

## OPERATIONAL UPDATE TO SHAREHOLDERS

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- **GR Engineering Services appointed to complete the Engineering Cost Estimate update following completion of the Option Study.**
  - **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) commence on site to allow geotechnical drilling for the water dam dyke**
  - **Infrastructure work progressed including improvements to water collection and studies into timing of road and transmission line re-location.**
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Big River Gold Ltd (ASX: BRV) (the **Company** or **Big River**) wishes to advise shareholders of progress in advancing the Borborema Gold Project (**BGP**).

### Project Progress

#### Appointment of GR Engineering Services – Engineering cost estimate update,

GR Engineering Services (**GRES**) based in Perth, WA, has been appointed to complete the revalidation of the Borborema DFS and generate an Engineering Cost Estimate update (ECE) for the 2Mtpa plant and equipment changes recommended in the recently completed Process Plant Option Study. This will include updating the specifications and vendor pricing for the Process and Non process infrastructure. GRES is expected to complete the work by August.

This revalidated technical information and updated cost estimate will be used as the basis for project financing discussions in the third quarter 2021 prior to commencement of Front End and Detailed engineering and planning for construction. Overall, the accuracy of the ECE will be  $\pm 20\text{-}25\%$  with key equipment at a higher level of accuracy.

The GRES scope includes:

- Update of process design criteria, mass and in-plant water balances.
- Update of the vendor equipment specifications including pricing updates to allow for future plant expansion duty for some major equipment to optimise the future expansion capital expenditure.
- Construction quantity re-estimates including update of construction rates.
- Development of the scope for the plant site geotechnical investigation to support the Front End Engineering Design (FEED).
- Engineering and cost updates for all non-process infrastructure.
- Development of the Project power supply to accommodate 2 Mtpa and possible future upgrades and expansion planning to optimise the future capital expenditure.

The work will be performed in Perth with assistance from GRES's wholly owned subsidiary Hanlon Engineering, an Arizona-based multi-discipline engineering and project delivery company, who can provide site-based engineering support from the USA if travel from Australia is impractical.

It is envisaged that the ECE update will precede the FEED scope of works for the Project and commencement of the detailed engineering, procurement and construction management phases of the project which will be issued as separate request(s) for tender.

## Infrastructure

### Powerline

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

An important development was the granting on 27 May of the *Declaration of Public Utility* for the 69kv Power Line from Currais Novos to site. This makes our 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 design, procurement and installation of the 35 Kilometre 69kV transmission line from Currais Novos switchyard to the Borborema plant site. Proposals have been received from 3 experienced contractors and the consultant is in the process of making a recommendation for the company to initially proceed with the design phase of the project which includes the survey of transmission line route. The design phase is expected to be completed in 4 months after award.

### Process water

The current DFS plant design of 2Mtpa is underpinned by the sewage water offtake contract supplying 70m<sup>3</sup>/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) on site-wide, water balance modelling.

In the meantime, access to the recently refurbished greywater collection system at the *Caça e Pesca* treated effluent pumping station in Currais Novos was obtained.



*Figures 2(a) and (b). View to the Caça e Pesca effluent pumping station and the greywater channel upgrade.*

Initial flow rates have been surveyed and overall, have produced lower than expected volumes, albeit at an early stage. These measurements are considered unreliable and plans to clear blockages and enhance

the channels and pipes into the pumping station collection points have been prepared. Action on this will commence on Monday 31 May and take at least two weeks to start seeing the impact.

### 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.



*FLORESTAL and INPLANTAR environmental teams at Borborema Project site*



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



### Mine schedule

Additional studies assessing the implications of a possible expansion to a 4Mtpa mining rate are also being undertaken. In particular where such an expansion might influence pit design and accelerate the need to move the road or regional power transmission lines.

The sequencing presented for Stage 1 of the mining project will be 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.

The 230kV regional transmission line located to the north of the current Stage 1 pit will need to be re-located to allow mine expansion to 4Mtpa and the timing is to be clarified. The company has contracted the in-country consultant GRID Energia to commence the necessary application with the power authorities to move the transmission line by about 10 km to be clear of the mine and infrastructure.

*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<sup>1</sup> including a mineral reserve totalling 1.61Moz gold<sup>2</sup>, 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.



Figure 1. 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 (refer ASX Announcement of 23 December, 2019) and updated in July 2020 as detailed in the ASX Announcement of 9 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.

<sup>1</sup> Refer ASX announcement 24 July 2017

<sup>2</sup> Refer ASX announcements of 6 March 2018, 29 March 2018 and 11 April 2018

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 changed materially.

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.