

FIREBIRD INSTALLS ADDITIONAL EQUIPMENT TO ADVANCE “ORE TO CATHODE” LABORATORY-SCALE PRODUCTION

HIGHLIGHTS

- Additional LMFP cathode production equipment received and installed at Firebird’s state-of-the-art R&D laboratory, located in Jinshi, Hunan Province, China.
- Additional testing equipment enables Firebird to complete laboratory scale production from ore to cathode within its own R&D laboratory. Button manufacturing and testing will remain at third party independent laboratory.
- The equipment can produce up to 10 kilograms of LMFP CAM per day, enabling the Company to provide product samples to multiple interested parties for evaluation.
- 100 batches expected to be completed. Program being completed with Central South University (CSU) of Hunan, under a binding strategic collaboration agreement.¹
- Substantial cost advantages expected to flow through to manganese sulphate operating costs through this innovative LMFP production process, which retains manganese sulphate in solution, eliminating the need for sulphate crystallisation, packaging and other ancillary costs.
- To our knowledge, no other company has achieved this level of vertical integration at lab scale.



Images 1 to 6: various cathode production equipment

Firebird Managing Director, Mr Peter Allen, commented: “The newly installed equipment enables Firebird to complete fully integrated, lab-scale production from ore to cathode, clearly setting the Company apart from its peers.

¹ See FRB ASX announcement 28 October 2024

"This advancement places Firebird in a unique position — seamlessly combining manganese sulphate production with the MFP pCAM process. To our knowledge, no other company has achieved this level of vertical integration at lab scale.

"Our rapid progress is a testament to the commitment and ingenuity of our team and partners, who continue to drive innovation and accelerate our path toward becoming a leading player in manganese-based chemical production.

"Critically, our process bypasses the manganese sulphate crystallisation stage — the most cost-intensive component of traditional production. This streamlined approach not only reduces operating costs but also delivers a superior LMFP product, strengthening our position as a low-cost, high-quality supplier of advanced cathode materials.

"With a sector-leading technical team and a clear growth strategy, Firebird is well-positioned to generate strong stakeholder value through scalable, innovative technologies that support the global shift toward manganese-rich battery chemistries."

Australian-owned Firebird Metals Limited (ASX: FRB, "Firebird" or "the Company") is pleased to announce the successful receipt and installation of the final equipment components required to establish a complete "ore-to-cathode" lab-scale production facility.

This milestone follows Firebird's entry into a binding strategic collaboration agreement with Central South University (**CSU**), Hunan, in October 2024. The agreement aims to jointly develop co-precipitation methods for the production of lithium manganese iron phosphate (**LMFP**) cathode active material (**CAM**).

Under the program, a total of 100 test batches will be produced, with each batch fabricated into button cells for comprehensive performance evaluation and analysis. These results will be critical for potential cell manufacturing partners, providing robust, real-world data to optimise battery efficiency and material quality.

Central South University is globally recognised for its leadership in battery materials innovation. CSU's faculty includes some of the world's foremost experts in the lithium-ion battery supply chain, and its alumni include founders of major industry players such as BYD and Ronbay Technology.

This collaboration has the potential to position Firebird as a global leader in next-generation lithium-ion battery materials, supporting the growing demand for cost-effective, high-performance energy storage solutions.

By integrating manganese sulphate (MnSO_4) production directly with MFP pCAM processing, Firebird expects to realise a significant natural cost advantage in LMFP cathode material manufacturing — a key differentiator as the Company advances its strategy to become a vertically integrated, low-cost producer of manganese-based battery materials.

This announcement has been approved for release by the Board.

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About Firebird Metals Limited

Firebird Metals is an advanced manganese developer focused on combining mining and downstream processing with a dedication to the advancement of the EV battery sector.

The Company is currently progressing its unique China-focused lithium manganese iron phosphate (LMFP) battery strategy, which will develop Firebird into a near-term producer of high-purity, battery-grade manganese sulphate, a key cathode material in LMFP batteries for electric vehicles.

Execution of this strategy will place Firebird at the forefront of manganese sulphate production, at a time when the use and demand for manganese in batteries continues to rapidly grow. Due to the low number of ASX-manganese developers and increasing use of LMFP by car manufacturers, Firebird is in a strong position to benefit from this growing market and deliver significant value to its shareholder base.

The Company also has a project portfolio located in the renowned East Pilbara manganese province of Western Australia, which boasts a total Resource of 234Mt^{2,3}, with exciting exploration and development growth upside. The portfolio is led by the flagship Oakover Project, which holds a Mineral Resource Estimate⁵ of 176.7 Mt at 9.9% Mn, with 105.8 Mt at 10.1% Mn in an Indicated category.

The Company is committed to generating sustainable long-term value and growth for stakeholders, through the implementation of best practice exploration methods while prioritising the well-being, health and environmental protection of its employees and communities it operates in.

JORC Compliance Statement

This announcement contains references to Mineral Resource Estimates, which have been reported in compliance with Listing Rule 5.8 and extracted from previous ASX announcements as referenced.

The Company confirms that it is not aware of any new information or data that materially affects the information previously reported and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates continue to apply and have not materially changed.

² See ASX announcement dated 23 March 2023: Indicated Resource of 105.8Mt at 10.1%; Inferred Resource of 70.9Mt at 9.6% for global Resource of 176.7 Mt at 9.9% Mn.

³ See ASX announcement dated 1 December 2021: Inferred Resource of 57.5 Mt at 12.2% Mn.