METALLIUM LIMITED
ASX: MTM | OTCQX: MTMCF | OTCQX ADR: MTLMY
Australia: Perth, Western Australia
USA: Houston, Texas

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Successful Completion of 12-Hour Multi-Unit FJH Chlorination Campaign

Three-reactor campaign on PGM-bearing feedstock advances Metallium's scale-up program at its Texas Technology Campus

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- **12-h campaign successfully completed using three (3) FJH reactors and high-value Platinum Group Metal (PGM)-bearing catalytic converter feedstock, demonstrating controlled multi-unit operation under high-temperature reactive chlorination conditions**
- **PGM-rich campaign feedstock contained vendor-reported grades of 153 ppm platinum, 518 ppm palladium and 63 ppm rhodium, with full acid digest analysis underway to confirm feedstock characterisation[1]**
- **12 test cycles undertaken across three feed particle-size distributions, generating approximately 50 samples to assess thermochemical performance, metal deportment and feedstock-specific processing behaviour**
- **Operating and engineering data generated to support feedstock-specific optimisation and further scale-up, including reactor configuration, process control and downstream recovery**
- **Next steps: further optimisation campaigns & preliminary assessment of standalone PCB processing modules, including proposed capacity and indicative financial metrics, as FJH advances toward commercial deployment**
- **Parallel FJH development programs continue across priority feedstocks and reactor configurations, including the revenue-generating MXene production program with Environmental Clean Technologies Ltd (ECT)[2]**
- **Targeted feedstock testing & technical evaluation progressing through engagement with U.S. Government agencies and selected industry participants, helping define additional commercial applications and product requirements for FJH**
- **Tim Cooper commenced as CFO on 1 October 2026, strengthening financial leadership to support corporate development and PCAOB audit finalisation ahead of the proposed Nasdaq uplisting of the Company's ADRs**

Metallium Limited ("Metallium" or the "Company") (ASX: MTM; OTCQX: MTMCF; OTCQX ADR: MTLMY) is pleased to announce the successful completion of its third-quarter 2026 ("Q3") multi-unit Flash Joule Heating ("FJH") operations campaign at the Company's Texas Technology Campus. The Q3 campaign involved three FJH reactors operating with chlorine and PGM-bearing catalytic converter material, marking an important progression from the Company's earlier multi-unit inert commissioning campaign into reactive processing.

Twelve test cycles were undertaken across three feed particle-size distributions. The campaign brought together reactor operation, feedstock preparation, reactive chemistry, process controls and downstream collection systems, generating operating data and metallurgical samples to support the next stage of development.

Beyond this campaign, Metallium is progressing targeted feedstock testing and technical evaluation through engagement with U.S. Government agencies and selected industry participants. These activities are helping identify potential commercial applications and assess processing performance against specific feedstock and prospective customer requirements.

Table 1: Campaign Summary

Metric	Result
Active FJH Units	3
Campaign Duration	12 Hours
Feedstock	PGM-bearing catalytic converter material
Feed particle-size distributions tested	3
Nominal campaign feed quantity	~75 kg
Lost Time Injuries	0

[1] Grades are based on information provided by the feedstock vendor and have not yet been independently verified by Metallium. Full acid digest analysis is underway to confirm feedstock characterisation
[2] See ASX:MTM announcements dated 04-Aug-2026, *'First Commercial FJH Technology Services Agreement'* & 26-Aug-2026, *'Texas Campus-Chlorinated Testing Resumes & First Revenue'*

Managing Director & CEO Michael Walshe commented: *"The successful completion of our Q3 campaign is an important milestone for Metallium and demonstrates the progression of our FJH platform from multi-unit inert commissioning into reactive processing using chlorine and a high-value PGM-rich feedstock.*

"In June, we demonstrated that three FJH reactors could operate simultaneously for a sustained 12-hour campaign. The Q3 campaign has now taken that same multi-unit operating architecture into a significantly more commercially relevant environment. The significance of this campaign extends well beyond individual recovery results. It is designed to generate the operating and metallurgical data required to better understand the thermochemical behaviour of the feedstock within the reactors, and how key process variables interact under chlorination conditions.

"This is exactly how we need to develop the platform as we move toward commercialisation: systematically building our understanding of reactor and feedstock performance, reducing technology risk, and using that data to refine reactor configuration, feed preparation and operating conditions for specific commercial applications.

