



TERRAIN MINERALS

2023 Exploration Campaign Lithium, Gold & Rare Earths

Exploration to support new & emerging technologies

Smokebush Gold & Lithium Pre Drilling
Investment Presentation

ASX:TMX | MAY 2023



Important information



Forward Looking Statements

This presentation has been prepared by Terrain Minerals Ltd (“Terrain”, “the Company”) as a summary of the Company, its mineral assets & plans to explore its tenements & for general information purposes only. This presentation contains material that can be construed as forward looking statements. This presentation is not & should not be considered as an offer or invitation to subscribe for or purchase of any securities in Terrain, or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in Terrain will be entered into on the basis of this presentation.

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Compliance Statement

The Company notes that within the announcement all the information is referenced directly to the relevant original ASX market releases of that technical data.

Terrain would like to confirm to readers that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of the estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr J. Richard Russell (PhD, MAusIMM), principal of R. Russell and Associates, who is a Member of the Australian Institute of Geoscientists and a consultant to Terrain Minerals Limited. Dr Russell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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’. Dr. Russell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Company Profile

Capital Structure

Shares on Issue: 1,083 Million

Unlisted Options

(@ \$0.0065 – \$0.0214): 37 Million
various expiry dates to 2028

Market Cap (Million): 8.7

Cash at Hand* (March Q/Million): 1.9

Investments Listed Shares (Million): 0.1
(being 650,000 Red5 Limited (ASX: RED) shares)

Share Price: \$0.008

Major Shareholders

Top 20: 42%

Top 100: 75%

Board & Associated: 16%

No. of Shareholders: 1,085

* Comprises of March cash balance as in Quarterly report released on the 06 April 2023





TERRAIN MINERALS

Board Members

Justin Virgin Executive Director

Mr Virgin has over eleven years' of experience as a ASX Director of listed exploration companies as well as sixteen years of experience in the financial services and securities industry with expertise in providing a wide range of financial services which includes capital raisings, promotion, providing general corporate advice listed small-cap companies and other investment advice involved in negotiations, mergers, acquisitions and valuations. Mr Virgin also has over ten years of onsite mining experience operating in remote and isolated sites throughout WA and NT on site. His experience covers project acquisition and sale negotiations, mine closures and rehabilitation work as well as extensive preventative maintenance planning and execution on onsite mobile fleet and of exploration program.

Xavier Braud Non-Executive Director - Geology

Mr Braud is an experienced Geologist and mining analyst with over 18 years' of experience in a broad range of deposits and commodities. His geological experience spans the whole spectrum of geology from greenfield exploration to resource definition and extension. Up until January 2023 Mr Braud was the CEO of ASX listed Benz Mining, spearheading the discovery of multiple new high grade gold zones at the Eastmain project in Quebec. During the same period, he also served on the board of another ASX listed company where he actively participated in Riversgold's transition. For the three years prior, Mr Braud was a Resources/Mining Analyst at Patersons Securities and at Canaccord Genuity covering ASX Listed junior resources companies. This role involved researching companies at both technical and financial level with an emphasis on identifying companies with true discovery potential. Mr Braud is a member of the Australian Institute of Geoscientists.

Johannes Lin Non-Executive Director

Mr Lin has 7 years of management experience as an entrepreneur and Principal/Managing Director of Oprian Investments Pte Ltd with interests and focus in minerals and properties/property construction of Pasir Ria Apartments in Singapore and investment team member of Monarch Parksuites Condominium in Manila Philippines. Past experience includes corporate restructuring as member of advisory team in the restructuring of Singapore listed Enzer Holdings Limited where series of debt negotiations, debt buy-out, capital raising by placements, rights issues, debt to equity conversion and eventual takeover by a marine group successfully. He holds a Bachelor of Commerce, Finance and Accounting from University of Western Australia and has been a long-term investor in Terrain Minerals Limited.



Why Terrain Minerals?

Three consecutive exploration campaigns currently underway.

Multiple Drilling Campaigns planned at Smokebush project (100% owned), Targeting Multiple Strategic Commodities.

Drilling designed to test ~6 pegmatite Lithium targets & 4 Gold IP targets, discreetly hidden undercover.

Gold targets Identified by IP Survey, all with historic gold intersection within "halo zone".

All tenements within regions known to host substantial mineral deposits with access to world class mining services.

Pursuing "future-facing", high demand commodities that support new technologies and advanced electronics.

Rare earths mineralisation, multiple potential Lithium bearing pegmatites, gold & emerging copper/nickel targets confirmed across the Company's project areas.

Targeting a potential company-making discovery in 2023.

There are 1.7 tonnes of rare earths in an average wind turbine.



Why the emphasis on high value "future-facing" commodities?

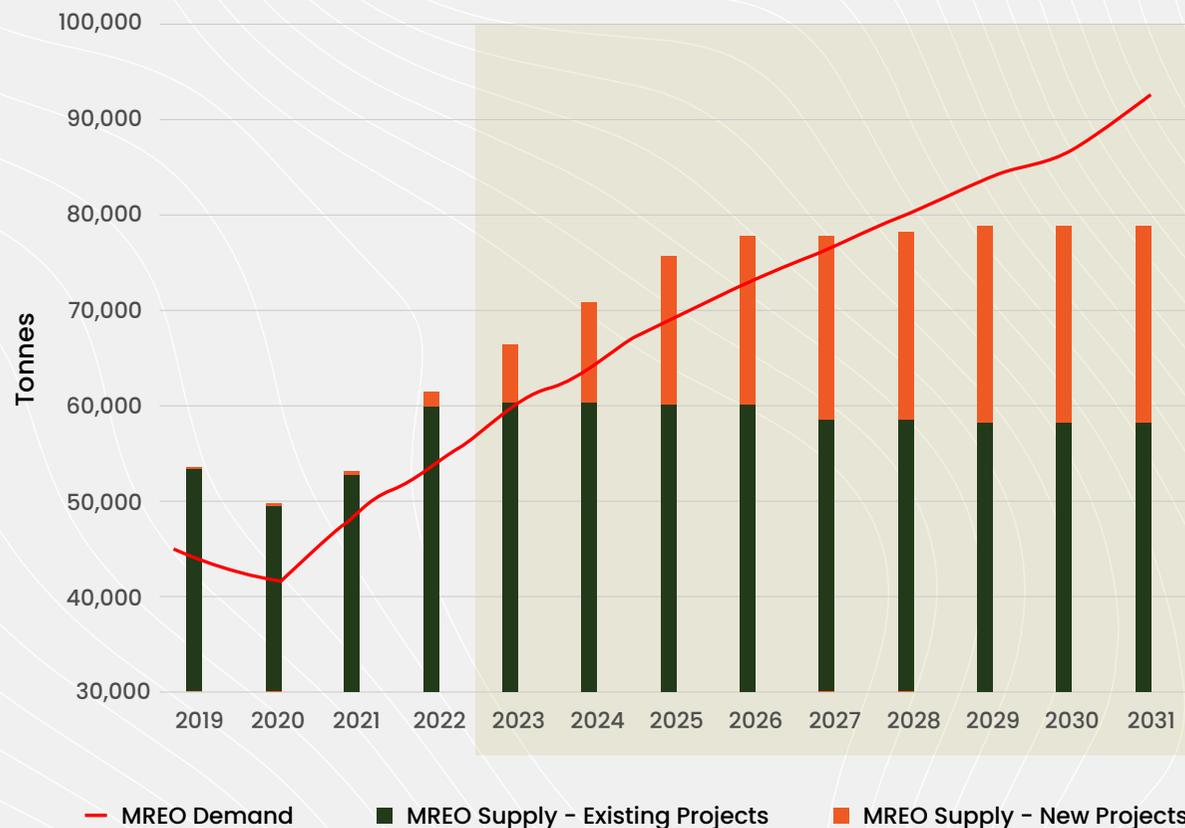
Even if all the planned projects come online and produce as forecast, there will likely still be supply deficits in key "future-facing" commodities such as lithium and rare earths.

