

Golden Opportunities

ASX: LNR
lanthanein.com



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COMPETENT PERSON'S STATEMENT

The information in this presentation that relates to Exploration Results for the Lady Grey, Lyons, Murraydium and Koolya Projects is based on and fairly represents information and supporting documentation prepared by Mr Brian Thomas, a Non-Executive Director of Lanthanein Resources Ltd. Mr Thomas is a Member of the Australasian Institute of Mining and Metallurgy. Mr Thomas has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity being undertaken 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 Thomas consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Thomas confirms that the entity is not aware of any new information or data that materially affects the information contained in any ASX releases referred to in this report.

The information in this presentation that relates to the Geophysical Exploration Results for Lady Grey Project complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Dr Jayson Meyers, a consultant to Lanthanein Resources Ltd and a Director of Resource Potentials Pty Ltd. Dr Meyers is a Fellow of the Australasian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Dr Meyers consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

This release includes exploration results the Company has previously reported 22 & 29 April 2024, 15 May & 16 July 2024, 24 September 2024, 15 October 2024 and 13 December 2024. The Company confirms that it is not aware of any new information or data that materially affects the information included in previous announcements (as may be cross referenced in the body of this announcement) and that all material assumptions and technical parameters underpinning the exploration results continue to apply and have not materially changed.



BRIAN THOMAS
Technical Director

Brian is an experienced Director and Corporate Executive with significant domestic and international resources management experience



DAVID FRANCES
Non-Executive Chairman

David is an international executive of 30 years with a track record transacting, discovering, funding, developing and operating assets in Australia and Africa



ANEES SABET
Non-Executive Director

Anees is an established businessman with a track record of identifying and developing resource projects. He is the founder and CEO of Syndicate Minerals Pty Ltd



MATTHEW FOY
Company Secretary

Matthew is a professional company secretary and active member of the WA State Governance Council of the Governance Institute of WA

Capital Structure

Shares on Issue	2,443,636,128	Share Price (17/2/2025)	\$0.003
Options	264,450,000	Market Capitalisation	\$7.33m
Performance Rights	18,750,000	Cash	~\$4.52m
		EV	\$2.81m

Project Profiles



Lyons and Edmund

- Gifford Creek, Gascoyne
- Ironstones and Ferrocarnatite Hosted REE's

Lady Grey

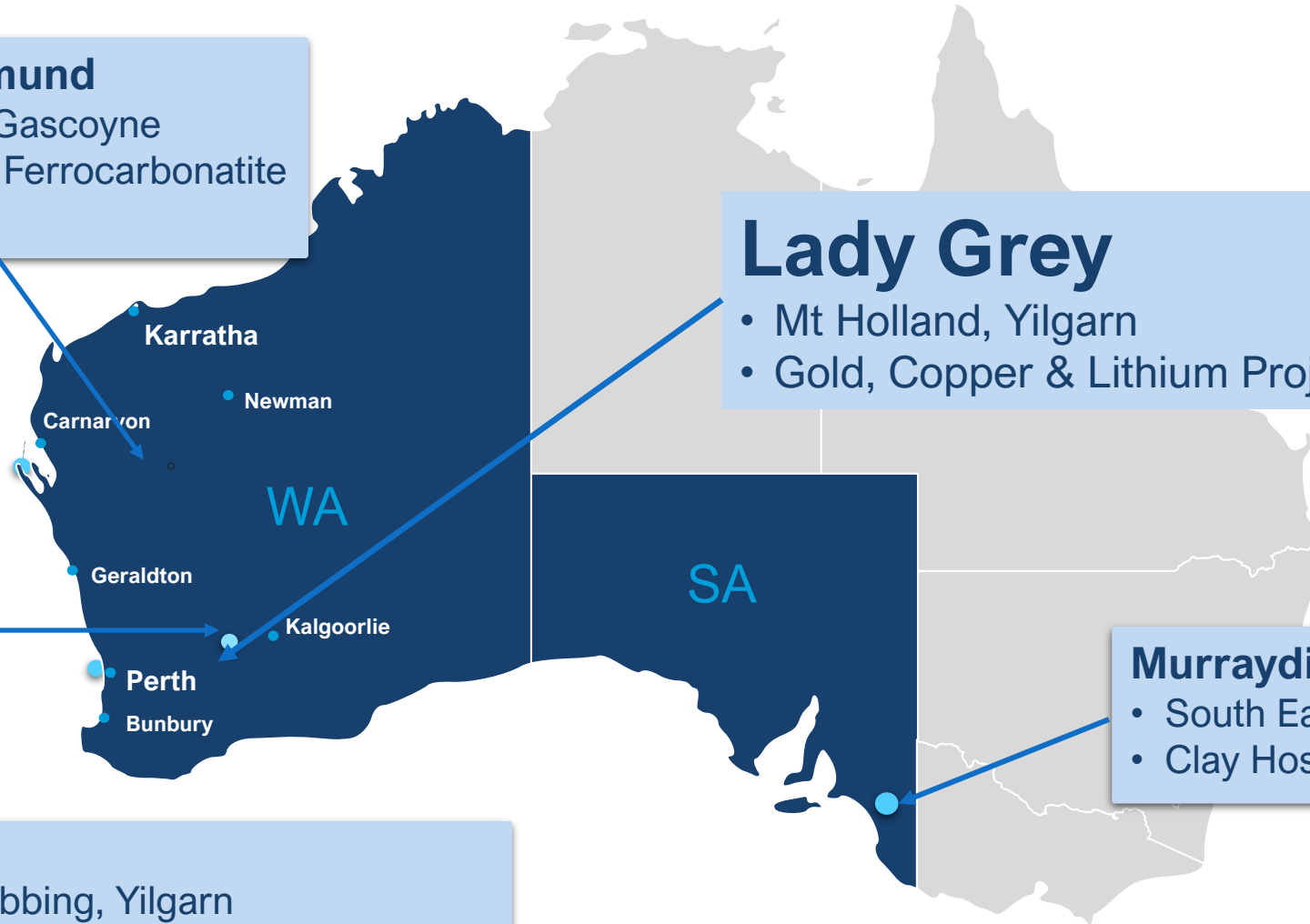
- Mt Holland, Yilgarn
- Gold, Copper & Lithium Project

Murraydium Project

- South East of SA
- Clay Hosted REE's

Koolya

- Koolyanobbing, Yilgarn
- Kaolin and Halloysite (HPA Feedstock)

