

## BLACK ROCK ADVANCES POSCO ALLIANCE WITH THE COMMENCEMENT OF BATTERY PERFORMANCE TESTING

### HIGHLIGHTS

- **POSCO progresses due diligence activities on Black Rock's Mahenge Graphite Project completing work to-date including:**
  - **Performance testing of lithium-ion batteries produced using coated anode made from spheronized Mahenge graphite; and**
  - **Reversible capacity testing on test cells manufactured from Mahenge graphite showed equivalent level of performance to POSCO's optimised commercial reference anode; and**
  - **Initiation of long-term cycle testing of the cells**
- **POSCO continues to undertake its remaining commercial, legal and technical due diligence work with current COVID-19 related restrictions impacting timely delivery**
- **Black Rock has agreed to extend POSCO's completion date of the due diligence period to 20<sup>th</sup> November 2020**

Tanzanian graphite developer **Black Rock Mining Limited** (ASX:BKT) (**Black Rock** or the **Company**) is pleased to report on-going and positive progress at the Mahenge Graphite Project. Black Rock's Strategic Alliance and Development partner, POSCO Ltd (**POSCO**), is making meaningful progress on due diligence activities, including battery manufacture and extended battery performance testing.

#### **Black Rock's Managing Director & CEO, John de Vries commented**

*"Black Rock is the only graphite development Company that has been able to put product into the hands of a battery major. The fact we now have customer data validating our product for first cycle efficiency is a very significant milestone.*

*Based on the 300 cycle battery testing Black Rock performed in the US (ASX Announcement 13<sup>th</sup> November 2017), we are confident of the performance characteristics of Mahenge graphite heading into long-term cycle testing now underway with POSCO.*

*The revised due diligence schedule will accommodate for the impact from ongoing COVID-19 related restrictions and allow POSCO to complete their remaining work under a sensible timeframe."*

#### **POSCO Strategic Alliance**

##### Background

Black Rock announced on 9<sup>th</sup> June 2020 that it had entered into a Strategic Alliance & Development Memorandum of Understanding (**MOU**) with the POSCO Group for the development of the Mahenge Graphite Project. The MOU is subject to a 90-day due diligence period, part of which POSCO is to complete development of a graphite product, and third party technical due diligence within their value chain. Subject to POSCO satisfactorily completing their due diligence, the parties will negotiate to enter into an Investment Agreement, which anticipates an initial investment of up to US\$10m by way of a subscription for shares and/or convertible notes in Black Rock.

### Due Diligence Progress

Due Diligence is being conducted by POSCO supported by external subject matter experts, including SRK Consulting for technical aspects. COVID-19 related travel restrictions and logistics constraints has impacted the ability for POSCO to achieve timely site access and sample logistics. As a result, Black Rock has agreed with POSCO on a sensible revised timeframe for the completion of due diligence work, including POSCO Board approval which is now scheduled to be completed by 20<sup>th</sup> November 2020.

### Battery Performance Testing

As part of its due diligence activities, POSCO is independently undertaking performance testing of Mahenge graphite. Graphite concentrate from the Mahenge graphite bulk sample (ASX Announcement 23<sup>rd</sup> April 2019) was spheronized to POSCO battery specifications. Anode for battery cell performance testing was prepared from this spheronized graphite, including coating with POSCO's proprietary Intellectual Property.

Cells were tested for initial First Cycle Efficiency and compared to reference standards. The cells tested have passed acceptance standards and are now proceeding into long-term cycle tests. The test data compares well with cells prepared using uncoated Spherical Graphite (**uSPG**) from Black Rock 2017/18 USA battery program (ASX Announcement 7<sup>th</sup> February 2017).