That said, Terrain Minerals is aware that maximising the speed to production is crucial to likewise maximizing shareholder return.

With strong and sustained tail winds behind the lithium and rare earths sectors, Terrain Minerals is committed to implementing a major exploration and drilling campaign across its portfolio of projects in 2023.

The ultimate objective is a company-making discovery and maiden mineral Resource within the coming 12 months.

Magnet Rare Earth Oxide (MREO) Supply vs Demand*



* 1 Argus, "Rare Earth Analytics", Report, April 2022

TERRAIN MINERALS

Our 100% Owned WA Projects

-  Smokebush Lithium
-  Carlindie Lithium
-  Lort River Rare Earths
-  Mukinbudin Rare Earths
-  Calytrix Rare Earths
-  Smokebush Gold
-  Wild Viper Gold
-  Smokebush Copper





TERRAIN MINERALS

Lithium

Approximately 8 kilograms of Lithium is needed for a single Electric Vehicle.



● Carlindie

WESTERN
AUSTRALIA

● Smokebush

OUR PROJECTS

Smokebush | Lithium Project

Located 350 kilometres north of Perth.

Positioned over the prospective eastern corridor of the Mt Mulgine granite intrusion and adjoining Yalgoo greenstone belt.

No previous lithium exploration reported across the project area.

Outcropping pegmatites recently confirmed within the Company's Smokebush Project by field mapping.

More than 20+ potential pegmatites noted within the project area.



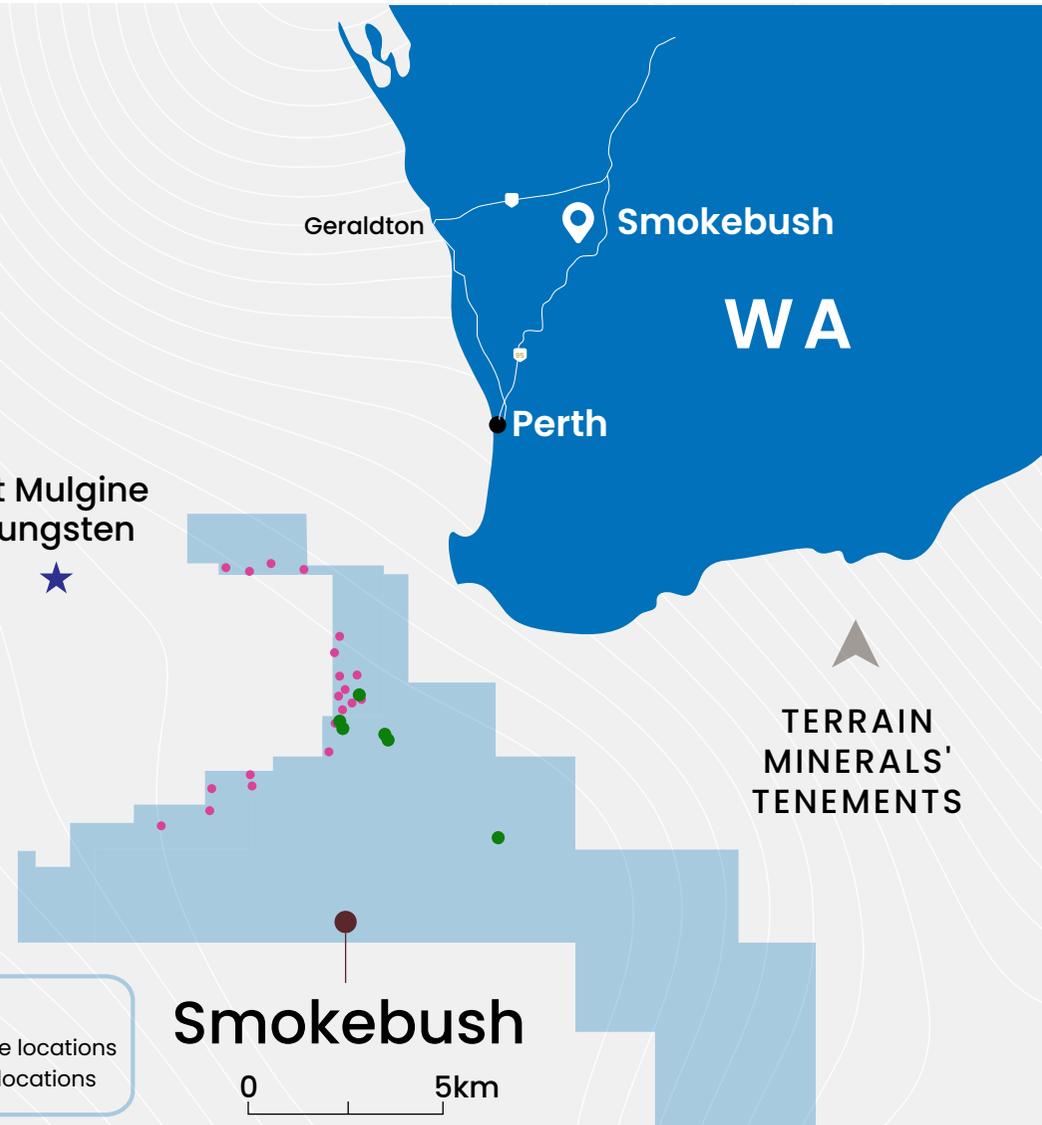
- » Lithium
- » Rare Earths
- » Gold

KEY

- Confirmed Pegmatite locations
- Potential Pegmatite locations

Mt Mulgine
Tungsten

A blue star icon representing the Mt Mulgine Tungsten location.



