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ASX Announcement 29 January 2021

## QUARTERLY ACTIVITIES REPORT

### December 2020

#### OVERVIEW

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Bass Metals Ltd (**'Bass'** or the **'Company'**) is pleased to provide its quarterly activities report. Bass 100% owns the Graphmada Graphite Mining Complex (Graphmada) located in Eastern Madagascar, a prolific and historic jurisdiction for graphite production. Following a successful construction and commissioning period, Bass is now in the process of planning for an expansion of production capacity at Graphmada capitalizing on the significant achievements of Stage 1 production.

Bass has in place all elements to significantly progress operations at Graphmada against the broader context of an emerging consensus regarding long term demand fundamentals of graphite concentrate end markets. Bass has an established platform at Graphmada with all leases in place, infrastructure established, significant intellectual capital regarding the successful processing of ore to customer specification and an unblemished sales history where Bass produced across all concentrate classes, to specification, without penalty or rejection.

#### HIGHLIGHTS

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- Bass continued exploration with the aim to materially expand Graphmada's Mineral Resource, completing a second phase of exploration drilling. The program delivered excellent intersections of up to 8.5 metres at 4.0% Fixed Carbon (FC), which included 2.5 metres at 8.9% FC.
- During the quarter the Company commenced a review of its lithium project; Millie's Reward. The desk stop study aims to review previous exploration data in order to determine a detailed plan for the possible recommencement of exploration and development activities at the project. Bass has previously reported a trench intersection of 31m @ 3.72% Li<sub>2</sub>O inclusive of 1m at 6.61% Li<sub>2</sub>O.

- Bass concluded a series of advanced tests with prospective alliance partner Urbix Resources (Urbix), a battery focused technology business based in the USA. The tests delivered outstanding purification results exceeding 99.9% for the >180-micron flake class and 99.7% for the >300-micron flake class<sup>1</sup>.
- Bass received outstanding test results from a proposed alternative product screening process to Stage 1. Utilizing hard data from Stage 1 production Bass continues to refine Stage 2 expansion studies.
- The Government of Madagascar is planning a major hydro-electrification project along National Road 2 which will pass immediately adjacent to the Graphmada site. Bass plans to access this clean and renewable energy source to realize an estimated reduction in operating cost of up to 30% for Stage 2.
- Bass received approval from its existing convertible noteholders to materially amend the Terms of Issue of its existing debt of circa A\$7m including an extension of the maturity date from June 2021 to June 2023, and in doing so removed the obligation to repay this debt in June 2021.

## GRAPHITE EXPLORATION

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### Strategy

At Graphmada, Bass has a Mineral Resource that is commercially proven to produce premium large flake concentrates to specification, having sold its entire Stage 1 production into all key markets without penalty or rejection.

Bass product has qualified for sale into and subsequently sold into all key markets including Nth America, Europe, India, China and Japan delivering Bass an established presence and customer base for its concentrates.

Bass has been fielding a consistent level of enquiry as to when its concentrates will be available again.

Accordingly, the Company is seeking to grow its Mineral Resource in support of its plans for a Stage 2 expansion of production. An increased production profile at Graphmada capitalizing on the achievements of Stage 1 inclusive of existing sales channels will deliver significant long term value to shareholders.

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<sup>1</sup> ASTM-C561 Standard was used to calculate Moisture, Volatiles, Ash, LOI Carbon and Fixed Carbon content.



Figure 1: Stage 1 mining of extensive graphite mineralization at surface.

In 2019 the Company, with an extensive data set of historical exploration, announced a brownfields Exploration Target estimate of 86-146 Million tonnes between 4-6% Total Graphitic Carbon (TGC), in accordance with the JORC Code (2012)<sup>2</sup>.

This Exploration Target is in addition to an already substantial regolith hosted large flake graphite Mineral Resource<sup>3</sup> of 14.3 Mt @ at 4% TGC, estimated in accordance with the JORC Code (2012).

#### Mineral Resources for Graphmada Mining Complex<sup>4 5</sup>

<b>Total</b>	<b>Tonnes</b>	<b>TGC</b>	<b>Contained Graphite</b>
Measured	0.4 Mt	4.1%	16 Kt
Indicated	4.0 Mt	4.3%	172 Kt
Inferred	9.9 Mt	3.9%	386 Kt
<b>Total</b>	<b>14.3 Mt</b>	<b>4.0%</b>	<b>574 Kt</b>

<sup>2</sup> ASX Announcement "Significant Exploration Program to commence at Graphmada" released 3 June 2019.

<sup>3</sup> ASX Announcement "Bass increases Mahefedok North graphite resource by 54%" released 25 November 2019 and ASX Announcement "Bass delivers outstanding increase in Mineral Resources" released 4 December 2019.

<sup>4</sup> Reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2012') See ASX Announcement 'Bass delivers outstanding increase in Mineral Resources' released on the 4/12/19.

