



TERRAIN MINERALS

# Gallium, Gold, Nickel & Copper

Investor Presentation

ASX:TMX | August 2024



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# Competent Person's Statement & References

## Competent Person's Statement

The information in this presentation that relates to exploration results within Terrain Minerals' tenements has been compiled by Mr Benjamin Bell, consultant to Terrain Minerals. Mr Bell has over 20 years' experience in exploration and evaluation of mineral properties throughout Australia and overseas. Mr Bell is a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and types of deposits under consideration and to the activities that he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012. Mr Bell has consented to the inclusion of statements made by him, in the form and context in which they appear within this presentation and has not withdrawn consent prior to the release of this presentation.

## Competent Person's Statement

The information in this report that relates to Exploration Results for the Smokebush Project are based on information compiled by Michael Gazley, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Gazley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 Gazley consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

## Competent Person's Statement

The information in this report that relates to Exploration Results for the Lort River Project are based on information compiled by Karen Gilgallon, who is a Member of the Australian Institute of Geoscientists. Ms Gilgallon has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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'. Ms Gilgallon consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

## References

- 1, 4, 5: Terrain Minerals Ltd, ASX announced dated 11 March 2024
- 2, 3, 8, 9: Terrain Minerals Ltd, ASX announced dated 27 May 2024
- 6, 7, 10, 11: Terrain Minerals Ltd, ASX announced dated 22 February 2024
- 12, 13: Terrain Minerals Ltd, ASX announced dated 23 October 2023
- 14: Terrain Minerals Ltd, ASX announced dated 05 August 2024
- 15: Terrain Minerals Ltd, ASX announced dated 13 August 2024

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# Why Terrain Minerals?

## Smokebush Project – (Larin’s Lane)

- **Gallium (REE)** mineralisation extending over 9 by 2 kilometers and open.
- Multiple high-grade zones up 53.74 g/t (ppm)  $Ga_2O_3$  (2).
- 70% of holes returned impressive intersection of Gallium up to 64 meters wide.
- Gallium – JORC compliant exploration target currently being calculated from 102 holes drilled.
- **Gold** – Wildflower drilling program scheduled to commence August 2024.
  - Drilling ~41 holes for ~2,100 meters.

## Lort River Project

- Five High-Priority Bedrock Sulphide Conductors identified from recent airborne Vtem survey.
- **Potential Sulphide mineralisation:** conductors may indicate the presence of valuable sulphide minerals, akin to those found in IGO’s Nova-Bollinger operations.
- Two conductors located on the western edge of the “Mafic intrusive EYE” feature, similar to Nova-Bollinger’s ore body locations.
- Leading geophysical consulting firm Southern Geoscience has confirmed that the “EYE” feature at Lort River is likely a mafic intrusion potentially emplaced during the Albany Fraser Orogen.

## Project Pipeline

- Lithium, Niobium and Copper/Gold – See Appendixes.  
(Priority is being given to advancing the grant of these tenements).





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# Company Profile

## Capital Structure

|                               |              |
|-------------------------------|--------------|
| Shares on Issue:              | 1.76 Billion |
| Unlisted Options              |              |
| Various expiry dates / prices | 51 Million   |
| Market Cap (Million):         | 5.3          |
| Cash at Hand (Million):       | +\$1.4       |
| Debt                          | Nil          |
| Share Price                   | \$0.003      |

## Major Shareholders

|                      |        |
|----------------------|--------|
| Top 20:              | 39.60% |
| Top 100:             | 72.06% |
| Board & Associated:  | 12.7%  |
| No. of Shareholders: | 1,213  |

## Board Members

|                 |                        |
|-----------------|------------------------|
| Justin Virgin   | Executive Director     |
| Jason MacDonald | Non-Executive Director |
| Johannes Lin    | Non-Executive Director |



## Key

- Gold Projects
- Lithium Projects
- Gallium Projects
- Rare Earths Projects
- Copper Projects

\*Application pending: No additional costs until application is granted.

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# Smokebush Project

Larin's Lane

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**Ga**

Gallium



**Ree**

Rare Earth Elements

79



**Au**

Gold

Located 350 kilometres north of Perth.

Proven to host high-grade Clay Gallium and Gold.

Historic gold targets are now being prepared for drill tested with air core, with follow up RC drilling approved to follow.

Benefits from close proximity to existing mining and related infrastructure.



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# Smokebush Project | Gallium

## Larin's Lane

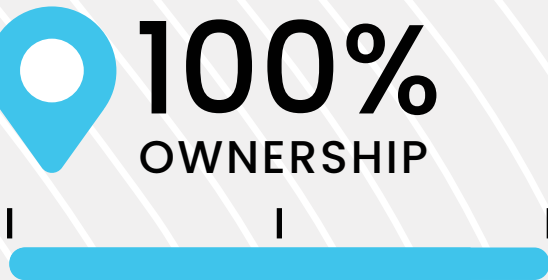
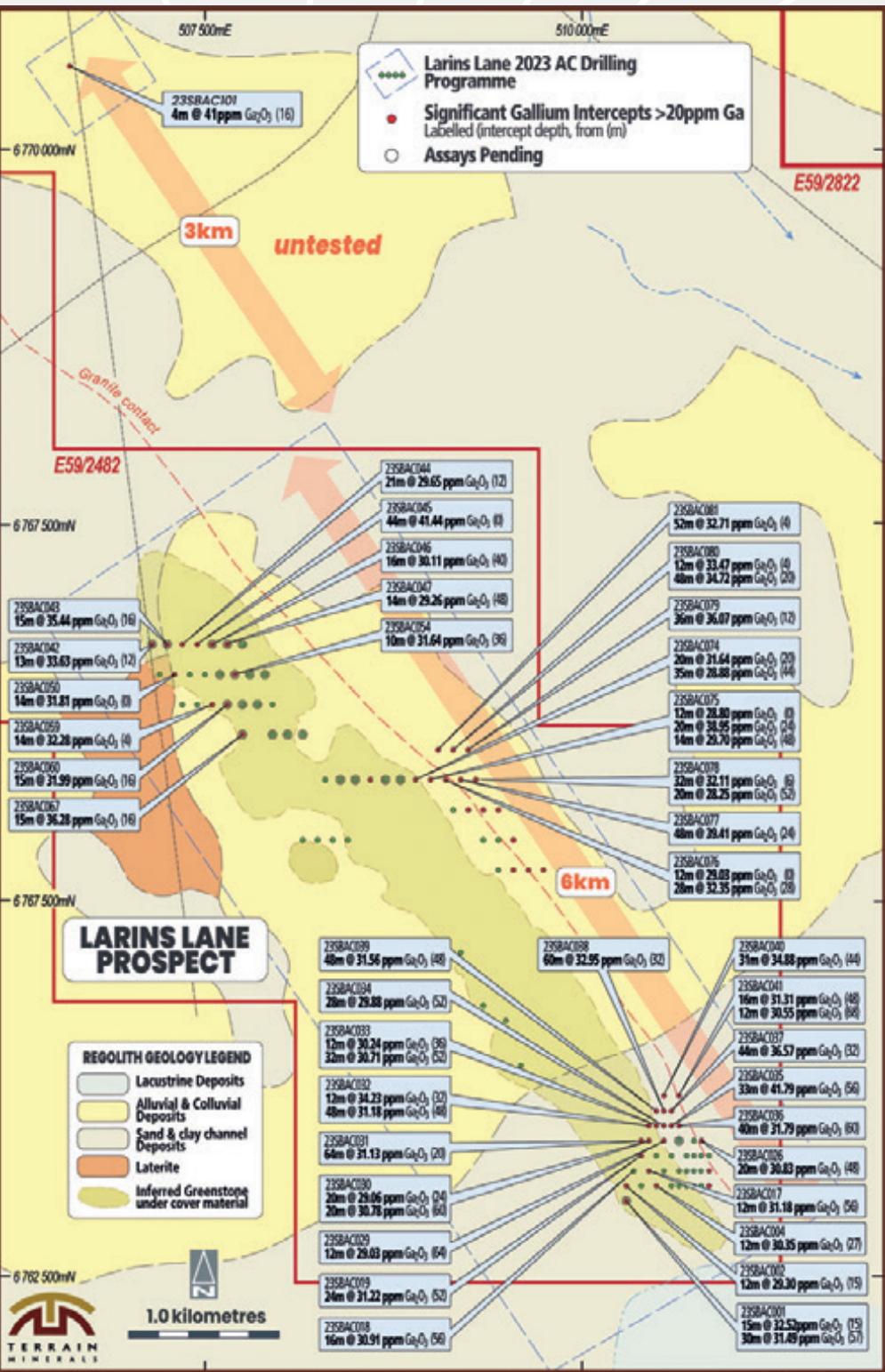
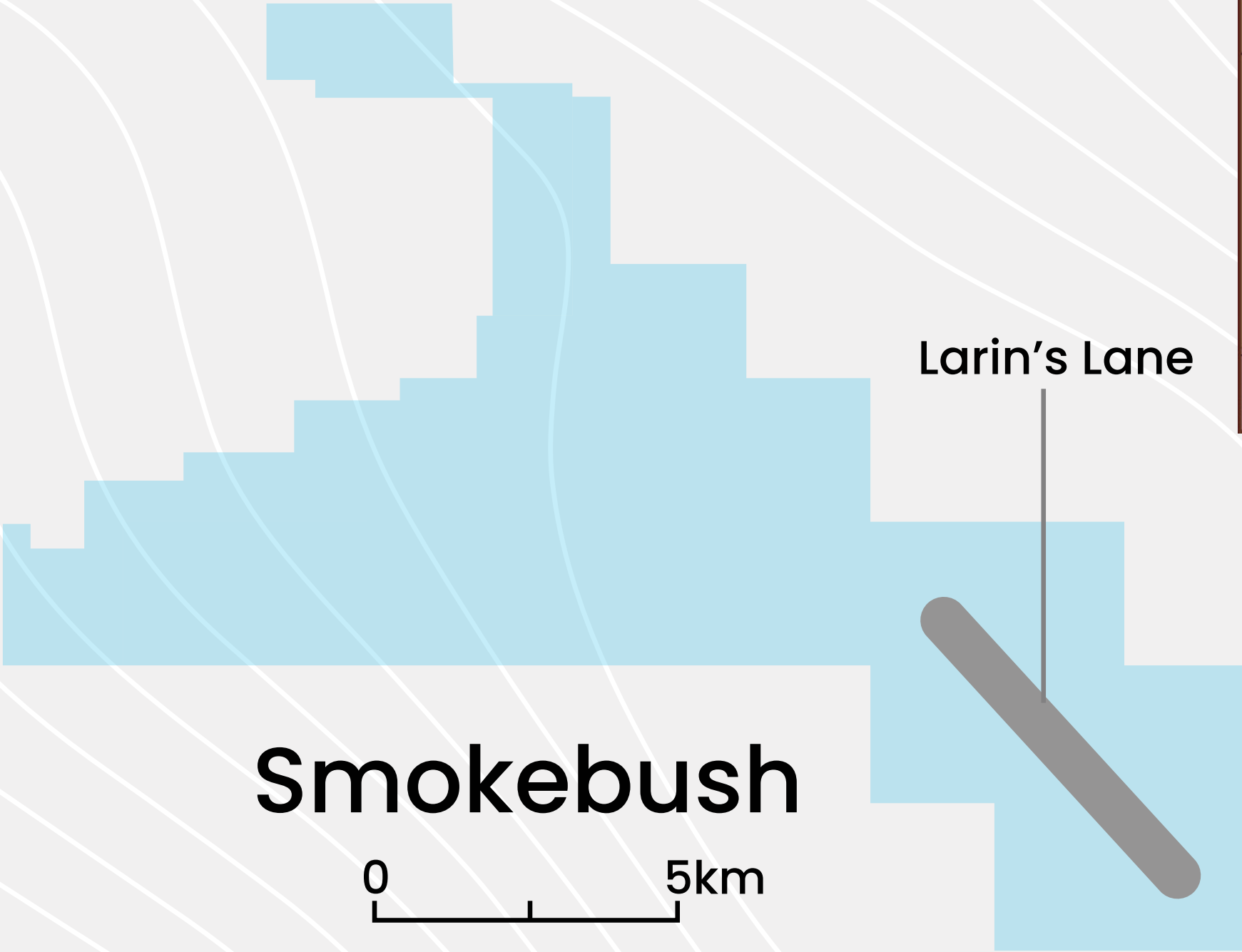
High grade Gallium Clays appear to be sitting above the layers of REE.

