

20 October 2022

## Highly Encouraging Visual Results at Lyons Maiden REE Drill Program

- RC drilling programme completed for total of 53 drill holes for 3,510m drilled, at an average depth of 66m
- Prospective REE bearing ironstones intersected at all prospects Lyons 11, 12, 13 and 27
- Lyons 27 in the north-western area intercepted up to 6m thick ironstone, open in all directions, Figure 1
- Mineralised REE ironstones that outcrop at surface underwent drill testing with positive visual results confirming the continuity of ironstones along strike and at depth
- Widths of main ironstone trend intersected at Lyons 12 and Lyons 13 recorded up to a 1 – 4m thick zone analogous to Hastings Technology Metals deposits Simons Find, Frasers and Bald Hill ~2.5km away
- Ironstones occur within a broader up to 15m wide fenitic alteration halo which may carry REE mineralisation, Figure 2
- Samples sent to ALS Laboratory for rush analysis with first results expected mid-November
- Ironstones are analogous to Hastings Technology Metals<sup>1</sup> rare earth deposits and Dreadnought Resources<sup>2</sup> Yin discovery adjacent to Lanthanein's Lyons Projects, 2.5km and 32km away respectively
- Exciting pipeline of future drill targets with multiple interpreted ironstone trends and carbonatites under thin cover still to be drill tested in Q4, 2022 and 2023

Mr Brian Thomas, Lanthanein Technical Director commented "We are extremely pleased with our first drill program at Lyons Rare Earth's project which has intersected consistent ironstones at Lyons 11, 12, 13 and 27 prospects. At these 4 prospects ironstone outcrop at surface and were a logical starting point for our maiden drill program. The visual logs of RC chips confirm the ironstones are continuous along strike and at depth, providing a solid base for future drill programs to build out any potential REE resources."

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“Samples have been sent for rush analysis to ALS Laboratory in Perth, with first assay results expected in the next 3- 4 weeks. Assay results will be released as they become available, and I look forward to updating the market.”

“The team is extremely excited by the visual drilling results which recorded up to 6m thick ironstones and remain open down dip and along strike. The encouraging results from Lyons 27 opens up the northwest area of the tenement to be highly prospective. Furthermore, following ongoing interpretation of the highly detailed geophysics and our improved understanding of the targeting for REE ironstones and ferro-carbonatites we have an exciting pipeline of future drill targets to be tested in 2023.”



*Photo 1. Ironstone Outcrop at Lanthanein's Lyons 12 prospect with Drilling Rig in the background.*

**Lanthanein Resources Ltd** (ASX: FNT) (**Lanthanein** or the **Company**) is pleased to announce that drilling has been completed at the Lyons Rare Earths Project in Western Australia (**Lyons Project**). The proposed drill program targeted high-grade rare earth mineralisation discovered at the outcropping ironstones at Lyons 11, 12, 13 and 27 (Figures 3 and 4).

Further rock chip sampling, high resolution satellite spectral interpretation and drilling programs are planned to investigate additional targets not yet followed up, including thorium and magnetic



anomalies throughout the Lyons Project and the high priority structural target along the major Bald Hill lineament which transects both the Edmund and Lyons Project Areas (Figures 5 and 6).

The Bald Hill lineament is the major control on rare earth mineralisation at Hastings Technology Metals Yangibana mine and represents a very high priority target for Lanthanein. Potential remains for further discoveries of ironstones and carbonatites (Figures 5, 6) within the Company's tenure where no historical REE exploration has occurred.

