



AE Fuels achieves 95-99% manganese recovery and produces battery-grade HPMSM crystals from continuous mini-pilot testing

- Continuous mini-pilot testing delivered manganese recoveries ranging from 95% to 99%, highlighting the effectiveness of the purification process under sustained operating conditions.
- Testing produced high-purity manganese sulphate monohydrate (HPMSM) crystals that met the battery-grade impurity limits assessed in the program.
- The purification circuit demonstrated strong impurity control, including the removal of calcium, magnesium and other impurities to levels consistent with battery-grade limits assessed during the program.
- The results provide a significant technical de-risking milestone and support progression toward larger-scale continuous testing, customer sample generation and feasibility-level studies.

Vancouver, British Columbia, June 23, 2026: **AE Fuels Corporation** (TSXV: AEF | OTCQB: NRGFF) ("AEF" or the "**Company**") is pleased to announce positive results from mini-pilot testing undertaken by Australia's national science agency, CSIRO. The program successfully demonstrated a scalable purification pathway for the production of high-purity manganese sulphate monohydrate ("HPMSM"), achieving manganese recoveries of 95-99%, strong impurity control, successful continuous purification performance and batch crystallization of the resulting strip liquor.

The results represent an important technical de-risking milestone for AEF's manganese battery materials strategy and support progression toward larger-scale pilot testing, customer qualification programs and future development studies. The work also preserves optionality to evaluate future downstream production pathways including electrolytic manganese metal ("EMM") and electrolytic manganese dioxide ("EMD").

Summary of Results

Metric	Result
Manganese Recovery	95-99%
Purification Operating Mode	Continuous
Impurity Control	Battery-grade limits achieved
Crystallization	Successful batch production of HPMSM crystals
Next Step	Pilot testing using South Woodie Woodie feed liquor

Gary Lewis, Chief Executive Officer and Director, commented: *"These results represent an important technical milestone for AEF and further validate the South Woodie Woodie Manganese Project development pathway. The successful operation of the mini-pilot program demonstrated high manganese recoveries, strong impurity control, continuous purification performance and the subsequent production of battery-grade HPMSM crystals from the resulting strip liquor."*

Importantly, this work advances our understanding of a scalable purification pathway for battery-grade manganese products and provides additional validation of a key component of our broader manganese battery materials strategy. The results provide a strong technical foundation for larger-scale pilot operations, customer qualification programs and future development studies, while preserving optionality to evaluate downstream production pathways including EMM and EMD."

The South Woodie Woodie Manganese Project ("Project")

The Project is being advanced as an integrated manganese battery materials project targeting the production of HPMSM, while maintaining optionality to evaluate EMM and EMD as potential downstream product pathways. To that end, AEF continues to advance a staged development plan, targeting North American EV and energy storage markets.

The manganese deposit is located in the Eastern Pilbara region of Western Australia, and AEF recently finalized the acquisition with the exercise of its option with Trek Metals (January 13, 2026).

Advancing the Purification Pathway

Work programs supporting the development of the Project commenced in 2024 and are focused on establishing a scalable pathway for the production of battery-grade manganese products. Earlier metallurgical programs using synthetic feed solutions representative of South Woodie Woodie mineralization validated a conceptual flowsheet designed to produce battery-grade HPMSM, while maintaining optionality for EMM and EMD production.

The current CSIRO mini-pilot program builds on earlier laboratory and pilot-scale work and was designed to assess manganese recovery, impurity rejection, continuous circuit operability and the subsequent batch crystallization performance of the resulting strip liquor. The program used synthetic manganese sulphate feed liquor formulated to reflect the expected chemistry of South Woodie Woodie leach solutions.



Figure 1. Mini-pilot solvent extraction rig

Continuous testing achieved manganese recoveries generally ranging from 95% to 99%, while demonstrating strong impurity control, effective phase separation, low organic entrainment and no crud formation during operation. Calcium, one of the most important impurities requiring control for battery-grade HPMSM production, was reduced below the battery-grade impurity limits assessed during testing.

Batch crystallization testing conducted on strip liquor generated during the mini-pilot program successfully produced HPMSM crystals that met the battery-grade impurity limits assessed in the program. Product qualification by battery and cathode precursor manufacturers requires not only high manganese recovery, but also effective control of impurities that can affect downstream battery-material performance.