- Selected holes include<sup>(9)</sup>:
- Applying: Gallium Oxide ( $\text{Ga}_2\text{O}_3$ ) cut-off 40.32 g/t (ppm)
- 16m @ 53.74 ppm  $\text{Ga}_2\text{O}_3$  from 64m - (23SBAC035)
  - 20m @ 48.33 ppm  $\text{Ga}_2\text{O}_3$  from 4m - (23SBAC045)
  - 30m @ 40.32 ppm  $\text{Ga}_2\text{O}_3$  from 24m - (23SBAC071)
  - 24m @ 46.34 ppm  $\text{Ga}_2\text{O}_3$  from 32m - (23SBAC077)
  - 8m @ 52.62 ppm  $\text{Ga}_2\text{O}_3$  from 20m - (23SBAC080)

70% of holes returned impressive intersection of Gallium up to 64 meters wide<sup>(2)</sup>.

Gallium – JORC compliant exploration target currently being calculated, prior to next drill campaign.

On-going discussions with prospective industry and offtake partners.



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# What is Gallium?

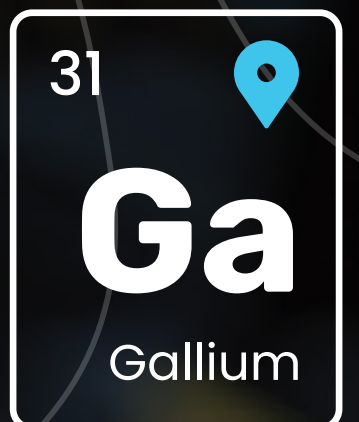
Gallium is classified as a critical metal by the USA, United Kingdom, European Union and Australia.

Main applications are in defence, semi-conductors and computer chips, electronic circuitry and photovoltaic cells.

Presently, 98% of global supply is ex-China. USA, Japan and European semi-conductors manufacturers are actively encouraging a more geographically balanced supply chain.

Terrain is rapidly expanding its Gallium focus to dovetail with the exponential growth of generative AI (and the associated demand for semi-conductors).

Gallium chips and other electrical components draw less power, are faster and allow for miniaturisation.



