



## BAYAN AND US CRITICAL MATERIALS EXECUTE MOU TO ADVANCE RARE-EARTH PROCESSING TECHNOLOGIES LICENSED FROM THE COLORADO SCHOOL OF MINES

### Highlights

- **Non-binding MoU signed with US Critical Materials Corp. to advance Colorado School of Mines rare earth processing technologies:** Bayan and USCM will collaborate to advance beneficiation technologies applicable to high-grade bastnaesite and ancylite-hosted rare earth mineralisation from the Sheep Creek Project in Montana, USA.
- **Advancing Colorado School of Mines-developed U.S. rare earth processing technologies:** The Collaboration will focus on metallurgical evaluation, recovery optimisation and flowsheet development using Bayan's exclusively licensed beneficiation technologies.
- **US Critical Materials Corp:** US Critical Materials Corp. is a US based private exploration and technology company focused on supporting US national security, advanced manufacturing and domestic supply chain independence through development of rare earth and critical mineral assets, including the high-grade Sheep Creek Project in Montana.
- **Potential strategic investment pathway established:** USCM intends to evaluate a potential strategic investment into Bayan and future strategic relationships subject to technical outcomes, due diligence, regulatory approvals and definitive agreements.
- **Bayan secured exclusive worldwide rights to strategic U.S. rare earth processing technologies from Colorado School of Mines:** The licence covers four U.S. patented and patent-pending technologies spanning beneficiation, single-stage leaching and resin-based separation methods, strengthening Bayan's position within the U.S. critical minerals value chain.<sup>1</sup>
- **Technologies developed using Mountain Pass ore and supported by U.S. Department of Energy initiatives:** Three of the licensed technologies were developed and tested using ore and process streams from MP Materials' Mountain Pass operation in California, with development partially funded through the U.S.

<sup>1</sup> Refer to ASX Announcement dated 10 December 2025.



Department of Energy's Critical Materials Institute to support domestic "mine-to-magnet" rare earth supply chain capability.

- **Joint technical team to coordinate technical workstreams:** Bayan and USCM will establish a joint technical team to oversee metallurgical test work, technical assessment and future development priorities under the Collaboration.
- **Supports development of a U.S. based rare earth processing pathway:** Collaboration is aligned with broader U.S. critical minerals and domestic supply chain initiatives focused on strengthening domestic rare earth processing capability.
- **Pathway to Commercialisation:** USCM and Bayan will assess opportunities to establish a U.S.-based pilot or demonstration facility to support technology validation and scale-up. Any future development will be integrated with USCM's national-laboratory partnerships and U.S. government engagement.

**Bayan Mining and Minerals Ltd (ASX: BMM) ("BMM", "Bayan" or "Company")** is pleased to advise it has entered into a non-binding Memorandum of Understanding ("MoU") with US Critical Materials Corp. ("USCM") (together, the "Parties") to collaboratively advance rare-earth processing technologies on mineralisation from USCM's Sheep Creek Project in Montana, United States (the "Collaboration").

The Collaboration combines Bayan's exclusive licensed rare earth processing technologies, developed by the Colorado School of Mines ("Mines"), with high-grade bastnaesite and ancylite-hosted mineralisation from the Sheep Creek Project.

The MoU establishes a framework for technical collaboration, metallurgical evaluation, commercialisation assessment and potential strategic investment discussions between the Parties.

The Sheep Creek Project, located in Ravalli County, Montana, hosts high-grade rare earth mineralisation associated with bastnaesite and ancylite mineral systems. USCM is advancing the project alongside broader U.S. critical mineral initiatives focused on strengthening domestic supply chains and reducing reliance on foreign rare earth processing capacity.

### **U.S. Processing Pathway**

Under the MoU, Bayan and USCM intends to jointly evaluate and advance rare-earth processing technologies, focusing on beneficiation technologies for bastnaesite-hosted and ancylite-hosted REE mineralisation (the "Collaboration Patents") that are licensed to Bayan by the Colorado School of Mines ("Mines"). Mines' research, supported for decades



by the U.S. Department of Energy, Department of Defense, and U.S. Geological Survey, has shaped many of the modern flotation, reagent, and separation methods used across the rare-earth sector.