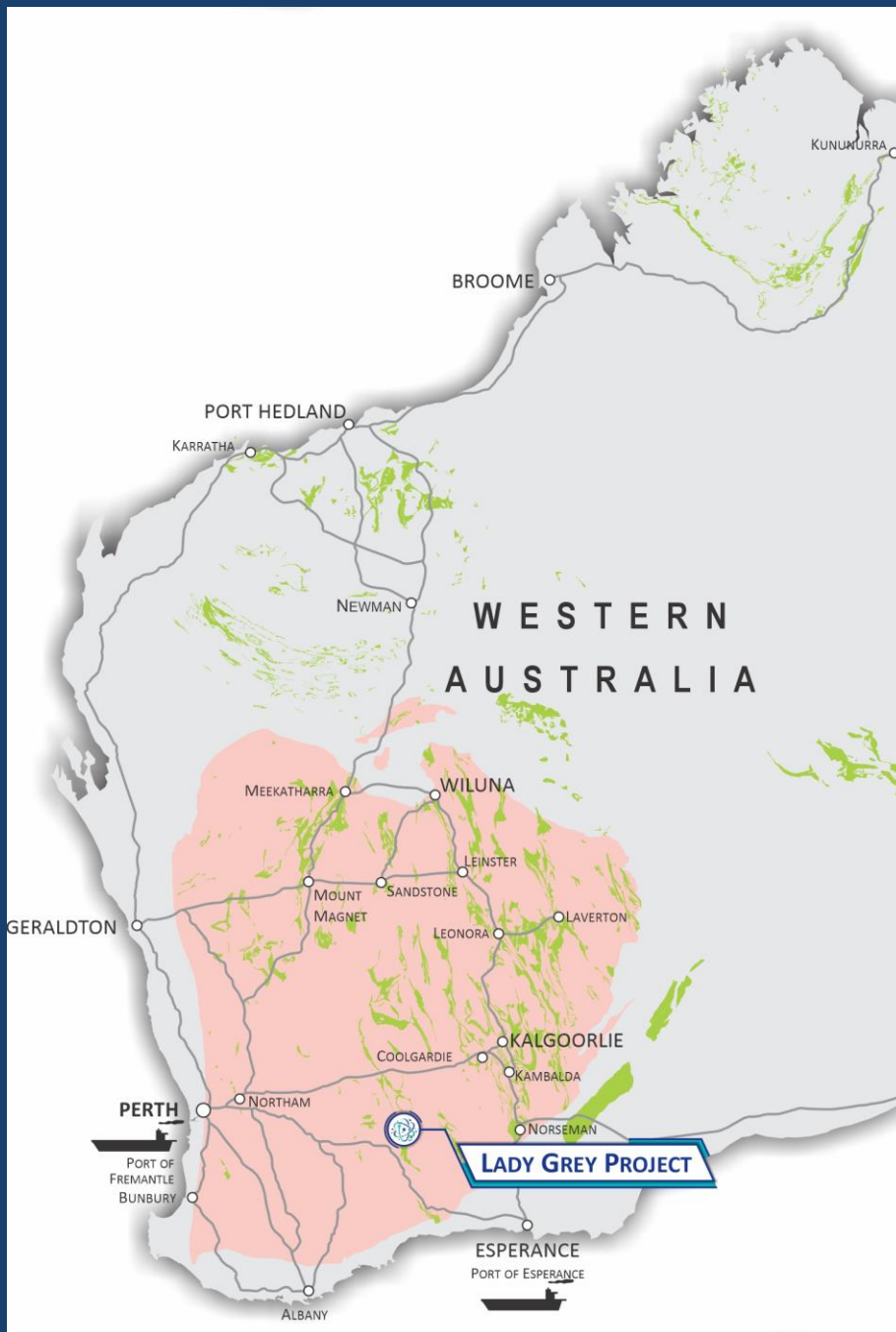


Lady Grey Project

- Farm in Joint Venture to earn up to 70% of the Lady Grey Project directly adjacent to:
 - Covalent Lithium's (SQM/ Wesfarmers 50/50 JV) Earl Grey Mine, 189Mt @ 1.53% Li₂O*
 - Historic Bounty Gold Mine which produced 1.3moz Au**
- Tier 1 Location of granted tenure with ~ 18km of strike along Forrestania Greenstone Belt with proven world class gold, nickel and lithium endowment
- Lady Grey exploration licence applied for 12 years ago but tenure not granted for a further 8 years. Limited exploration post grant, initially for Lithium by vendor with recent focus by Lanthanein over past 12months now on Gold and Copper

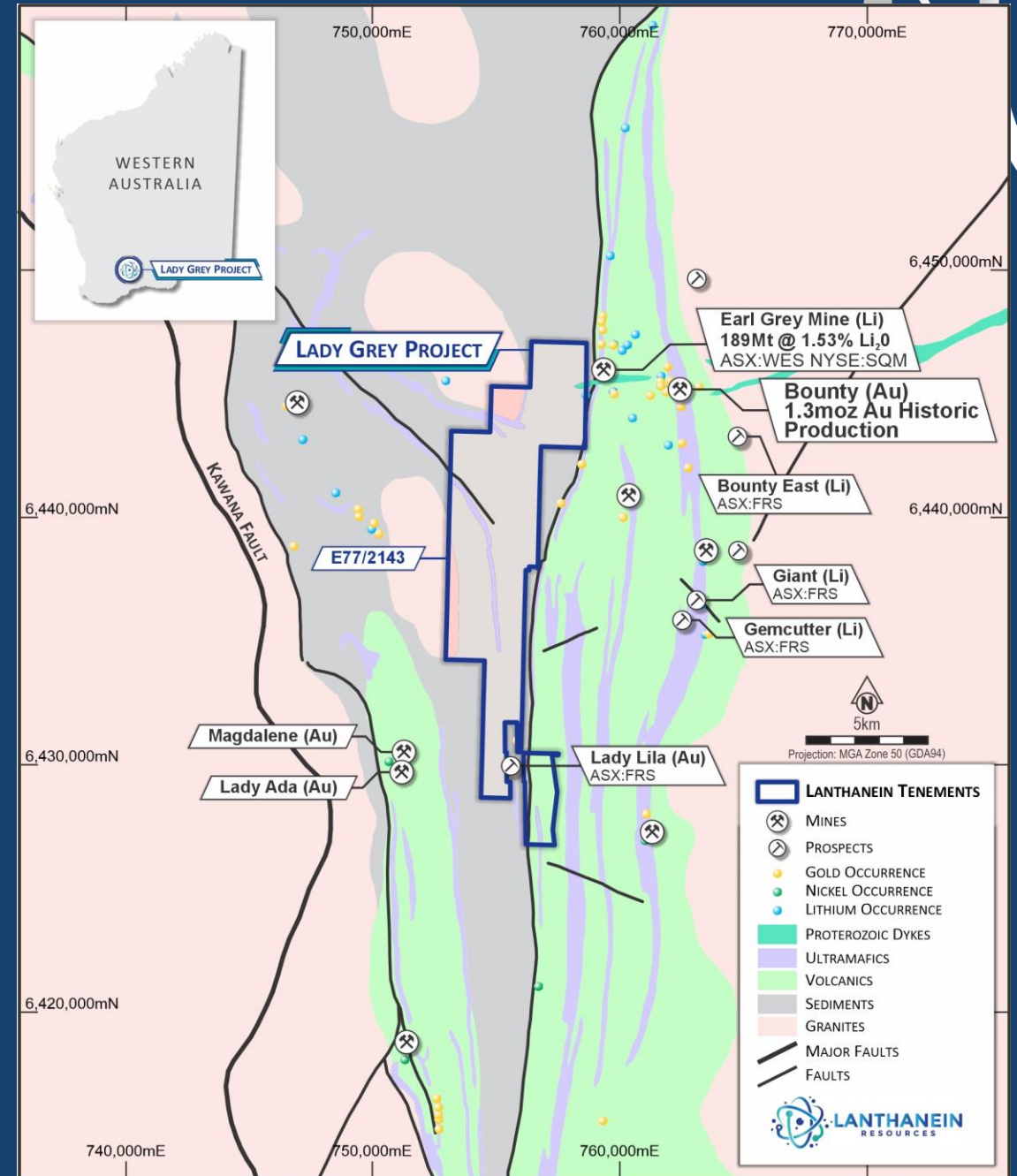
*(Comprising 66Mt @ 1.58% Li₂O Measured, 106Mt @ 1.52% Li₂O Indicated, and 17Mt @ 1.11% Li₂O Inferred)

