



ASX:GCM

Investor Site Visit

October 2025

gcm minerals.com.au



Disclaimer



This presentation has been prepared by Green Critical Minerals Limited (GCM or the Company). It contains general information about the Company's activities current as at the date of the presentation. The information is provided in summary form and does not purport to be complete. This presentation is not to be distributed (nor taken to have been distributed) to any persons in any jurisdictions to whom an offer or solicitation to buy shares in the Company would be unlawful. Any recipient of the presentation should observe any such restrictions on the distribution of this presentation and warrants to the Company that the receipt of the presentation is not unlawful. It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company that would require a disclosure document under the Corporations Act 2001 (Cth) or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation or any information, opinions or conclusions expressed in the course of this presentation.

Some statements in this presentation regarding future events are forward-looking statements or opinions. Such forecasts, projections and information are not a guarantee of future performance and involve unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied. There are a number of risks, both specific to GCM, and of a general nature which may affect the future operating and financial performance of GCM, and the value of an investment in GCM including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, foreign currency fluctuations, and mining development, construction and commissioning risk. You should not act or refrain from acting in reliance on this presentation, or any information, opinions or conclusions expressed in the course of this presentation. This presentation does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the prospects of GCM. You should conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation before making any investment decision. Recipients of this presentation must undertake their own due diligence and make their own assumptions in respect of the information contained in this presentation and should obtain independent professional advice before making any decision based on the information. To the maximum extent permitted by law, no representation, warranty or undertaking, express or implied, is made and, to the maximum extent permitted by law, no responsibility or liability is accepted by the Company or any of its officers, employees, agents or consultants or any other persons as to the adequacy, accuracy, completeness or reasonableness of the information in this presentation. To the maximum extent permitted by law, no responsibility for any errors or omissions from this presentation whether arising out of negligence or otherwise is accepted. An investment in the shares of the Company is to be considered highly speculative.

This Presentation contains estimates and information concerning our industry and our business, including estimated market size and projected growth rates of the markets for our products. Unless otherwise expressly stated, we obtained this industry, business, market, and other information from reports, research surveys, studies and similar data prepared by third parties, industry, and general publications, government data and similar sources. This Presentation also includes certain information and data that is derived from internal research. While we believe that our internal research is reliable, such research has not been verified by any third party. Estimates and information concerning our industry and our business involve a number of assumptions and limitations. Although we are responsible for all of the disclosure contained in this Presentation and we believe the third-party market position, market opportunity and market size data included in this Presentation are reliable, we have not independently verified the accuracy or completeness of this third-party data. Information that is based on projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, which could cause actual results to differ materially from those expressed in these publications and reports. The Company cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of the Company only as of the date of this release.

This document has been authorised for release by the Company's Board of directors.

Investment Highlights

Turning VHD Validation into Market Value



Independent Expert Validation

VHD graphite was modelled by Prof. Qing Li (USYD), confirming best-in-class thermal performance. UNSW also found it has superior thermal expansion versus conventional metals.



Production Is Live

GCM's first module is operational and producing saleable VHD blocks — a critical step beyond the lab.



Global OEM Engagement Underway

Discussions in progress with major chipmakers, data centres, thermal integrator OEMs and component manufacturers.



International Market Access

Distributor networks opened across North America, Europe, and APAC – with online registration underway. Targeting a US listing in 1H 2026 and strategic market entries.



Revenue Path Is Real and Multichannel

GCM's Go-To-Market strategy includes OEMs, integrators, component manufacturers and distributors.

GCM's VHD Graphite Technology



Product

- Very High Density (VHD) Graphite.
- Solid blocks, machinable into thermal management components, heat-sinks, heat spreaders, cold plates.
- Proprietary technology.
- Low energy input, fast and inexpensive process.