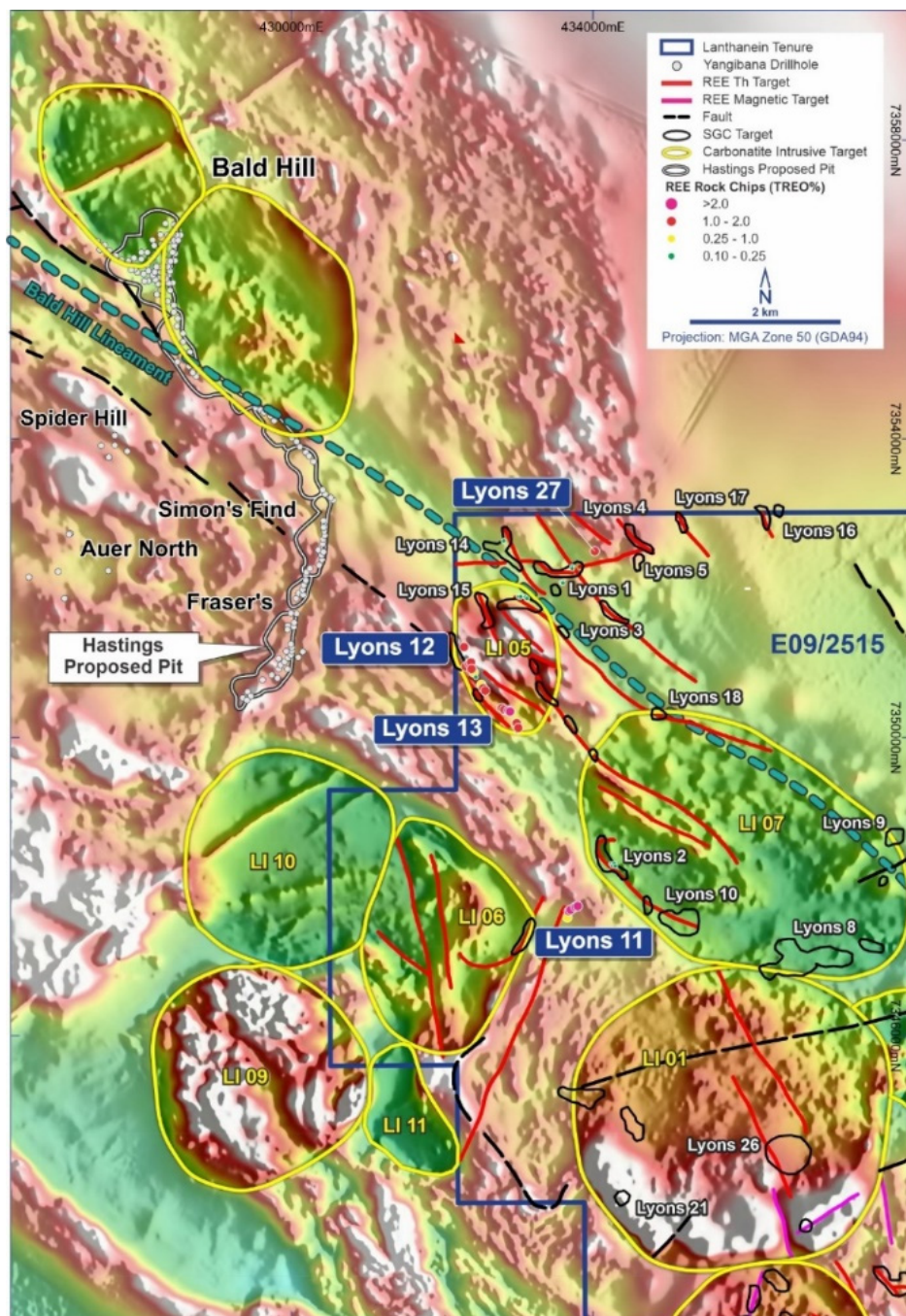
The Company recently received \$200,000 in funding from the Department of Mines Industry Regulation and Safety (DMIRS) to investigate potential for large tonnage REE carbonatites similar to Lynas Corporation's Mount Weld deposit in Western Australia.