The development applies these U.S. invented processing technologies to Sheep Creek's bastnaesite and ancylite-hosted systems through a structured metallurgical program assessing recovery, efficiency, and flowsheet optimisation. A joint technical committee will coordinate workstreams, with USCM maintaining oversight to ensure alignment with U.S. regulatory and national-security priorities.

**Chief Executive Officer of Bayan Mining and Minerals Ltd, Nathan Kong commented:**

*"This collaboration represents a major milestone in advancing Bayan's rare earth processing technologies within the United States. By combining our licensed technology platform developed by the Colorado School of Mines with the high-grade mineralisation from Sheep Creek, we believe Bayan is well positioned to participate in the development of a domestic US rare earth processing pathway.*

*Importantly, the Collaboration establishes a framework for technical advancement, commercialisation assessment and potential strategic investment opportunities that may support the broader development of Bayan's technology portfolio."*

**Harvey Kaye, Executive Chair of U.S. Critical Materials Corp., stated:**

*"This Collaboration provides USCM with the opportunity to evaluate innovative processing technologies on some of the highest-grade rare earth system at the Sheep Creek project in the United States. Our objective is to support the advancement of a U.S.-based processing pathway that aligned with national security and domestic supply chain priorities."*

**Bayan's Rare Earth Technology Platform**

Bayan holds an exclusive global licence to a suite of four rare earth processing technology patents developed by Mines (the "Patents"), spanning beneficiation, leaching and resin-based separation. The exclusivity of the licence secures Bayan's position as a differentiated participant in rare earth processing innovation within the United States.

The patented technologies include:

- Advanced Systems and Methods for Leaching Rare Earths from Ore (bastnaesite single-stage HCI leach);
- Compounds, Methods, and Systems for Beneficiation of Rare Earth Elements by Flotation and Gravity concentration;



- Upgrade of Yttrium in a Mixed Rare Earth Stream Using Iminodiacetic Acid Functionalized Resin; and
- Beneficiation of Rare Earth Elements Bearing Ancyllite.

The technology suite was developed through the Kroll Institute for Extractive Metallurgy at Mines, with aspects of the underlying development supported by the U.S. Department of Energy's Critical Materials Institute. Collectively, the patents are designed to enhance recoveries, simplify flowsheets, reduce reagent consumption and lower processing costs, aligning Bayan with broader U.S. and allied efforts to strengthen domestic critical minerals processing and mine-to-magnet supply chain resilience.

Three of the patented technologies were developed using ore and process streams from the Mountain Pass district (a bastnaesite REE deposit) in California, providing a strong metallurgical analogue for deployment across similar rare earth mineral systems such as Sheep Creek. In particular, the single-stage HCl leach is designed to improve recovery while reducing flowsheet complexity relative to conventional leach routes, while the flotation and gravity beneficiation technology is intended to improve recoveries from ultra-fine and calcite-bearing bastnaesite material.

The Collaboration will focus specifically on the beneficiation technologies applicable to bastnaesite-hosted and ancylite-hosted REE mineralisation. The Yttrium upgrade using IDA resin and single-stage HCl leach technologies remain outside the immediate scope of the Collaboration and available for Bayan's broader technology deployment and commercialisation strategy.

This gives Bayan a multi-path processing platform capable of addressing differing mineralogical settings, concentrate streams and downstream product opportunities. It strengthens the Company's position not only as an explorer, but as a participant in building practical processing optionality across the rare earth value chain.

### **Commercialisation and Strategic Pathways**

The MoU establishes a framework for the Parties to assess:

- pilot-scale and demonstration-scale processing opportunities in the United States;
- downstream rare earth processing opportunities;
- commercialization pathways for the Collaboration Patents; and
- broader strategic partnership opportunities.