Market Potential (The Opportunity)

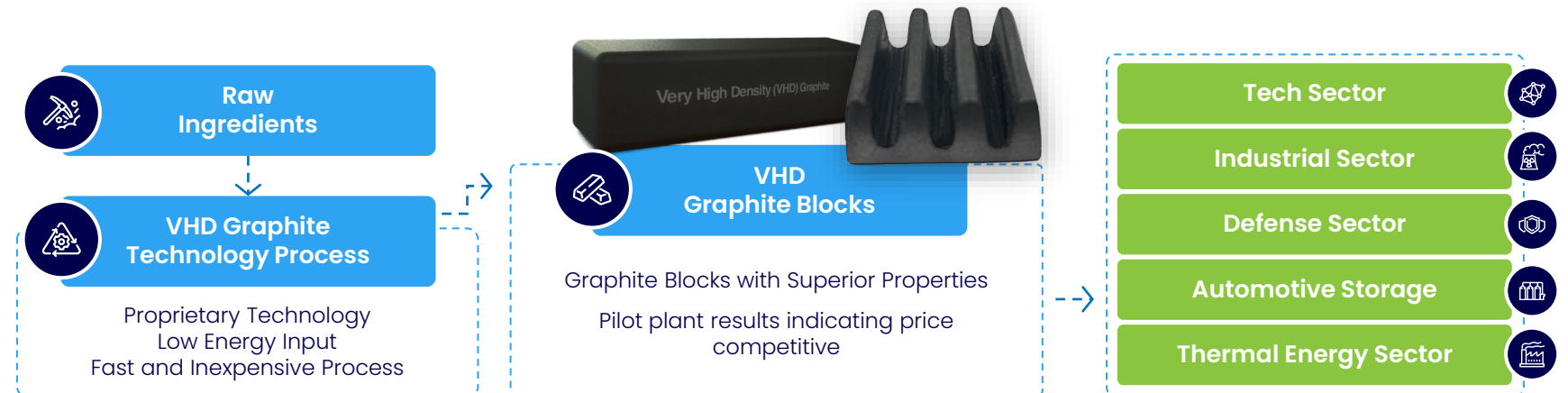
End-markets

Technology (Data centres – High-performance computing, AI servers, etc), Industrial (power electronics, process heat, etc) defence, aviation, automotive.

Potential to disrupt a **\$700b US market¹**

Solution²

Advanced high-performance thermal management material for use in heat-sinks, heat spreaders, cold plates for various end-markets.



1. Refer ASX announcement dated 11 November 2024

2. The VHD Graphite technology is not yet produced at a commercial level. The technology is in the development phase with the aim to commercialise within the next 12 months

VHD Competitive Advantage

Current materials can't meet modern cooling demands

VHD Competitive Advantage

- Introducing a new advanced material, VHD Graphite, which has superior thermal performance compared to legacy materials of aluminium and copper.
- Entering markets where the focus is on optimizing solutions using legacy materials.
- Providing the opportunity to leverage the design advancements of today and support the industry requirements for current and future generation semiconductors.

Modern chips are pushing the limits



CPU's and GPU's now routinely demand 300W+ of thermal design power.

Power density is growing –cooling technology needs to advance to keep pace.

Legacy materials are failing



Aluminium, copper, and isotropic graphite.

Inadequate at dissipating heat fast enough.

Limited thermal dissipation.

Contribute to overheating and performance throttling.

Legacy materials are leading to more expensive cooling solutions.

Commercialisation Roadmap



Customer demand demonstrated for advanced materials able to provide energy-efficient cooling

Complete

Stage 1

Modular Production Plant and Technology validation

Modular and scalable production operational.

Tested via computer modelling:
Performance validated in advanced composite applications.

Key metrics confirmed: Outperforms aluminium and copper on thermal efficiency.

In Progress

Stage 2

Customer acceptance and qualification

Customer engagement and technical data provided.

Customer reviews technical data.

Customer recognises product potential, seeks samples to perform due diligence.