* Refer to ASX release: 17 March 2023 – Smokebush – IP Survey & Lithium Update Priority Gold Drill Targets Emerging.

OUR PROJECTS

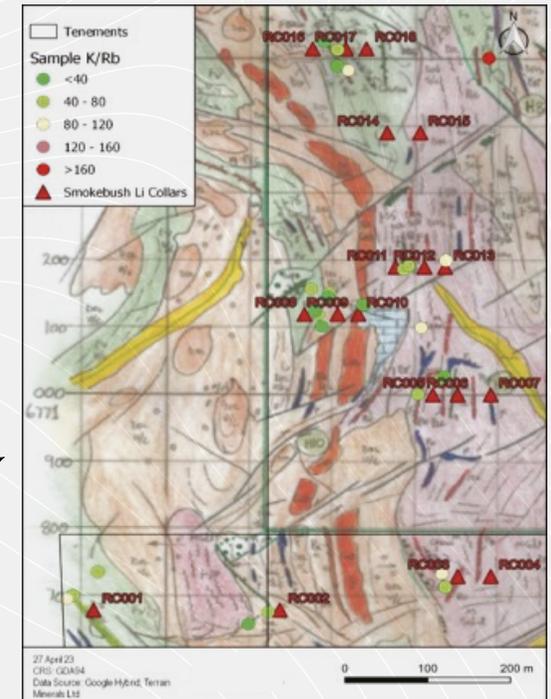
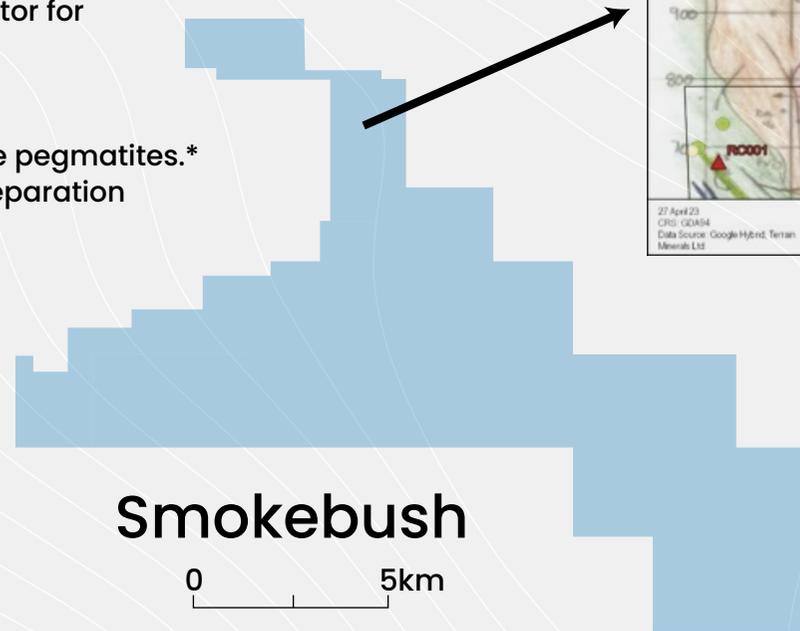
Smokebush | Lithium Project

Outcrop mapping confirmed the presence of pegmatite units within the Smokebush "Goldilocks Zone."

- ~4km long zone of pegmatite swarms.
- Pegmatites ~10 to 15m wide & 200m long, before dipping under cover.
- Multiple rock chip samples up to 200ppm Lithium Oxide, with K/Rb ratios < 40, which are considered a prospective indicator for Lithium formed deeper in the pegmatites.
- Rock chip samples with K/Rb ratios < 40 & multiple Lithium Oxide up to 200ppm which are considered a prospective indicator for Lithium formed deeper in the pegmatites.*
- ~900m RC drilling program approved with ground preparation now underway.
- Drilling scheduled for June 2023.



- » Lithium
- Rare Earths
- Gold

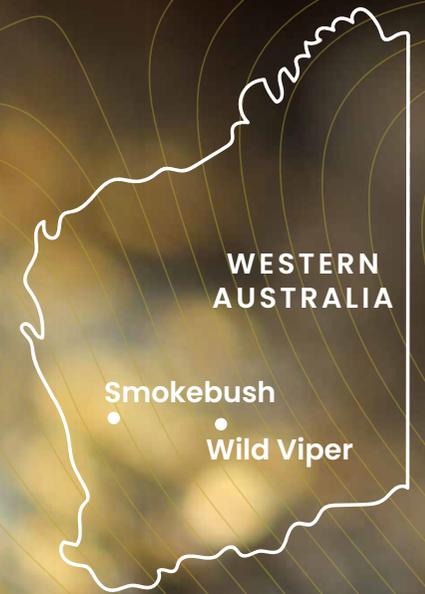


* Refer to ASX release: 16 May 2023 - Smokebush - New Gold & Copper/Ni Anomalies.



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Gold



OUR PROJECTS

Smokebush | Gold Project

Historic exploration focused on areas of outcrop or minimal cover.

