

ASX Release / 19 December 2025

Mount Ridley Executes Material Transfer Agreement with Lawrence Livermore National Security, LLC

Early Stage Engagement Supports Downstream Processing Strategy for Critical Minerals

Highlights

- Executed **Material Transfer Agreement** with **Lawrence Livermore National Security, LLC**, contractor for **Lawrence Livermore National Laboratory**, a United States national laboratory operated for the **US Department of Energy ("DOE")**
- Representative mineral ore samples to be provided for **preliminary technical evaluation**
- Early stage work focused on **leaching and rare earth element extraction and separation test work**
- Engagement represents an initial step in a staged pathway that may progress to more formal research arrangements
- Supports Mount Ridley's strategy to assess downstream processing pathways for critical minerals within key allied jurisdictions
- **Sample preparation underway** with shipment expected momentarily

Mount Ridley Mines Limited (ASX: **MRD**) ("**Mount Ridley**" or "the **Company**") is pleased to report that its wholly owned US subsidiary, Mulsanne Critical Minerals LLC, has executed a Material Transfer Agreement with Lawrence Livermore National Security, LLC, contractor for Lawrence Livermore National Laboratory ("**LLNL**") in the United States.

Under the agreement, representative mineral ore samples from Mount Ridley's Western Australian project portfolio will be provided to Lawrence Livermore National Laboratory for preliminary evaluation and research purposes. The work is expected to focus on early stage leaching and rare earth element extraction and separation test work using laboratory-based processes.

The Material Transfer Agreement provides a framework for preliminary technical evaluation over an initial six-month period and represents the first step in a staged engagement process with LLNL.

Sample preparation is currently underway, with shipment expected to occur following the year end holiday period.

This work forms part of Mount Ridley's broader strategy to engage with advanced research institutions to assess potential downstream processing pathways for critical minerals within allied jurisdictions.

Mount Ridley Mines Chief Executive Officer Mr Allister Caird commented:

"Executing this agreement with Lawrence Livermore National Laboratory is a meaningful step for Mount Ridley. It provides access to world class technical capability and allows us to advance our understanding of how our rich critical mineral portfolio may be processed. This work strengthens our downstream strategy and reinforces our focus on building a differentiated position in allied critical mineral supply chains."

China continues to hold a dominant position in global critical mineral processing and there is a substantial gap that needs to be closed in allied supply chains. We see the United States national laboratory system, supported by U.S. Department of Energy funding, as providing one of the most well-resourced and capable pathways available to help progress processing solutions in the shortest possible timeframe."

About Lawrence Livermore National Laboratory

Lawrence Livermore National Laboratory is a United States national laboratory operated for the US Department of Energy by Lawrence Livermore National Security, LLC. The laboratory has a long standing mandate to support national security, energy security, and advanced science and technology development.

The United States national laboratory system differs from conventional academic institutions in that it operates under direct federal mandate and funding, with a focus on applied research aligned to strategic government priorities. In the context of critical minerals, national laboratories play a role in evaluating technologies and processes that may contribute to the resilience and security of United States and allied supply chains.

Lawrence Livermore National Laboratory has research capabilities spanning materials science, chemistry, advanced separation technologies, and mineral processing related fields that are relevant to the evaluation of critical mineral feedstocks. LLNL is also a member of the Critical Materials Institute (CMI), a DOE energy innovation hub.¹

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

For further information, please contact:

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¹ <https://ipo.llnl.gov/ipo-technologies/chemicals-and-materials/critical-materials-institute-cmi-technologies-alloys>

Forward Statement

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved."

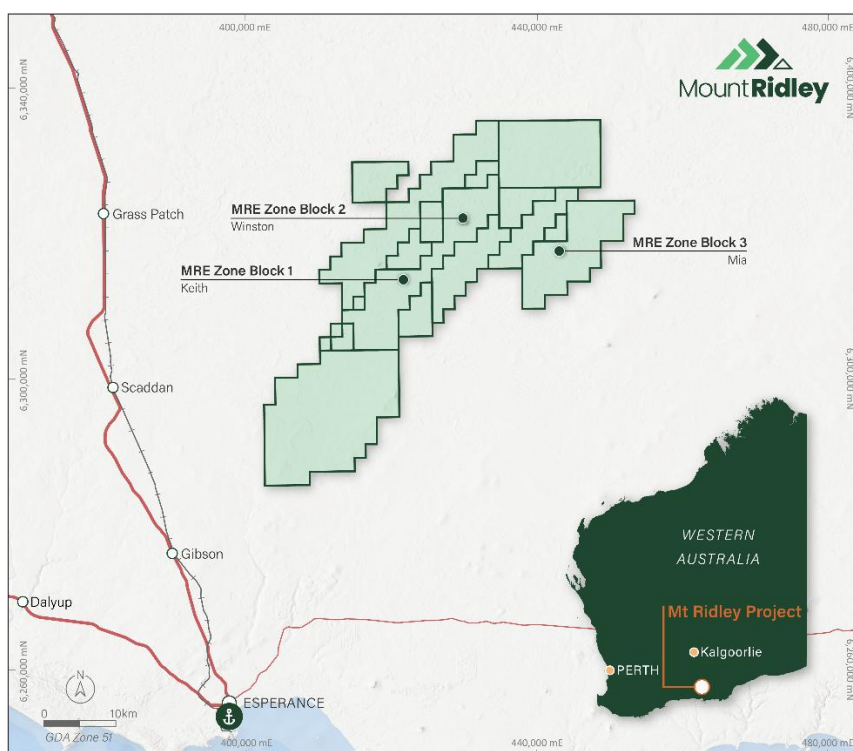
Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

About Mount Ridley Mines Ltd

Mount Ridley Mines Ltd is an Australian critical minerals explorer focused on the discovery and development of rare earth elements, gallium and scandium across its wholly owned Mount Ridley and Weld Range projects in Western Australia. Complimentary 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.



Location of the Mount Ridley Project in 25km north of Esperance, Western Australia

Mount Ridley Project

The flagship Mount Ridley Project is located approximately 25 kilometres north of the deep water port of Esperance and hosts a defined rare earth element and gallium resource defined 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. In addition to rare earths and gallium, Mount Ridley also considers the project to have prospective potential for scandium.

The Mount Ridley 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.