

# Extensive Loupe EM survey completed at Karloning REE Project

**58km of Loupe EM data collected across the Karloning clay-hosted REE Project aimed at delineating areas of thicker clay development for drill testing over CDR's increased landholding in the WA Wheatbelt**

## Highlights

- Extensive Electromagnetic survey completed in January targeted a significant proportion of the Company's highly prospective Karloning clay-hosted REE Project in WA's Wheatbelt.
- Previous drilling at Karloning intersected exceptional mineralisation in both clays and saprock, including a standout intercept of **29m at 5,915ppm TREYO from 12m including 4m grading 12,366ppm (1.2%) from 24m\*** in drill-hole KGAC054.
- 10.5km of data was collected over the previous drilling to allow for calibration of the technology, and to assist the Company in targeting repetitions of some of the excellent drill results seen to date, including:
  - **24m grading 1,503ppm TREYO from 8m**, including **12m grading 2,081ppm TREYO from 8m** (KGRC008\*\*\*)
  - **28m grading 1,191ppm TREYO from 12m** (KGRC007\*)
  - **16m grading 1,656ppm TREYO from 12m** (KGRC011\*\*\*)
  - **36m grading 1,191ppm TRYO from 12m, including 16m grading 1,505ppm TREYO from 12m** (KGRC010\*)
  - **11m grading 2,825ppm TREYO from 9m**, including **2m grading 6,883ppm TREYO from 13m** (KGRC001\*\*)

*(\* 4m composite samples, \*\*1m samples, \*\*\*1m and 4m composite samples reported, (down hole width reported)*

- 47.5km of data collected over tenement E70/5630 as a part of the Fleet Street Holdings Joint Venture.
- Newexco to process the data and assist in targeting areas of thicker clay development for drill testing.
- The Karloning REE Project represents an excellent opportunity to support Codrus' diversification into the critical minerals space and build on its current gold and copper assets, providing exposure to a commodity sector with outstanding fundamentals and a strong growth outlook.



## ASX Announcement

7 February 2024

### Directors

**Andrew Radonjic**

Non-Executive Chairman

**Shannan Bamforth**

Managing Director

**Jamie Byrde**

Non-Executive Director &  
Company Secretary

### Investment Highlights

ASX Code	CDR
Issued Capital	87,250,004
Share Price	\$0.047
Market Cap.	\$4.10M
Cash (Dec '23)	\$1.6M

### Contact

Level 2, 16 Altona Street  
West Perth WA 6005

[codrusminerals.com.au](http://codrusminerals.com.au)



@CodrusMinerals



[Codrus Minerals](https://www.linkedin.com/company/codrus-minerals)

Codrus Minerals (ASX: **CDR**, **Codrus** or **the Company**) is pleased to advise that it has completed the data acquisition of an extensive high-quality Loupe electromagnetic (EM) survey at its **Karloning REE Project** in WA.

The information obtained from this pivotal geophysical survey will be used to identify areas with a well-developed clay profile over the underlying crystalline granite basement - which represent priority areas for targeting further high-grade REE mineralisation.

It is anticipated this will assist the Company to substantially expand the scale and potential of what is emerging as a significant new clay-hosted rare earth element (REE) discovery at Karloning.

Recent drilling has intersected multiple zones of enriched clay-hosted REE mineralisation across large areas of tenements (E70/5339 (Talgomine Joint Venture CDR earning in) and E70/6306 (100% CDR), confirming the potential of the Karloning Project as an outstanding REE growth opportunity.

**The opportunity to identify further mineralisation in the recently enlarged tenement holding on the back of this survey is significant, with only 6% of the Company's overall tenure position drill tested to date.**

In November 2022, Codrus entered into a farm-in and joint venture agreement with Talgomine Minerals Pty Ltd (Talgomine) to earn up to a 90% interest in the Karloning Project, which is located in Western Australia's Wheatbelt region.

The Company has also pegged additional tenements in the region in its own right and entered into an additional farm in agreement with Fleet Street Holdings Pty Ltd (Fleet Street) adjacent to this (see Figure 1 and Figure 2 and ASX announcement "Codrus Secures Large-Scale Niobium-Rich REE Project in WA", 23<sup>rd</sup> November 2022, and "Codrus increase Landholding at Karloning REE Project 16-fold" 2<sup>nd</sup> August 2023).

The Company is actively engaged with stakeholders in the district and has land access agreements over all current target areas where it operates.

