



## SIGNIFICANT PROGRESS ACHIEVED ON CONSTRUCTION OF VHD TECHNOLOGY PILOT PLANT

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- Construction of GCM's VHD Technology pilot plant has commenced, with receipt of all critical equipment required.
  - Key ingredients for the production of the VHD Technology graphite blocks have also been received for imminent production of demonstration blocks on completion of construction.
  - Pilot plant remains on track for commissioning in Q3 FY25.
  - Use of the pilot plant aims to support the parallel development of heat sinks and solar-thermal blocks.
  - Smaller VHD blocks will be produced specifically for heat sinks in the high-performance computing sector.
  - Larger VHD blocks will be tailored for solar-thermal energy storage systems for industrial processes.
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**Green Critical Minerals Ltd (ASX:GCM) ('GCM' or 'the Company')** is pleased to provide an update on the progress of the Company's VHD Technology pilot plant at its recently secured industrial facility in New South Wales (NSW). Progress of the construction of this facility represents a pivotal step in GCM's journey to commercialise its VHD Technology and unlock transformative potential across renewable energy and high-performance electronics markets.

**Green Critical Minerals' Managing Director, Clinton Booth, commented:** *"The progress at our NSW pilot plant is truly exciting and demonstrates the great momentum we are building at GCM. The speed and quality of the work being undertaken reflects our team's commitment to excellence. This pilot plant is a pivotal milestone in proving the commercial viability of our VHD Technology.*

*"We are particularly pleased with the rapid developments achieved in the construction phases. With production of demonstration blocks on track for March next year, we are achieving remarkable and rapid progress.*

*"The VHD Technology pilot plant represents a cornerstone in our broader vision to drive innovation and deliver high-value, sustainable solutions to global markets. We are laying the groundwork for full commercial production of our VHD Graphite Blocks, as well as continually exploring opportunities in additional sectors such as aerospace, defence, and advanced manufacturing. These efforts, coupled with our commitment to continuous R&D and strategic partnerships, positions GCM to make a meaningful impact in decarbonisation and energy efficiency solutions worldwide."*

### Key Developments

- **Delivery of All Key Equipment.** All critical equipment for the pilot plant, including components for both the smaller product line and the larger product line, has now been successfully delivered to the industrial facility in New South Wales. This marks a significant step in preparing the site for operational readiness.
- **Commencement of Construction.** Construction of the pilot plant is now underway and progressing as per the planned timeline. This milestone ensures the project remains on schedule for its targeted commissioning date.
- **Receipt of Key Ingredients.** The essential ingredients for the production of VHD Technology graphite blocks have been received at the industrial facility. This ensures that the pilot plant is equipped to produce demonstration-scale blocks for customer qualification and downstream testing.
- **On-Track Project Progress.** The pilot plant remains on track for commissioning in the March quarter of 2025, reflecting the team's dedication to executing the project efficiently and in line with key milestones.



*Figure 1: Internal view of Clean Room 1*



Figure 2: Plan view of Clean Room 1

### Pilot Plant Capabilities

The pilot plant has been designed to support the parallel development of heat sinks and solar-thermal blocks. Smaller VHD blocks will be produced, designed specifically for heat sinks in the high-performance computing sector – gaming computers, super computers, AI data centers. With larger VHD blocks tailored for solar-thermal energy storage systems, a market with growing demand for innovative solutions to decarbonise power generation and industrial processes. These blocks are critical components for thermal energy storage (TES) in utility-scale renewable energy projects, providing a sustainable alternative to fossil fuels.

### Advancing Towards Commercialisation

The pilot plant is a critical component of GCM's broader strategy to commercialise the VHD Technology and unlock its transformative potential. Key milestones include:

- ✓ **Engagement of Head of Research and Development** – Complete
- ✓ **Pilot Plant Construction** – Commenced with key equipment delivered.
- ✓ **Pilot Plant Commissioning** - Expected Q2 FY25, marking the beginning of small-scale production
- ✓ **Validate Laboratory Scale Sample Production and Properties** – Expected Q3 FY25
- ✓ **Customer Qualification** - Expected Q3 FY25
- ✓ **Commercialisation and Ramp-Up** – Expected Q1 FY 2026 (subject to pilot plant success)



These milestones highlight GCM's commitment to delivering a commercially viable product that meets the demands of high-growth industries.

### **Authorisation**

The provision of this announcement to the ASX has been authorised by the Board of Directors of Green Critical Minerals Limited.

### **Forward Looking Statements**

This announcement contains general information about GCM's activities current as at the date of the announcement. The information is provided in summary form and does not purport to be complete.

This release 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 announcement 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 announcement and we believe the third-party market position, market opportunity and market size data included in this announcement 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 results to differ materially from those expressed in these publications and reports.