Completes due diligence and progresses to prototype design collaboration.

Target H1 2026

Stage 3

Sales agreements and first revenue

Commercial discussions tied to successful customer trials.

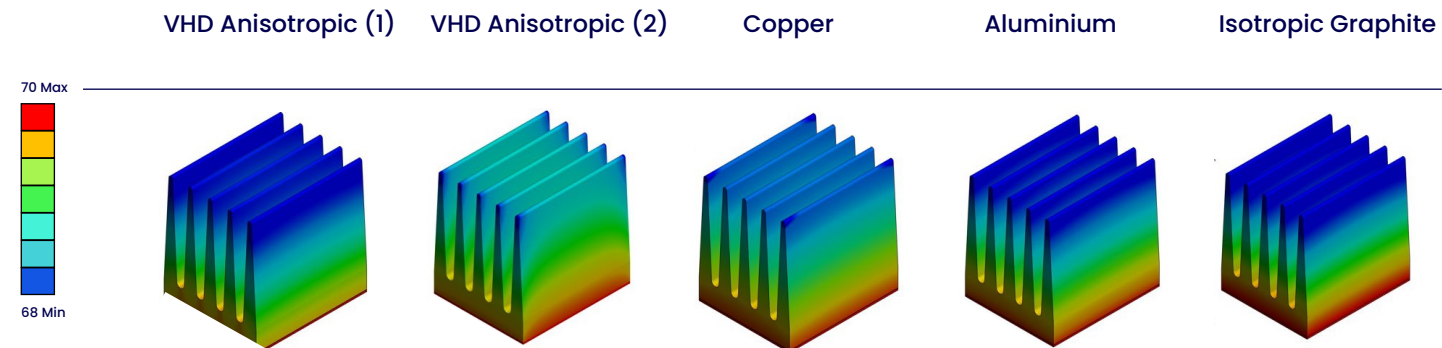
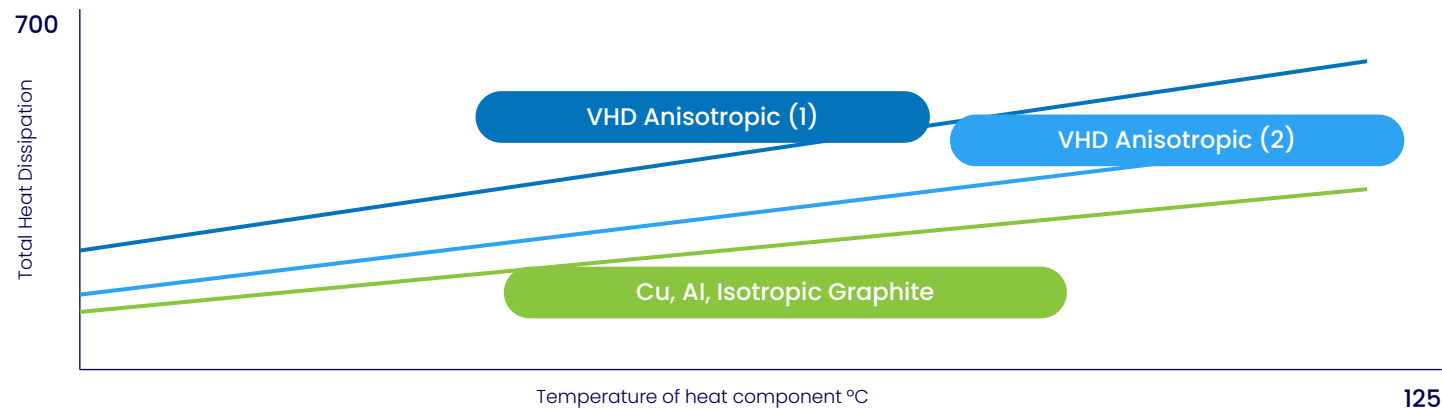
Discussions on first sales agreements targeting late 2025.