The Project offers compelling exploration potential for the high-value REE's used in the manufacture of high-strength permanent magnets - praseodymium, neodymium, terbium and dysprosium. These elements are in high demand because of the explosive growth in industries that rely on permanent rare earth magnets, such as electric vehicles, wind turbines and other renewable energy applications.



**Figure 1. Location of the Karloning REE Project in Western Australia's Wheatbelt.**

**Codrus Managing Director, Shannan Bamforth, said:**

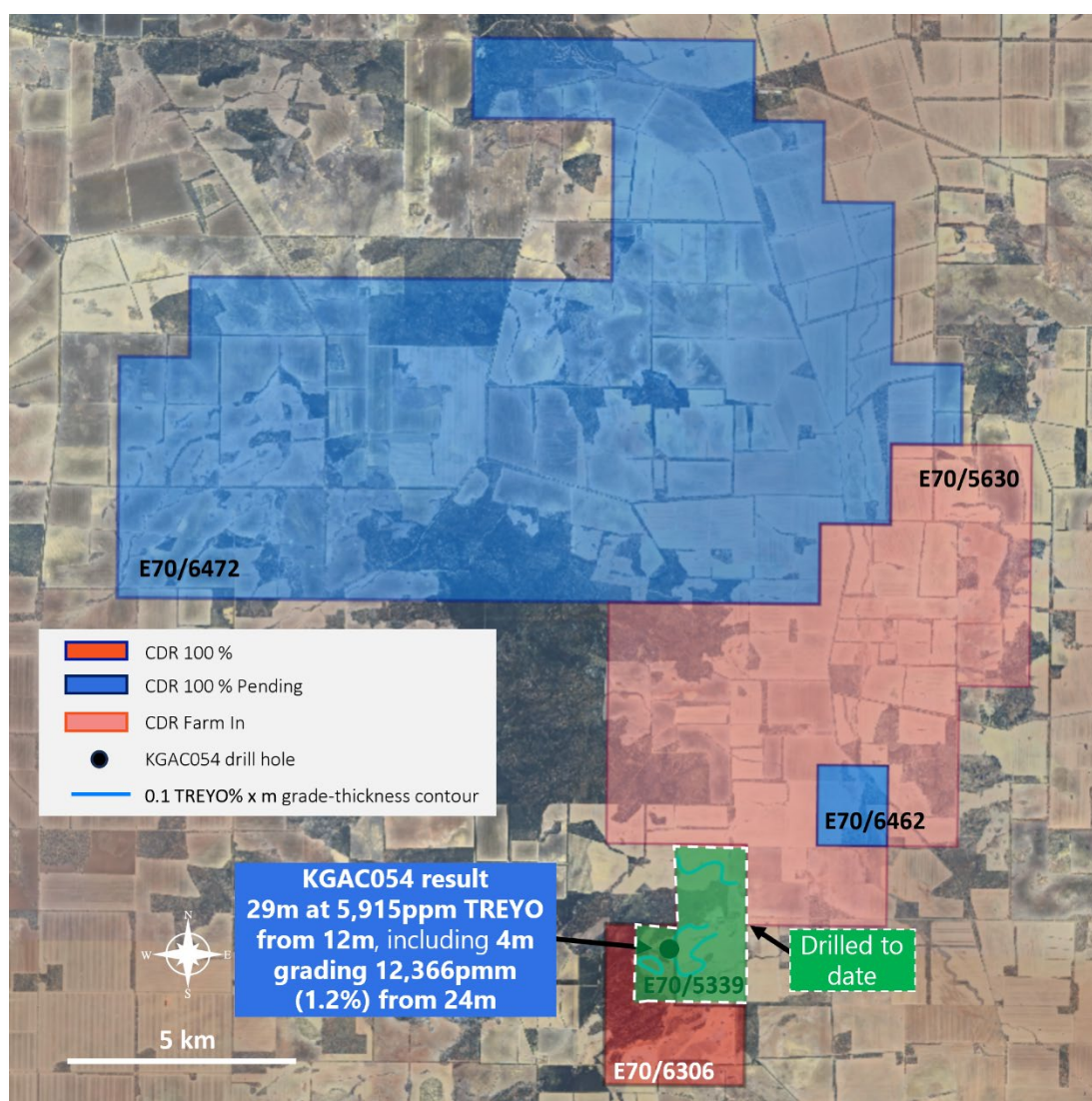
*"The completion of this extensive Loupe EM survey is an important milestone in our exploration program at Karloning. The ability to identify areas with a well-developed clay profile over the underlying granite basement will allow us to narrow down areas offering the best potential for further high-grade discoveries.*