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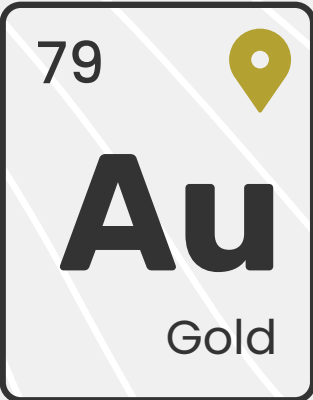
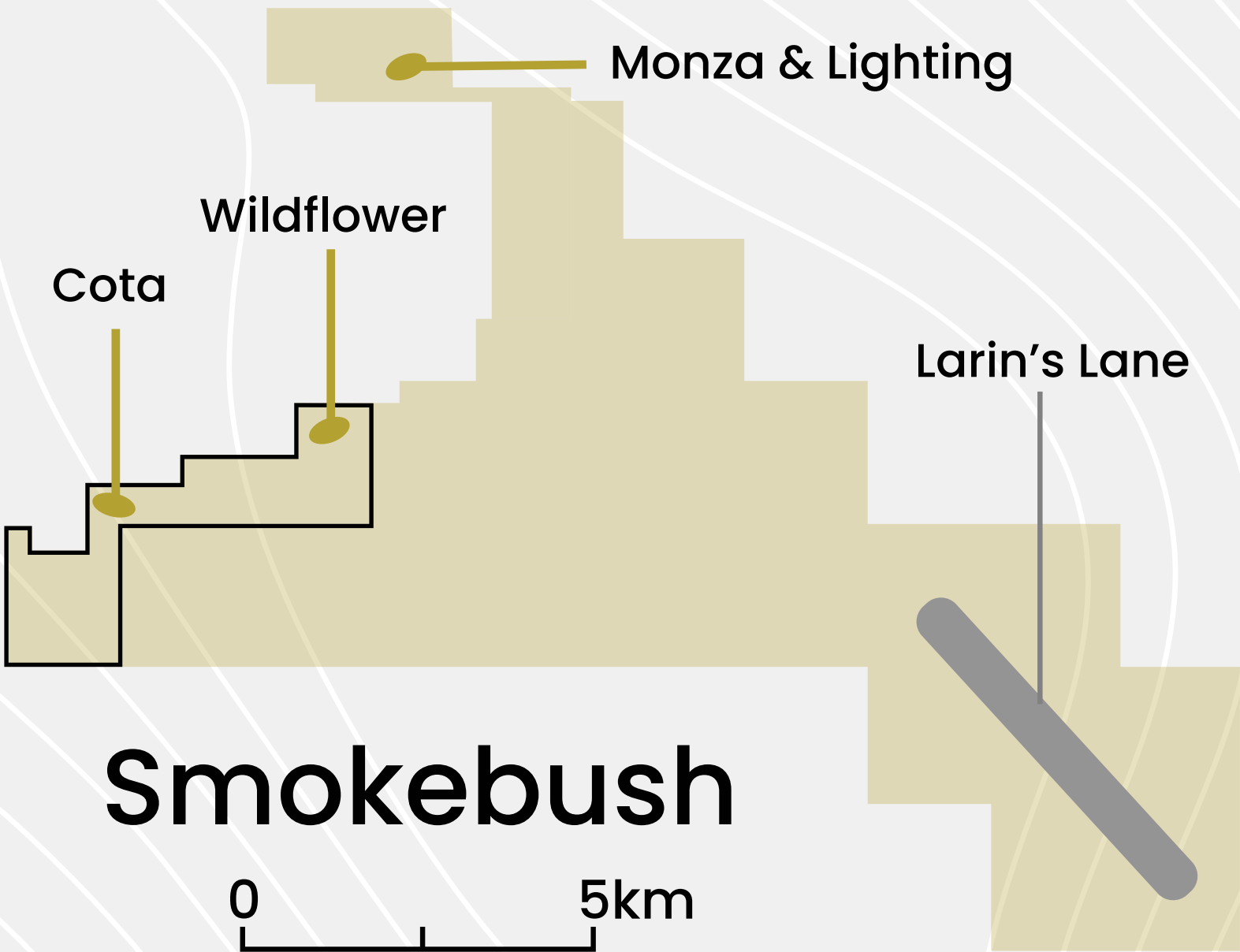
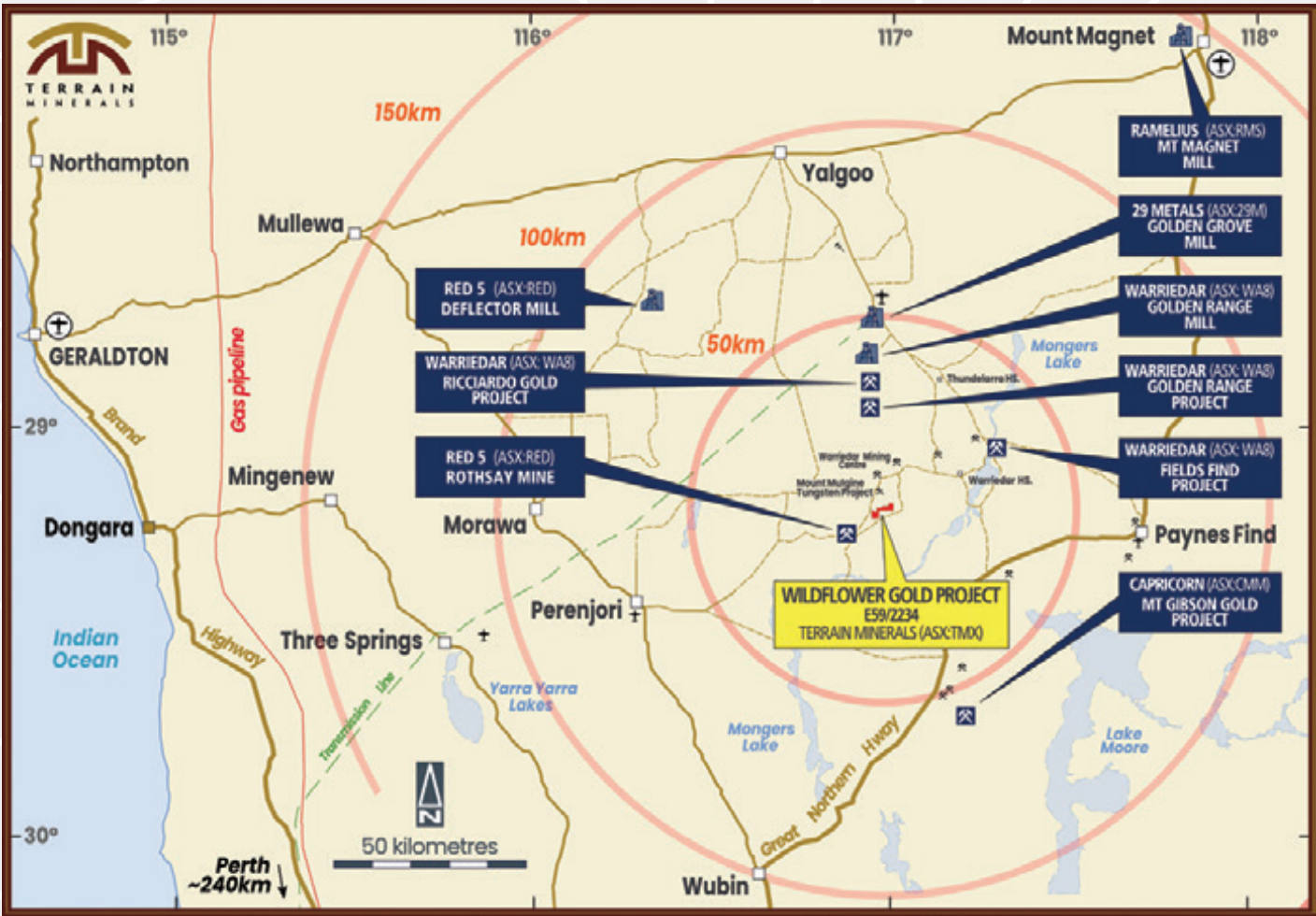
# Smokebush Project | GOLD Wildflower

First-pass air core program ~41 holes for ~2,100 metres to commence late August;

Wildflower extensive and coherent 1,000 metre by 500 metre gold-in-soil surface geochemical anomaly, peak value of 246ppb gold over. (14)

Following up historic gold drilling at Wildflower and Cota:

- 15 metres @ 1.49 g/t gold from 10 metres (hole MM110, RAB) drilled within extensive surface geochemical anomaly at Wildflower. (14)
- Air core drill results due back late September 2024.
- RC drilling has been approved for follow up at Wildflower, Monza & Lighting prospects, which aims to test historic mineralisation, depth extensions, and orientation.



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# Smokebush Project

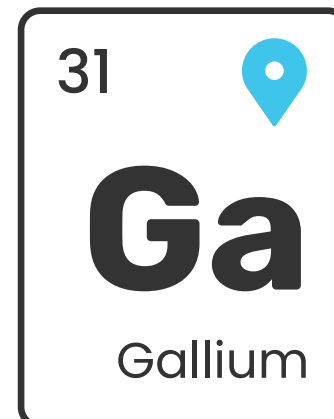
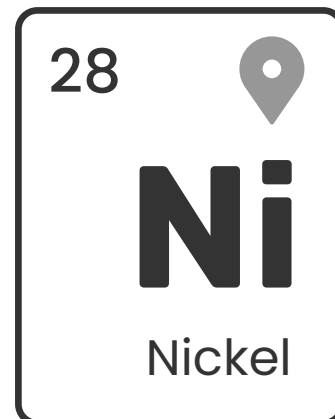
## Larin's Lane & Wildflower Forward Program

|                                                               | Q3 | Q4 | Q1/25 |
|---------------------------------------------------------------|----|----|-------|
| Larin's Lane JORC exploration target estimate (Gallium & REE) |    |    |       |
| Air Core drilling at Wildflower and Cota (Gold)               |    |    |       |
| Air Core drill results (Gold)                                 |    |    |       |
| RC drilling at Monza, Lightning & Wildflower (Gold)           |    |    |       |



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# Lort River Project



Located 650 kilometres southeast of Perth and 50 kilometers N/W of the town of Esperance WA.

550km<sup>2</sup> of tenure, is located in the Southern part of the Albany Fraser belt, along the interpreted strike of WA IGO's Nova nickel-copper mine.

Tenure is located within a lightly explored area of the belt due to being situated on arable farming land.



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# Lort River Project | Nickel

Leading geophysical consulting firm Southern Geoscience has confirmed that the “EYE” feature at Lort River is likely a mafic intrusion potentially emplaced during the Albany Fraser Orogen.

We know from aeromagnetic data that both Nova and Terrain’s “EYE”<sup>(11)</sup> have the same characteristics.

We know that Nova-style nickel-copper ore bodies occur as clusters and sit within a “mafic intrusive feature”.

And we know that IGO purchased Nova for \$1.8 billion back in 2015, when Nickel price was ~\$8,700 USD its now ~\$16,000 USD.