**Figure 1. LYRC047 chip trays from the Lyons 27 prospect, intersected a 6m wide interval starting from 19m depth, with further 1m intervals of ironstone recorded at 27m and 31m.**

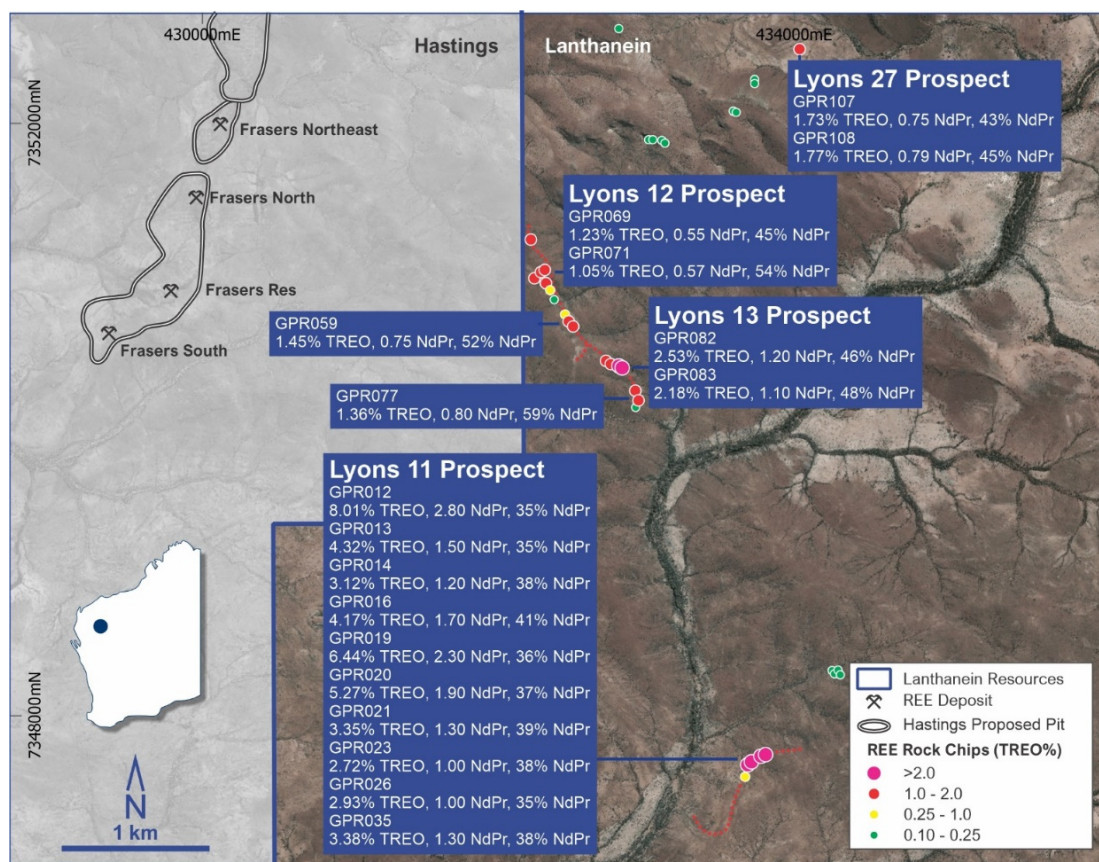


**Figure 2. LYRC026 chip tray from the Lyons 12 prospect, intersected two parallel ironstone trends over 2m intervals between 44 – 46m and 50 – 52m, within a broader 15m wide fenitic alteration zone that may potentially be associated with low grade REE mineralisation.**