*"We are now eagerly awaiting the interpretation of this highly valuable dataset, which will pave the way for our next air-core drilling program this year. Given the increased scale of our landholding, this will assist us in refining our drill planning while also deploying the drill rig in a highly cost effective and targeted manner.*

*"One of the key takeaways for investors is that our drilling to date covers just 6 per cent of our recently expanded landholding and the mineralization to the north remains completely open. The next phase of exploration will help us to expand our exploration horizons significantly and unlock the full potential of this exciting discovery for our shareholder."*

## The Karloning REE Project

The Karloning REE Project can be easily accessed by sealed roads via the town of Mukinbudin. The geology within the tenements (E70/5339, E70/6306, and E70/5630) comprises mainly medium-to-coarse grained biotite granite and adamellite with a large quartz-microcline pegmatite, known as the Karloning Pegmatite identified in the south.



**Figure 2. Karloning REE Project location showing the location of existing E70/5339 (Talgomine Joint Venture CDR earning in) and E70/6306 (100% CDR), where the AC drilling program was focused. The new Fleet Street Farm-In tenement E70/5630 and the new 100% CDR applications E70/6472, E70/6462 are also shown.**

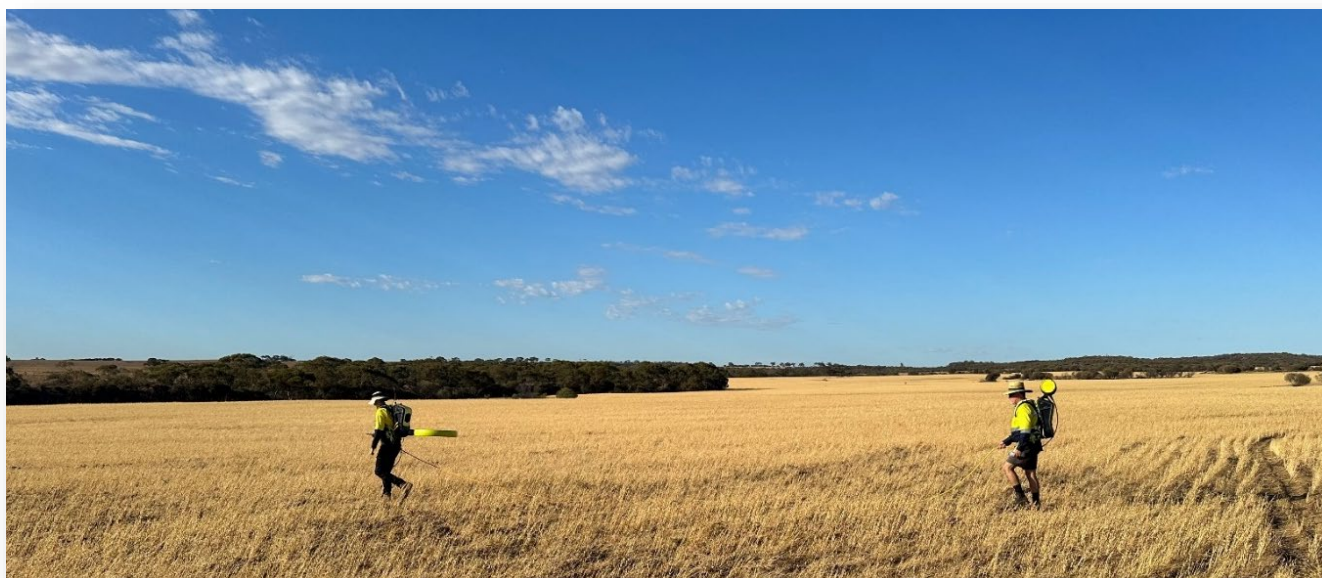
Tertiary lateritic duricrusts skirt the granite outcrops and are eroded by the Quaternary paleo drainages, forming broad sheetwash areas consisting of sands, clays and silts.

Mapping by the Geological Survey of Western Australia (1:250,000 Perth map sheet) shows a strike extent of ~1.5km for the Karloning Pegmatite, and Codrus believes there is a potential significant extension to the pegmatite beneath cover and for multiple pegmatite horizons to be discovered within the project area.

There are also broader zones of lower grade REE mineralisation in the widespread alkaline granite investigated to date.