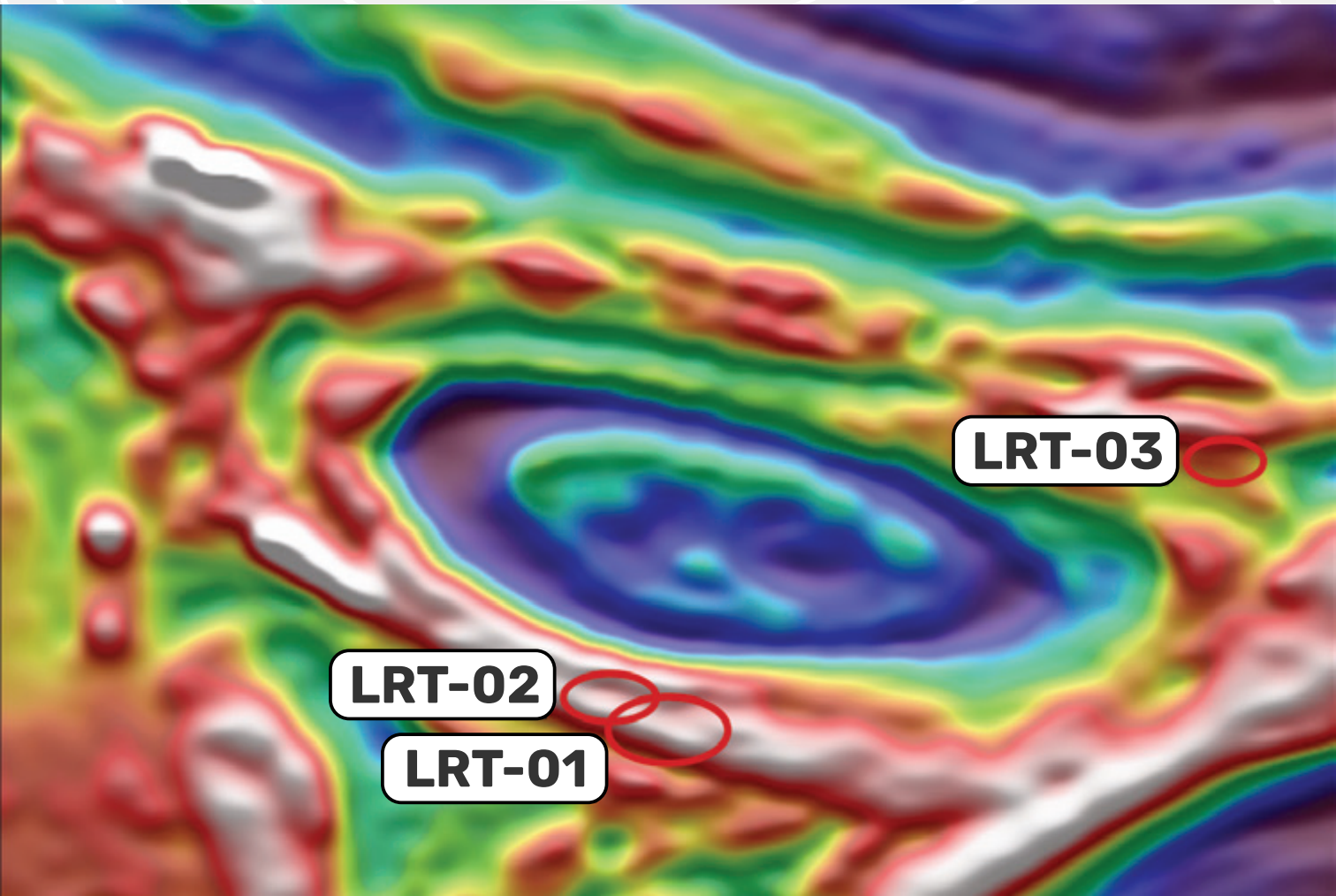
Nova was meant to be part of a “New Province” So where are the other orebodies? As the Fraser Belt appears highly prospective for magmatic nickel-copper mineralisation.

28

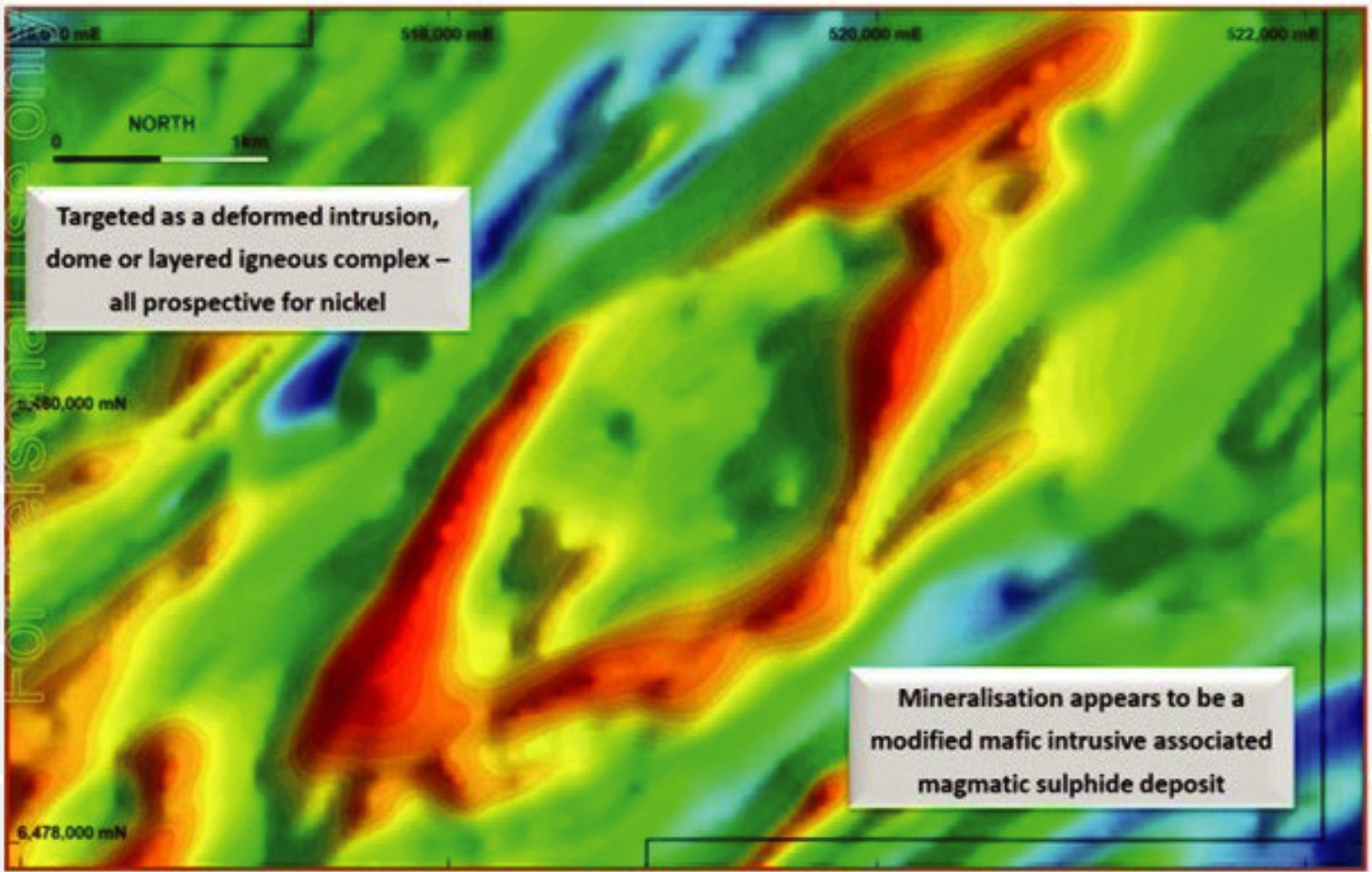


Ni

Nickel



Terrain Minerals’ “EYE”  
(Location of three sulphide conductors above)



Nova “EYE”

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# Lort River Project | Nickel

Terrain’s Airborne EM (Vtem) survey identified Five High-Priority Bedrock Sulphide Conductors indicate the potential for highly valuable sulphide minerals.

Two Conductors sitting inside of Terrain’s “EYE” feature similar location to the Nova sulphide ore bodies.

