

ASX Release / 19 August 2026

Selectro™ Process Now Patent Protected

Provisional patent application lodged for MRD's proprietary
Selectro™ leach technology

Highlights

- **Provisional patent application lodged for the Selectro™ Process**, MRD's proprietary leach technology
- **MRD retains full ownership of the Selectro™ IP** held by MRD's subsidiary, Mount Ridley Tech Pty Ltd, the product of more than a decade of development and refinement
- Selectro™ testwork results show **recoveries of up to 83% for HREE, 80% for scandium, 72% for LREE and 56% for gallium**, each significantly outperforming the HCl baseline
- **Gallium recovery of 56%** achieved via a single Selectro™ leach, **where the HCl baseline returned zero recovery** under the same testwork conditions
- **Company has initiated a bulk testwork program that includes flotation** and further Selectro™ Process optimisation
- Filing **secures a priority date and provides a pathway to pursue patent protection overseas**
- **Company to progress scoping study and third party engagement discussions** to advance commercialisation of the Selectro™ Process

Mount Ridley Mines Limited (ASX: **MRD**, OTCID: **MRDMF**) ("**Mount Ridley**" or "**the Company**") is pleased to announce that a provisional patent application has been lodged for its proprietary Selectro™ Process held by MRD's subsidiary, Mount Ridley Tech Pty Ltd. The Company's in house leach technology was developed over more than a decade by Chief Technology Officer Chris Larder.

The filing follows the Company's recently reported Selectro™ Process unoptimised metallurgical results, which demonstrated recoveries of up to 83% for HREE, 80% for scandium, 72.5% for LREE and 56% for gallium, with the Selectro™ Process more than doubling the average recovery of MRD's full critical mineral basket over the HCl baseline. Notably, the HCl baseline returned zero recovery for gallium in the same testwork, compared with 56% recovery achieved via Selectro™.

Patent Filing and Ownership

The provisional patent application establishes a priority date for the Selectro™ Process and provides the Company with a 12 month window in which to pursue patent protection in Australia and overseas.

Mount Ridley holds full ownership of all intellectual property arising from the Selectro™ Process under the terms of its consulting agreement with Chris Larder, dated 28 April 2026. No third party retains any ownership or co-ownership interest in the technology.

Commercialisation Pathway

With the provisional application now lodged and initial testwork results in hand, the Company is positioned to progress more substantive discussions with prospective scoping study partners and third parties regarding test work and potential collaboration opportunities. These discussions are

aimed at unlocking the full value of the Selectro™ Process across the Company's own Grass Patch Project and more broadly.

The Company has also initiated a bulk testwork program that includes flotation and further Selectro™ Process optimisation, which will inform the Company's processing strategy and scoping study inputs.

Mount Ridley Managing Director & CEO, Mr Allister Caird commented:

"Having patent protection in place is an important step in safeguarding the incredible potential of the Selectro™ Process. It ensures we preserve the multiple pathways to commercialisation this process unlocks, whether through our own Grass Patch Project, third party licensing or a combination of both, while giving us a clear foundation to have more substantive conversations with third parties around scoping and test work, both here at Grass Patch and beyond it."

Selectro™ Leach Process

The Selectro™ Process is MRD's proprietary hydrometallurgical technology developed to recover multiple critical minerals through a single leach process. The process incorporates lower-cost reagents and reagent recycling through a closed-loop system and is being developed to enable the recovery of rare earth elements, scandium and gallium from a common feed stream.

Initial testwork on unbeneficiated Grass Patch material demonstrated strong recoveries across the Company's critical mineral suite and significantly outperformed the comparative HCl baseline. These results were achieved without prior beneficiation or systematic process optimisation, with further improvements observed following refinement of the Selectro™ process conditions.

The Company has now initiated a larger-scale testwork program incorporating flotation and further Selectro™ Process optimisation to build on these initial results and further assess the process across both beneficiated and unbeneficiated feed.

Process Economics

A key feature of the Selectro™ Process is the use of reagents that are lower cost per unit than hydrochloric acid conventionally used in regolith-hosted rare earth processing. The closed-loop design also enables reagent recycling and does not require continuous reagent addition during the leach cycle.

These characteristics have the potential to provide processing cost advantages relative to conventional acid leaching. The larger-scale testwork program will provide further information on reagent consumption, recycling and process performance to assess these potential benefits.

Environmental Benefits

The closed loop design of the Selectro™ Process also delivers meaningful environmental advantages over conventional HCl leaching. By minimising reagent discharge and reducing the volume of processing chemicals required, the process presents a lower environmental footprint than traditional hydrometallurgical approaches. The Company considers these characteristics to be a significant advantage in the context of increasing environmental scrutiny of critical minerals processing globally.

Next Steps

- Advance the bulk testwork program, including flotation and further Selectro Process optimisation
- Progress international patent applications
- Pursue scoping study and third-party engagement opportunities

This ASX announcement has been authorised for release by the Board of Mount Ridley Mines Ltd.

For further information, please contact:

Allister Caird, Managing Director & CEO

Mount Ridley Mines Ltd

info@mtridleymines.com.au

Forward Statement

This announcement contains forward-looking statements that are subject to risks, uncertainties and assumptions. Forward-looking statements include, but are not limited to, statements regarding future exploration activities, resource growth potential, resource model updates, Mineral Resource Estimate upgrades, development opportunities, metallurgical outcomes, market conditions, commodity demand, project economics and the timing and outcome of future work programs.