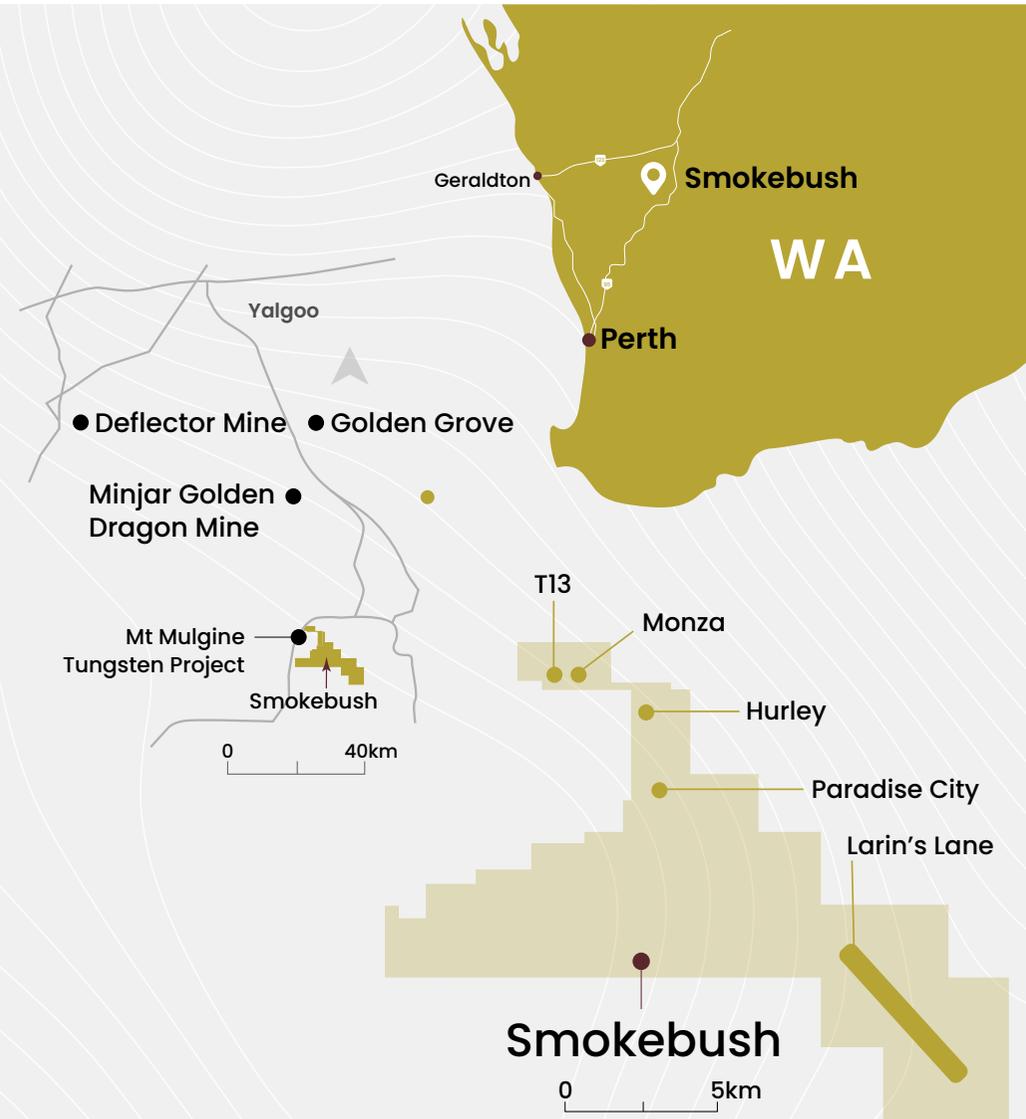
Significant potential for bedrock-hosted gold mineralisation beneath barren transported cover Identified.

Successful IP survey identified 4 “under cover” sulphide targets all within the proximity of historic drilling; Monza, T13, Paradise City & Hurley.

Larin’s Lane

4km long and 300m-400m wide Magnetic “high” feature located within an interpreted structural corridor of archean greenstones interpreted from regional magnetics pinched between late monzogranites units.

Mobile metals ion (MMI) soils program completed, with follow up extension program underway.



OUR PROJECTS

Smokebush | Gold Project | IP targets

Large Induced Polarisation (IP) geophysical survey now complete.

North to northeast trending shear zones are the interpreted control of gold mineralisation across the Smokebush region of the Yalgoo Mineral Field.

Four (4) north to northeast-trending shear zones have been mapped within the Company's Smokebush Project.

Induced polarisation (IP) geophysical surveys across three of these shear zones at Smokebush identified four (4) encouraging chargeability (IP) anomalies.*

Gold mineralisation within neighbouring historic mining pits were successfully mapped using IP geophysics.

Previous drilling by Terrain, intersected gold mineralisation, which now appears to have missed the four (4) newly interpreted mineralised zones.

Drill testing (RC) of the 4 IP targets scheduled for June/July 2023.



* Refer to ASX release: 22 May 2023 600-metre-long chargeability anomaly identified parallel to Monza Gold prospect, Smokebush Project, 19 July 2021 - Positive First Pass Drilling Results Smokebush Gold Project, 12 October 2020 - Exciting Drilling Results at Smokebush Gold Project.

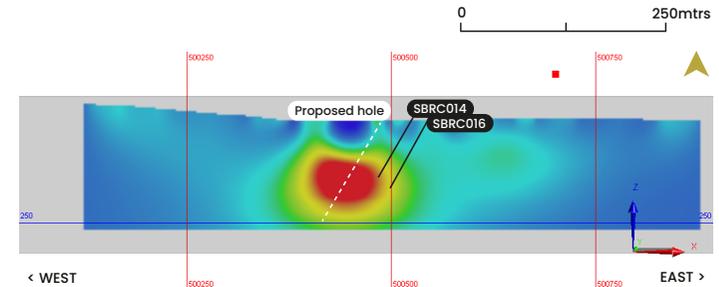


Diagram above: Two-dimensional (2D) inversion chargeability sections on 6774000N looking north with Terrain's 2020/21 Monza drill holes superimposed, which appear to have been drilled 50m away from the newly defined IP anomaly. Proposed drillhole shown in white.

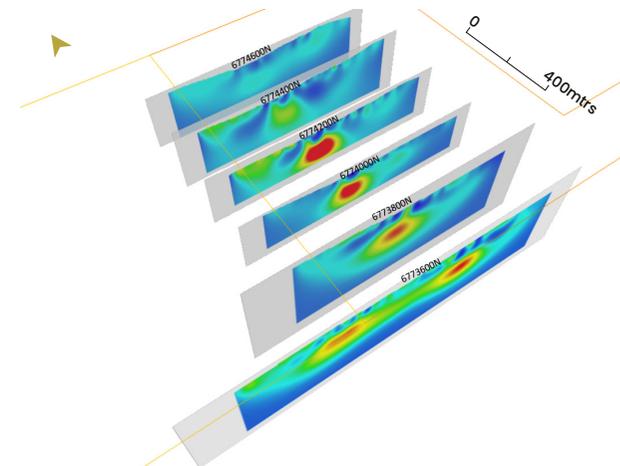


Diagram above: New identified 600m long chargeability Anomaly identified parallel to historic Monza drilling

OUR PROJECTS

Smokebush | Gold Project | Larin's Lane

Highly Successful Mobile Metals Ion (MMI) Soils program (834 samples taken).*

- Large New Gold Anomaly - ~700m by ~250m (Diagram 2).
- "Open" Copper (Cu) with associated Nickel (Ni) anomaly ~600m by ~350m open towards the S/E (Diagram 3).
- MMI - 9km² extension program to define Cu/Ni anomaly now scheduled.
- Newly identified anomalies within similar geological setting to Golden Grove.
- Planning for drill testing of gold and Cu/Ni targets once boundaries defined.

