



Black Rock Awards Engineering Design Contract to CPC Engineering for Mahenge Graphite Mine

HIGHLIGHTS

- **Black Rock awards Detailed Engineering Design contract to CPC Engineering**
- **Contract includes detailed design of process plant and non-process infrastructure (NPI) for the Mahenge Graphite Mine and a FEED phase that will run in parallel with detailed design which aims to:**
 - **Optimise the process plant design;**
 - **Tender long lead equipment items;**
 - **Provide updated CAPEX and OPEX for cost and schedule certainty; and**
 - **Support the finalisation of the debt finance process.**
- **An Integrated Project Management Team has been established focused on finalising detailed engineering to be construction ready in the coming months**
- **Black Rock set to become a major producer of graphite for the clean energy supply chain**

Tanzanian graphite developer Black Rock Mining Limited (ASX:BKT) (Black Rock or the Company) is pleased to announce that it has awarded a Front End Engineering Design (**FEED**) contract to CPC Engineering to advance the Mahenge Graphite Mine towards construction.

Engineering Design Contract

Following a robust process, Black Rock has awarded its Engineering Design contract to highly experienced engineering design, construction and maintenance company, CPC Engineering (**CPC**). CPC has detailed knowledge of the Mahenge Graphite Mine, having completed Black Rock's Enhanced Definitive Feasibility Study in July 2019. Since then, CPC have provided ongoing technical support to Black Rock leveraging their extensive knowledge in the sector having previously designed Syrah Resources Ltd's (ASX: SYR) Balama graphite project, the largest producing graphite mine in East Africa.

An Integrated Project Management Team has been established responsible for the FEED process in parallel with detailed engineering, with particular focus on earthworks as the initial priority to ensure the Company can be construction ready in the coming months. Global demand for graphite continues to grow, with positive market tailwinds providing Black Rock an exceptional opportunity to become a major producer of graphite into the clean energy supply chain. Graphite prices have also begun to move and are up ~60% over the last 12-months.

FEED Key Objectives

The objective of the FEED process is to ensure the project is construction ready (subject to completion of finance) in time for the start of the dry season in Tanzania. Key deliverables of the FEED phase includes:

- **Optimisation of the process plant design by incorporating results of the variability testwork program, pilot plant programs and CPC's expertise in the design of graphite process plants;**
- **Tender long lead equipment items;**
- **Provide updated CAPEX and OPEX for project cost and schedule certainty; and**
- **Enable finalisation of the debt finance process.**



Black Rock continues to expand its project delivery and operations teams largely focused on in-country roles that will ultimately deliver the Mahenge Graphite Mine into production. Tender of other critical contracts has also commenced which includes Mining Services, Earthworks and Concrete works packages.

Black Rock MD and CEO, John de Vries said:

"After an extensive tender process, we are very pleased to award CPC Engineering the Detailed Engineering Design contract for the Mahenge Graphite Mine. CPC Engineering has the right mix of experience in designing and building graphite projects in Africa, but has also committed a very experienced team to work on the FEED contract for Mahenge.

Front end loading of the development phase of Mahenge positions the project to be construction ready, subject to finance at the end of the wet season. Execution of the FEED process involves a significant undertaking to identify Tanzanian based construction and mining contractors. The Company is committed to supporting indigenous Tanzanian business in the development of the Mahenge Graphite Mine."

About CPC Engineering

CPC Engineering is a privately owned, Perth-based engineering company with 50 years' experience providing reliable and practical engineering solutions to the resources industry both nationally and internationally. CPC Engineering employs over 350 personnel and specialises in engineering design, construction and maintenance.

CPC Project Design is located at CPC Engineering's head office in West Perth and is a multidiscipline engineering design, procurement, construction and project management team which has developed a reputation for delivering practical and cost-effective services to the resource industry.

CPC has extensive resource engineering experience with clients that include Syrah Resources, BlackEarth Minerals, Albemarle, First Quantum, AngloGold Ashanti, Talison Lithium, Tronox Limited, OceanaGold, Newmont, Barrick Gold and Sandfire Resources.

ASX release was authorised on behalf of the Black Rock Board by: John de Vries, Managing Director & CEO

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About Black Rock

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange (ASX:BKT). The Company has a 100% interest in the Mahenge Graphite Project (**Project**) located in Tanzania. The Project has a JORC compliant Mineral Resource Estimate of 213m tonnes at 7.8% TGC. It also has Ore Reserves of 70.5m tonnes at 8.5% TGC. The Ore Reserves support a mine life of up to 340k tonnes of graphite per annum for a reserve life of 16 years. Since the release of the Mineral Resource Estimate, the Company confirms that it is not aware of any new information or data that materially affects the mineral resources estimate.

On 25 July 2019, the Company released an enhanced Definitive Feasibility Study (eDFS) for the Project. The eDFS for the Mahenge Graphite Mine envisages a four phase operation, ultimately producing 340,000 tpa of high-grade graphite, with exceptional financial metrics including:

- *Low Capex:* Lowest peak capital expenditure of US\$116M for phase one*;
- *High Margin:* AISC margin of 63.1%;
- *Low Technical Risk:* Substantial pilot plant operations run of 110 tonnes; and
- *Superior Economics:* IRR of 44.8% with NPV₁₀ of US\$1.16bn (A\$1.65bn**)

Black Rock has obtained all Environmental approvals, Mining Licences and its Resettlement Action Plan with clear title to the eDFS project area. An FCI Agreement was signed with the Government of Tanzania in December 2021.

In June 2020, the Company announced a Strategic Alliance with POSCO Group for the development of the Mahenge Graphite Mine. This included an equity investment of US\$7.5M, signed in February 2021. In December 2021, a Term Sheet was agreed with POSCO for a US\$10M prepay and life of mine fines offtake for Module 1. Black Rock has also allocated planned production through Pricing Framework Agreements (ASX release 8 May 2019) with five other offtake customers.

Following release of the enhanced DFS (eDFS) in July 2019, the Company confirms that it is not aware of any new data or information that materially affects the results of the eDFS and that all material assumptions and, in the case of estimates of Mineral Resources or Ore Reserves, technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

The estimated Ore Reserves and Mineral Resources underpinning the production target has been prepared by competent persons in accordance with the requirements in Appendix 5A (JORC Code).

The Company is construction-ready subject to financing.

JORC Compliant Mineral Resource Estimate and Ore Reserve***			
Ore Reserves	Tonnes (Mt)	Grade (% TGC)	Contained Graphite (Mt)
- Proven	-	-	-
- Probable	70.5	8.5	6.0
Total Ore Reserves	70.5	8.5	6.0
Mineral Resources			
- Measured	31.8	8.6	2.7
- Indicated	84.6	7.8	6.6
Total M&I	116.4	8.0	9.3
- Inferred	96.7	7.4	7.2
Total M, I&I	213.1	7.8	16.6



Location of Black Rock's Mahenge Graphite Project in Tanzania

For further information on Black Rock Mining Ltd, please visit www.blackrockmining.com.au

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* Forecast Capex has been classified as a Class 3 estimate with accuracy of $\pm 10\%$ as defined by AACE

** AU\$/US\$ 0.70

*** Resource and Ore Reserve Estimates as released to ASX on 3 February 2022

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