

## SEPTEMBER 2021 QUARTERLY ACTIVITIES REPORT

### HIGHLIGHTS

- Binding offtake term sheets executed for large flake concentrate
- MOU signed with URBIX, Inc – US based clean tech graphite processing company
- Positive discussions continue with POSCO regarding binding Term Sheet for Offtake & Prepayment
- Discussions progress with Tanzanian Government with respect to the Free Carried Interest agreement
- Project development activities ongoing across engineering, customer qualification work, resettlement, costs assessment, and partner integration
- A\$9.3M cash at bank as at 30 September 2021

Tanzanian graphite developer **Black Rock Mining Limited** (BKT: ASX) (**Black Rock** or the **Company**) is pleased to provide an update on activities at its Mahenge Graphite Mine in Tanzania for the quarter ending 30 September 2021.

### Binding Offtake Agreements

Black Rock, through its 100% owned Tanzanian subsidiary Mahenge Resources Limited, signed binding Term Sheets for Offtake (refer ASX Announcement 13 August 2021) with two of its existing Offtake customers, Taihe Soar (Dalian) Supply Chain Management (**Taihe Soar**) and Qingdao Yujinxi New Material Co Ltd (**New Materials**). Previously, these commitments for allocated product were agreed in the form of Pricing and Volume Agreements (see ASX Announcements 7 January 2019 and 8 May 2019). The binding Term Sheets revise product allocation to separately reserve 100% of fines (estimated at 25 ktpa – 30 ktpa) for POSCO Ltd (**POSCO**).

Key Terms	Offtake Customer	
	Taihe Soar	New Materials
Contract Type/Status	Binding	Binding
Concentrate Quantity (tpa)	20,000	10,000
Buyer optional extra uncontracted quantity (tpa)	10,000	5,000
Term	3 Years	3 Years
Buyer optional term extension	2 years	2 years
Pricing	Index RefWin & ICC Sino	Index RefWin & ICC Sino
Trading currency	US\$	US\$
Prepay	US\$ 3.0m	US\$ 2.0m
Governing Law	Singapore	Singapore
Shipping terms	FCA	FCA
Resale	China Only	China Only

Including POSCO's tonnage allocation of 100% of fines, total binding Offtake is 60 ktpa, with an additional 15 ktpa of buyers options over uncontracted tonnage. The conversion to binding status confirms the majority of large flake concentrate from Mahenge Module One is now allocated and provides for a higher level of contractual stability prior to commencing a debt finance process. The remaining 23 ktpa uncontracted tonnage is subject to a qualification process which is underway.

### **Large Scale Qualification**

Operation of a large-scale pilot plant (**Qualification Plant**) to generate bulk concentrate samples to complete customer qualification for POSCO and selected large flake customers, commenced on 6<sup>th</sup> August 2021 in Shandong province, China. Stockpiled ore will be processed with milling expected to last around six weeks. The mill is the same as was used in Black Rock's 18 tonne pilot plant operation in 2019 (refer ASX Announcement 3<sup>rd</sup> April 2019).

The ore parcel being processed is composited from eighteen locations across the entire strike length of the Ulanzi orebody, from the Mahenge Graphite Mine (the **Project**). Individual samples are extracted from drill hole collars and are designed to support reconciliation between drill and laboratory results to bulk samples to better forecast ultimate plant performance. This supports a whole of orebody qualification, whereby customers and financiers have confidence in the Project's ability to supply qualified product over the long term. This sample strategy has been designed to represent the first ten years of the Ulanzi pit and is representative of the expected feed profile for Modules One and Two.

Operation of the plant was contemplated as part of POSCO's US\$7.5m investment which was completed in May 2021 (refer ASX Announcement 1<sup>st</sup> June 2021).

Large flake concentrate from the Qualification Plant will be placed with interested parties in Europe and Asia. Fines (<#100 mesh) will be used to qualify battery anode precursor products within POSCO's customer supply chain.