On track for initial revenue in H1 2026.

Proof of Performance

FE Modelling Confirms Exceptional Thermal Performance of VHD³

Total Heat Dissipation on Heat Sinks vs Temperature for Different Materials



3. See ASX announcement dated 08 July 2025

Independent FE by Prof. Qing Li (University of Sydney)

Objectively compare VHD to aluminium, copper, isotropic graphite.

Modelled identical 60mm x 50mm x 60mm heat sink blocks.

Passive air-cooling scenario across various temperatures.

VHD handled 300–400W power loads at 70–85°C.

Legacy materials: capped at ~200–250W.

Validates VHD's ability to cool next-generation chips under real-world conditions.

Thermal Expansion Testing

Proven ~8 – 12 times superior to conventional metals used in heat spreaders, heat sinks and cold plates

University of New South Wales (UNSW)

tested the thermal expansion of VHD graphite heat sinks, measuring how they expand or contract with temperature changes.

VHD graphite's in-plane coefficient of thermal expansion (CTE)

was found to closely match silicon, making it highly compatible with silicon wafer chips.

VHD graphite minimises stresses and strains

which normally occur when joined materials expand or contract at different rates under temperature changes.

Proves VHD graphite heat sinks offer an equal to or better outcome

for next-generation high-performance computers and servers running compute-intensive workloads, reducing thermal load risks while maintaining exceptional thermal performance.



Material	CTE Value	Efficiency compared to VHD (in-plane)
VHD Graphite	$\sim 2.0 \times 10_6 / \text{K}$ in plane $\sim 15.2 \times 10_6 / \text{K}$ out of plane	NA
Silicon (die)	$\sim 2.6 \times 10_6 / \text{K}$	Comparable
Copper	$\sim 16.6 \times 10_6 / \text{K}$	Expands ~8 times more than VHD graphite per °C
Aluminium	$\sim 21\text{--}24 \times 10_6 / \text{K}$	Expands ~10-12 times more than VHD graphite per °C

What This Means for GCM

From Technical Validation to Commercial Execution



Why it matters

Data centre chips now require 300W+

Industry advancement across numerous sectors has outpaced material performance.

VHD is demonstrating the potential to enable cooling of chips and other heat generating sources in higher-performance systems.

Without the thermal throttling seen in copper and aluminium.

Opens opportunity for new high-value applications.

Opportunities for extending into liquid cooling (cold plates) are being explored.

ASX:GCM

Next Steps Underway

GPU/CPU-specific CFD modelling in progress

Prototype production planning underway.

Using thermal management products from GCM's operational facility.

Aligning designs to customer hardware.

Customer partnerships / collaborations progressing.

Includes thermal solution providers, OEMs, component manufacturers and data centres.



Production Readiness Accelerates as Validation Deepens



Module 1 is now operational

The modular plant is operational and producing saleable VHD graphite blocks.

Facility is modular and scalable

Ready to expand output as demand accelerates.

Transition from pilot to production complete

Marks a critical shift in GCM's path to commercialisation.

Prototype production

Next step is to design and then manufacture VHD cooling solutions into customer products.

Multi-Channel Go-To-Market Strategy



Segmenting by Use Case, Channel and Speed to Revenue

Segmented Customer Strategy

Thermal Performance Specialists in designing and deploying advanced cooling systems for data centres, AI infrastructure, and industrial applications.

→ VHD offers a next-generation material to embed directly into thermal system designs.

Online Distribution

Registration, qualification and onboarding with global electronic distributors.

→ Fast-tracks access to customers and system builders globally.

Direct OEM Collaboration

Active engagement with semiconductor and chip manufacturers to co-develop custom heat sinks, spreaders, and cold plates.

→ Deep integration into hardware designs ensures long-term supply partnerships.

Revenue Model Flexibility

Products range from raw graphite blocks, to machined blanks, to fully finished thermal components.