### **Loupe Electromagnetic Survey**

The Loupe Electromagnetic Survey (Loupe EM) system was selected for the survey as it is a fast cost-effective way to test for areas of clay development that should present as moderate conductors in comparison to the granite basement (see Figure 3). The system is man portable and mobilised out of Perth in co-ordination with Newexco Geophysical Consulting.

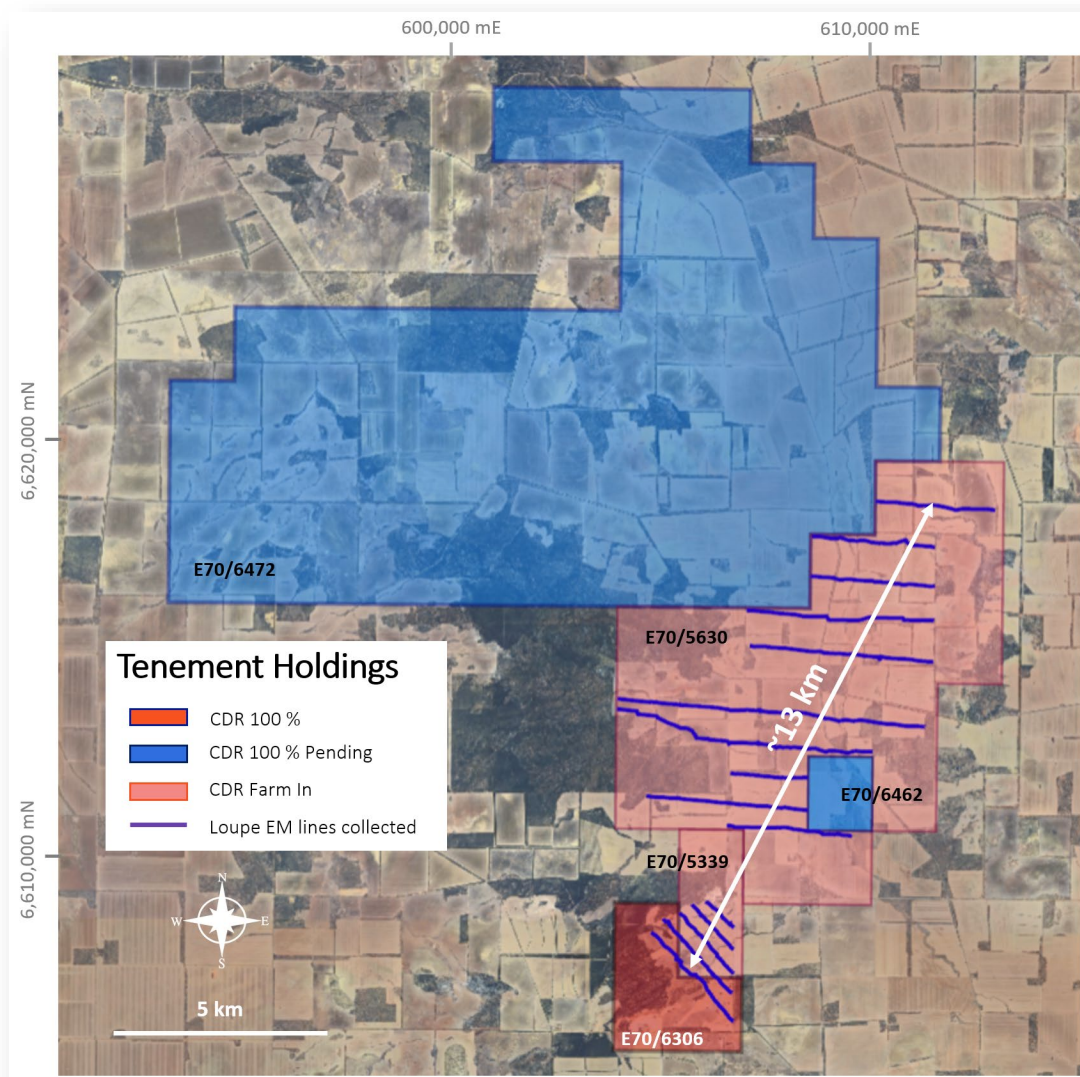


**Figure 3. Loupe EM data collection occurring at the Karloning clay hosted REE Project.**

The data was initially collected over the area that was tested by air-core and Reverse Circulation drilling in late September 2023. The rationale is that this will allow the data to be calibrated over known geology and mineralisation.

The data collection process then moved further afield into areas with little to no data (see Figure 4).