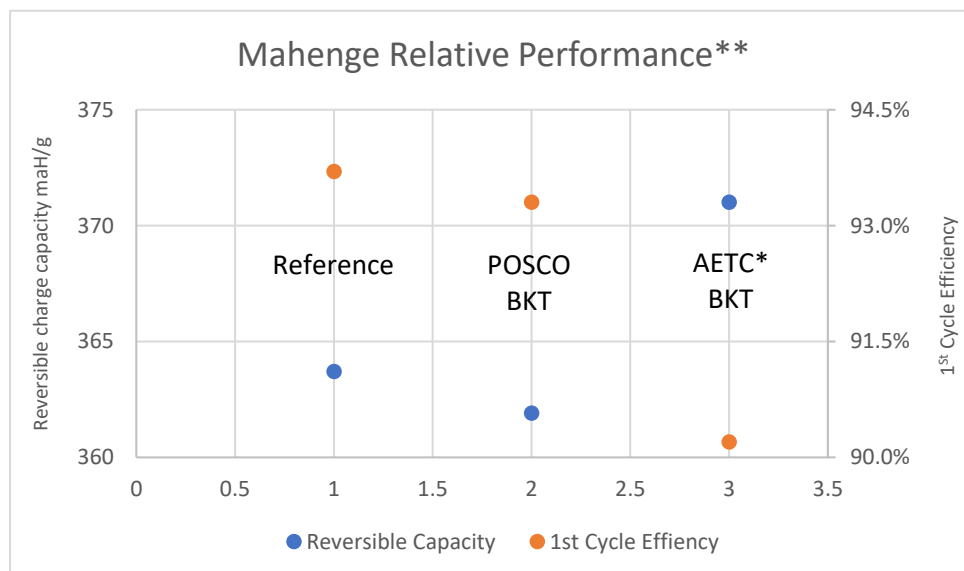


Figure 1: Results from POSCO's first cycle test using coated purified spheroidal graphite (**cSPG**) from Black Rock's Mahenge Graphite Project.

\* 2017/18 USA battery program

\*\* First cycle efficiency is the ratio of the initial charge of a new Lithium-ion Battery (**LiB**) battery compared to the second charge. The irreversible losses are a function of permanent electrolyte binding.

\*\* Charge capacity is a measure of energy density of LiB.

**This ASX release was authorised on behalf of the Black Rock Board**

John de Vries, Managing Director & CEO

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## About Black Rock Mining

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange (ASX:BKT). The Company currently has a 100% interest in the Mahenge Graphite Project (the "Project") located in Tanzania. The Project has a JORC compliant Mineral Resource Estimate of 212m tonnes at 7.8% TGC. It also has Ore Reserves of 70m tonnes at 8.5% TGC. The Ore Reserves support a mine life of up to 350k 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 Resource Estimate.

In October 2018, the Company released a Definitive Feasibility Study (DFS) for the Project, which was based on strong customer demand. This DFS was enhanced in July 2019, and demonstrates 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 NPV<sub>10</sub> of US\$1.16bn (A\$1.65bn\*\*).

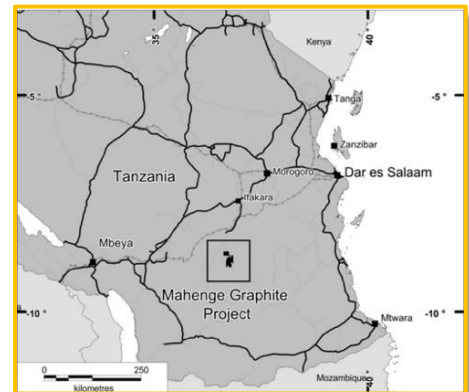
Following release of the Enhanced DFS in July 2019, the Company confirms that it is not aware of any new data or information that materially affects the results of the Enhanced DFS and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements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

In February 2019, the Company announced receipt of its mining licence for the DFS Project. In May 2019, the Company announced it had substantially allocated planned production with up to 255k tonnes per annum of graphite committed to sale by year three of production, through Pricing Framework Agreements.

The Company is currently progressing financing discussions and detailed engineering with a view to commencing construction of the Project.

### JORC Compliant Mineral Resource Estimate and Ore Reserve

Ore Reserves	Tonnes (Mt)	Grade (% TGC)	Contained Graphite (Mt)
- Proven	0	0.0	0.0
- Probable	70	8.5	6.0
<b>Total Ore Reserves</b>	<b>70</b>	<b>8.5</b>	<b>6.0</b>
Mineral Resources			
- Measured	25.5	8.6	2.2
- Indicated	88.1	7.9	6.9
<b>Total M&amp;I</b>	<b>113.6</b>	<b>8.1</b>	<b>9.1</b>
- Inferred	98.3	7.6	7.4
<b>Total M, I&amp;I</b>	<b>211.9</b>	<b>7.8</b>	<b>16.6</b>



For further information on Black Rock Mining Ltd, please visit [www.blackrockmining.com.au](http://www.blackrockmining.com.au)

\* Forecast Capex has been classified as a Class 3 estimate with accuracy of ±10% as defined by AACE  
 \*\* \$AUD/USD 0.70