Such statements are based on the Company's current expectations, estimates, projections and assumptions as at the date of this announcement. Forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of the Company, that may cause actual results, performance or achievements to differ materially from those expressed or implied in such statements. Factors that could cause actual results to differ materially include, but are not limited to, changes in commodity prices, exploration and development risks, resource estimation outcomes, metallurgical performance, regulatory approvals, environmental and heritage matters, funding availability, market conditions and general economic factors.

Readers are cautioned not to place undue reliance on forward-looking statements. Except as required by applicable law or the ASX Listing Rules, the Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Any references to exploration targets, resource growth potential or future development opportunities are conceptual in nature and there can be no assurance that further exploration work will result in the estimation of additional Mineral Resources or that any Mineral Resource will ultimately be converted to an Ore Reserve.

For further information please refer to previous ASX announcement from Mount Ridley Mines Ltd:

30 March 2023. "Resource Drilling Commences at Mount Ridley REE Project"

28 October 2025. "838.7Mt Gallium Resource Estimate at Mt Ridley"

28 January 2026. "367.98Mt Scandium Resource Estimate at Mount Ridley"

24 March 2026. "Major Heavy Rare Earth Resource at Mount Ridley"

20 May 2026. "Phase 1 Metallurgical Testwork Commences"

6 August 2026. "Grass Patch Rare Earths Confirmed to be Hosted in Phosphates"

12 August 2026. "MRD Proprietary Leach Tech Delivers Standout Results"

REOs

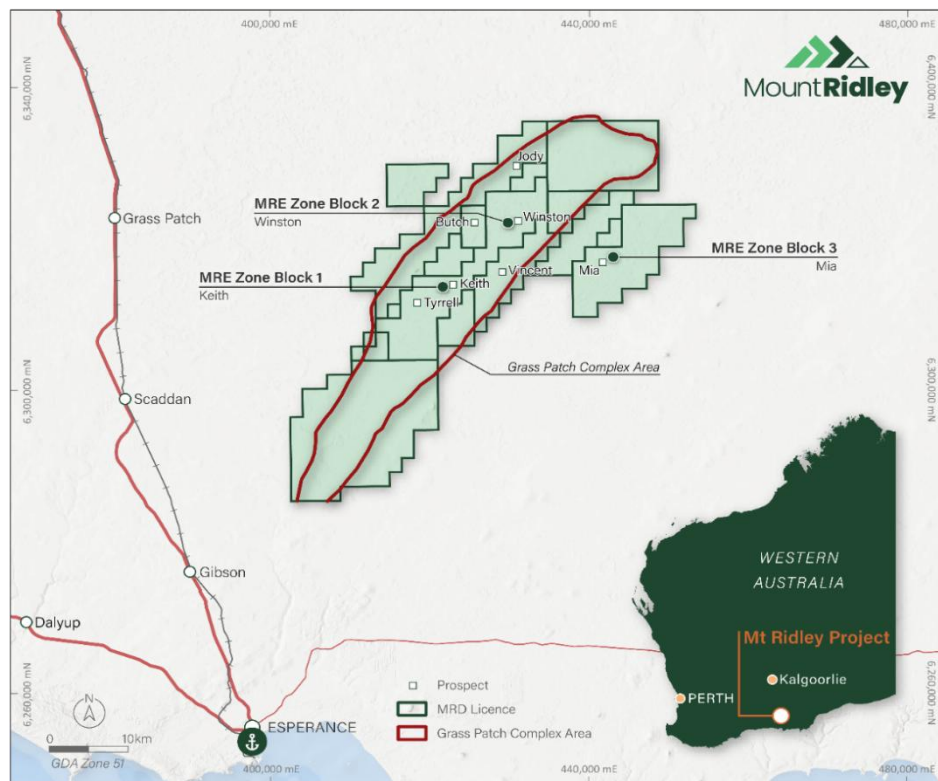
TREO: the sum of La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃.

HREO: the sum of Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Eu₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃.

LREO: the sum of La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃.

MREO: the sum of Dy₂O₃, Pr₆O₁₁, Nd₂O₃, Tb₄O₇.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements referred to above and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



Location of the Grass Patch Project in 25km north of Esperance, Western Australia

About Mount Ridley Mines Ltd

Mount Ridley Mines Ltd is an Australian critical minerals explorer focused on the discovery and development of heavy rare earth elements, gallium and scandium across its wholly owned Mount Ridley and Weld Range projects in Western Australia. Complementary to its upstream business, the Company is actively pursuing longer term downstream pathways aimed at enhancing value through processing and separation of critical minerals for supply into allied markets.

Grass Patch Project

The flagship Grass Patch Project is located approximately 25 kilometres north of the deep water port of Esperance and hosts defined heavy rare earth element, scandium and gallium resourced identified through 70 000 metres of historical drilling. A majority of the project tenure is centred on the Grass Patch Complex, which is widely interpreted to be the primary source of the heavy rare earth enrichment identified across the project area.

The Grass Patch Project remains significantly underexplored relative to its scale and geological endowment. Multiple high priority walk up drill targets have been identified through historical drilling, geophysics and recent technical reviews. These targets are currently being assessed and prioritised with the intention of supporting future drilling programs planned for 2026.

Weld Range Project

The Company also holds the Weld Range Project in Western Australia, which provides additional exposure to large scale mineral systems within a well-established mining region. Together, the Mount Ridley and Weld Range projects position the Company as an emerging participant in the supply of critical minerals into allied markets.