** <https://portergeo.com.au/database/mineinfo.asp?mineid=mn1634>



Lady Grey Project

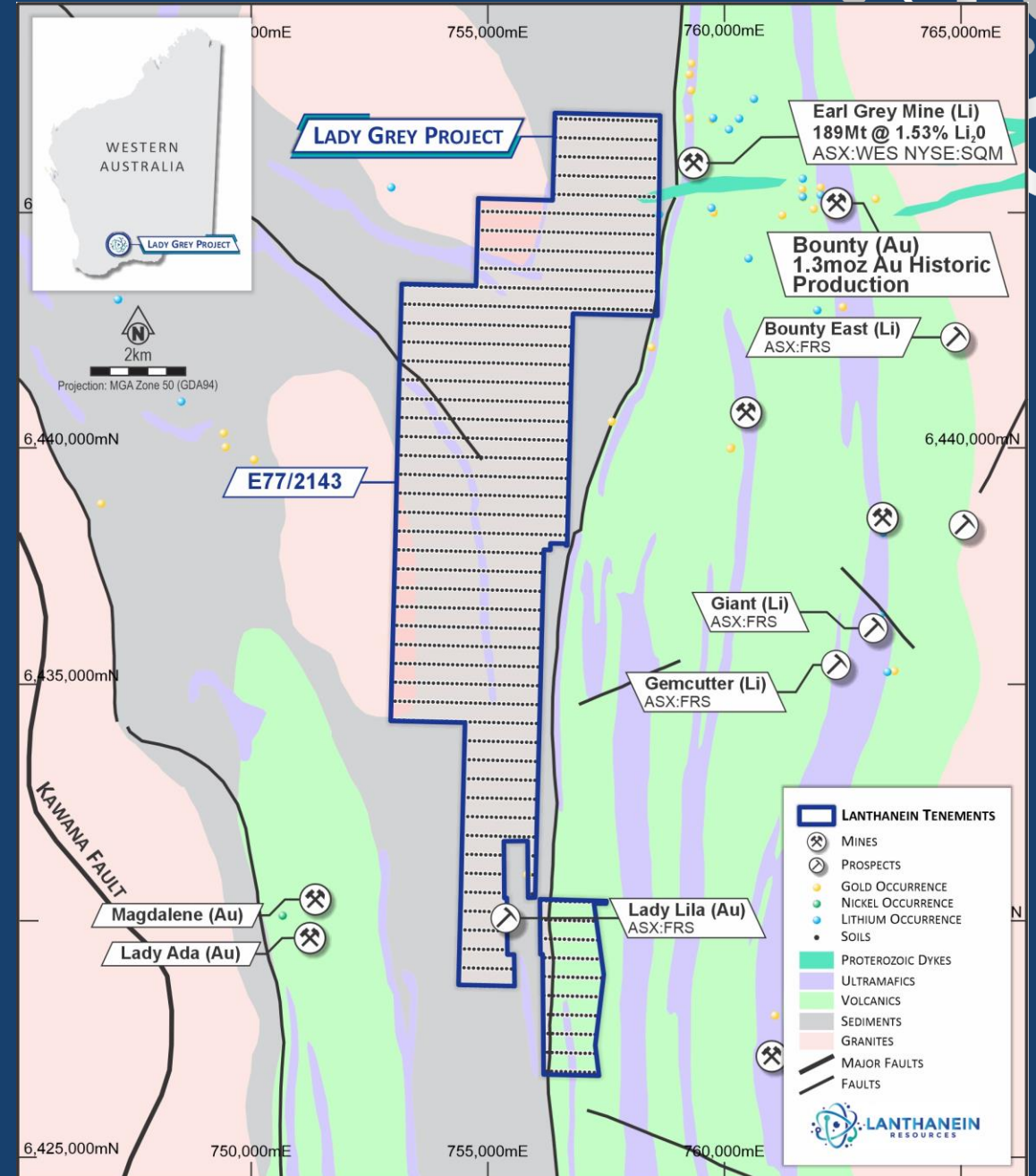
- Lady Grey Project is situated within Exploration Licence E77/2143 covering ~77sqkm
- Earl Grey open pit is located 600 metres directly to the east of Lanthanein's tenement boundary
- Historic Bounty gold mine that produced ~1.3Moz gold 3km to east of the tenement boundary
- Numerous historic satellite gold occurrences within 20km of Bounty that were mined and treated at the previous Bounty processing facility



