

QUARTERLY ACTIVITIES REPORT JUNE 2021

- **Big River has established a Project Owners team within Australia working closely with our Brazilian team and supported by Perth and Brazil based consultants and engineering groups.**
- **GR Engineering Services were appointed and commenced the Engineering Cost Estimate update following completion of the Option Study.**
- **Optimisation reviews into the future mine expansion commenced to assess implications for the Option Study redesign and cost updates.**
- **The 69kV powerline to the plant site was granted a “Declaration of Public Utility” which guarantees access to land along its construction path and facilitates negotiations with landowners.**
- **Environmental surveys (plant and animal relocation) have commenced on site to allow geotechnical drilling for the site sediment control and water storage dyke**
- **Infrastructure work progressed including:**
 - improvements to water collection and seeking increasing supply,
 - studies into future transmission line re-location required with possible mine expansion
 - development of the project dynamic water balance
- **Board changes saw Adrian Goldstone appointed and John Evans stepping down as non-executive directors.**

Big River Gold Limited (ASX:BRV) (“**Big River**” or “**the Company**”) is pleased to present its Quarterly Activities Report for the period ending 30 June 2021. During the Quarter, the Company continued to focus on reviewing the Borborema Gold Project (**BGP** or **Project**) design as well as assessing the best options for future expansion and funding the construction of the Project.

Some significant developments to the design and future options have been made in this work during the quarter.

Due to the impact of COVID-19, travel to the BGP site is limited but still possible with appropriate precautions. Activities are still being undertaken on behalf of Big River by various engineering groups in both Brazil and Australia.

PROJECT DESIGN PROGRESS

Project Management

Big River has established a project management team (**Owners Team**) supported by Principal Process and Mining consultants and project scheduling resources. Members of this team have extensive international experience including the management of design, procurement and construction resources, through to commissioning, operational readiness preparation and handover.

The Owners Team is working closely with personnel in Australia and the Company's subsidiary, Cascar, in Brazil to co-ordinate various engineering groups, contracts and estimate updates including project scheduling and risk identification and mitigation planning.

Engineering design and cost estimate update

GR Engineering Services (**GRES**) based in Perth, WA, was appointed to complete the review the Borborema Definitive Feasibility Study (**DFS**) and generate a $\pm 20\%$ Engineering Cost Estimate update (**ECE**) for the 2Mtpa plant with review and recommendations on equipment changes presented in the Process Plant Option Study completed by Wave International in the previous quarter (refer to ASX announcement dated 30 March, 2021).

This work is being performed in Perth with assistance from the Big River Owners Team for the coordination of the in-country services pricing updates. GRES's wholly owned subsidiary, Hanlon Engineering which is based in Arizona will also provide engineering support from the USA if travel from Australia is impractical.

GRES is scheduled to complete the work in August which will include updating the specifications and vendor pricing for the Process and Non-process infrastructure. During the current quarter certain aspects of the plant equipment choices and layout have been modified and optimised to further improve performance and in anticipation of a possible increase in future plant throughput.

Mine scheduling

The mining schedule presented for Stage 1 of the mining project was reviewed based on the 2Mtpa throughput and will consider the implications of a possible ramp up in the second or third year to 4 Mtpa for the life of mine.

Process water usage

Advances are being made in the ECE preliminary engineering to better define the waste water usage and recovery and treatment. This will be required to ensure production rates of 2Mtpa but also to support any expansion.

Discussions are also underway with authorities in the region to both expand currently agreed supplies and secure additional water sources. This is being undertaken as a risk management measure but also to underpin any future strategies for the operation including possible expansion.

Updated DFS & expansion Feasibility Study

The ECE will incorporate an initial 10-year, Stage 1 comprising a 2 million tonnes per annum (Mtpa) throughput and include improvements to plant and equipment, some of which have been upscaled in anticipation of a future increase in production. Capital and operating expenditures will reflect those changes as well as the latest cost environment in Brazil.

In the meantime, studies have commenced to investigate a 4Mtpa production scenario and the implications that current plans and layouts will have. In particular where such an expansion might influence pit design and accelerate the need to relocate the highway or regional power transmission lines.