**Figure 4. Loupe EM data collection lines at the Karloning clay hosted REE Project.**

To date, the Company has been able to establish that the deeper the development of clays over the granite, the better the width and grade of the mineralisation seen. As such, the Loupe system was selected to assist in trying to identify areas with deep clay development. The line spacing in the new areas was approximately 1km apart. If after final processing additional in-fill lines are required, they can be collected in a timely and cost-effective manner.

Codrus expects that drill testing will follow as soon after final processing and interpretation as is practicable on the ground.

As additional tenure is granted, it is anticipated that the Loupe EM system will be used to gather additional data and increase the Company's area of knowledge.

**This announcement was authorised for release by the Board of Codrus Minerals.**

**ENDS**

**Investor Inquiries:**

Shannan Bamforth, Managing Director  
Codrus Minerals

**Media Inquiries:**

Nicholas Read  
Read Corporate  
**Phone: +61 8 9388 1474**

## About Codrus Minerals Limited

Codrus Minerals has secured an exciting new growth and diversification opportunity in the rare earths sector after entering into a farm-in and joint venture agreement with Talgamine Minerals Pty Ltd to earn up to a 90% interest in the Karloning Rare Earth Element (REE) Project, located in Western Australia's Wheatbelt. In addition to our REE project, Codrus has a portfolio of exciting projects in Western Australia (WA) and Oregon, United States of America (USA). All of our Australian assets are located in close proximity to existing operating mines and the Bull Run Project in the USA is located in a rich historic gold producing area. Codrus currently has four projects in WA, comprising 31 tenements with a total landholding of approximately 243km<sup>2</sup>. The Karloning REE Project in the Wheatbelt, the Silver Swan South and Red Gate Projects are in the Eastern Goldfields, whilst the Middle Creek Project is located in the Eastern Pilbara. The tenements are prospective for rare earth elements and potential economic gold mineralisation, with Silver Swan South also being prospective for Nickel. In the USA, the company holds a 100% legal and beneficial interest for 79 claims and is party to an 'Option Agreement', which covers a further 11 claims in Baker County in Eastern Oregon. In total the claims cover approximately 7km<sup>2</sup> in the Ironside Mountain Inlier. The Bull Run project is prospective for gold and has been mined intermittently since approximately 1929.

## Competent Persons Statement

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr. Shannan Bamforth who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bamforth is a permanent employee of Codrus Minerals and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Bamforth consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Information in this announcement that relates to previous exploration results for the Projects is extracted from the following ASX announcement:

- *"Codrus Secures Large-Scale Niobium Rich REE Project in WA" 23<sup>rd</sup> November 2022*
- *"Codrus Confirms High Grades at Niobium-Rich REE Project" 12<sup>th</sup> December 2022*
- *"Exploration Update - Karloning REE Project, WA" 27<sup>th</sup> February 2023*
- *"Drilling commences at Niobium-Rich Karloning REE Project", 12<sup>th</sup> April 2023*
- *"High-grade clay REE mineralisation identified at Karloning" 5<sup>th</sup> May 2023*
- *"Assays from maiden drill program confirm significant high-grade clay-hosted rare earth discovery at Karloning", 9 June 2023*
- *"Drilling at Karloning to expand clay-hosted REE discovery" 31<sup>st</sup> July 2023*
- *"Codrus increase Landholding at Karloning REE Project 16-fold" 2<sup>nd</sup> August 2023*
- *"Exploration Drilling Hits 29m @ 5,919ppm TREYO at Karloning" 19<sup>th</sup> September 2023*

The above announcements are available to view on the Company's website at [codrusminerals.com.au](http://codrusminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcements. The Company confirms that the information and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

## Exploration and Resource Targets

Any discussion in relation to the potential quantity and grade of Exploration and Resource Targets is only conceptual in nature. While Codrus is continuing exploration programs aimed at reporting additional JORC compliant Mineral Resources, there has been insufficient exploration to define mineral resources and it is uncertain if further exploration will result in the determination of maiden JORC compliant Mineral Resources.

## Forward-Looking Statements

Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Codrus. There is continuing uncertainty as to the full impact of COVID-19 on Codrus's business, the Australian economy, share markets and the economies in which Codrus conducts business. Given the high degree of uncertainty surrounding the extent and duration of the COVID-19 pandemic, it is not currently possible to assess the full impact of COVID-19 on Codrus' business or the price of Codrus securities. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this presentation speak only at the date of issue of this presentation. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Codrus does not undertake any obligation to update or revise any information or any of the forward-looking statements in this presentation or any changes in events, conditions or circumstances on which any such forward-looking statement is based.