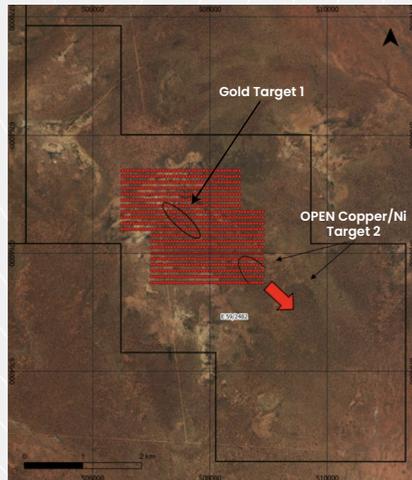


Diagram 1
MMI program coverage area

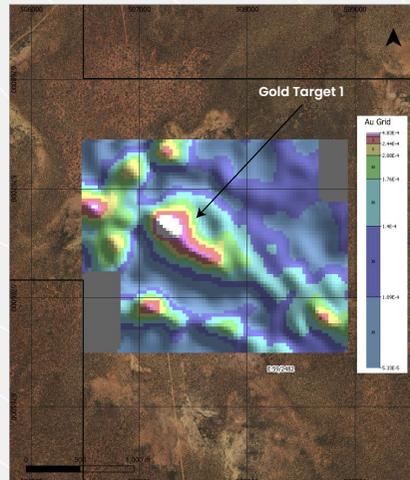


Diagram 2
MMI Gold anomaly circular 700m by 250m which is now ready for air core drill testing.

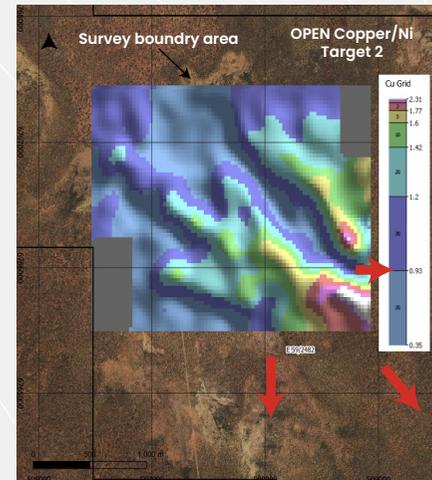


Diagram 3
Copper with associated Nickel anomaly S/E corner. Red arrows indicative of potential extension area and target for the MMI extension program.



- Lithium
- Rare Earths
- Gold
- Copper

* Refer to ASX release: 16 May 2023 - Smokebush - New Gold & Copper/Ni Anomalies.



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Rare Earths

There are 4 tonnes of rare earths in each Virginia-class submarine.

Geo-political tensions are driving the global desire to develop alternative rare earths supply chains to protect manufacturing and defence.



OUR PROJECTS

Lort River | Rare Earths Project

Located 650 kilometres southeast of Perth.

Covers 320 square kilometres of prospective geology.

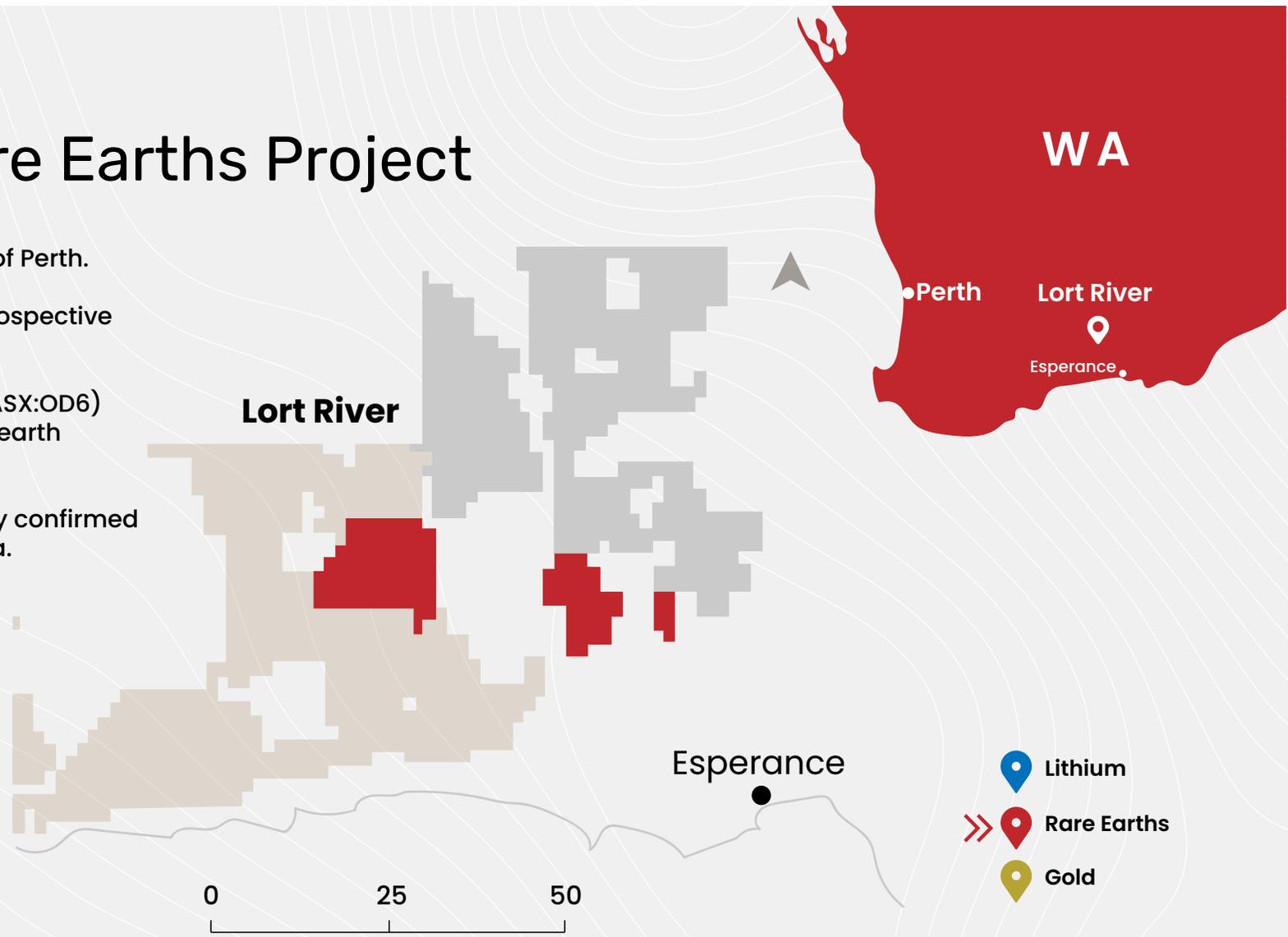
Immediately adjoins OD6 Metals (ASX:OD6) and Meeka Metals (ASX: MEK) rare earth projects.