→ This layered product model activates multiple revenue streams tailored to customer size, readiness, and technical maturity.

Near Term Milestones

Key Catalysts on the Path to First Revenue

GCM is well-positioned to move from validation to revenue, with clear near-term catalysts and a strong execution plan.

Customer Testing to Expand Across Sectors

Samples delivered and partnership activities underway in high-performance electronics, data centres, industrial providers and component manufacturers — widening GCM's commercial pipeline.

Expanding Market Applications

Advancing customer testing to develop prototypes and specialised VHD graphite products, identifying growing market potential and expanded applications in other thermal management technologies.

Milestones to Watch Out For Over the Next 6 months



CFD modelling, demonstrating performance of VHD in a forced convection environment.

Development of a prototype VHD cooled high-performance computer using the results from the CFD modelling.

Global market entry updates including customer engagement activities in Korea.

Sales agreements activities, laying the groundwork for initial commercial deals with early adopters.

US-based listing in 1H 2026 to support market entry.

Expanding supply chain capabilities in the USA. Activities to provide warehousing and logistics capabilities, and possible production capabilities.

Corporate Overview

02

Corporate Snapshot



Board of Directors

Charles Thomas

Non-Executive Chairman

Clinton Booth

CEO and Managing Director

Christopher Zielinski

Non-Executive Director



Commitment to Growth

With a robust leadership team and solid financials, we are well-positioned to advance our strategic initiatives and deliver value to our shareholders.



Market Capitalisation

\$60M_{AUD}

As of 30th September 2025

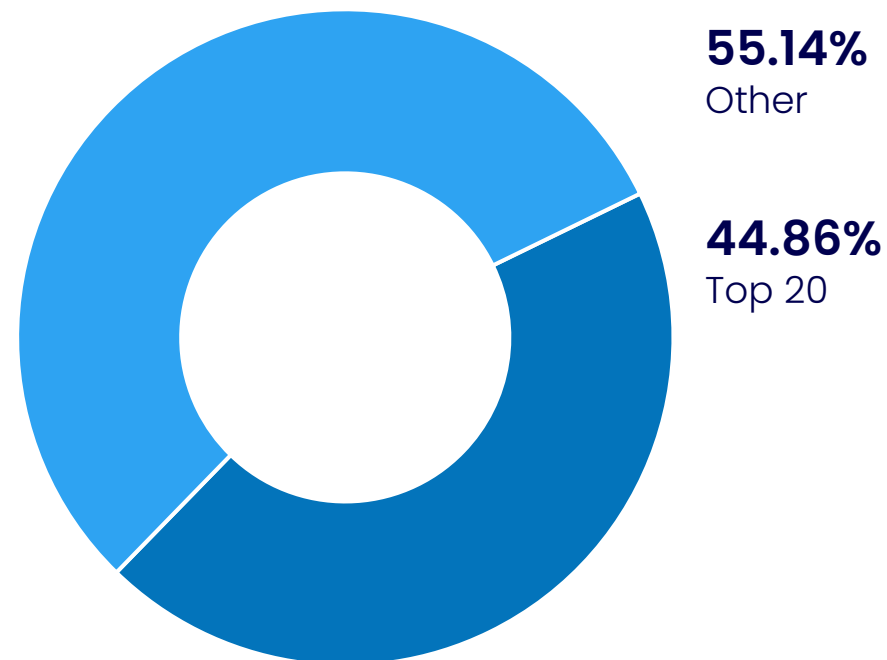


Recently Completed Capital Raise and Option Underwriting

\$12.2M_{AUD}

Capital Raise 02 June 2025 and
Option underwriting 24 September 2025

Top 20 Shareholding⁴



⁴ As at 30/09/25



ASX:GCM

Thank you

Corporate Office

349 Hay Street
Subiaco WA 6008

T +61 (08) 9388 0051

E enquiry@gcminerals.com.au

gcminerals.com.au

