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# Testwork underway at Koppamurra Rare Earths Project

## Highlights:

- **Metallurgical testwork underway:** Testwork designed to optimise rare earth recovery, water recycling, impurity removal and rare earth precipitation process has commenced.
- **Government Co-Funding Grant:** Testwork program is co-funded under the \$5 million Australian Government grant from the International Partnerships in Critical Minerals Program.
- **Koppamurra Project Advancing:** Testwork results will provide input into the project design for the completion of a Pre-Feasibility Study (PFS) in 2025.
- **Critical Minerals Supply:** Advancing Koppamurra as a strategic and secure source of light and heavy rare earths, helping to create new and diversified supply chains vital to the world's clean energy transition.
- Engage with this announcement at the AR3 [investor hub](#).

## AR3 Managing Director and CEO, Travis Beinke, said:

*"The recent imposition of Chinese export controls on Dysprosium and Terbium further highlights the strategic importance of ionic clay-hosted rare earths projects like Koppamurra to Australia's national interests. The commencement of the next stage of testwork is an important step that will inform critical design aspects of the project as we look to complete a PFS later this year."*

Australian Rare Earths Limited (**ASX:AR3**, or "**Company**") is pleased to announce progress in the metallurgical testwork for its Koppamurra rare earths project in South Australia. The commencement of this next stage of metallurgical testwork, designed to optimise progressive heap leach and rapid rehabilitation, will inform design aspects for the completion of a PFS as AR3 seeks to maximise the project's value.

Preparation for undertaking a ~3 tonne bulk leach is in progress at Brisbane Met Labs. The bulk leach program will provide sufficient rare earth solution to advance AR3's extensive testwork program aimed at optimising rare earth recovery, water recycling, impurity removal and Mixed Rare Earths Carbonate (MREC) precipitation processes.

The Australian Nuclear Science and Technology Organisation (ANSTO), Australia's leading laboratory in ionic clay leaching, is assisting AR3 with its ongoing process flowsheet development and will be conducting the impurity removal and rare earth precipitation testwork.

AR3 also continues to work closely with NEO Performance Materials Inc. (“Neo”), a world-leader in the production of rare earth permanent magnets and other rare earth products and whom with AR3 has a non-binding Memorandum of Understanding that provides for an offtake agreement for the initial production of a MREC from Koppamurra.

Importantly, Neo operates production facilities for the separation of Rare Earth oxides from MREC, Rare Earths metallisation and magnet making and is one of the few Western separation plants that source MREC from third-party producers. Neo’s experience in providing input to MREC supply continues to be invaluable to AR3.



*Figure 1: AR3 Managing Director, Travis Beinke and WGA Senior Process Engineer, Chantelle Bardadyn at Brisbane Met Lab with IBC's ready to be loaded with clay for bulk leach*

A summary of the planned testwork to be progressed over the coming months is provided below.

## Next steps

- **Bulk leach**

Approximately three tonnes of mineralised clay will be leached and subsequently neutralised in bulk containers (IBC's) to collect a larger sample of rare earth in solution and enable significant downstream testwork and optimisation analysis. A material handling assessment of the clay post leaching and neutralisation will be conducted to inform the material handling and rehabilitation aspects of the project.

- **Water Treatment/Recycling**

Water treatment processes applied to the leach solutions and for the recycle of water and reagents is being assessed. This will be tested through the application of reverse osmosis, nano filtration and ultra filtration in a comprehensive test work program to evaluate the generation of concentrated rare earth solution for further downstream processing.

- **Impurity Removal**

Following the leaching and water treatment program, impurity removal optimisations will be performed to improve the rejection of deleterious elements such as aluminium, iron, silica, whilst maximising the recovery of the rare earths. The testwork will also evaluate impurity removal conditions including pH, alkali type, temperature, and residence time.

Previous successful impurity removal testwork undertaken by AR3 will be replicated and optimised for the much higher-grade rare earths in solution derived from the bulk leach. These bulk leach liquors are also designed to have lower impurity to REE in solution ratios. Impurity removal steps in the production of marketable mixed rare earth concentrates are further enhanced by lower gangue/Rare Earth Element (REE) ratios and can generate lower REE losses through that process.

- **MREC Precipitation**

Following the impurity removal program, rare earth precipitation tests will be performed to generate a saleable rare earth product in the form of MREC. The testwork will evaluate the type of precipitation agent, pH, temperature, residence time, % solids and solid liquid separation performance, and will be conducted in close consultation with Neo.

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The announcement has been authorised for release by the Board of Australian Rare Earths Limited.

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**Engage and Contribute at the AR3 investor hub: <https://investorhub.ar3.com.au/>**

**About Australian Rare Earths Limited**

*Australian Rare Earths (AR3) is an emerging diversified critical minerals company, strategically positioned to meet the growing global demand for uranium and rare earth elements. The Company's vast 4,800 km<sup>2</sup> Overland Uranium Project in South Australia shows strong uranium discovery potential, with initial drilling identifying opportunities for substantial near-surface and deeper deposits.*

*Simultaneously, AR3's Koppamurra Rare Earths Project in South Australia and Victoria has secured important government support through a A\$5 million grant to accelerate development. With support from global advanced industrial materials manufacturer, Neo Performance Materials, AR3 is progressing toward a Pre-Feasibility Study and a demonstration facility, solidifying its role in diversifying global rare earth supply chains for the clean energy transition. With strategic projects and strong government support, AR3 is poised for significant growth in the critical minerals market.*