"Our engagement with U.S. Government agencies and selected industry participants is helping direct testing towards specific feedstocks, product requirements and potential commercial applications. We see considerable value in developing processing pathways around these requirements, with testing and technical evaluation informing where we focus our development effort.

"We are pursuing several commercial pathways in parallel, including our revenue-generating technology-services program with ECT and the development and qualification of metal-bearing products for prospective customers. We remain conservative in our planning assumptions while scale-up and qualification continue, but our objective is to progress commercial sales as quickly as the technical and customer requirements allow."

Figure 1: *Gator Point Technology Campus, Texas, showing the FJH testing areas and multi-reactor operations, together with the recently repaired Area 140 roof and associated site infrastructure*

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Important Scale-Up Milestone: The Q3 campaign follows Metallium's successful June multi-unit FJH operations campaign, in which three reactors were operated simultaneously for 12 hours using nitrogen and inert silica-based material[3]. That campaign was designed principally to validate multi-unit mechanical operation, fluidisation, material handling, instrumentation and control systems.

The Q3 campaign has now progressed this operating architecture into reactive chlorination conditions and a high-value commercial feedstock, providing a substantially more relevant test environment as Metallium advances toward commercial FJH deployment. This progression is important because it brings together several elements of the Company's technology platform within the same operating campaign:

- Sustained chlorinated multi-unit operation over a full 12-h operating shift
- Stable fluidisation and material handling across multiple operating trains.
- Coordinated operation of three independent processing trains with in-house and external teams encompassing engineers, operators and safety personnel.
- Repeatable batch processing, operating procedures and reliability of mechanical systems under extended operation.
- Generation of process and engineering data required for continued reactor and feedstock optimisation.

Metallurgical analysis of the campaign samples is underway, with the results to be assessed alongside the operating data to better understand the thermochemical behaviour of the PGM feedstock within the FJH reactors. This data will inform further optimisation of reactor configuration, feed preparation, chlorination conditions and operating parameters for subsequent campaigns.

PRODUCT QUALIFICATION AND COMMERCIAL PATHWAY

Metallium anticipates producing saleable metal-bearing products, including metal chlorides and other intermediate forms, before June 2027, as part of ongoing process optimisation, product qualification and the transition toward commercial operations, subject to successful completion of the relevant development activities. Consistent with its June 2026 Quarterly Report[4], the Company continues to conservatively anticipate initial metal-product revenue from printed circuit board (PCB) processing during the first half of calendar 2027. Commercial operations are expected to ramp progressively thereafter, with staged ramp-up currently planned to commence during H2 2027 as operating hours, throughput, product qualification and downstream commercial arrangements are progressively established.

Products generated through the Company's current development programs are predominantly metal chlorides and other metal-bearing intermediates. As is customary when establishing a new source of supply, these products require qualification against prospective customers' specifications and downstream processing requirements. Depending on the product and application, this can include assessment of composition, impurity levels, consistency and processing suitability. Product development, customer qualification and the commencement of commercial sales are therefore distinct steps, with timing varying across feedstocks and customers.

Qualified intermediates can be saleable products in their own right and do not necessarily require conversion into elemental metals before sale. The Company's longer-term objectives also include producing finished metal products, including metals in elemental form, from selected feedstocks where technically and commercially appropriate. This represents an additional development pathway rather than a prerequisite for all product sales.

Metallium remains focused on progressing product qualification and commercial arrangements as rapidly as practicable. The timing of first saleable product, initial commercial sales and subsequent ramp-up are distinct milestones and should not be interpreted as a single transition to full commercial operating capacity. The timing guidance for initial PCB metal-product sales is also separate from the technology-services revenue being generated through the ECT program.

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[3] See ASX:MTM announcement dated 16-June-2026, *'Successful Completion of First Multi-Unit FJH Test Campaign'*.
[4] See ASX:MTM announcement dated 30 July 2026, 'Quarterly Activities & Cashflow Report'

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PGM-RICH FEEDSTOCK

The spent automotive catalytic converter feedstock used in the Q3 campaign had vendor-reported PGM grades of 153 ppm platinum (Pt), 518 ppm palladium (Pd) and 63 ppm rhodium (Rh), highlighting the high-value nature of the material processed during the campaign. Grades are based on information provided by the feedstock vendor and have not yet been independently verified by Metallium with full acid digest analysis underway. Metallium is evaluating an FJH-based processing pathway with the objective of reducing processing time and complexity relative to conventional multi-stage PGM recycling routes. Further testwork and flowsheet development are required to assess the complete processing route, including feed preparation, product collection and downstream recovery, and to quantify potential operating benefits[5].