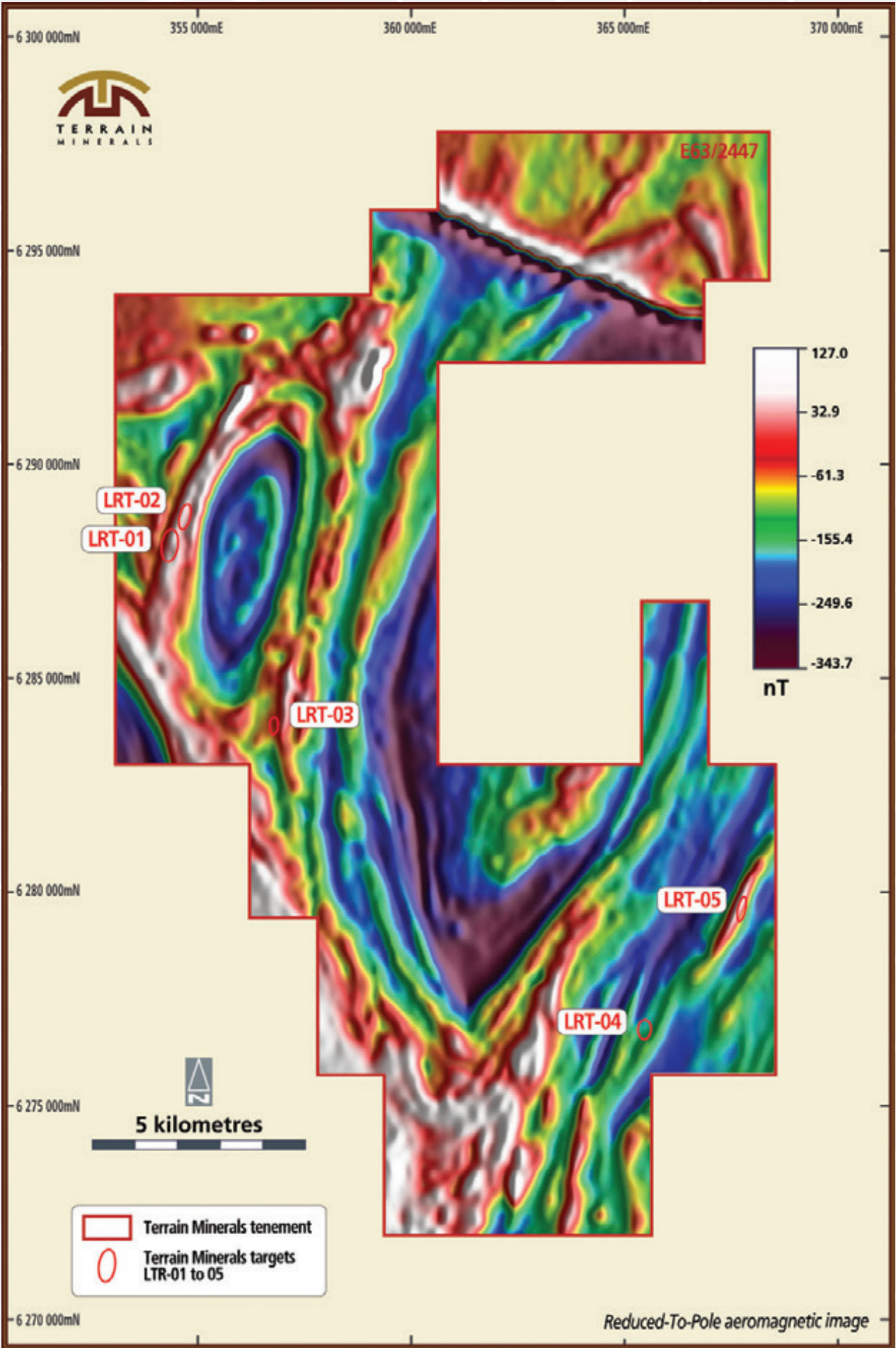
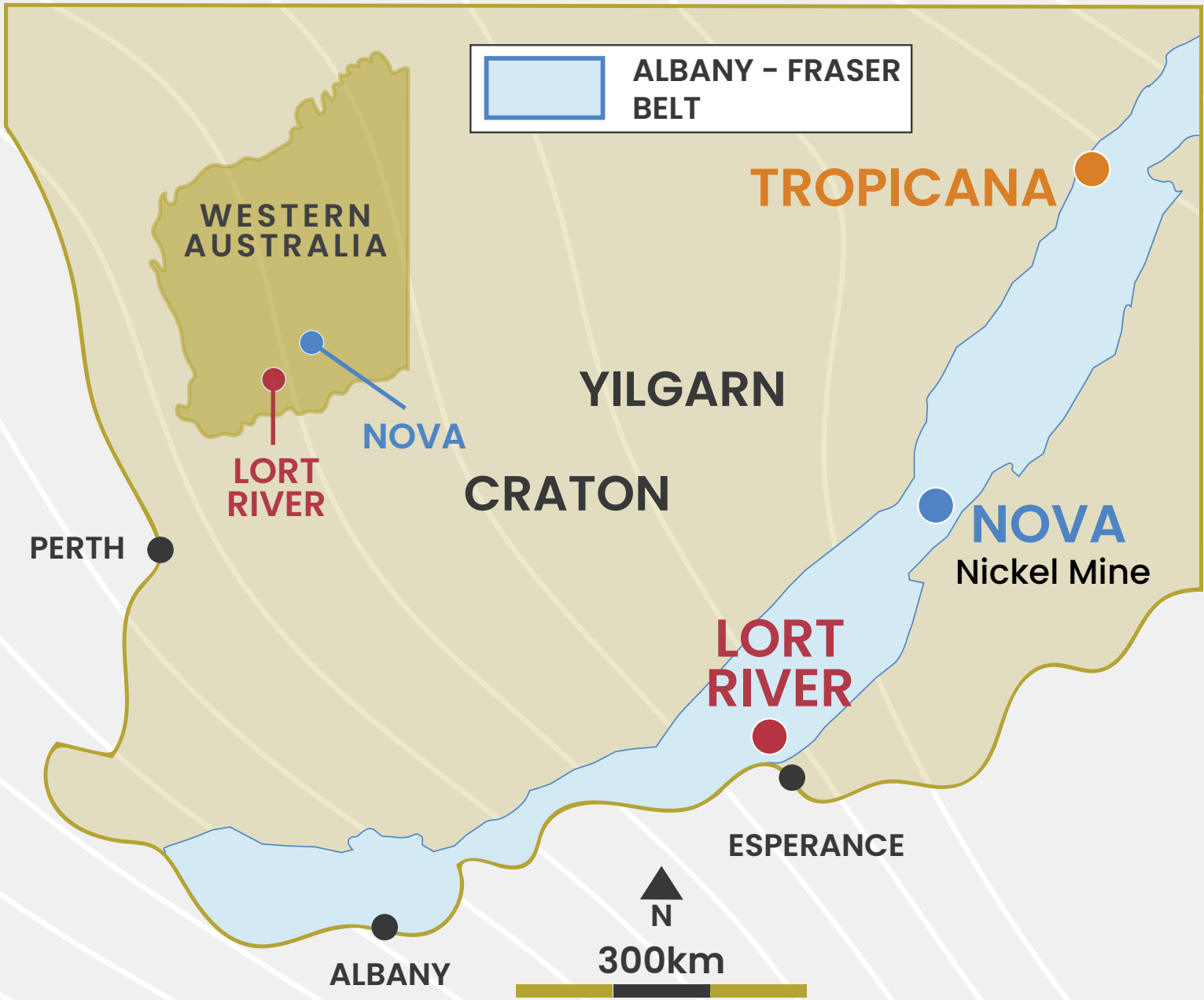
Terrain’s “EYE” is located 300 km south of Nova and within the Albany-Fraser Belt, which is comparable to the Thompson Nickel Belt in Canada.

Exploration is being fast-tracked: planning now underway for ground EM survey, soils sampling with the goal of drill testing all Five High-Priority Bedrock Sulphide Conductors in the fourth quarter 2024.

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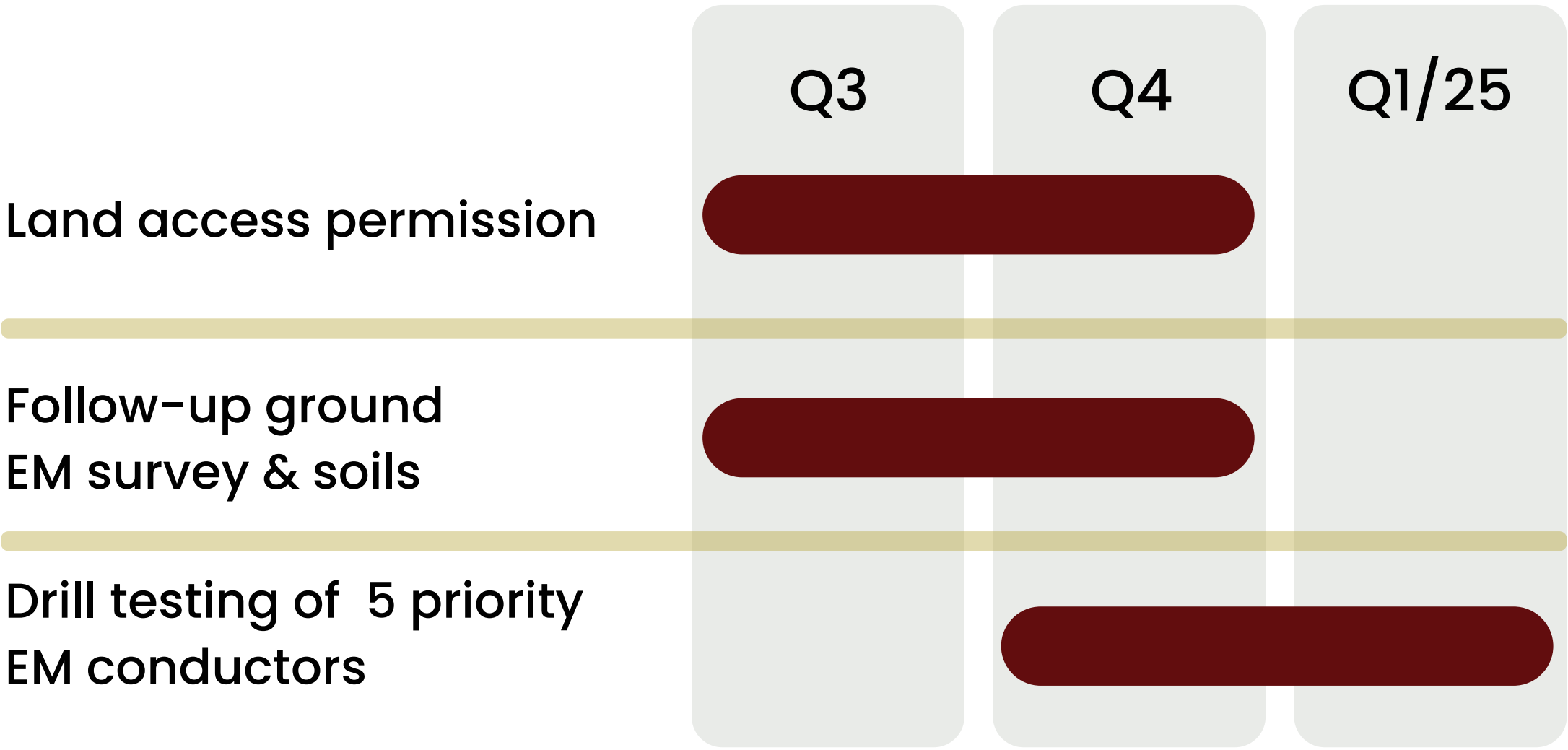
Ni