The successful production of battery-grade HPMSM crystals from continuous mini-pilot testing (Figure 2) represents an important technical milestone and provides a stronger foundation for future customer engagement, strategic partnership discussions and larger-scale pilot testing. The next phase of work is expected to utilize feed liquors generated from bulk sample material collected from the South Woodie Woodie Contact deposit. This work is intended to provide a more representative assessment of the integrated processing flowsheet and support future pilot-scale testing and customer sample generation.



Figure 2. HPMSM crystal produced from the mini-pilot program

Strategic Relevance

Demand for battery-grade manganese products is expected to grow significantly as electric vehicle and energy storage markets expand and western supply chains seek alternatives to concentrated foreign sources of supply. HPMSM is a critical precursor material used in a range of lithium-ion battery chemistries and is increasingly viewed as strategically important to North American and allied-country battery supply chains.

The successful production of battery-grade HPMSM from continuous mini-pilot testing provides AEF with an enhanced technical platform from which to advance product qualification programs, strategic partnership discussions, customer engagement activities and future development studies as it pursues participation in higher-value battery materials markets.

Why This Matters

The CSIRO mini-pilot program represents an important milestone in AEF's staged development strategy and provides a practical demonstration of the Project's processing pathway under continuous operation conditions. The program results are summarized overleaf.

- Demonstrated continuous production of purified manganese sulphate liquor, followed by successful batch crystallization of battery-grade HPMSM, a critical precursor material used in lithium-ion batteries.
- Further validated the proposed purification flowsheet and process design.
- Generated product samples in support of future qualification programs with potential customers and inform discussions with prospective downstream partners.
- Contributed to the ongoing reduction of technical risk ahead of larger-scale pilot operations.
- Provided additional data to support future engineering studies, process optimization and feasibility-level evaluations.

Collectively, these outcomes are expected to strengthen confidence in the Project's development pathway, support advancement toward potential commercial-scale production and ultimately advance AEF's strategy of moving beyond mining and capturing greater value through participation in higher-value downstream battery materials markets.

Qualified Person

Dr. Mark Steemson, FAusIMM, is the Qualified Person, as defined by National Instrument 43-101, responsible for the scientific and technical information in this news release. Dr. Steemson has reviewed, verified and approved the scientific and technical information contained in this news release. Dr. Steemson has sufficient experience relevant to the processing route and technical matters described in this release. Dr. Steemson is consultant to the Company not independent of the Company for the purposes of National Instrument 43-101.

On behalf of the board of directors of the Company:

Gary Lewis,
CEO and Director

About AE Fuels Corporation

AE Fuels Corporation (TSXV: AEF) (OTCQB: NRGFF) is a US-aligned, critical minerals company focused on battery-grade manganese and fluorspar-hydrofluoric acid (HF) supply chains. The Company's strategy connects allied-country manganese supply (Pilbara, Western Australia) and domestic US fluorspar supply (New Mexico, USA) with US midstream processing and downstream supply chains. Manganese and fluorspar are designated critical minerals in the US, Australia and EU, and essential to multiple high-growth industries including battery materials, semiconductor fabrication and advanced electronics, nuclear fuel processing and clean energy technologies. AEF is advancing development activities aimed at delivering reliable, allied-sourced supply of these materials to reduce foreign dependency and strengthen US industrial base resilience across these key industries.

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Forward-Looking Statements

This news release contains certain “forward-looking statements” and “forward-looking information” within the meaning of applicable Canadian securities laws. Forward-looking statements include, but are not limited to, statements regarding: the scope, timing and results of the pre-feasibility study and environmental baseline studies; the scope, timing and results of metallurgical testwork and process development; the potential production of High-Purity Manganese Sulphate Monohydrate (HPMSM), and/or electrolytic manganese metal (EMM), including suitability for battery and precursor specifications; exploration activities and exploration results; potential changes to mineral resources; and the Company’s business objectives and strategy. Forward-looking statements are based on management’s expectations, estimates and assumptions as of the date of this news release and are subject to a number of risks and uncertainties that may cause actual results to differ materially from those expressed or implied by such forward-looking statements. These risks and uncertainties include, among other things: results of exploration, metallurgical and engineering work; assumptions underlying technical and economic studies; commodity price and market volatility; availability of financing on acceptable terms; permitting and environmental approvals; operating and capital cost assumptions; and general economic, market and business conditions. The Company does not undertake to update forward-looking statements except as required by applicable securities laws. Readers are cautioned not to place undue reliance on forward-looking statements.