Rare earth mineralisation is already confirmed within Terrain Mineral's project area.

Terrain Minerals Ltd ASX:TMX
TMX Market Cap \$5M

OD6 Ltd ASX:OD6
OD6 Market Cap \$17M

Meeka Gold Ltd ASX:MEK
MEK Market Cap \$62M



* Refer to ASX release: 30 05 2022 - High-Grade Clay Type Rare Earths (REE) Soil Anomaly Identified at Lort River Project

OUR PROJECTS

Lort River | Rare Earths Project

Encouraging Total Rare Earth Oxide (TREO) grades returned from historic shallow auger drilling.

Heritage and land access agreements progressing.

Planning for proof of concept road side air core drilling underway, 2nd half 2023.

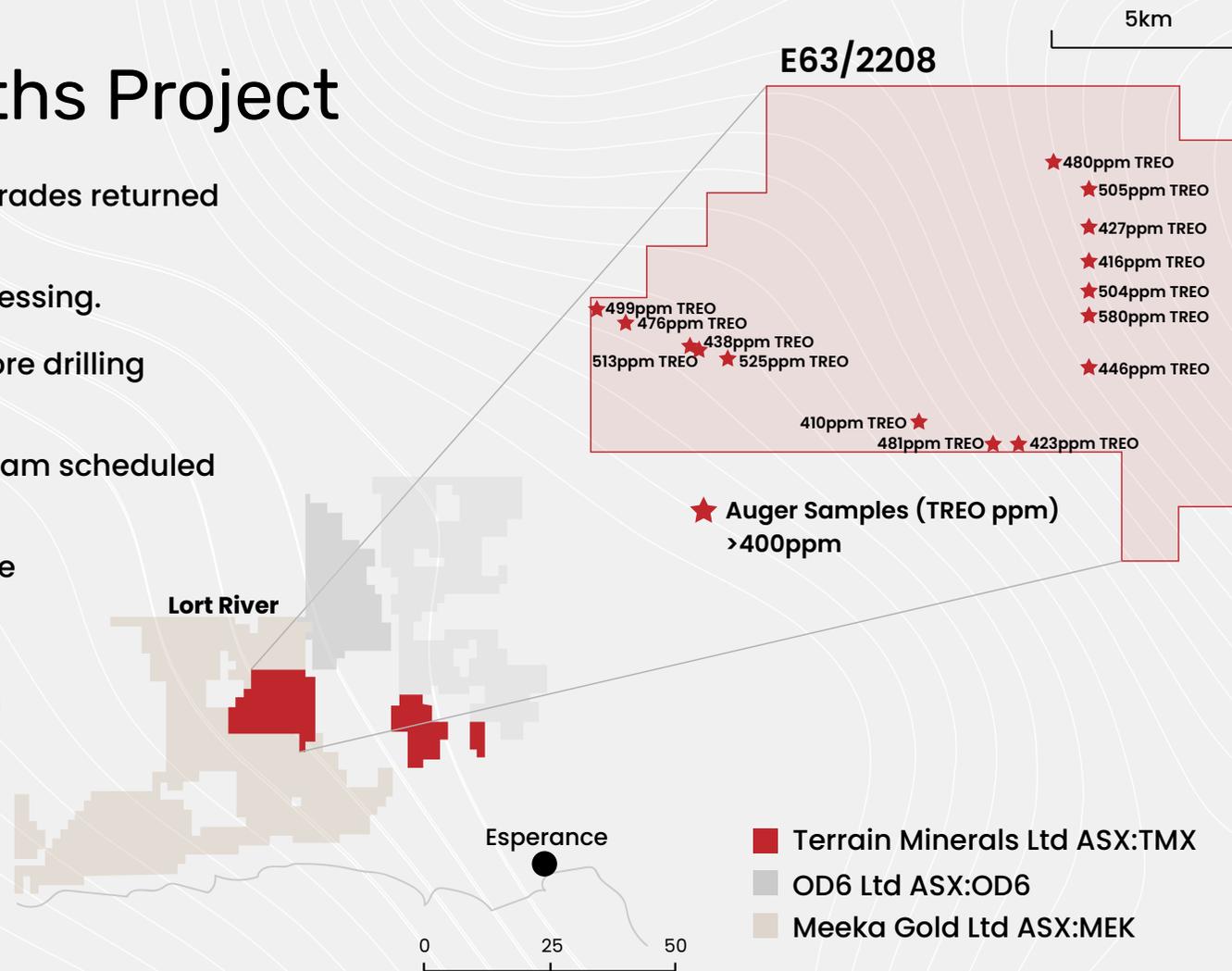
Significant 8,500 metre air core drilling program scheduled from 1st quarter 2024.

Air core drill program designed to test for rare earth mineralisation the entire 320 square kilometre Lort River project area.

Drilling to support reporting of an Exploration Target early 3rd quarter 2024.

Infill drilling and Metallurgical test work scheduled for 3rd quarter 2024.

Targeting a Maiden Mineral Resource estimate in 4th quarter 2024.



* Refer to ASX release: 30 05 2022 - High-Grade Clay Type Rare Earths (REE) Soil Anomaly Identified at Lort River Project



Hard rock vs clay Rare Earths comparison

Advantages of Clay Deposits	Clay Rare Earths	Hard Rock Rare Earths
Project location Geographic distribution of resources and production	Project location Dominated by Asia, specifically China and Myanmar	Project location Mainly China, also projects in Australia and the United States of America
Element composition Rare earth element assemblage and concentration	Element composition Both light (Nd and Pr) and heavy (Tb and Dy) rare earth elements typically exist	Element composition Predominately light rare earth elements (Nd, Pr)
Extraction intensity Relative operating costs	Extraction intensity Low	Extraction intensity High
Exploration dynamics Cost and time	Exploration dynamics Inexpensive aircore drilling into soft sedimentary material for swift exploration	Exploration dynamics Costly, hard rock diamond drilling required for slower, expensive exploration
Mine development Capital expense	Mine development Low Shallow deposits, progressive mining and rehabilitation	Mine development High Large open pit with large operating fleet and costly closure
Processing Style and environmental impact	Processing Simple, proven, low acid metallurgy with inert tailings and solvent recycling	Processing Complex metallurgy, high temperatures and pressures, strong acids and often radioactive tailings

* Source: OD6 Metals Ltd <https://www.od6metals.com.au/rare-earths/#clayvshard>

Project Pipeline

Calytrix Prospect – Rare Earth Project & Lithium

- Located 40km S/E of Yalgoo WA & covering 809km².
- Newly identified areas being mapped and sampled during May 2023.

