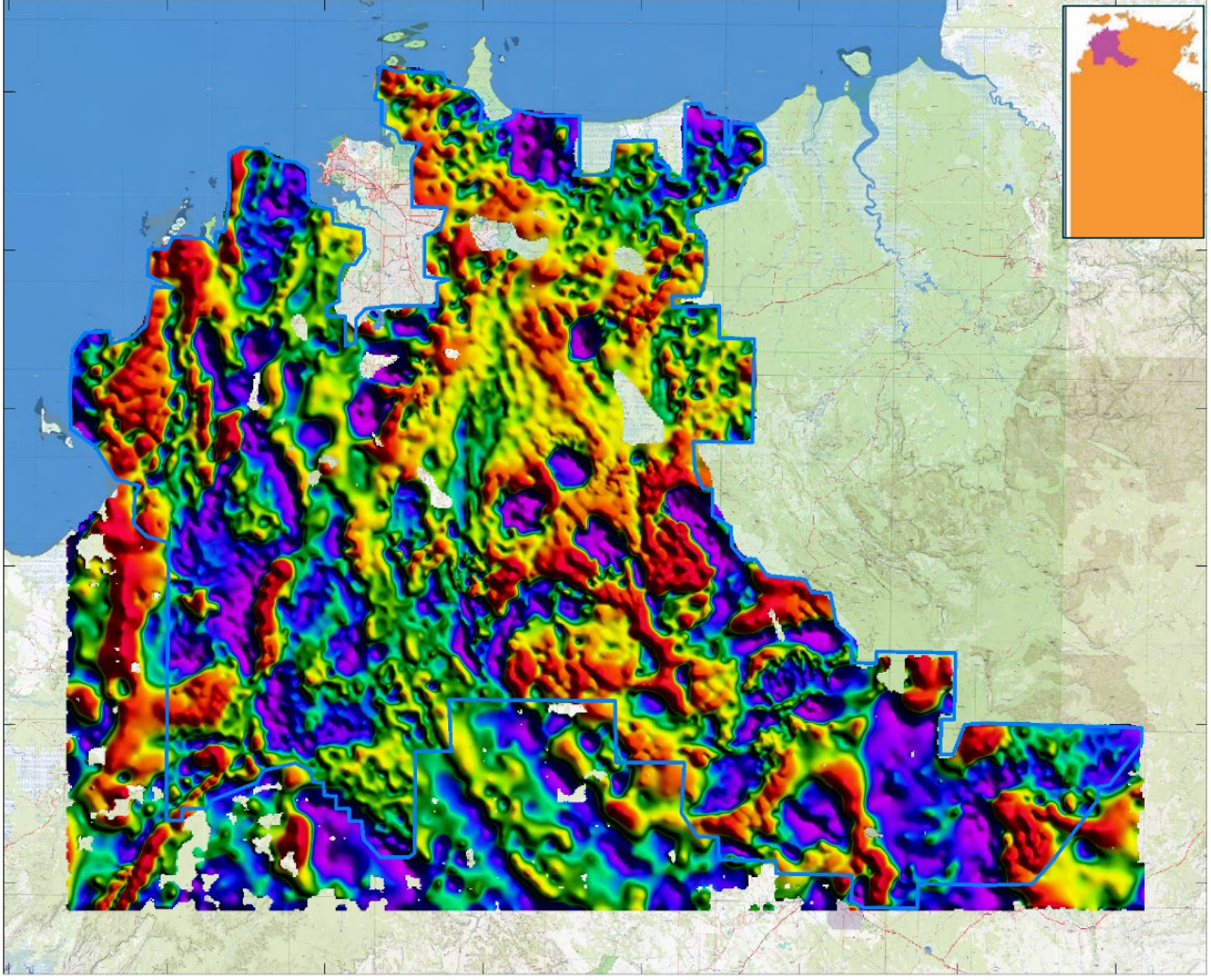
NTGS RECORD 2024-004
Sedimentology and mineral potential of the Birrindudu Basin, Northern Territory

The figure consists of three panels (a, b, and c) showing different aspects of the sedimentology and mineral potential. Panel (a) is a photograph of a rock sample, panel (b) is a color-coded map of mineral potential, and panel (c) is a microscopic view of a rock sample. Arrows labeled 'ccp' point to specific features in each panel.