Lady Grey Project

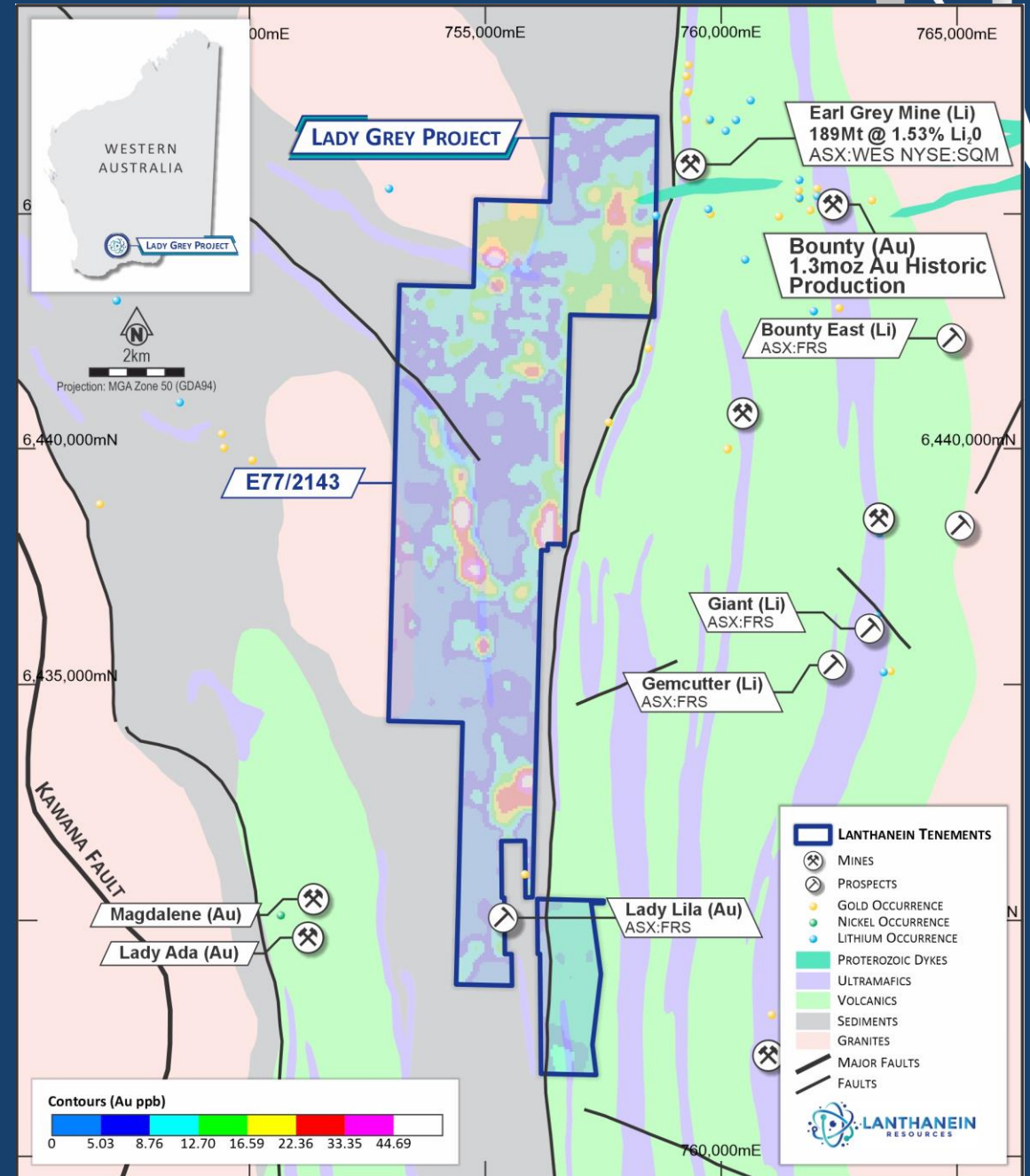
Exploration to Date

- Comprehensive tenement wide soil sampling programme utilising existing historical grid lines
- Compilation of all known geophysics with high resolution drone magnetics flown to infill gaps in the historical data
- Regional structural interpretations combined with upgraded geophysics and geochemistry to generate new target areas of gold, copper and nickel anomalism
- Moving Loop Electromagnetics (MLEM) conducted over prospective structural zones coincident with geochemical and magnetic anomalies
- Drilling of modelled EM Conductor Plates



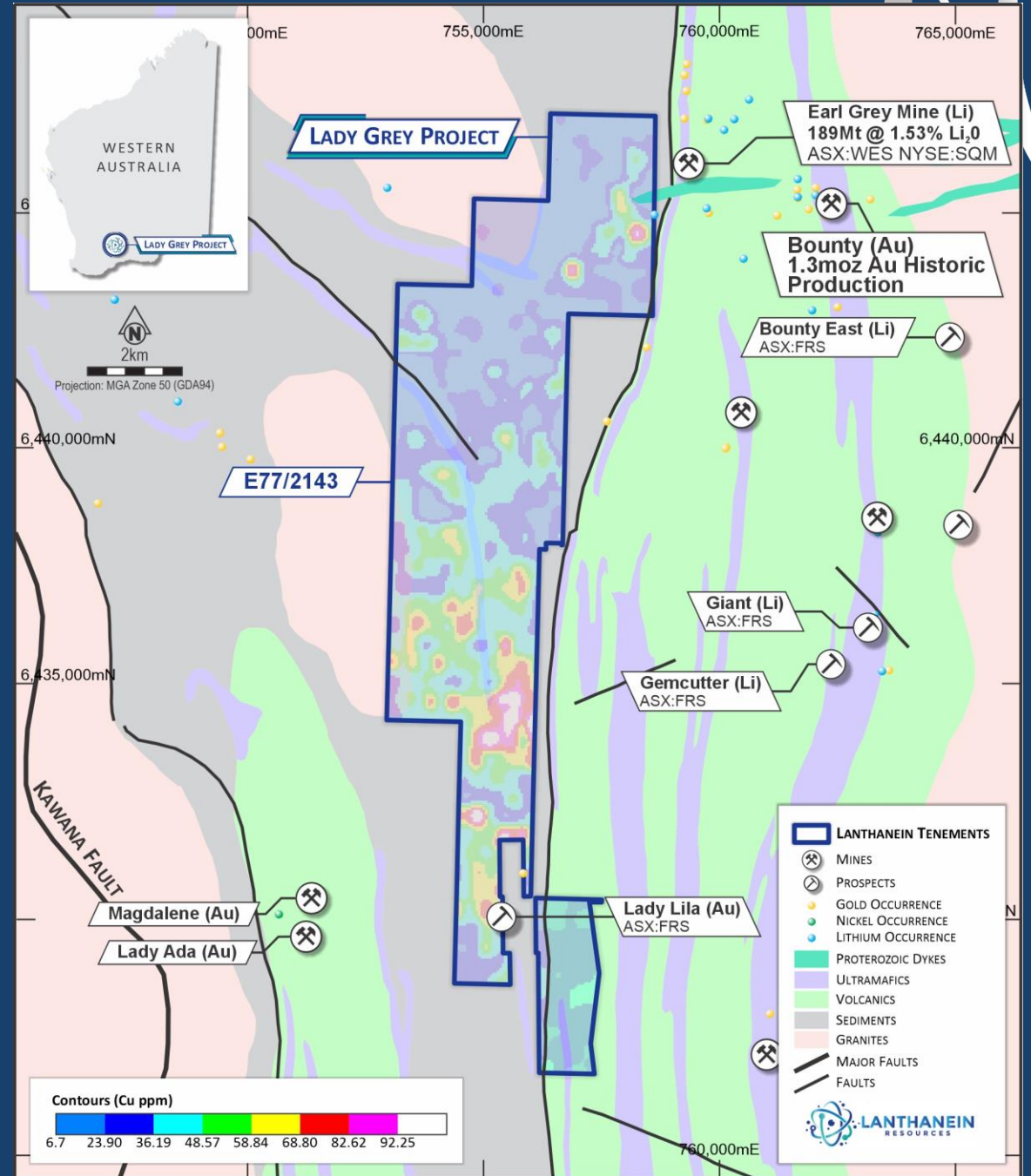
Lady Grey Project

- The tenement wide soil sampling programme had the samples processed with UltraFine+ geochemical analysis which helps “see through” shallow to moderate cover for sensitive signals for detecting gold and base metals
- Results highlighted areas of gold anomalism, with little or no historical exploration drilling
- Highest ranked gold anomaly (256ppb in UFF soils) over top of regional structural flexure was drilled with shallow RAB drilling (<80m) in mid 1990’s
- Coincident gold, copper, nickel soil response in the south that has no drilling.



