

## QUARTERLY ACTIVITIES REPORT SEPTEMBER 2020

- **Auramet International appointed as Financial Advisor to assist in debt funding.**
- **Expressions of interest sought from EPCM contractors.**
- **Testwork on production of saleable mica concentrate from the Borborema plant tailings progressed well, with successful production of commercial grade concentrate suitable for the plastic and polymer markets.**
- **The final payment was received for the Posse iron ore project sale. A total of R\$3,500,000 (~A\$920,000) has been received.**

During the quarter, Big River Gold Ltd (ASX:BRV) (**Company** or **Big River**) continued to assess the best options for securing funding for the Borborema project. At a time of global uncertainty in the financial markets, traditional financiers have shown some nervousness, and site visits have been hampered by travel restrictions to Brazil. Nevertheless several proposals have been considered and more are underway with the assistance of proven advisors in the field. Funding remains the priority focus for the Company and the conditions are improving in time to recommence field activities in early 2021.

Borborema is being advanced; in particular the process to appoint the EPCM contractor and assessing the potential marketability of a possible mica by-product.

### Project Funding – Engagement of Auramet International

During the quarter, Big River engaged Auramet International LLC (**Auramet**) to assist with securing the debt funding component of the Borborema project finance.

As previously reported, the response of potential financiers within Brazil has been slow, largely due to the instability of the financial markets and impact on travel due to COVID-19. Consequently, the Company is widening its search and Auramet is ideally placed to assist with that.

Auramet is a well-connected precious metals merchant and advisory firm based in North America with a proven track record in closing project finance mandates and financing mining projects in the Americas, Africa, Europe and Australia. They have extensive and long-standing experience in the global junior mining market, mining finance and specifically the Brazilian gold sector having worked with the majority of mining companies currently operating in the country.

### Project Progress

#### Appointment of EPCM contractors

In anticipation of securing project funding and to progress development, Big River has advanced the process leading to appointment of the EPCM contractor for project implementation.

Invitations were issued to selected engineering groups with proven experience in developing and commissioning gold projects of similar size in Brazil to provide an EOI for the implementation of the Borborema Project. The Company has prepared a short list of bidders to receive EPCM enquiry documents.



Figure 1. View to the south west over the Borborema pit showing the exposed ore zone and infrastructure.

## Site Works

Work continued on progressing other Borborema planning and site works.

### *Environmental*

- Discussions and planning with IDEMA (Environment Agency of Rio Grande do Norte State) continued in relation to the licensing of the road access and the installation of the sewage treatment plant and pipeline.
- IDEMA renewed the Operating Licence for the Borborema plant.

### *COSERN (Electric Power Agency of Rio Grande do Norte State)*

- The Company has continued to work with the COSERN team and progressed all necessary measures including the application for Federal Electric Power Agency authorizations which is expected shortly.
- The Company's Brazil team is progressing the final design layout of the power line with COSERN.

### *DNIT (Federal Roads Agency)*

- The Company presented DNIT with the designs for the construction of the 30 km greywater pipeline and access to be built alongside Highway 226 from Currais Novos to the Borborema project.
- The Company expects to receive the permissions in the next few months.

## Potential mica by-product testwork

The latest program currently being undertaken by **Nagrom** in Perth, WA follows on from the testwork completed successfully by Dorfner Analysenzentrum und Anlagenplanung GmbH (**ANZAPLAN** in Germany (refer ASX announcement of 18 February, 2020 and 22 September, 2020). The aim of Nagrom's work is to produce a commercially viable bulk concentrate in the first instance of which details of the chemical and physical properties can be made available to potential distributors or offtake counterparties.

The Borborema Project contains very significant quantities of auriferous mica that will be processed through its planned 2Mtpa CIP process plant<sup>1</sup>. Initial work showed that after processing through the milling, cyanide leach and elution circuits, a substantial amount of mica could be readily separated by low cost magnetic separation methods. This product retained attractive commercial chemical and physical properties including flake size and importantly, being free of deleterious crystalline silica (quartz). Refer to the ASX announcement of 22 September, 2020 for more details.

Potential applications for this type of product are in the large volume plastic filler market, (in particular dark coloured polymers). Other uses could be for coatings and in the paint market where it would serve as a key additive with anti-corrosive properties. The 2018 pricing for a wet ground fine mica concentrate of this type from the USA was US\$300 – US\$500/tonne<sup>2</sup>.



Figure 2. Picture showing the gold plant leach residue (left), non magnetic reject (centre) and mica rich magnetic concentrate (right)

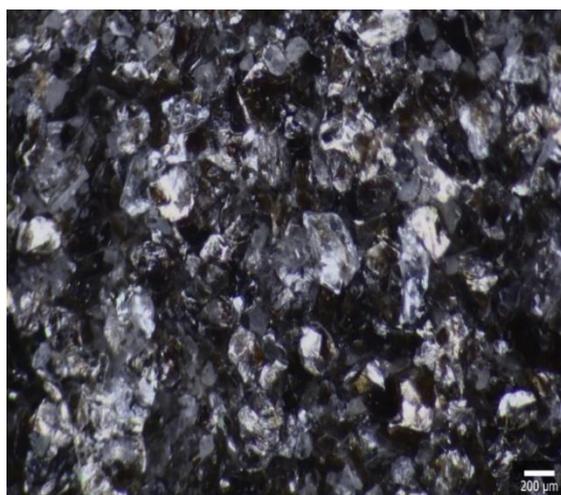


Figure 3. Magnetic mica under optical microscope – size on lower right

## Progress during the quarter

The results achieved by Nagrom during the quarter were very encouraging.