Prior to operation of the Qualification Plant, individual bulk samples were sampled and tested by SGS Lakefield Laboratory in Canada in July 2021. Samples were processed to determine sizing at a targeted 95% carbon concentrate grade for commissioning and ramp-up. SGS's test work cycle achieved an average of 96.8% carbon by LOI. Details are outlined in Table 2 below.

Reconciliation between the Definitive Feasibility Study flake profile and the latest SGS round is illustrated in Table 3. While the current round of testing indicates a slight increase in large flake and concentrate grade, in response to continued optimisation, management cautions that some size degradation will occur with plant scale up.

Index pricing has been included in Table 3 as a guide to current market conditions. Prices quoted are China Ex Works basis. Final basket pricing will be provided post qualification.

**Table 2 – Composite Variability Results Ulanzi – SGS Lakefield July 2021**

Test	Size		Weight	Assays, %	Pilot Plant Con
	Mesh*	Microns	%	C(t, g)	(t)
Average	+32 mesh	500	5.1	96.4	2.1
	+48 mesh	300	27.3	96.0	11.1
	+65 mesh	212	23.2	96.6	9.4
	+80 mesh	180	9.8	97.0	4.0
	+100 mesh	150	9.2	97.4	3.8
	+150 mesh	106	11.1	97.7	4.5
	+200 mesh	75	6.2	98.0	2.5
	+325 mesh	44	4.6	97.8	1.9
	+400 mesh	37	1.3	97.2	0.5
	-400 mesh	-37	2.2	95.5	0.9
	<b>Total Concentrate</b>		<b>100.0</b>	<b>96.8</b>	<b>40.7</b>

\* Mesh sizes are used to describe flake size and refer to the dimensions of the mesh size opening. ASTM mesh sizing refers to the number of openings per linear inch.

**Table 3 – Flake Profile reconciled to 2018 Definitive Feasibility Study**

Product**	Study Stage		Pricing*
Nominal size and grade	DFS 2018	SGS 2021	@95%
-195	32%	26%	100%
+195	9%	9%	128%
+895	36%	33%	179%
+595	18%	27%	263%
+3295	5%	5%	346%
* Average index pricing -195 based on mark to market AsianMetal RefWin & ICCSino Aug 2021 Pricing basis is ex Works			
Index pricing -195 ex Works Shandong is USD \$520 - \$550			
** Product is described as mesh size followed by concentrate grade eg -195 = -100 mesh @ 95%			

## POSCO Offtake Update

Offtake and prepayment negotiations with POSCO for 100% of fines from Mahenge Module One are progressing. Expected volumes of -#100 mesh concentrate attributable to POSCO are expected to be in the range of 25 ktpa to 30 ktpa. Conversion of strong expressions of interest for the remaining 20 ktpa of large flake not subject to contractual rights are subject to completion of qualification.

## URBIX Partnership

The Company signed a Memorandum Of Understanding (**MoU**) with United States of America CleanTech Graphite Processing company Urbix, Inc (**Urbix**), for an innovative supply chain partnership collaboration on battery anode processing (refer ASX Announcement 1 July 2021).

Urbix is an advanced materials technology company specialising in all aspects of the graphite value chain including manufacturing the most environmentally viable graphite and energy storage products in the world. Patented purification techniques deliver lower production costs with a low environmental footprint by avoiding the traditional need for hydrofluoric acid and high power consumption.

The MoU with Urbix is designed as a whole of supply chain collaboration that will drive commercial benefits for Black Rock and its customers. Under the MoU, Black Rock and Urbix will examine the potential to provide current and potential offtakers with an alternative Western supply chain option that is not only competitive, but delivers strongly differentiated environmental and sustainable battery anode materials.

Urbix has produced battery anode material from Mahenge graphite concentrates, with an initial batch submitted to Black Rock's shareholder and development partner, POSCO, for qualification testing. Further samples will be prepared for ongoing testing.

