ASX ANNOUNCEMENT

23 August 2022

ENGINEERING SCOPING STUDY COMPLETED - PRELIMINARY ECONOMIC ASSESSMENT NEARING COMPLETION

Key Highlights

- **IHC Mining was appointed by MRG to conduct an Engineering Scoping Study and Preliminary Economic Assessment (PEA) for the Corridor Sands Project, specifically the Koko Massava, Nhacutse and Poiombo deposits.**
- **The Engineering Scoping Study phase is complete and demonstrates an exceptionally favourable operating cost structure, due to the following project characteristics:**
  - **Pit Optimisation shows that all of the resource will be processed with Nil Strip;**
  - **Strongly homogeneous resource showing favourable heavy mineral sands (HMS) grain size and easy clay fines removal characteristics which will reduce cost;**
  - **Simple HMS processing with low level of impurities in the sand throughput;**
  - **Proximity to port, road and infrastructure;**
  - **Access to human resources; and**
  - **Use of slurry pumping.**
- **MRG plans to mine and process ROM material by establishing Mining Unit Plants (MUP) and a Wet Concentrator Plant (WCP) initially capable of processing 20.1mtpa.**
- **Scoping Study Scenario and key outputs:**
  - **Mining Inventory of 513 Million Tonnes;**
  - **20.1 Million Tonnes material processed per year:**
    - **First 3 years will process sand approaching 6.5% THM grade;**
    - **By Year 15, still processing sand >5% THM grade.**
  - **All-in operating cost through to product discharge at Wharf of USD $3.05/Tonne;**
  - **Capex: USD $239 Million (with 15% contingency);**
  - **Annual Product output (Based on the Metallurgy work study; awaiting final product specifications):**
    - **Resulting products:**
      - **Ilmenite (47-50% TiO_2) finished product;**
      - **Titanomagnetite concentrate; and**
      - **Non-Magnetic concentrate.**
    - **Average annual production (over 25 years)**
      - **383 kt Ilmenite finished product;**
      - **273 kt Titanomagnetite concentrate; and**
      - **50 kt Non-Magnetic concentrate.**

- **Market value (USD$) of products to be confirmed with the PEA**
- **Scoping Study has resulted in development of the following processes (Figure 2):**
    - **Dry Mining Slurrification Units (MUP) (DMSU);**
    - **Feed Preparation Process (FPP);**
    - **Wet Concentration Plant (WCP);**
    - **Concentrate Upgrade Plant (CUP) for:**
        - **Ilmenite Concentrate Process;**
        - **Titano-Magnetite Process and Non-Magnetic Concentrate Upgrade Process.**
    - **Mineral Separation Process (MSP) for:**
        - **Ilmenite Upgrade Process; and**
        - **Zircon/Rutile Upgrade Process.**
    - **Upgrade Low Temperature Roast (ULTR) for:**
        - **Further Ilmenite Upgrade.**
- **Mining and Metallurgical test work by IHC Mining via a 6.5t bulk sample is nearing completion and will allow final product specifications to be determined.**
- **The Preliminary Economic Assessment (PEA) Financial model will be completed immediately after product pricing estimation has been undertaken from those final product specifications.**

MRG Metals Limited ("**MRG**" or "**the Company**") (**ASX Code: MRQ**) is pleased to announce the completion of an Engineering Scoping Study and near completion of the Preliminary Economic Assessment (**PEA**) by IHC Mining for the Corridor Central (6620L) and Corridor South (6621L) Projects (**Figure 1**), specifically the Koko Massava, Nhacutse and Poiombo deposits. The PEA is nearing completion, currently awaiting final assay results from the bulk sample test work completed in August to be included.

The Bulk Sample is currently being tested by IHC Mining at its Metallurgical Test Facility, Yatala, Queensland (**Figure 3**) and samples have been sent to Perth for analysis.

Potential Off-takers are awaiting product samples as soon as they become available.

MRG Metals Chairman, Mr Andrew Van Der Zwan said: *"This review and evaluation of the operating costs and anticipated product output gives the Board great confidence of an exceptional development opportunity at the Corridor Projects. Initial results in from the Scoping Study are very promising, demonstrating a very robust project. We look forward to finalising the Preliminary Economic Assessment and updating shareholders with our findings as they become available."*

Scoping Study Summary

MRG is looking to develop a mining and processing operation in Mozambique. The Corridor Sands Project is 100% owned by MRG through its ownership of subsidiary, Sofala Mining & Exploration Limitada, in Mozambique. The project contains the highly prospective Koko Massava, Nhacutse and Poiombo deposits, which the Company has delineated Minerals Resource Estimates (MREs) on all three prospects (**refer ASX Announcements 22 April 2020; 16 December 2021; 2 February 2022 and 8 April 2022**). The Company engaged IHC Mining to prepare the Scoping Study and Preliminary Economic Assessment Report for the Project.