- Removal of the desliming stage increases product mass yield by 25%
- Produced concentrate with fewer magnetic separators indicating capex and opex savings.
- Concentrate can be produced using conventional fine grind.

*Investors should note that at this stage the commercial acceptance and establishment of sales contracts for this concentrate product has yet to be determined and is will be the subject of ongoing market investigation.*

<sup>1</sup> ASX Announcement 9 July 2020. DFS Review significantly upgrades Borborema project.

<sup>2</sup> Statista Industrial Minerals Market Information: <https://www.statista.com/>

## Commercialisation and market for mica.

Further testwork and marketing reports are under way to investigate the technical acceptance of the concentrate in the target markets. TDS's will be produced and provided to 10-20 potential customers for commercial assessment and feedback.

## FINANCIAL POSITION

The final instalment of payments relating to the sale of the Posse iron mine in 2017 was received in August 2020. A total of R\$3,500,000 (~A\$920,000) has been received in several instalments since April 2020.

At the end of September 2020, the Group had cash reserves of \$2.7M. Payments to related parties (Directors) and their associates totalled \$73,000 for the quarter.

During the quarter \$278k of exploration expenditure was capitalised which related to the Borborema gold project and included costs incurred in Brazil (staff, consultants and other) of \$113k, and consultant costs incurred in Australia (CPC Project Design, Nagrom, Wave International and other consultants) of \$165k.

Exploration expenditure expensed for the period in Australia and Brazil totalled \$183k.

For and on behalf of the Board.



Andrew Richards  
**Executive Chairman**  
Big River Gold Ltd

### ***About Big River Gold***

Big River Gold Ltd (ASX:BRV), is a mineral exploration and development company listed on the Australian Securities Exchange. Its major focus is the 2.43M ounce Borborema Gold Project in Brazil; a country the Company believes is underexplored and offers high potential for the discovery of world class mineral deposits.

### ***Borborema Gold Project***

Borborema is a project with a resource of 2.43Moz gold, located in the Seridó area of the Borborema province in north-eastern Brazil. It is 100% owned by Big River and consists of three mining leases covering a total area of 29 km<sup>2</sup> including freehold title over the main prospect area.

The Project benefits from a favourable taxation regime, existing on-site facilities and excellent infrastructure such as buildings, grid power, water and sealed roads. It is close to major cities and regional centres and the services they can provide.

### ***Definitive Feasibility Study (DFS)***

A DFS for development and construction of Stage 1 of the Borborema Project was completed in December 2019 as detailed in the ASX Announcement of 23 December, 2019. The DFS was updated to improve capex estimates and de-risk the operation (refer ASX announcement of 8 July, 2020). It confirmed the project's strong economics and optimised a profitable open pit with a mine life of more than 10 years producing approximately 729,000 ounces gold at a C1 cash cost of US\$534/oz and AISC of US\$713/oz.

Assuming a gold price of US\$1,550 per ounce, the pre-tax NPV (8%) returned US\$342M with an IRR of 64.7%. The project returns an average EBITDA of US\$72M pa.

## **Competent Person Statements**

### ***Borborema mineral resource estimate***

The information in this announcement that relates to the mineral resource estimate for the Borborema Project was first reported in accordance with ASX Listing Rule 5.8 on 24 July 2017. Big River confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 24 July 2017 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

### ***Borborema ore reserve estimate***

The information in this announcement that relates to the Ore Reserve estimate for the Borborema Gold Project was first reported in accordance with ASX Listing Rule 5.9 on 6 March 2018, 29 March 2018 and 11 April 2018. All material assumptions and technical parameters underpinning the Ore Reserve estimate continue to apply or have been updated in the JORC Table 1.

That portion of the Ore Reserve that was included in the Stage 1 Mining Schedule for the December 2019 Definitive Feasibility Study (DFS) was reviewed by Porfirio Cabaleiro Rodriguez, BSc. (MEng), MAIG of GE21 as part of the DFS. The Ore Reserve was first reported in accordance with ASX Listing Rule 5.9 on 24 July 2017 and updated on 6 March 2018 and is based on information compiled by Mr. Linton Kirk, Competent Person who is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy. Mr. Kirk is employed by Kirk Mining Consultants Pty Ltd and is an independent consultant to the company.

### ***Borborema Exploration results***

The information in this announcement that relates to exploration results for the Borborema Gold Project was first reported in accordance with ASX Listing Rule 5.7 on 28 January 2015. Big River confirms that it is not aware of any new information or data that materially affects the information included in the announcements of 28 January 2015 and 24 July 2017.

The information in this announcement relating to exploration results arising from the metallurgical testwork is based on and fairly represents information and supporting information compiled by Mr Andrew Richards and Mr Chris Larder. Mr Richards is the Executive Chairman of the Company and a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Larder is a Process Engineer of 35 years experience and a Member of the Australasian Institute of Mining and Metallurgy and is an independent consultant to the Company.

Mr Richards and Mr Larder have both consented to the form and context in which the exploration results and supporting information are presented in this announcement.