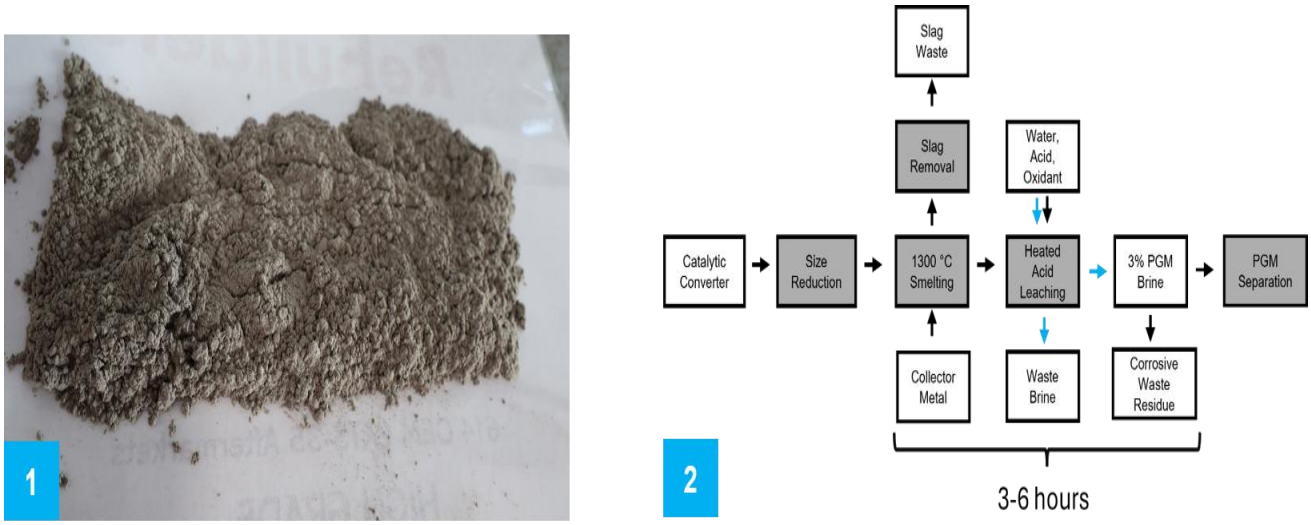

Figure 2: 1. Pulverised spent catalytic converter; 2. Conventional flowsheet for catalytic converter processing (Yakoumis, I., et al. 2021)

TEXAS TECHNOLOGY CAMPUS: AREA 140 ROOF RESTORATION COMPLETE

The Company also confirms that restoration of the roof of the Area 140 main building has now been completed.

Figure 3: Gator Point Technology Campus during the Q3 multi-unit FJH campaign, with the newly restored Area 140 roof shown.

[5] Yakoumis, I., et al. (2021), "Recovery of platinum group metals from spent automotive catalysts: A review," *Cleaner Engineering and Technology*, Vol. 3, 100112; https://www.sciencedirect.com/science/article/pii/S2666790821000720.

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CONTINUING TECHNOLOGY DEVELOPMENT ACROSS MULTIPLE FEEDSTOCKS

Metallium's broader development program includes targeted testing and technical evaluation of strategic feedstocks through engagement with U.S. Government agencies and selected industry participants. This includes feedstock-specific testwork and assessment of processing results and recovered materials with participating organisations.

Each feedstock requires its own characterisation, process optimisation and validation work. Evaluating these materials against specific technical, product and supply-chain requirements is helping the Company prioritise development and pursue potential commercial applications beyond its initial PCB processing program.

Certain feedstock identities and proprietary technical details remain commercially confidential while these evaluations progress. The Company will disclose material developments in accordance with its continuous disclosure obligations. Participation in testing and evaluation does not, of itself, constitute completed product qualification or a commitment to additional funding, product purchases or commercial deployment.

In parallel, Metallium is executing its MXene production campaign with ECT, further expanding the application of the FJH platform into advanced materials production and generating additional operating and process data.

The Company's Texas Technology Campus is being developed as the central platform for this increasingly integrated program of reactor development, feedstock testing, process optimisation and commercial technology deployment.