Both parties will also work to validate and verify scaled up performance of the processing technology at a technical and commercial level. Following construction of a dedicated processing facility by Urbix to access US markets, the companies will seek to examine a North Asia opportunity for toll processing or Joint Venture.

Urbix's graphite processing technology has several advantages that has the potential to transform the global processing of natural graphite products for battery and energy storage applications. Urbix graphite processing technology can deliver significant advantages to Black Rock and its customers through:

- Much lower energy consumption;
- Eliminating the need for hydrofluoric acid use;
- Significantly higher product yield (70% to 80% versus current industry standard of 35%); and
- Reduced reliance on co-product credit (re-carburiser sales to monetise waste streams).

### **Mahenge Project Development Activities**

Black Rock continues to progress project development activities in parallel with respect to pre-construction work, which includes:

- Securing binding term sheets with all existing offtake customers;
- Front end loading of the Resettlement Action Plan;
- Operation of a large-scale customer qualification pilot plant in China;
- Integration activities with existing partners POSCO and URBIX;
- Engineering work;
- Updating of capital and operating costs; and
- Preparation with finance groups to support a development financing process.





**Figure 1 - 500 tonne Mahenge bulk samples arrive for POSCO supply chain qualification test works**

### **Tanzanian Activities**

#### Free Carry Interest Agreement

Black Rock's Managing Director and CEO, John de Vries, along with Chairman, Richard Crookes, travelled to Tanzania in mid-August. Both remain in country and continue to progress discussions on concluding a Framework Agreement with Tanzanian Government.

#### Community Engagement

Resettlement activities continue on site with development of the Village Land Use Plan (**VLUP**). The VLUP is a master plan that allocates village land to alternate land uses from residential to light industrial. The process currently underway is focused on establishing suitable land and housing for resettlement, and the required infrastructure to support the new settlement (roads, power, water etc).



**Figure 2 - Public meeting to sensitise local communities on resettlement process (RAP)**



**Figure 3 - Field officers assisting with National ID registration (RAP)**



**Figure 4 - Public process encourages community participation in developing how resettlement will occur (RAP)**



**Figure 5 - Field officers support community to map land use as part compensation determination (RAP)**

### Capital Management

The Company had cash reserves of A\$9.3M as at 30 September 2021.

### Payments to, or to an associate of, a related party of the entity during quarter

During the quarter A\$146,000 was paid to related parties of the Company relating to executive director salary, non-executive director fees and company secretary fee.

### Summary of the exploration expenditure incurred during the quarter

	A\$'000
Consulting	155
Site Costs	49
Pilot Plant & Testwork	692
RAP	703
<b>Total</b>	<b>1,599</b>

### Tenement summary

License number	Opening	Additions	Disposals	Closing
ML 611/2019*	100%	-	-	100%
ML 612/2019*	100%	-	-	100%
PL 11486/2020*	100%	-	-	100%
PL 10111/2014*	100%	-	100%	-
PL 10426/2014*	100%	-	-	100%
PL 10427/2014*	100%	-	-	100%

\* Located in the Mahenge region of Tanzania. No farm-in or farm-out agreements were entered into during the quarter.

**This 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 Mine (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 resources estimate.

In October 2018, the Company released a Definitive Feasibility Study (DFS) for the Project, which was based on strong customer demand. This was enhanced in July 2019 (ASX Announcement 25 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\*\*)

Black Rock has obtained all Environmental approvals, Mining Licences and its Resettlement Action Plan with clear title to the eDFS project area.