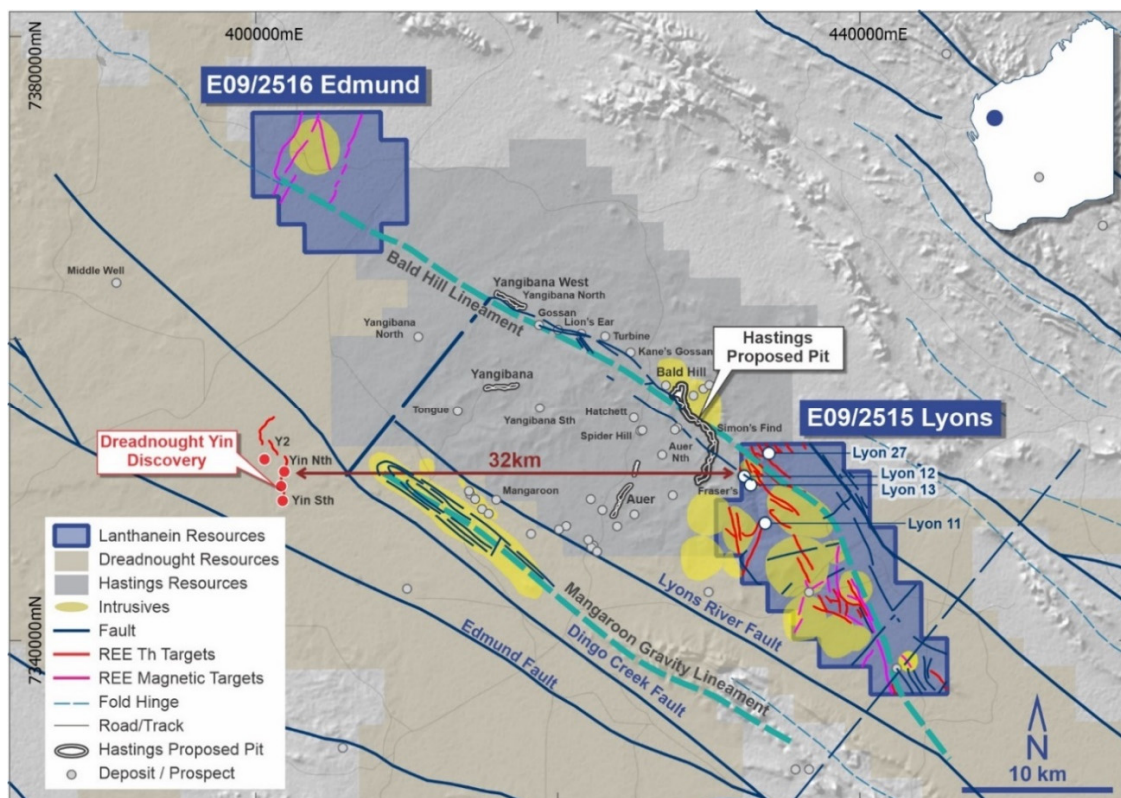


**Figure 3. Interpreted intrusives with RTPVD1 filtered magnetic imagery, highlighting relationship with rare earth mineralisation at Hastings, and target areas on Lanthanein's Lyons Project.**

