

Koppamurra Pilot Plant Advances to Mixed Rare Earth Hydroxide Production

written by Raj Shah | September 10, 2026

September 10, 2026 ([Source](#)) – Highlights

- Continuous rare earth recovery demonstrated: The first heap leach column cycle, using approximately ~8 tonnes of ore, has generated continuous recovery of rare earths into a Pregnant Leach Solution (PLS).
- Next phase of demonstration plant in progress: First batch of PLS successfully processed through the Mixed Rare Earth Hydroxide (MREOH) precipitation circuit, advancing the program beyond heap leaching into downstream product recovery.
- Generation of customer qualification material: The MREOH (an intermediate product) will be further refined into first pilot samples of Mixed Rare Earth Oxide (MREO) and shared with prospective offtake partners.
- Validation of downstream flowsheet: The campaign, planned to continue to December 2026, will validate precipitation, thickening, filtration and washing circuits, generating operating and engineering data required to support Definitive Feasibility Study (DFS) design.
- Engage and Contribute at the AR3 investor hub [here](#).

AR3 Managing Director and CEO, Travis Beinke said:

“The pilot program is off to an excellent start. We have successfully established rare earth recovery through heap leaching and are now validating the first downstream processing

stage required to convert those rare earth-bearing liquors into a saleable product. The commencement of MREOH precipitation marks another significant step in demonstrating Koppamurra's complete processing flowsheet at pilot scale.

This phase of the program is particularly important because it continues to generate the engineering and operating data necessary for DFS design and will produce material for further refining into representative MREO samples for customer engagement and qualification. The ability to continuously recover rare earths from Koppamurra leach solutions and produce a concentrated rare earth intermediate is another important de-risking milestone as we advance the pilot operation to producing our final MREO product."

Australian Rare Earths Limited (ASX: AR3) is pleased to provide an update on the progression of pilot-scale processing activities at the Australian Nuclear Science and Technology Organisation (ANSTO) critical minerals facility in Sydney.

Following the successful commissioning of the agglomeration and heap leach circuits announced on 11 August 2026, the Koppamurra Pilot Plant has now processed the first of four cycles of columns (~8 tonnes) and has generated ~5,000L of PLS at target rare earth leaching recovery rates. The PLS has been successfully processed through the Mixed Rare Earth Hydroxide (MREOH) precipitation circuit with full recoveries of rare earths from the PLS to the MREOH, in line with expectations.

This is a significant milestone for the Koppamurra Rare Earths Project, marking AR3's transition from demonstrating rare earth extraction to producing a concentrated intermediate rare earth product.

MREOH Demonstration Program

Approximately 5,000L of Pregnant Leach Solution generated from the heap leach columns has been transferred to the precipitation circuit for processing. The circuit utilises a continuous three-stage precipitation reactor where neutralising agents are added to recover rare earths as a Mixed Rare Earth Hydroxide product.

The MREOH precipitation circuit is designed to:

- Validate continuous MREOH production from Koppamurra Pregnant Leach Solution.
- Optimise precipitation operating conditions and reagent consumption.
- Evaluate thickening, filtration and washing performance under continuous operating conditions.
- Generate engineering design criteria for commercial-scale equipment selection and sizing.

The precipitation circuit incorporates continuous reactors, thickening and solid-liquid separation equipment to recover the rare earth-bearing solids. Barrens generated from the process will be evaluated for recycle opportunities as part of the broader demonstration of Koppamurra's commercial flowsheet.

Engineering Data for Commercial Development

Operation of the MREOH circuit is expected to generate a substantial body of engineering information, including:

- Reagent consumptions.
- Residence time requirements.
- Solid Liquid separation performance.
- Water balance data.
- Product quality and impurity department.

The information obtained from this phase of the demonstration program will be incorporated into Definitive Feasibility Study activities and will further de-risk the commercial design of the Koppamurra processing facility.

Program Progress

The demonstration plant remains on schedule, with heap leach operations continuing to generate Pregnant Leach Solution for downstream processing and subsequent campaigns planned through the remainder of 2026. AR3 plans multiple further MREOH precipitation campaigns, targeting approximately 28 kL of Pregnant Leach Solution from the pilot heap leach columns.

The Company will provide further updates as MREOH production campaigns progress and as Mixed Rare Earth Oxide product samples become available for customer qualification.

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

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About Australian Rare Earths Limited

Australian Rare Earths (AR3) is a diversified critical minerals company, strategically positioned to meet the growing global

demand for uranium and rare earth elements:

- AR3's Koppamurra Rare Earths Project in South Australia and Victoria is a significant deposit of light and heavy rare earths, now underpinned by a Pre-Feasibility Study and maiden Ore Reserve, and supported by the Australian Government through a \$5 million grant to accelerate development. AR3 is progressing toward a Definitive Feasibility Study and pilot-scale demonstration production at ANSTO's Sydney facility, solidifying its role as a potential new source of new supply to diversify global rare earth feedstocks for the clean energy transition.
- AR3's large ~8,000 km² Overland Uranium Project in South Australia shows strong uranium discovery potential, with drilling also identifying a new niobium-rare earth carbonatite exploration target.

With strategic projects as well as strong government support, AR3 is well placed to capitalise on significant growth in the critical minerals market.

Competent Persons Statements

The information in this report that relates to metallurgical results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr. James Davidson who is the principal Metallurgist of Rendement and is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Davidson has sufficient experience that is relevant to the metallurgical testing which was 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. Davidson consents to the inclusion in this report of the matters based on this

information in the form and context in which it appears.