Nickel



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# Lort River Project Forward Program



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# Summary

## Smokebush – Larin's Lane (Clay Gallium & REE) & Gold Prospects

- Located in the historic WA Mid-West mining district.
- Impressive intersections of Gallium up to 64 metres wide across 70% of all holes over a 9km by 2km target zone which remains open (2).
- Recent Gallium drilling results from 103 holes currently being compiled into a JORC compliant exploration target, due late September 2024.
- Priority drilling at Wildflower Gold prospect due to commence late August 2024, with follow up RC drilling to follow at Wildflower, Monza and Lighting targets.

## Lort River – Nickel “EYE”

- Airborne Vtem survey discovered Five High-Priority Bedrock Conductors, two within the Lort River “EYE feature”
- Leading Consultants Southern Geophysics have identified the Lort River “EYE” feature as a mafic intrusive geological feature, only the Third found in the Albany-Fraser belt to date.
- Sulphide Ni/Cu deposits are known to exist in clusters, like the IGO, Nova deposit which also sits within a Mafic intrusive “EYE feature” in Albany-Fraser belt. Exactly the same geological setting as Terrain's Lort River “EYE feature”.
- Terrain is fast tracking exploration to drill test all Five High-Priority Bedrock Sulphide Conductors and is currently gaining access for ground base EM survey and soil sampling prior to drill testing before Christmas 2024.

## High Quality Project Pipeline

- Projects: Lithium, Copper/Gold and REE – Refer to following appendixes.

Priority is being given to advancing the grant of the Pilbara (Lithium/Fe) and Queensland (Copper/Gold) tenements as Terrain continues to reposition the company.



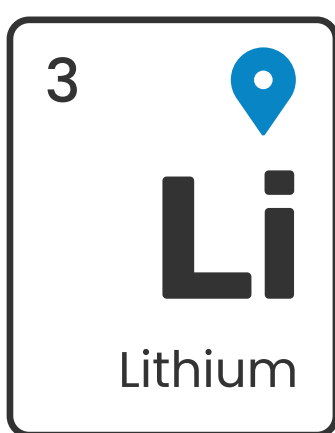
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# Appendix



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# Carlindie Project



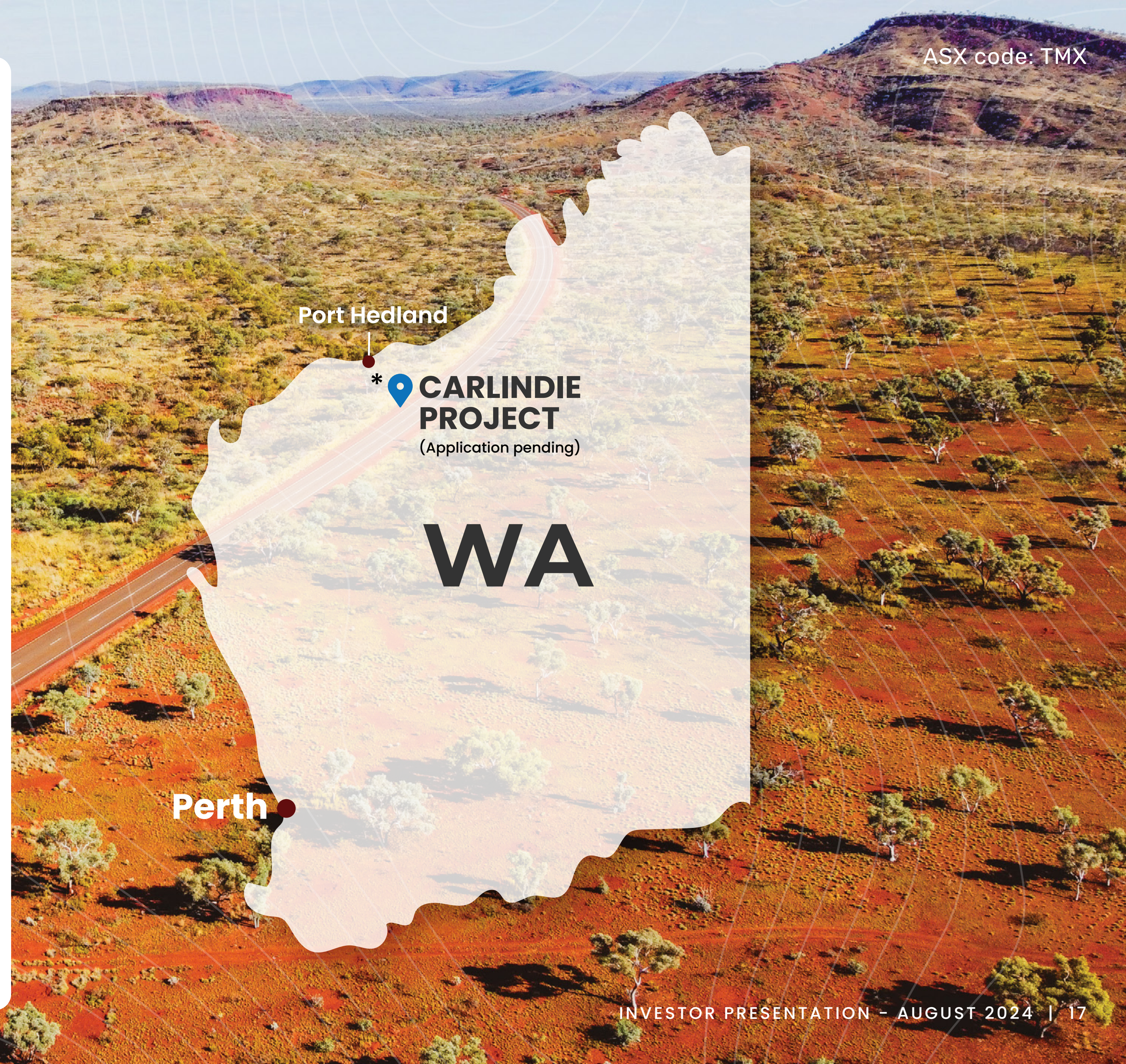
Located 90 kilometres south-east of Port Hedland Western Australia.

Tenement applications cover + 850km<sup>2</sup>.

Along strike of Wildcat Resources Bolt Cutter Lithium Project.

Neighbours SQM and Kali Metals Pilbara Lithium Project.

\*Application pending: No additional costs until application is granted.



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# Carlindie Project | Lithium

Located 90km S/E of Port Headland & covering ~1,200 km<sup>2</sup>.  
~50km N/E of Pilbara Minerals, Pilgangoora mine.