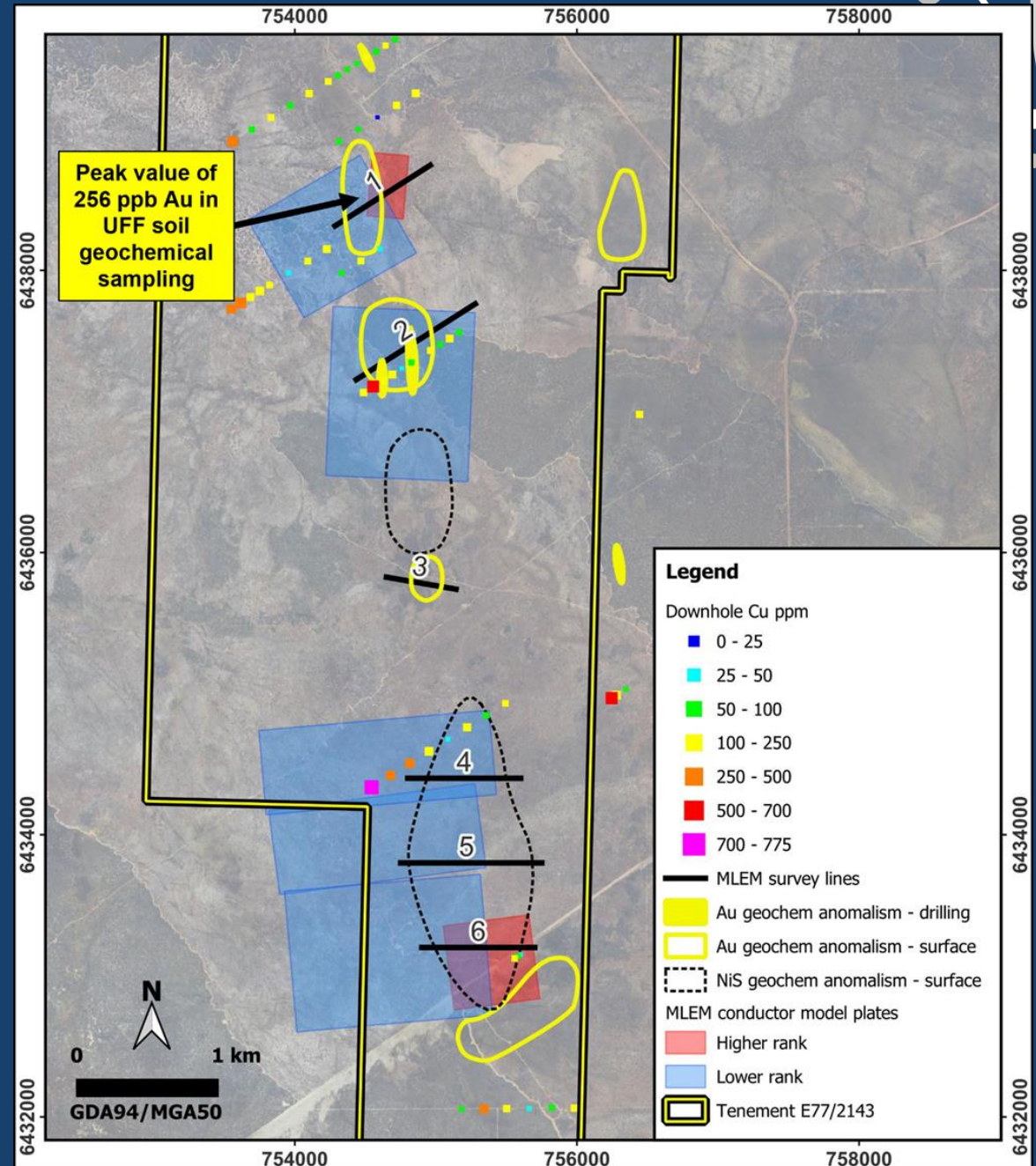
Lady Grey Project

- The extensive soil geochemistry programme across the full tenement with the samples processed with UltraFine+ geochemical analysis also highlighted areas of copper and nickel anomalism coincident with gold anomalism, with no historical exploration drilling
- Significant copper response with UFF+ in the southern part of the tenement coincident with elevated gold response



Lady Grey Project

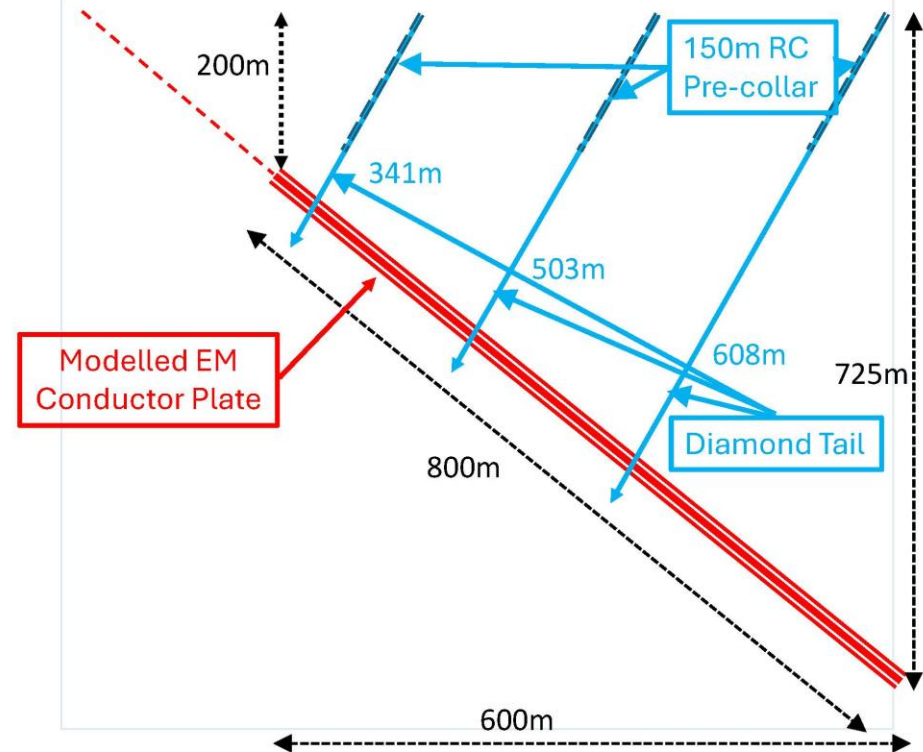
- Six lines of Moving Loop Electromagnetics (MLEM) conducted over prospective structural zones coincident with gold and copper geochemical anomalies and magnetic anomalies
- Modelled conductor plates generated under 5 out of the 6 MLEM lines indicating the presence of sub surface metal accumulations
- The most prospective MLEM lines completed were Lines # 1 and #6 with higher ranked conductor plates under those lines coincident with surface gold anomalism



Lady Grey Project

Line #6

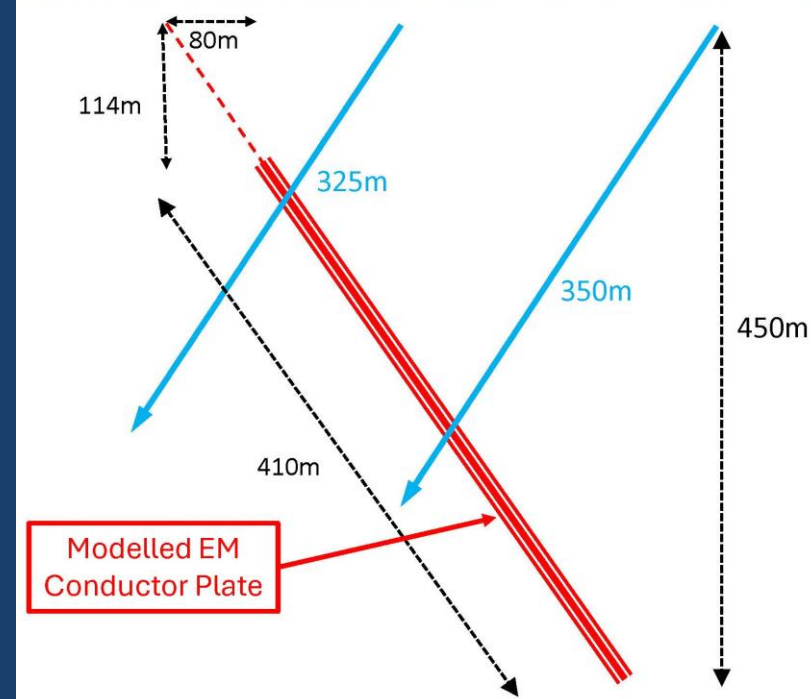
- Modelled EM Conductor plate is 200m deep to the top of the plate and has a depth extent of 725m
- Diamond drilling of the modelled conductor plate under Line #6 now complete
- Core logged for first two holes, third hole currently being logged
- Samples from first hole currently in the assay laboratory with assays results expected by end of Q1