The envisioned strategy for the initial operation, outlined in the Scoping Study, has been developed with the aim of enabling MRG to identify a clear path towards project execution. MRG plans to mine and process ROM material by establishing Mining Unit Plants (MUP) and a Wet Concentrator Plant (WCP) initially capable of processing 20.1mtpa (**Figure 2**).

The WCP (which also contains the CUP) will produce two streams, namely a Heavy Mineral Concentrate (HMC) that will be transported to a proposed Mineral Separation Plant (MSP) and a Titano-Magnetite final product that will be also transported to the MSP site, for offsite storage prior to loading onto sea freight bulk carriers. The MSP will be sized to handle 536Ktpa. Within the bounds of this Scoping Study, products will be stored on the MSP site for onward transport by others by road and sea on an FOB basis.

The review and selection of an appropriate mining methodology in the Scoping Study was based upon a conventional open pit, unconsolidated free-dig, free flowing dry sand mining operation. Wet Mining operations were ruled out due to the mining pits relationship to the water table. At this stage of project development, conventional truck and shovel and dozer trap were considered.

Apart from the superior economics, the broad acre deposit, little to no overburden combined with a pit depth of nominally up to 50 metres, is very well suited to dozer trap mining. This mining methodology is well understood and is currently being employed by a variety of Tier 1 mineral sands producers.

Mining would be conducted by large bulldozers (D11 or equivalent) pushing ore to in pit screening and slurrying units known as mining unit plant (MUP). The MUP is designed to be relocatable and is placed adjacent to the lower ore level of the mine face. Process water from the onsite dam storage is piped to the MUP and used to slurry and transport the screened ore back to the processing plant. Oversize material is rejected and disposed of in the mine void.

Processing of ore will be conducted in two distinct stages. The FPP receives ore as slurry from the mine and after removal of clay, silt and oversize, the sand fraction will be processed by the WCP comprising spiral gravity separators to yield a HMC and low intensity magnets (LIMs) to then yield a titano-magnetite product. The HMC and titano-magnetite product will be trucked to the MSP, the

titano-magnetite will not undergo further processing and be stored as final concentrate ready for shipping.

At the MSP, the HMC feed stock will undergo various stages of magnetic, electrostatic separation and roasting to isolate and upgrade the ilmenite product. Non-mag containing zircon, rutile and lighter minerals will be removed in wet gravity separation processes and a non-mag concentrate produced.

The products will be conveyed to storage shed facilities on the MSP site and then reloaded on a ship loading conveyor as bulk sea freight. Coarse and fine tails will be trucked back to the WCP site and dumped into a tails reclaim hopper, mixed with WCP tailings and pumped back to the mine void.

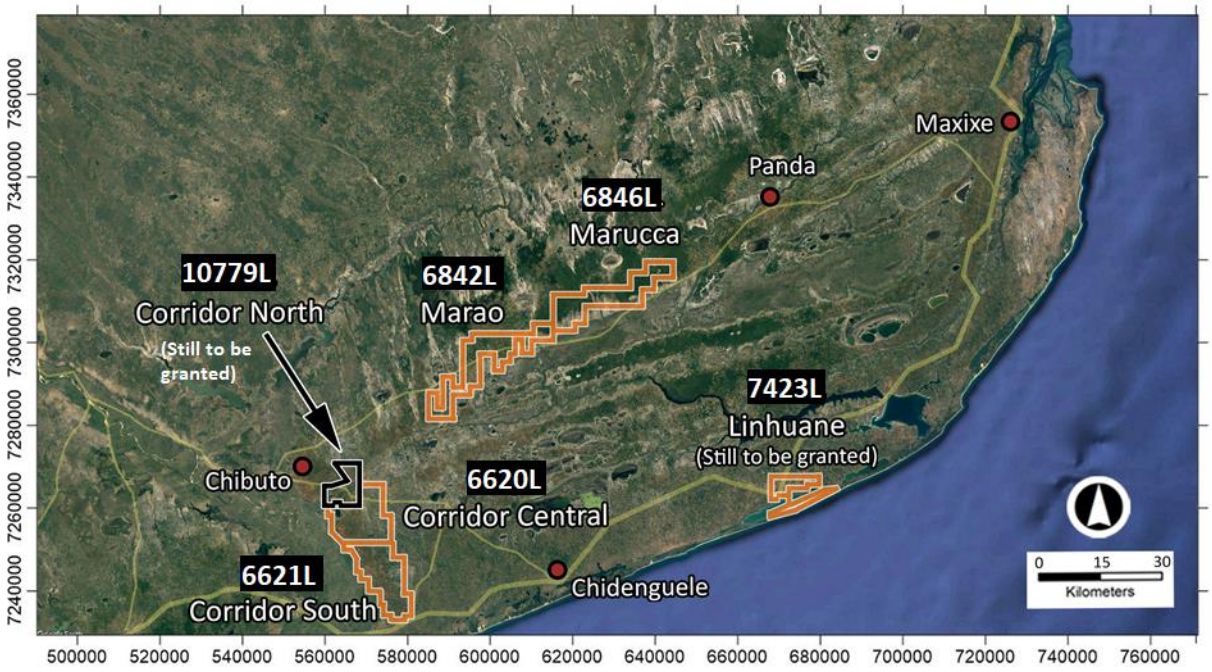


Figure 1: *Map of the location of the Corridor Sands Project in Licences Corridor Central (6620L) and Corridor South (6621L) as well as other MRG Licences.*