S Schmid and R Baumgartner

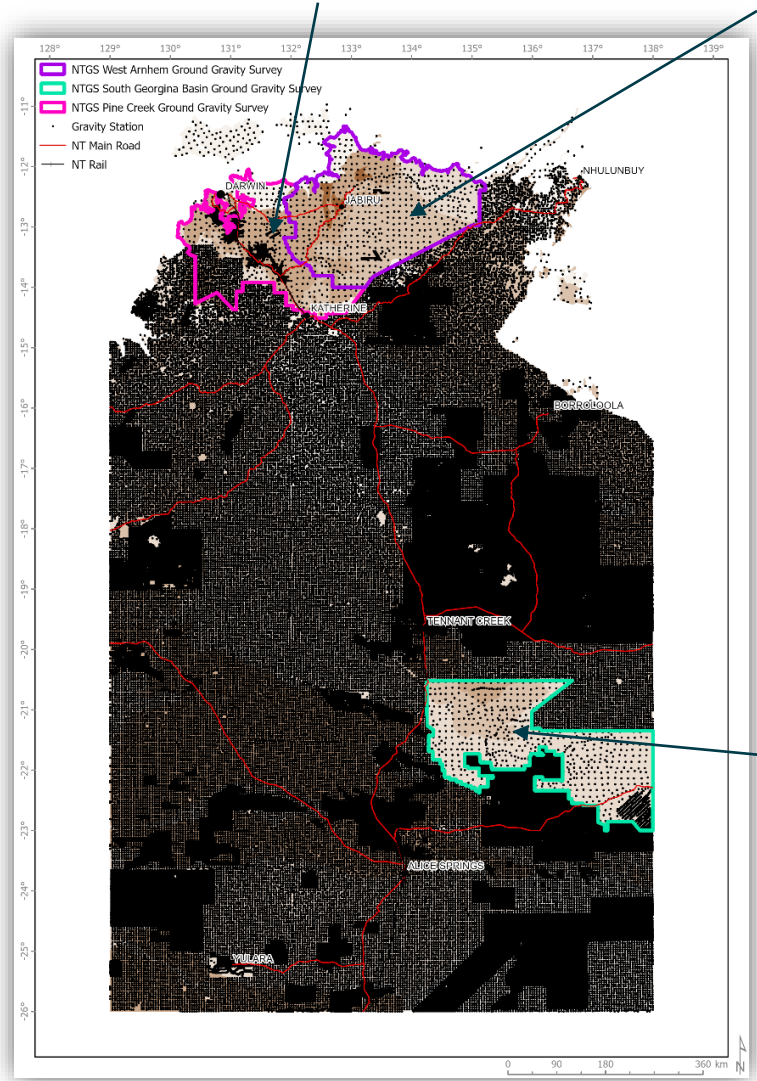
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By 2026, NTGS will complete coverage of onshore NT with ground gravity at 4 km spacing or less (large areas at 2 km)



Pine Creek gravity 2024/25 - COMPLETE

West Arnhem gravity 2025 - IN PROGRESS



South Georgina Basin gravity 2026 - UPCOMING

Annual Geoscience Exploration Seminar (AGES)

The Territory's premier exploration-focussed technical event

Alice Springs, April 14-15 2026 ages.nt.gov.au




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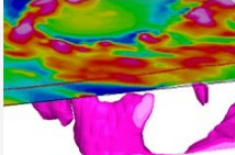
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Latest news



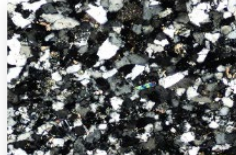
Visit us at NT Resources Week
01 Sep 2025

NT Resources Week is being held




New 3D geological model of Pine Creek
01 Sep 2025

A 2D and 3D visualisation of the




Latest zircon dating sheds light on Birrindudu Basin stratigraphy
20 Aug 2025




Explore the recent open file Mineral Industry Exploration Reports and Data available for 2018
20 Aug 2025

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Mining developments in the Northern Territory
June 2025



Northern Territory Geological Survey
Department of Mining and Energy



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Critical Minerals in the Northern Territory 2025

Northern Territory Geological Survey
Department of Mining and Energy

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Resourcing the Territory website
www.resourcingtheterritory.nt.gov.au

Geoscience and titles web mapping
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