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, and an offtake agreement, currently in progress, which includes a prepayment facility of up to US\$20M. 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	0	0.0	0.0
- Probable	69.6	8.5	6.0
<b>Total Ore Reserves</b>	<b>69.6</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>



Location of Black Rock's Mahenge Graphite Project in Tanzania

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

\*\* \$AU/US 0.70

\*\*\* Resource and Ore Reserve Estimates as released to ASX on 8 August 2017 Optimised PFS

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**Directors**  
Richard Crookes - Chairman  
John de Vries - Managing Director & CEO  
Gabriel Chiappini - Non-Executive Director/Company Secretary  
Ian Murray - Non-Executive Director





## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

**Name of entity**

Black Rock Mining Limited

**ABN**

59 094 551 336

**Quarter ended ("current quarter")**

30 September 2021

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>			
1.1 Receipts from customers	-	-	-
1.2 Payments for			
(a) exploration & evaluation (if expensed)	-	-	-
(b) development	-	-	-
(c) production	-	-	-
(d) staff costs	(333)	(333)	(333)
(e) administration and corporate costs	(293)	(293)	(293)
1.3 Dividends received (see note 3)	-	-	-
1.4 Interest received	-	-	-
1.5 Interest and other costs of finance paid	-	-	-
1.6 Income taxes paid	-	-	-
1.7 Government grants and tax incentives	-	-	-
1.8 Other (provide details if material):	-	-	-
- Project financing	(25)	(25)	(25)
- Marketing	(30)	(30)	(30)
- Foreign subsidiary costs	(187)	(187)	(187)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(868)</b>	<b>(868)</b>	<b>(868)</b>
<b>2. Cash flows from investing activities</b>			
2.1 Payments to acquire:			
(a) Entities	-	-	-
(b) tenements	-	-	-
(c) property, plant and equipment	-	-	-



<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
	(d) exploration & evaluation (if capitalised)	(1,599)	(1,599)
	(e) investments	-	-
	(f) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1,599)</b>	<b>(1,599)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	121	121
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(4)	(4)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>117</b>	<b>117</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	11,343	11,343
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(868)	(868)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,599)	(1,599)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	117	117
4.5	Effect of movement in exchange rates on cash held	346	346
4.6	<b>Cash and cash equivalents at end of period</b>	<b>9,339</b>	<b>9,339</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	8,989	10,058
5.2	Call deposits	305	1,240
5.3	Bank overdrafts	-	-
5.4	Other (provide details): - Cash backing credit cards	45	45
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>9,339</b>	<b>11,343</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	146 <sup>1</sup>
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

<sup>1</sup> Payments relate to executive director salary, non-executive director fees and company secretary fees.

<b>7. Financing facilities</b>	
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>	
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	
7.1	Loan facilities
7.2	Credit standby arrangements
7.3	Other (please specify)
7.4	<b>Total financing facilities</b>
7.5	<b>Unused financing facilities available at quarter end</b>
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.
Not applicable	

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)
8.2	Capitalised exploration & evaluation (Item 2.1(d))
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)
8.4	Cash and cash equivalents at quarter end (Item 4.6)
8.5	Unused finance facilities available at quarter end (Item 7.5)
8.6	Total available funding (Item 8.4 + Item 8.5 + Item 8.6)
8.7	<b>Estimated quarters of funding available (Item 8.7 divided by Item 8.3)</b>
8.9	If Item 8.7 is less than 2 quarters, please provide answers to the following questions:
1.	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?
Answer: Not applicable	
2.	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?
Answer: Not applicable	
3.	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?



Answer: Not applicable

## 9. Tenement summary

In accordance with ASX Listing Rule 5.3.3 below is the Company's tenement holdings at quarter end.

License number	Opening	Additions	Disposals	Closing
ML 611/2019 *	100%	-	-	100%
ML 612/2019 *	100%	-	-	100%
PL 11486/2020 *	100%	-	-	100%
PL 10111/2014 *	100%	-	100%~	-
PL 10426/2014 *	100%	-	-	100%
PL 10427/2014 *	100%	-	-	100%

\* Located in the Mahenge region of Tanzania. No farm-in or farm-out agreements were entered into during the quarter.

~ Tenement not renewed at its second annual renewal date.

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Authorised by the Board of Directors 27 October 2021

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: *Exploration for and Evaluation of Mineral Resources* and AASB 107: *Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.