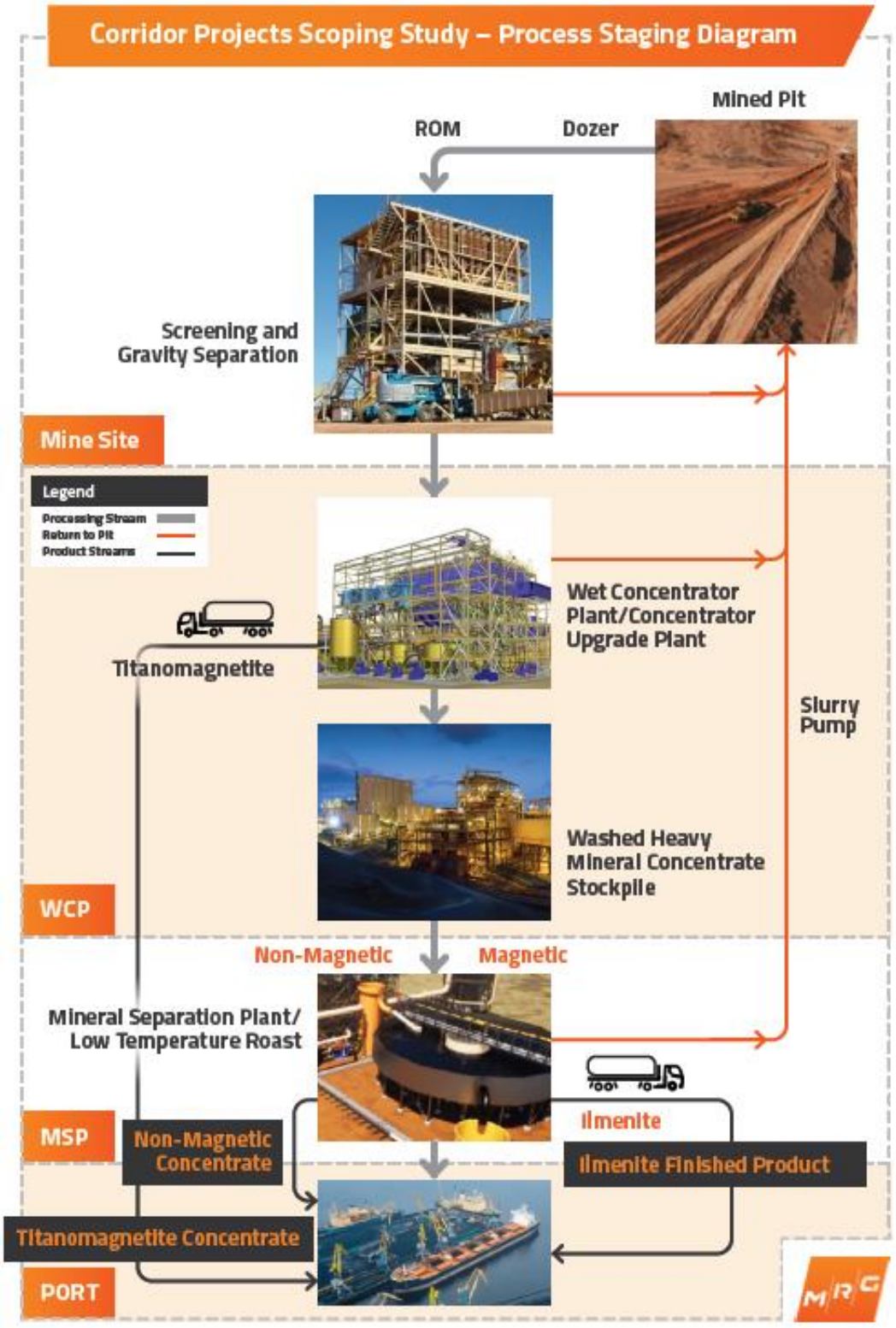


Figure 2: *Scoping Study Process Staging Flowsheet – Corridor Sands Project (Koko Massava, Nhacutse and Poiombo Deposits).*



Figure 3: *Bulk sample from Koko Massava deposit of 6.5 t pre-desliming and post desliming, work currently taking place by IHC Mining at their Metallurgical Test Facility, Yatala, Queensland.*

Competent Persons' Statement

The information in this report, as it relates to Mozambique Exploration Results is based on information compiled and/or reviewed by Mr JN Badenhorst, who is a member of the South African Council for Natural Scientific Professions (SACNASP) and the Geological Society of South Africa (GSSA). Mr Badenhorst is a consultant of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Badenhorst consents to the inclusion in this report of the matters based on the information in the form and context in which they appear.

This release is authorized by the Board of MRG Metals Ltd.

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