Next Steps – Multi-Unit Chlorination Metal Recovery Campaigns

Metallium will continue to optimise FJH performance through targeted campaigns focused on:

- Feedstock-specific processing performance;
- Reactor configuration and design optimisation;
- Reagent utilisation, process economics, and throughput optimisation;
- Product recovery and purity;
- End-to-end flowsheet development for priority feedstocks;
- Process control and automation;
- Customer product qualification, including assessment of product specifications, consistency and suitability for downstream processing;
- Materials-of-construction testing and reactor durability across different feedstocks and reactive operating conditions.

The Company will also continue testing other priority feedstocks and defining standalone modular processing configurations and their potential commercial economics.

The Q3 campaign therefore represents **another important step in the Company's progression from individual reactor development toward an integrated, multi-reactor commercial processing platform**.

NEXT KEY FJH TECHNOLOGY SCALE-UP MILESTONES

- ✓ Single-unit operation
- ✓ Multi-unit inert commissioning
- ✓ Multi-unit chlorination commissioning
- ► Feedstock-specific testing and optimisation campaigns [ongoing]
- ► Development and publication of a preliminary assessment of standalone PCB processing modules, including proposed processing capacity and indicative financial metrics.
- ► Demonstration-scale operation and customer product qualification
- ► Initial commercial PCB product sales
- ► Staged commercial ramp-up

CHIEF FINANCIAL OFFICER COMMENCEMENT

Metallium confirms that Mr Tim Cooper formally commenced as Chief Financial Officer on 1 October 2026. His commencement strengthens the Company's financial leadership, governance and commercial frameworks as it progresses corporate development initiatives and finalises its audit under Public Company Accounting Oversight Board (PCAOB) standards in preparation for the proposed Nasdaq uplisting of the Company's ADRs[6].

Mr Cooper has spent more than twenty years building the commercial and financial foundations of ambitious businesses across Australia's energy and resources sector, working across a range of contexts from overseeing a global multi-billion-dollar joint venture portfolio at Fortescue, including large scale project delivery, to turning around a loss-making international operation. He is regarded for his ability to set strategic direction and for identifying solutions to complex commercial problems, with a track record of building the teams, partnerships and governance that enables a business to execute its strategy.

This announcement has been authorised for release by the Board of Directors of Metallium Limited.

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ABOUT METALLIUM LIMITED

METALLIUM

Metallium Ltd (ABN 27 645 885 463), is developing and commercialising Flash Joule Heating (FJH) technology to recover critical and precious metals from mineral concentrates and selected waste streams. Through its wholly owned subsidiary, Flash Metals USA Inc., the Company operates the Gator Point Technology Campus in Texas, supporting technology development, customer testwork, commercial technology services and the staged deployment of metal-processing operations.

To learn more, visit:

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[6] See ASX:MTM announcement dated 24-Nov-2025, 'MTM to Establish US ADR Program and Commence Nasdaq Listing'

FORWARD-LOOKING STATEMENTS

This announcement contains forward-looking statements concerning Metallium Limited, including statements regarding the anticipated timing of saleable products and initial metal-product revenue, customer qualification, planned metallurgical assessment, reactor and feedstock optimisation, future testing campaigns, downstream product development, preliminary PCB module assessments and indicative financial metrics, advanced materials programs, demonstration-scale operation, commercial deployment and the Company's future plans, strategy and objectives.

Forward-looking statements are based on information available to the Company at the date of this announcement and assumptions and expectations considered reasonable at that date. These include assumptions regarding technical and downstream processing performance, completion of scale-up and commissioning activities, feedstock availability and characteristics, customer qualification and product acceptance, access to capital, equipment, personnel and services, regulatory approvals, and progress with customers and commercial partners.

Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, many of which are beyond the Company's control. Actual results may differ materially from those expressed or implied. Relevant risks include technology development and scale-up, feedstock variability, recovery and yield variability, processing throughput, product qualification and customer acceptance, capital and operating costs, financing, regulatory and environmental requirements, intellectual property, and reliance on key personnel, contractors and partners.

Investors should not place undue reliance on forward-looking statements. Except as required by the ASX Listing Rules, the Corporations Act 2001 (Cth) and applicable law, the Company does not undertake any obligation to update or revise forward-looking statements as a result of new information, future events or otherwise.

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