Lady Grey Project

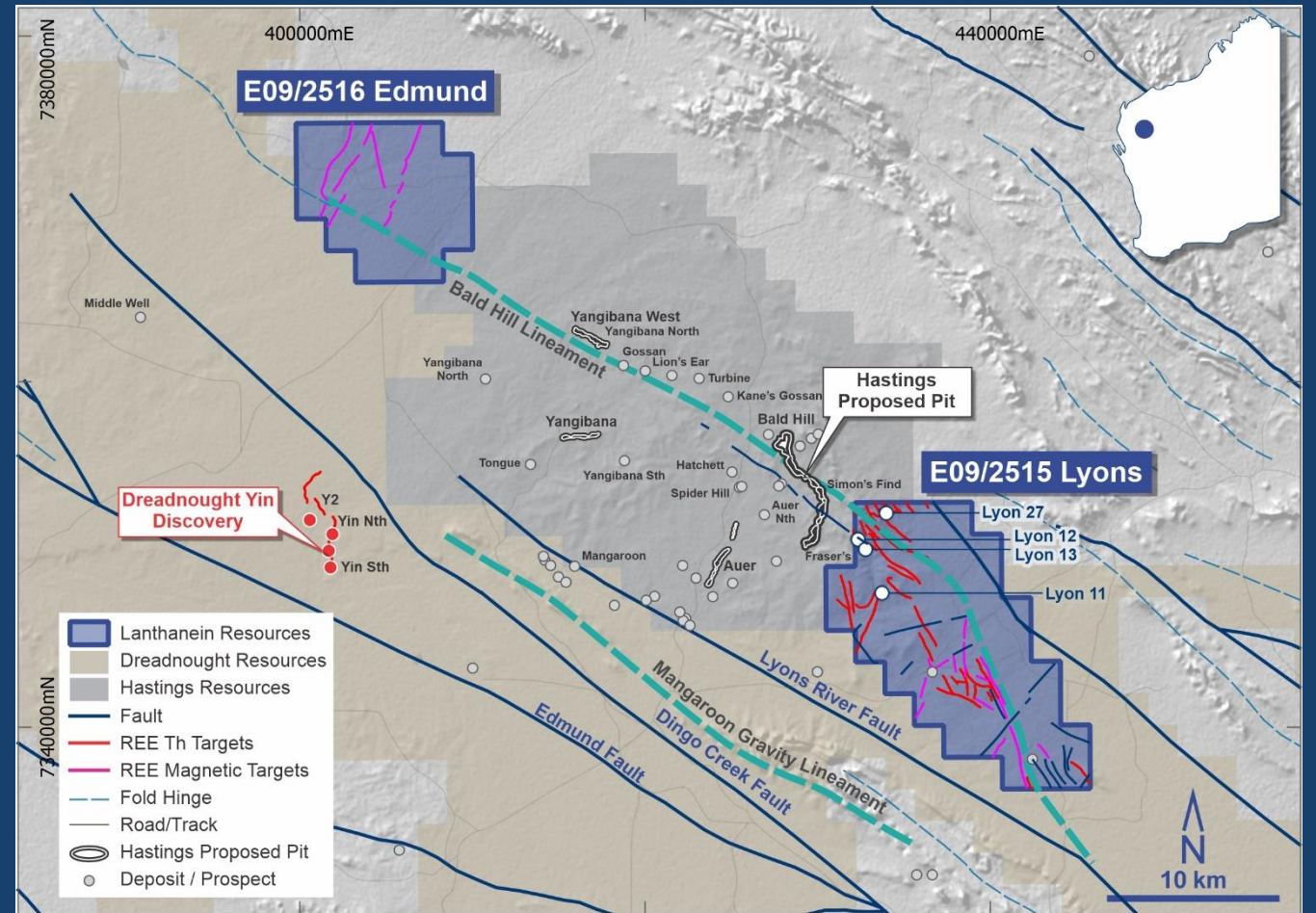
Line # 1

- EM Conductor Plate under Line #1 the next to be drilled
- The area was of historical interest in 1990's based on regional structural mapping and significant magnetic anomalies
- Historical drilling of the modelled magnetics was with shallow (<80m) RAB drilling with little or no mineralisation intersected
- Modelled EM Conductor plate is 114m deep to top of the plate and has a depth extent of 450m, well below the historical drilling
- PoW granted and drill access tracks and pads due to be put in shortly



Gascoyne Rare Earth Elements (REE) Project

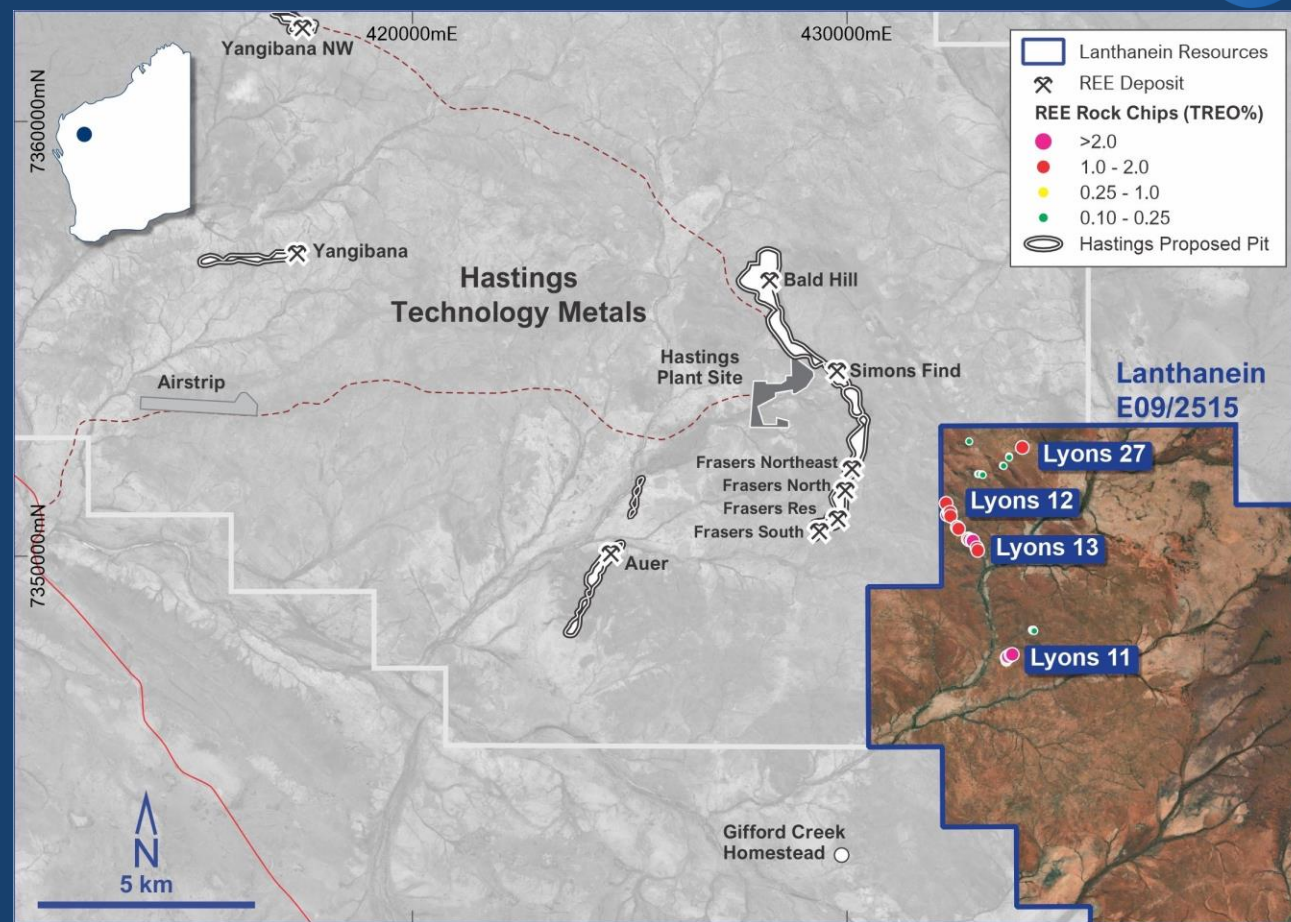
- REE's hosted in the Yangibana Ironstones within the Durlacher Supersuite Rocks
- Source of the REE's is the Gifford Creek Ferrocarbonatites which have been intruded along the Bald Hill Lineament
- Hastings Technology Metals is developing the Yangibana REE Project which is less than 2km away
- Close proximity to Dreadnought's Yin and Sabre Rare Earths discoveries.
- Lyons and Edmund Project areas both on the Bald Hill Lineament