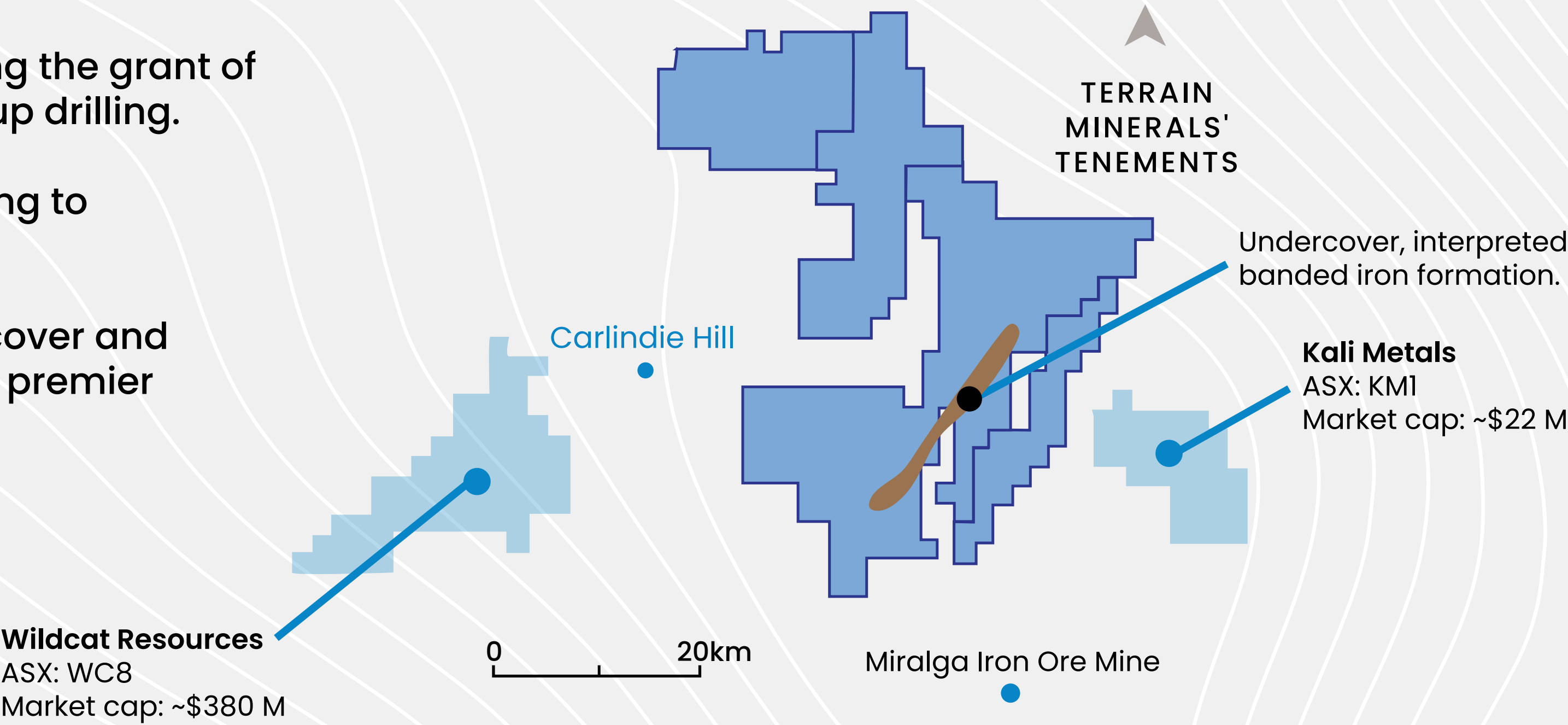
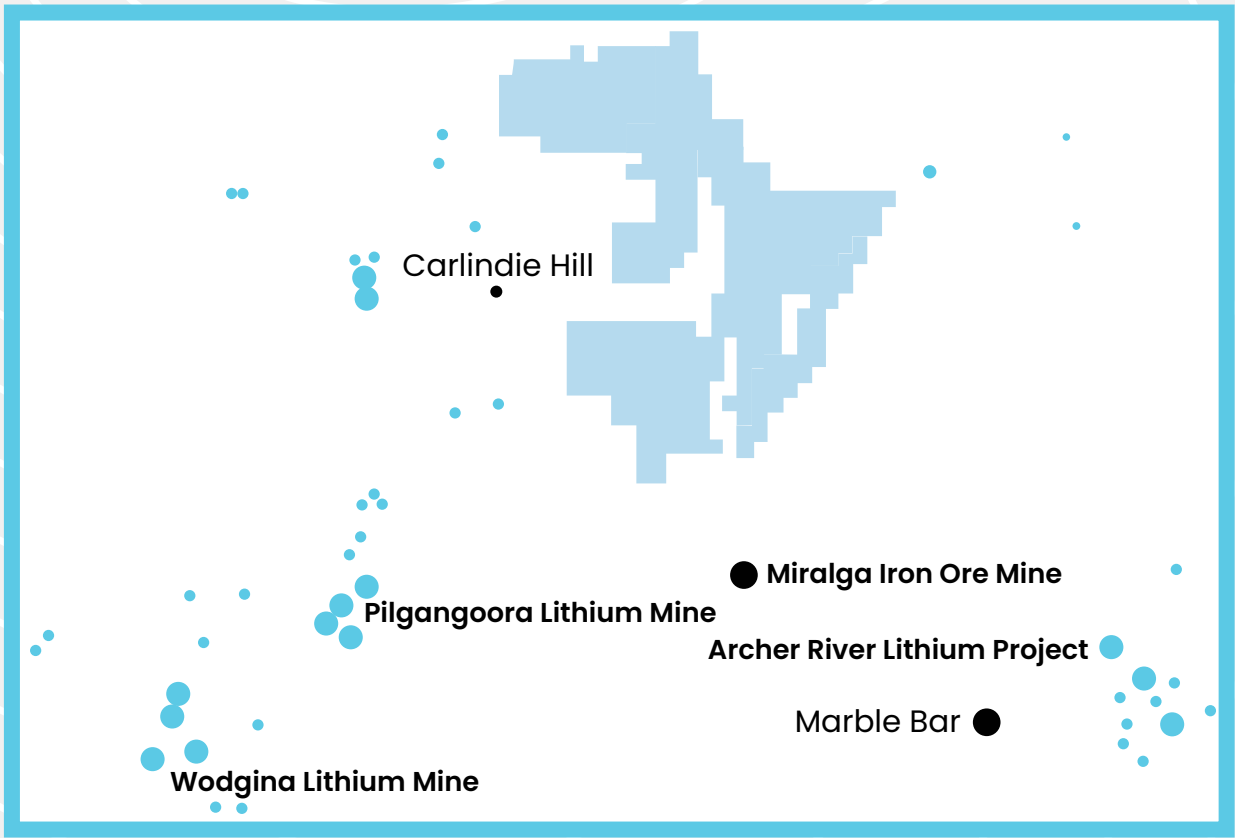
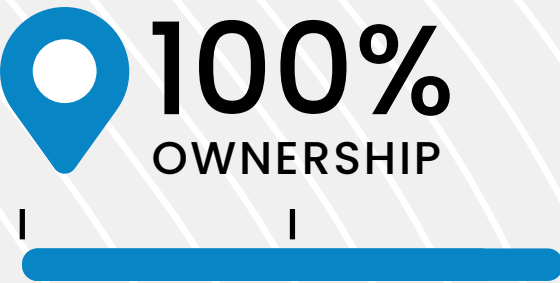
Terrain is seeking to fast track granting of this tenement.  
Terrain will then undertake a 500m x 500m soil sampling  
program over the entire tenement package area.

Field work to commence immediately following the grant of  
tenement including soil sampling and follow up drilling.

Desktop studies have identified key areas fitting to  
Terrain’s internal geological modelling.

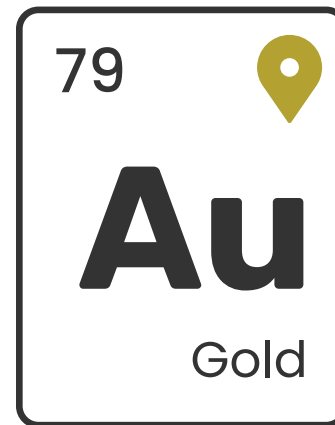
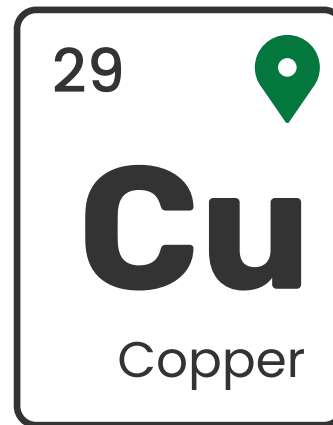
Terrain’s Carlindie Project is under 3m of soil cover and  
in a favourable geological setting within WA’s premier  
Lithium district.

\*Application pending



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# Biloela Project



Located 400 kilometres northwest of Brisbane.

Exploration permits totalling 2,462km<sup>2</sup> of tenure.

Seven historic copper-gold mines reported within Biloela Project.

Ten additional mineralisation occurrences reported across the project.

Independent review confirmed volcanogenic massive sulphide (VMS), porphyry copper-gold and epithermal gold mineral systems present within the project area.

\*Application pending: No additional costs until application is granted.