Carlindie Prospect – East Pilbara/Lithium *(applications pending grant, appendix 1)*

- Located 90km from Port Headland & 50km N/E of Pilbara Minerals – Pilgangoora mine.
- Desktop studies underway over the 737km² application area.

Calcaling Prospect – Mukka Rare Earths Project *(applications pending grant, appendix 2)*

- Located north of Mukinbudin WA and covering 1,408km².
- Targeting pegmatite-hosted Dysprosium, Neodymium, Terbium and Praseodymium.
- Ultra high solution airborne and radiometric survey to define pegmatites and define primary controls on mineralisation, anticipated to commence immediately tenement granted.

Wild Viper Gold Project – Wilsons Arc

- Located 76km north from Leanora WA & surrounds Red5 Limited (ASX: RED) Great Western gold mine.
- Rock chip sampling returned positive results including 9.92 g/t gold and 4.67 g/t gold.*
- Drill testing of interpreted extension of Great Western mineralisation in 2023.

* Refer to ASX release: 27 03 2019 – Great Western Gold Project Update & New Exploration Program Great Western Gold Project Update & New Exploration Program and 29 06 2020 – Strategic Acquisition at Wildviper Gold Project “The Missing Piece of the Puzzle” & New Targets



Planned Work Program* | 23 + 24

Lithium Work Program

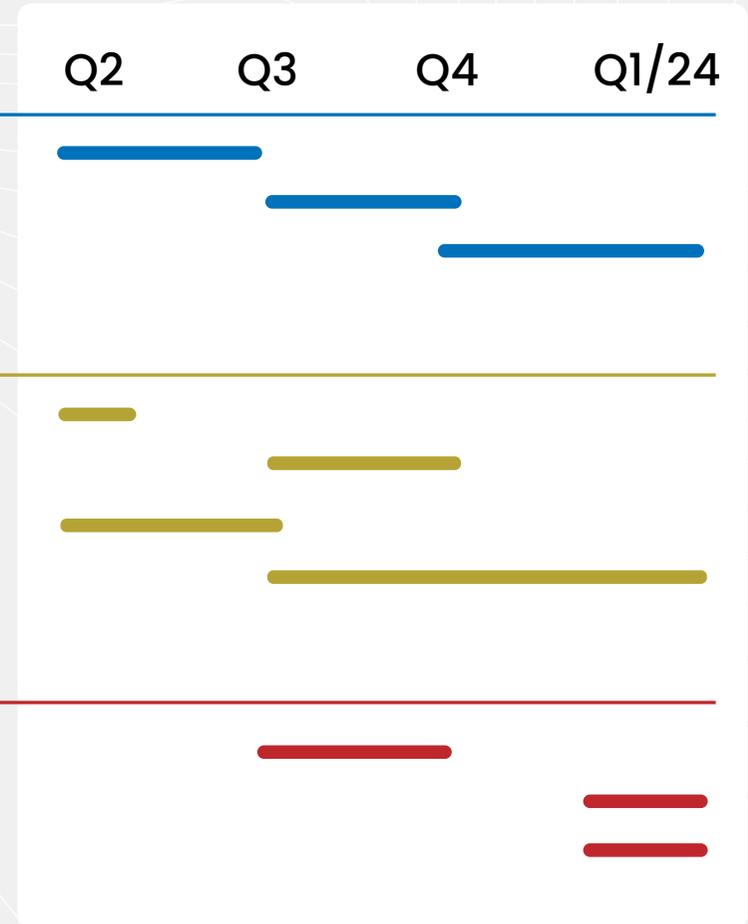
- Reconnaissance drilling - (Smokebush Project)
- Resource-focused drilling - (Smokebush Project)
- Metallurgical test work - (Smokebush Project)

Gold Work Program

- Induced Polarisation (IP) Survey - (Smokebush Project)
- Reverse circulation drilling - (Wild Viper Project)
- Drill campaign - (Smokebush Project)
- MMI & Air core drilling - (Larin's Lane Project)

Rare Earths Work Program

- Air core drilling - (Lort River Project)
- Resource-focused infill drilling - (Lort River Project)
- Metallurgical test work - (Lort River Project)
- Maiden JORC Resource Q3/24 - (Lort River Project)**



* Subject to change; dependent on (amongst other things) the result returned from the Company's exploration activities each quarter and Company's ability to raise additional capital when required

** Subject to change; dependent on (amongst other things) drill results and metallurgical test work



A new era of **Terrain Minerals** is here.

Targeting potential company-making discovery in 2023

Smokebush – Multiple drill campaigns advancing forward:

- Lithium pegmatites RC drilling – May / June 2023.
- Gold – 4 IP targets RC drilling – June / July 2023.
- Gold & Copper/Nickel anomaly's – Larin's Lane MMI stage two underway/Air core drilling to follow.

Lort River – REE drilling

- Aiming for heritage and land access approvals completed 3rd quarter 2023.
- Air core proof of concept drilling targeting 2nd half 2023.
- Air core 8,500+ metres of drilling targeting rare earths 1st quarter 2024.

Utilising proven exploration approach and industry-standard tools in world leading mining jurisdiction.

Focused on "future-facing" commodities including lithium and rare earths.

Operating in regions known to host significant mines.

Favourable geology including pegmatites and clay-hosted rare earth mineralisation already confirmed across project areas.

Motivated & focused team driving regular news flow anticipated throughout 2023 & 2024.

Appendix 1 – Application Pending

Carlindie | Lithium Project

Located 90km S/E of Port Headland & covering 737 km².

Recent application & not granted.

