

# GRAPHMADA GRAPHITE MINE OPERATIONAL UPDATE

### **HIGHLIGHTS**

• Bass Metals Ltd continues to progress its strategy to optimise the Graphmada graphite mine, targeting materially higher revenues from superior concentrates in 2017.



Figure 1 - The Graphmada large to jumbo flake graphite mine.

- Mine health and safety improvements confirm compliance with the Madagascan National Mine Safety Framework.
- Optimisation program sees major equipment items ordered and Rotary Dryer demolished.
- New state of the art Dryer specifically constructed for superior large to jumbo flake graphite concentrates complete and ready for shipment.
- Bass continues small-scale production through product screening and sales.



Bass Metals Limited (ASX: "BSM") (the "Company") is pleased to inform shareholders of its progress of its optimisation of its flagship Graphmada large to jumbo flake graphite mine.

### MINE HEALTH AND SAFETY

Mine health and safety improvements confirmed by recent ministry visits have elevated Graphmada to a high level of compliance with the Madagascan National Mine Safety Framework. The Company is planning further work to reach best practice international standards.

A key element to achieving this milestone was the development of an internal health and safety program aligning to the national mine safety standards. As optimisation and refurbishment activities advance to completion, the team's solid focus remains on ensuring all activities are performed safely and efficiently.

#### PROCESS PLANT REFURBISHMENT

Recently completed metallurgical test work has been used to establish an optimal processing flow sheet to accommodate both Loharano and Mahefedok ore types. This testing has provided the Company with the opportunity to review contemporary liberation and purification technologies in conjunction with the latest and most sophisticated technologies.



Figure 2 - Visit by Bass Management to equipment suppliers.



The Company is now pleased to announce it has made the significant investment in purchasing major equipment items for the process plant refurbishment based on this test work and the reviews of available technology. While the selection process of both the technologies and the suppliers has taken longer than first planned, the outcomes have seen significant reductions in both planned capital expenditure and potentially lower operating costs. These positive outcomes have been obtained without compromising the Company's stated objective of targeting higher revenues from superior concentrates from a 6,000 tonnes per annum run-rate.

As a result of the selection process taking longer than expected and the opportunity to finish processing current stockpiles of high grade ore material, the de-commissioning of the major components of the processing plant is now to commence in May, where numerous components will be removed to make way to accommodate the new flow sheet components on order. The Graphmada team is on track in this transition stage with detailed survey work completed and comprehensive engineering drawings finalised. This has allowed the commencement of the required civil works in order to be ready for equipment installation on arrival. The schedule of which is now set for August.



Figure 3 – Newly fabricated floatation cells.



On completion of the civils work and appropriate concrete settling and curing processes, the new floatation cells will be installed to combine with the existing circuit. The newly developed floatation modules were designed to seamlessly connect to the existing circuit, which will be renovated and modernised to adapt to the expected superiorly liberated ore feed. These additional floatation circuits needed for improved recovery and higher throughputs are being engineered on site and are close to completion.



Figure 4 – Site layout showing processing extension area.

In addition to recent optimisation activities, the mine's two very reliable 800KVA CAT generators have now been relocated to a newly built generator platform and are fully operational, running the existing plant and mine infrastructure.

In shutdown mode, the site will revert to its existing 50KVA generator to save on operating costs.





Figure 5 – Newly relocated Caterpillar generators.

### DECOMMISSIONED ROTARY DRY AND NEW DRYER CONSTRUCTION

Bass recently decommissioned its rotary dryer, with demolition now complete. The new dryer is currently being packaged for shipment to site from South Africa. The Company continues small scale production through product screening and sales to remain in a moderate cash generating state prior to the shutdown of production to allow for a successful optimisation and plant refurbishment.



Figure 6 – Bass employees discussing the safe lift of the decommissioned rotary dryer.

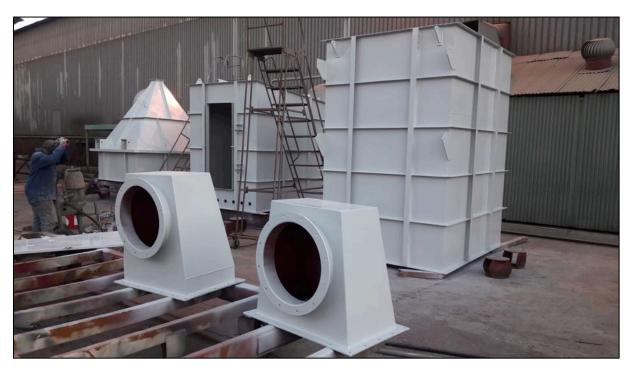


Figure 7 – New dryer components painted and ready for shipment to Graphmada.



### TAILINGS STORAGE FACILITY

The Company is pleased to report it has also completed the final elements for the solution to long-term tailings storage management at Graphmada. The water quality discharged from the cleaner dams has been tested and found to be at a higher quality from the water drawn from the Loharano River for processing. Further evidence of the water quality is seen in the increase growth of plants in and on the surrounding edges of the dam. The team is extremely proud of this achievement, which demonstrates another milestone in achieving long-term stable operations and cash flow.