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# Biloela Project | Copper

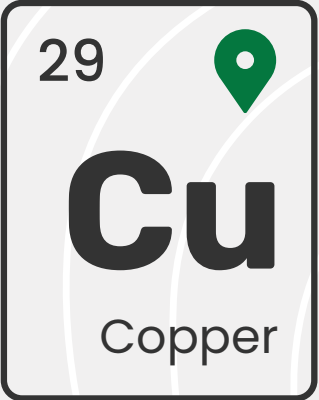
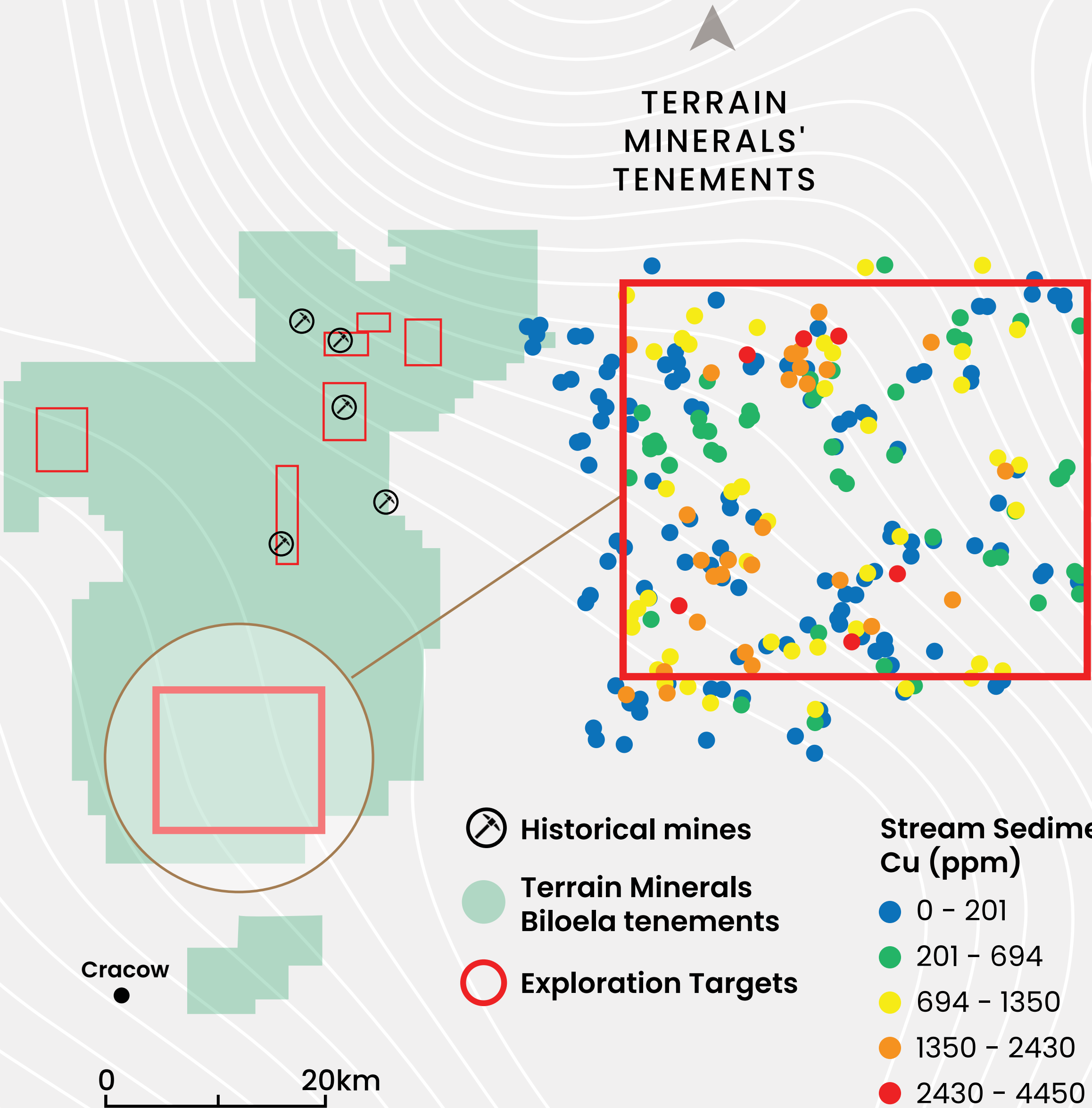
The Biloela Project lies 13 kilometres north of the Cracow Gold Mine in the Glandore and Theodore region of Queensland.

Extensive ~2,500km<sup>2</sup> tenement area, first identified by Rio Tinto, Gold Fields Limited and Newcrest Mining Limited.

The northwest-trending faults within the north-eastern part of the Biloela Project are similar to those present at the Cracow Gold Mine and are considered the most prospective for epithermal- style gold mineralisation.

Terrain’s internal geological team has identified 7 potential copper and gold sites.

\*Application pending



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# Mukinbudin Project



Located within the Mukinbudin region of Western Australia, being approximately 300 kilometres east of Perth.

Extensive 1,408km<sup>2</sup> tenement area.

Highly prospective for primary (hard rock hosted) light and heavy rare earth mineralisation.

Mukinbudin one of the very few regions of Australia known to host NYF (Niobium-Yttrium-Fluorine) pegmatites.

\*Application pending: No additional costs until application is granted.



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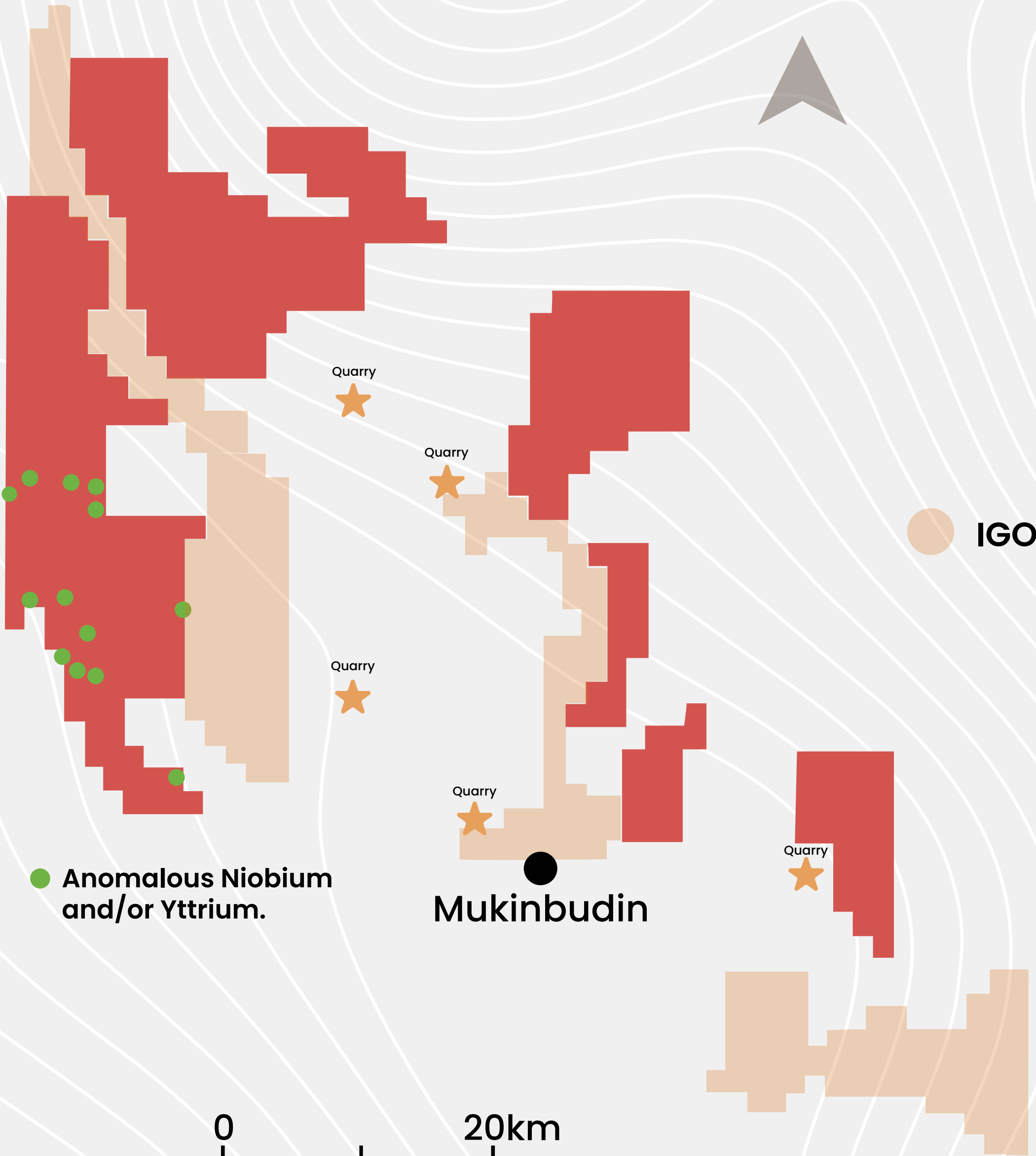
# Mukinbudin Project | REE

NYF (Niobium-Yttrium-Fluorine) pegmatites enriched in light and heavy rare earth mineralisation as well as Gallium.

More than thirteen anomalous Niobium-Yttrium zones already identified within Terrain Minerals' Mukinbudin project area.

Drill testing of known Niobium-Yttrium anomalies to commence immediately after tenement is granted.

\*Application pending



# Want to know more? Contact Terrain Minerals

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# Exploration to support new & emerging technologies

ASX:TMX