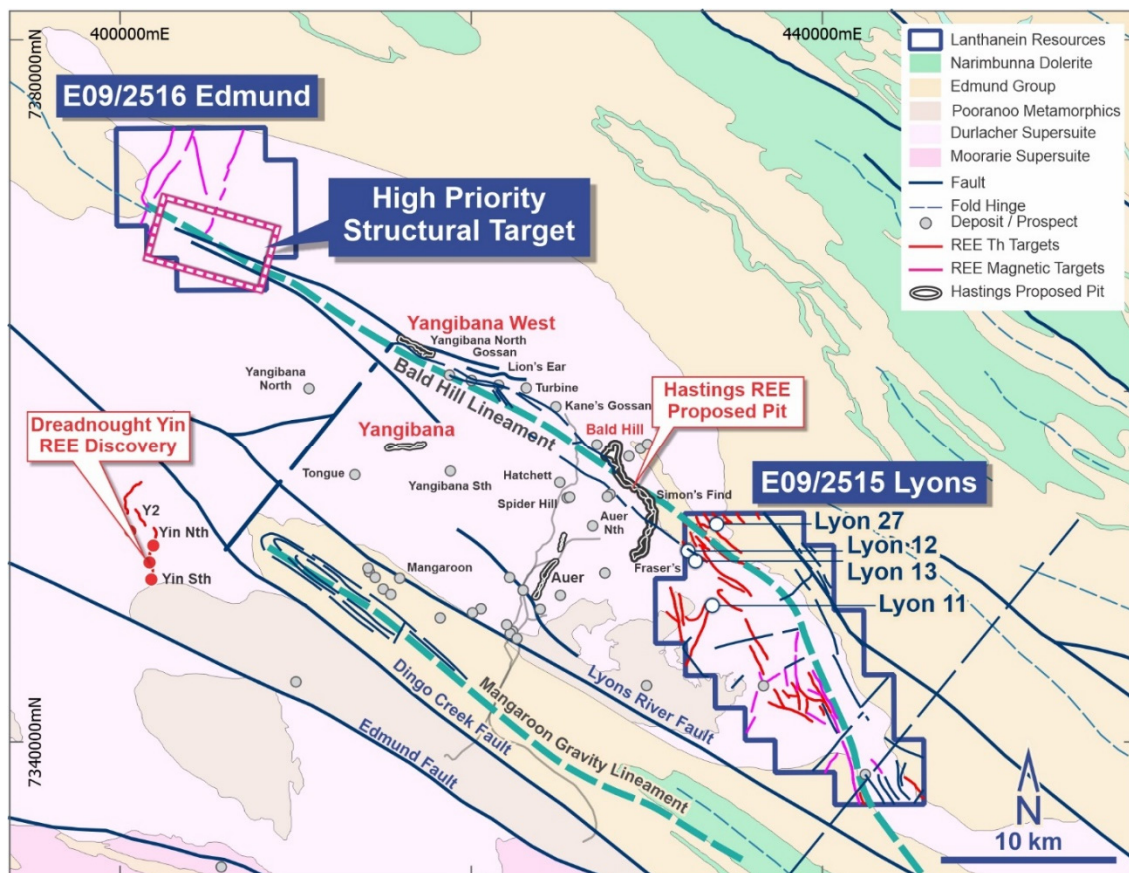




**Figure 4. High grade REE bearing ironstones discovered to date that are the initial focus of the maiden drill program (refer ASX release 21 March 2022).**



**Figure 5. Lanthanein Resources Lyons and Edmund Projects located within close proximity of Dreadnought Resources Yin discovery and Hastings Technology Metals Yangibana REE mine.**



**Figure 6. Location of Lyons and Edmund Projects in the Gascoyne, Western Australia, (geology overlay), highlighting the prospective Durlacher Suite of the Gifford Creek Carbonatite Complex, in pink underlying the project areas.**

This announcement has been authorised for release by the Directors of the Company.

For additional information please visit our website at [www.lanthanein.com](http://www.lanthanein.com)

## LANTHANEIN RESOURCES LTD

The information referred to in this announcement relates to the following sources:

<sup>1</sup> ASX.HAS: 5 May 2021 "Yangibana Project updated Measured and Indicated Resource tonnes up by 54%" [b07ebf9d-03c.pdf \(investi.com.au\)](https://investi.com.au/b07ebf9d-03c.pdf). The HAS Resource estimate comprises 4.9Mt @1.01% TREO in the Measured category, 16.24Mt @0.95% TREO Indicated and 6.27Mt @0.99% TREO Inferred.

<sup>2</sup> ASX.DRE: 28 July 2022 "Assays Confirm Yin as a High Grade Rare Earth Discovery" [5a699d6e-eab.pdf \(investi.com.au\)](https://investi.com.au/5a699d6e-eab.pdf)

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the format and context in which the Competent Person's findings are presented have not been materially modified from the original reports.



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**Competent Person's Statement**

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr. Thomas Langley is a consultant of Lanthanein Resources Limited, and is a shareholder, however Mr. Thomas Langley believes this shareholding does not create a conflict of interest, and Mr. Langley 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". Mr. Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

**Competent Person's Statement**

The information in this report that relates to Geophysical Exploration Results is based on information compiled by Peter Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and Non-Executive Director for Lanthanein Resources. Peter Swiridiuk has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter Swiridiuk 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 Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.