Figure 8 – Cleaner dams, part of the long-term tailings storage management at Graphmada.

### MAHEFEDOK DEPOSIT

As previously announced the Mahefedok drilling program is complete. Results are pending final analysis at by a SANAS<sup>1</sup> accredited laboratory Bureau Veritas South Africa (BVSA) for Graphitic Carbon (GC), Total Carbon (TC) and Sulphur (S) grades, the results of which will be received in May. Resource estimation works, however, have begun and are being updated as results come to hand. The Mahefedok Deposit is adjacent to existing processing and packaging infrastructure.

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<sup>&</sup>lt;sup>1</sup> South African National Accreditation System (SANAS)

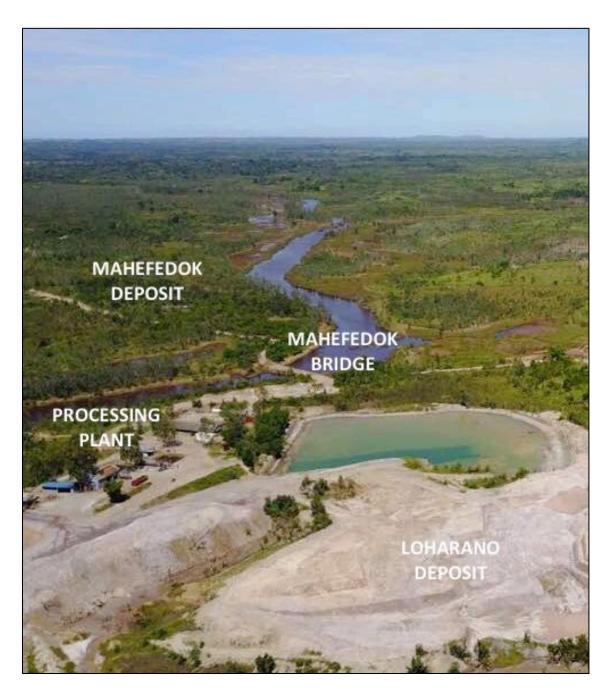


Figure 9 – Graphmada Graphite Mine showing location of Tailings Storage Facility.

### BASS METALS CEO, MR TIM MCMANUS:

"We continue to make sound technical and commercial decisions to provide the best outcome for our shareholders and stakeholders. While this has meant in the short term reduced production volumes to accommodate the variety of improvements being implemented for the long-term and the slightly delayed delivery of the optimisation of



Graphmada, we are comfortable that we are implementing the right improvements and technologies at the right scales to maximize cash flow and reduce operational risk. This pragmatic approach places Bass Metals on a path of achievable and stable growth not subject to an oversupplied fine flake graphite market."

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## ABOUT THE GRAPHMADA JUMBO FLAKE GRAPHITE MINE

Bass Metals Ltd. is one of only three publicly listed graphite producers in the world. The company owns and operates the Graphmada large flake graphite mine, Bass' flagship project, located in eastern Madagascar. Madagascar has been a recognized producer and exporter of graphite since 1907 and sets the world standard for product quality and flake size.

The Graphmada mine has 40-year mining permits in place, containing four premium quality, large flake, graphite



deposits hosted in weathered graphitic gneiss, a soft, easily minable rock that incurs low mining costs. With all associated mining infrastructure and logistics in place, the mine currently produces and sells a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

Generating revenue through ongoing lowest quartile cost production, the mine is currently being optimised by an experienced management team to 6000 tonnes per annum with improved final graphite concentrate grades, in order to grow cash margins.

Graphmada also has significant potential for low capital intensity expansion. Bass plans to invest capital to expand production to greater than 20,000 tonnes per annum of graphite concentrate sales by late 2018.

The Company has also made the strategic decision, in parallel with the optimisation at Graphmada, to actively explore and develop deposits in the immediate proximity to the mine, with a view to materially expanding existing resource inventories.

The Loharano deposit has provided the bulk of the feed to the Graphmada processing plant and has total JORC compliant Indicated and Inferred resources of 5.7Mt @ 4.1% Grade with a 2% cut-off<sup>2</sup>. This mineralization is known to go to depth with increasing grade, and is open in all directions.

With the Company having a strong community engagement program and being well down the path in achieving its optimisation plans and growing its resource inventory, the team at Bass is confident of its plans for expansion and its future value creation for shareholders.

<sup>&</sup>lt;sup>2</sup> These estimates were prepared and first disclosed by Stratmin Global Resource PLC under the JORC Code 2004. The estimates have not been updated to JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Reference is made to the Company's announcement of 2 September 2015, which provides further detail regarding this information.



## DISCLAIMER & CAUTIONARY STATEMENTS

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### COMPETENT PERSON STATEMENT

The information in this document that relates to Exploration Results is based on information compiled by Tim McManus, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy and a full-time employee of the Company.

Tim McManus has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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.

Tim McManus consents to the inclusion of the information in this document in the form and context in which it appears.