The site is currently permitted for an operation up to 4Mtpa but following recent reviews into the appropriate operational size given Borborema's large resource, it is timely to consider the implications of any expansion to minimise potential issues arising.

INFRASTRUCTURE

Process water

The current DFS plant design of 2Mtpa is underpinned by the sewage water offtake contract supplying 70m³/hr that was finalised with the Currais Novos Water Authority (CAERN). Big River is actively looking to secure additional supplies from several sources which is also addressed in the scope of work for the current study being undertaken by SRK (Brazil and Perth) on site-wide, water balance modelling.

In Currais Novos, the Company has been monitoring greywater flows from the *Caça e Pesca* effluent pumping station where pipes and conduits are undergoing maintenance and progressively unblocked to improve throughputs.

During the quarter water flow rates have been steadily increasing although during the day volumes can vary from 3 m³ to 108 m³ with a July average of 54m³ per hour. The first 22 sewer boxes at *Caça e Pesca* were repaired with the remaining 40 to be addressed in August.

Big River are working to negotiate full management of this transfer station and associated system and will install additional pumps and surge tanks and transfer pipeline to secure delivery.



Figures 1(a) and (b). View to the Caça e Pesca effluent pumping station and the greywater channel upgrade.

Powerline

- *Declaration of Public Utility for the 69kv Power Line*

On 27 May, a “Declaration of Public Utility” was granted for the 69kv Power Line from Currais Novos to site. This is an important development as it makes the planned power line a public utility in terms of the benefits it provides to the community and therefore guarantees the Project’s access to land along its construction path and facilitates compensation negotiations with land owners.

- *Powerline design developments*

The Company has contracted an in-country consultant (GRID Energia) to oversee the powerline easement access, design, procurement and installation of the 35 Kilometre 69kV transmission line from Currais Novos switchyard to the Borborema plant site.

VisãoGeo (Brazil) was subsequently awarded the contract to undertake the powerline easement access phase of the project which includes the survey of transmission line route. This phase is expected to be completed in 5 months after award.

Environmental approvals and Surveys for geotechnical drilling

The site water retention dyke is to be built to enhance the surface water collection on site. Prior to commencement of geotechnical drilling to confirm the dyke design, environmental survey and clearance work around the drill sites had to be undertaken by authorised personnel. This includes teams from the plant suppression (clearance) and animal relocation teams, namely FLORESTAL and INPLANTAR respectively.



Figures 2 – 3. FLORESTAL and INPLANTAR environmental teams at Borborema Project site

Cleaning of the weirs located within the Borborema Project area also commenced.



CORPORATE

Board changes

Mr Adrian Goldstone was appointed to the Board as a Non-Executive Director of the Company on 26 May 2021.

Mr Goldstone is a highly experienced and respected resource executive with nearly 40 years' international experience. He is currently Managing Director - Technical for Dundee Goodman Merchant Partners and has been a Council Member of the NZ Minerals Industry Association from 1998 to 2006 as well as a representative on the American Chamber of Commerce in Europe and involved at Council level with the Brussels based, Euromines.

Mr John Evans stood down as a non-executive director of the Company on 1 June, 2021. The Board wishes to express its sincere thanks to Mr Evans for his efforts, professionalism and diligence over the last 9 years in which he served on the Board.

Financial Position

At the end of June 2021, the Group had cash reserves of \$19.3M. The aggregate amount of payments to related parties and their associates included in the June 2021 quarter cash flows from operating activities was \$101k, comprising of Chairman and directors' fees, salaries and superannuation.

During the \$491k of capitalised exploration expenditure during the quarter included costs incurred in Brazil (staff, consultants and other) of \$227k, and consultant costs incurred in Australia (Rhodes Engineering, Wave International, GR Engineering) of \$264k related to the Borborema Project engineering cost estimate stage.

Exploration expenditure expensed for the period in Australia and Brazil totalled \$169k.

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 km² 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.



Figure 4. View to the south west over the Borborema pit showing the exposed ore zone and infrastructure.

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.

All material assumptions underpinning the production targets and forecast financial information continue to apply and have not changed materially.

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 and have not materially changed.

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.