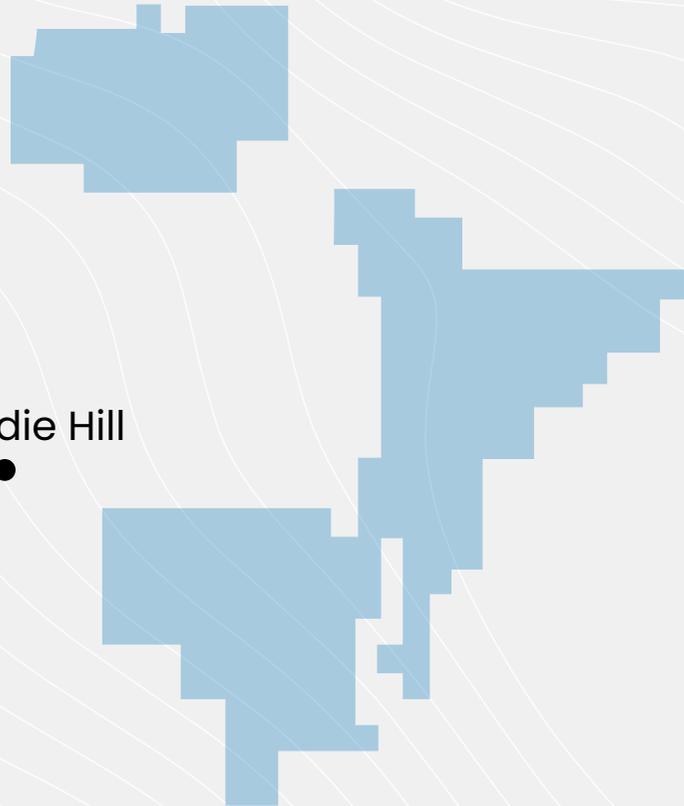
Desktop studies underway.

~50km N/E of Pilbara Minerals, Pilgangoora mine.



- >> Lithium
- Rare Earths
- Gold

Carlindie Hill



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Appendix 2 – Application Pending

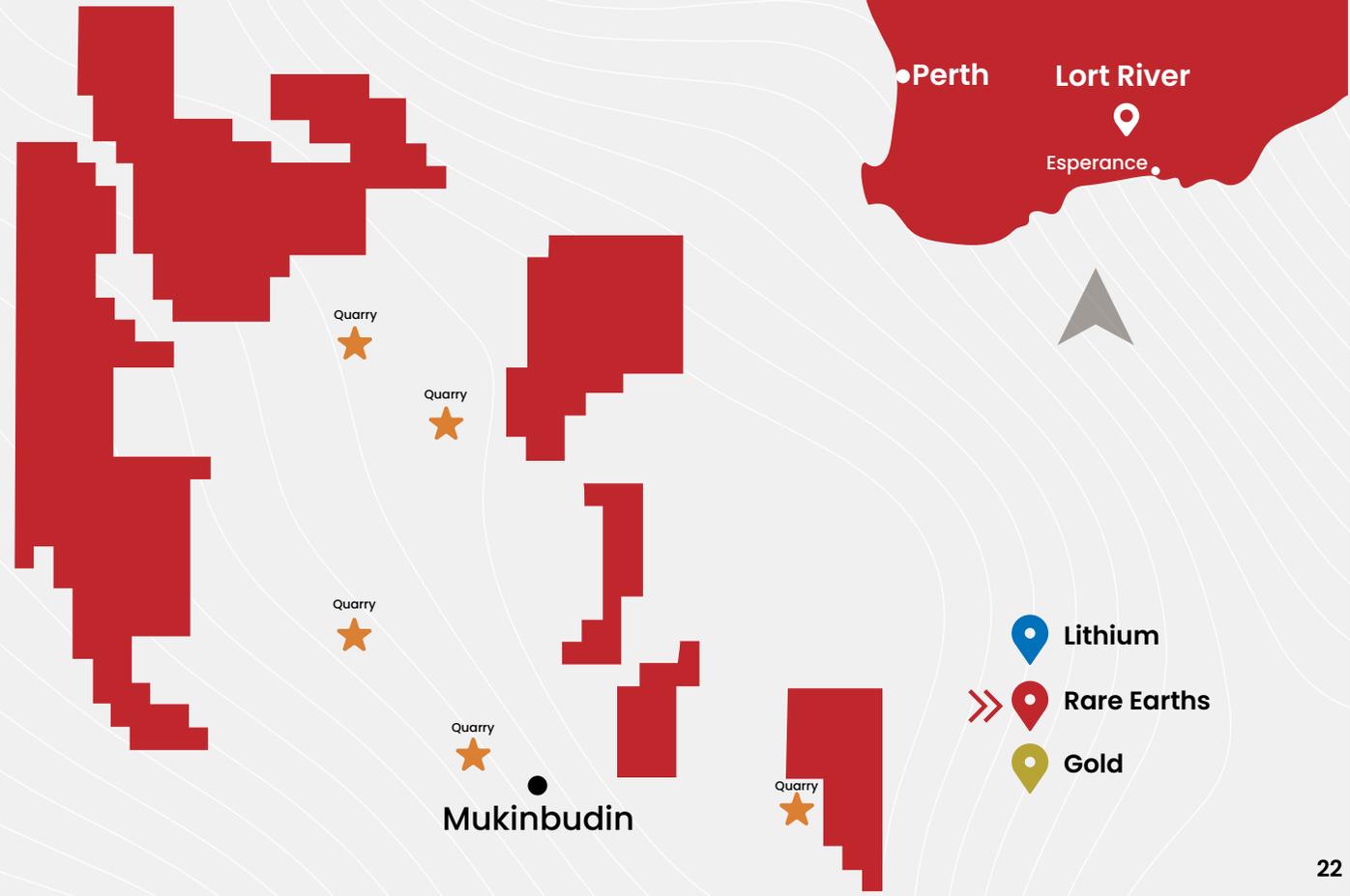
MUKKA | Rare Earths Project

Located at Mukinbudin WA and covering 1,408km², seven applications.

Potential structural extensions from extensions from Codrus minerals (CDR), who are currently drilling for dysprosium, niobium & other REE's.

Other ASX companies in and active within this potentially new REE province include: IGO, MOH and CY5.

Desktop studies underway.



Want to know more? Contact Terrain Minerals

Principal Registered Office

Suite 2, 28 Outram Street
West Perth, Western Australia, 6005
Australia
PO Box 79, West Perth WA 6872
Telephone: +61 8 9381 5558
terrain@terrainminerals.com.au

terrainminerals.com.au

Share Register

Computershare Investor Services Pty Ltd
Level 2, Reserve Bank Building
45 St George's Terrace
Perth, Western Australia, 6000
Australia
Telephone: +61 8 9323 2000



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