Gascoyne REE Project

- Northern Lyons Prospects are immediately adjacent to Yangibana
- 14,000 metres of drilling on Lyons project
- Initial Inferred Mineral Resource Estimate completed on Lyons 11, 12 and 13 (ASX Release 25th October 2023)

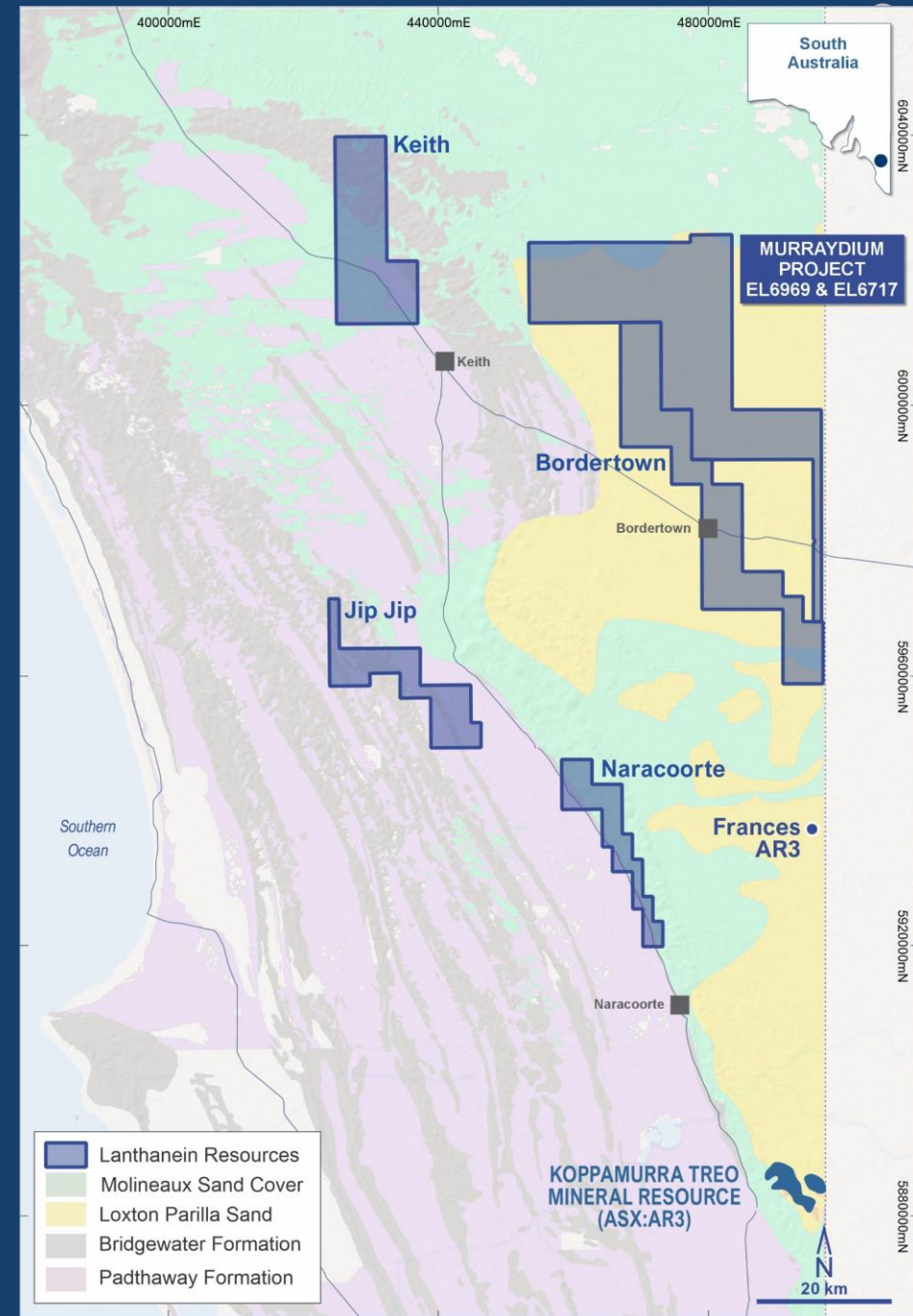
Area	Tonnes (Mt)	TREO (%)	NdPr (%)	Nb ₂ O ₅ (%)	TREO (t)
Lyons 12 & 13	0.69	0.33	0.15	0.23	2,266
Lyons 11	0.30	0.32	0.10		670
Total	0.99	0.32	0.13		3,221



“The Company confirms that all material assumptions and technical parameters underpinning the mineral resource estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the mineral resource estimates are presented have not been materially modified.”