USCM has also indicated its intention to evaluate a potential strategic investment into Bayan or its affiliated entities, subject to satisfactory technical outcomes, due diligence, regulatory approvals and definitive agreements.



No terms have been agreed in relation to any potential investment and there is no certainty that any transaction will eventuate.

### **Commercialisation and Strategic Pathways**

Under the MoU, ownership of Bayan's existing technologies, patents and associated intellectual property remains exclusively with Bayan and/or its licensors.

Any future commercialisation rights, licensing arrangements or strategic transactions will be subject to separate definitive agreements.

### **Governance and Key Terms**

The MoU is non-binding and has an initial term of 12 months unless extended by mutual agreement.

The Parties intend to establish a joint technical committee to oversee technical activities and coordinate collaboration workstreams.

The MoU does not create any binding obligation on either Party to proceed with any investment, joint venture, commercialisation arrangement or definitive transaction.

### **Next Steps**

In the coming months, the Parties intend to:

- Establishing the joint technical committee and finalise the initial work program, including sample selection and definition of priority metallurgical test work on Sheep Creek mineralisation.
- Commence laboratory-scale metallurgical test work program using Bayan's licensed beneficiation technologies on Sheep Creek material.
- Evaluate beneficiation performance and flowsheet optimization opportunities; and
- Exploring commercialisation opportunities for the Collaboration Patents that are beneficial to both Bayan and USCM, including, without limitation, royalties, licence arrangements, fee and revenue-sharing structures, joint ventures, spin-outs and other commercial arrangements.

**About U.S. Critical Materials Corp.**

U.S. Critical Materials Corp. is a private exploration and technology company focused on developing rare-earth elements and critical minerals to support U.S. national security, supply chain independence, and advanced manufacturing. The company's Sheep Creek Project in Ravalli County, Montana, is reported to be one of the highest-grade rare earth deposits in the United States, containing rare earth elements, gallium, and other strategic minerals. U.S. Critical Materials is advancing the project through collaborations with Idaho National Laboratory and strategic partners focused on exploration, processing technologies, and domestic supply chain development. U.S. Critical Materials is uniquely positioned because of its high-grade mineral assets, its relationship with Idaho National Labs, and access to numerous other processors to be the indispensable resource for helping the United States become rare-earth and critical mineral independent in the shortest possible time.

**About Bayan Mining and Minerals Ltd**

Bayan Mining and Minerals Ltd is an ASX-listed company focused on the development of rare earth element projects and processing technologies. The Company holds exclusive licence to four rare earth processing technologies invented by the Colorado School of Mines and is advancing exploration at its Desert Star rare earth project in San Bernadino County, California. Bayan also holds a 100% interest in the Bayan Springs South gold-silver project and the Bayan Springs North silver-gold project, located in White Pine and Elko Counties, Nevada. Both projects are situated near major gold and silver discoveries and lie within the broader Carlin Trend.

**Authorised for release by the Board of Bayan Mining and Minerals Limited**

**-ENDS-**

***For further information, please contact:*****Nathan Kong**

Chief Executive Officer

Tel: +61 8 6188 8181

E: [nathan.kong@bayanminerals.com.au](mailto:nathan.kong@bayanminerals.com.au)



### **Forward-looking Statements**

Certain statements included in this release constitute forward-looking information. Statements regarding BMM's plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that BMM's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that BMM will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of BMM's mineral properties. The performance of BMM may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors.

These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

The Company confirms that it is not currently aware of any environmental restrictions or requirements that would impede the continuation of planned activities.

Except for statutory liability which cannot be excluded, each of BMM, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in these forward-looking statements and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in forward-looking statements or any error or omission. BMM undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

### **Proximate Statements**

This release contains references to mineral exploration results derived by other parties either nearby or proximate to the Desert Star Projects and includes references to topographical or geological similarities to that of the Desert Star Projects. It is important to note that such discoveries or geological similarities do not in any way guarantee that the Company will have similar exploration successes on the Desert Star Projects, if at all.