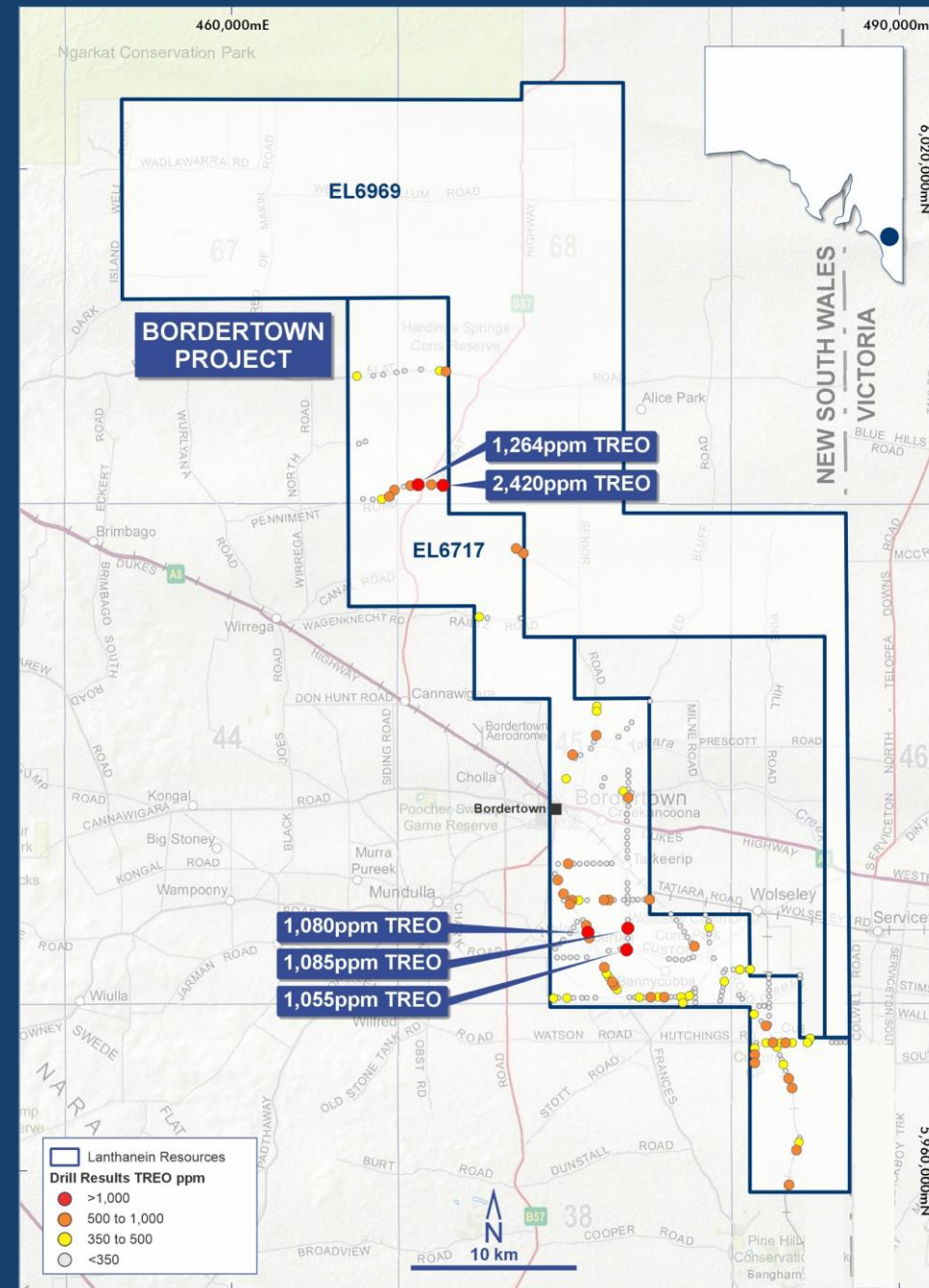
Murraydium REE Project

- Targeting Ionic Clay hosted REE's in the South East of South Australia
- Australian Rare Earths (ASX : AR3) have a REE Resource at Koppamurra on neighbouring tenement
- Koppamurra Resource and new AR3 prospect Frances hosted in the same Loxton Parilla Sands as present on Bordertown Blocks
- Conducted an extensive community relations programme with stakeholders in the Bordertown Block in advance of drilling



Murraydium REE Project

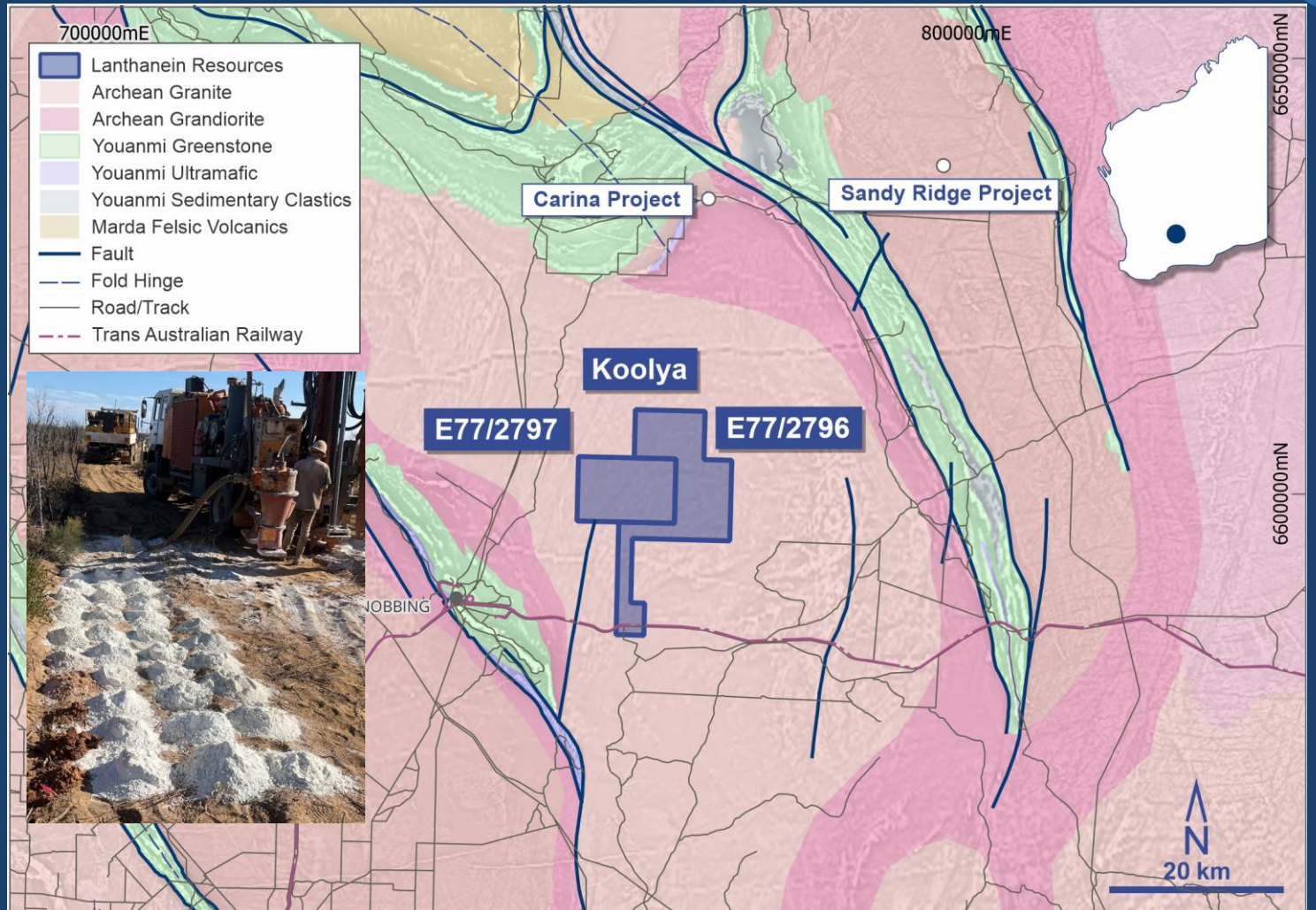
- Shallow (<20-30m) roadside reconnaissance Air Core drilling on Bordertown Block drilled following the extensive community consultation process
- Over 40 holes with grades of 500-2,240ppm TREO with 5 holes >1,000ppm TREO*



*(ASX:LNR – 14th September 2023)

Koolya Kaolin Project

- Air core drilling has confirmed a kaolinised granite host to bright white kaolin clay and high purity alumina (HPA) feedstock, halloysite
- Anomalous Rare Earth values of up to 1,220ppm TREO*
- Tenure supportive for large scale development with no competing land ownership, pastoral lease or freehold farmland
- Excellent infrastructure with Trans Australian Railway allowing bulk transport up to 5,000t per train



*(ASX:LNR – 11th April 2023)

The Opportunity / Investment Thesis

- **Emerging Gold, Copper, Lithium and Rare Earth Elements Explorer**
- **Lady Grey Project immediately adjacent to**
 - **Historic Bounty mine which produced 1.3moz Au**
 - **Operating Earl Grey Mine (189mt @ 1.53% Li₂O) at Mount Holland run by Covalent Lithium (SQM/Wesfarmers 50/50 JV)**
- **Gascoyne Project is adjacent to Hastings Technology Metals (ASX:HAS) established reserves at Yangibana,**
- **Murraydium Ionic Clay Hosted REE Project adjacent to Australian Rare Earth's (ASX:AR3) established Koppamurra resource**

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