<sup>5</sup> The Loharano Mineral Resource that forms part of the Company's Mineral Resources herein was reported in accordance with the 2004 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2004') at a >2% cut-off and first disclosed by Stratmin Global Resource PLC under the JORC Code 2004. Bass Metals notes that 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 should be made to the Company's announcement of 2/09/15, for further detail.

### *Important Notes:*

*An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade, relates to mineralization for which there has been insufficient exploration to estimate a Mineral Resource. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.*

*The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.*

## Results

During the quarter, the Company reported the results of its second phase of drilling, consisting of an additional 203 shallow auger holes drilled to an average depth of 9m from surface. These results are highly encouraging when noting that the majority of the current resource at Graphmada sits below 10m depth . These results continued to demonstrate the regolith hosted graphite mineralization footprint at Graphmada is extensive, both laterally and in width.

Key intercepts from the second phase of drilling include:

- 8.5m @ 4.0% FC (incl. 2.5m @ 8.9% FC)
- 8.5m @ 4.4% FC (incl. 5.0m @ 5.5% FC)
- 8.5m @ 4.5% FC
- 7.8m @ 4.4% FC
- 5.0m @ 4.9% FC
- 4.0m @ 4.3% FC
- 4.5m @ 4.1% FC
- 4.5m @ 4.9% FC
- 4.5m @ 4.7% FC
- 3.5m @ 7.8% FC
- 3.5m @ 5.2% FC
- 3.0m @ 5.1% FC
- 3.5m @ 5.3% FC
- 3.3m @ 4.7% FC
- 3.0m @ 4.8% FC
- 2.2m @ 4.8% FC
- 2.0m @ 4.9% FC
- 1.0m @ 5.2% FC
- 6.0m @ 3.8% FC
- 6.5m @ 3.6% FC

The results confirm the graphite mineralization system is extensive, both laterally and in width. Having only drilled to approximately 10 metres in depth, there remains significant upside in the potential addition of further mineralization below 10 metres. To date the majority of ore mined at Graphmada has occurred from surface to approximately 50 metres in depth, hence these results are highly encouraging.





Figure 2: Chief Geologist and drill team.

### Next Steps

Bass aims to continue its exploration of the broader mineralization trend and look to complete the remaining third phase of shallow drilling to delineate the full length and width of the overall mineralization footprint at Graphmada.

Additionally, the Company is planning to provide an updated Mineral Resource for Graphmada, reported in accordance with the JORC Code (2012) in the coming months.

### MINE DEVELOPMENT

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With the benefit of actual production data from achieving its core objectives, Bass is well placed to deliver feasibility studies based on hard data and experience as opposed to studies based at bench-scale or pilot production level.

Bass has achieved several core objectives to date, in pursuing its large scale mining and processing ambitions, including;

- Continuous growth in Mineral Resources and exploration potential.
- The construction and project development experience of Stage 1.
- Establishment of production and logistics to market, with material metallurgical and processing intellectual capital gained from the Stage 1 production of high value, large flake graphite concentrates.
- Establishment of sales channels into all key markets, over 18 months of Stage 1 production, without penalty or rejection.

Building upon these achievements, during the quarter the Company announced further key developments with the broader parameters of the project including.

### Renewable Energy Project

The Power Transmission Network Reinforcement and Interconnection Project in Madagascar (PRIRTEM) is aimed at interconnecting the country's three major power grids (Antananarivo, Toamasina, Fianarantsoa). The Project will utilize clean, hydro-electric power to electrify localities and rural areas along National Road 2, which the Company's Graphmada Graphite Mining Complex sits immediately adjacent.

Power was the largest C1 production cost in Stage 1, contributing 47% of operating costs in 2019, equating to \$0.30/kWh. Access to grid power from 2024 could halve power costs to approximately \$0.15/kWh, effectively reducing C1 operating costs by 30%.

This is a paradigm shifting development for Bass and its stakeholders. The introduction of clean energy via hydro-electrification has the potential to significantly reduce operating costs for Stage 2, and therefore this has a material impact on the economics of the Project and is expected to result in Stage 2 operating costs being in the lowest quartile of graphite production globally.

The Company will incorporate this latest development into its expansion studies, with the opportunity to utilize grid power allowing the Company to consider Dredging or Hydraulic Mining to potentially realize further cost savings for the Project.

## Screening and Packaging

A key component of the Company's feasibility studies is the ability to screen and split Graphmada's high value concentrates into saleable volumes, maximizing the value of product sold and shipped, as well as providing specifically sized feedstocks for downstream processing technologies that will be incorporated within the expansion of operations.

Recent testing in Germany, by RHEWUM GmbH, at their world-renowned technical center, confirmed that Graphmada's commercially proven graphite concentrates can be screened and packaged at substantially higher throughput volumes than previously achieved, while realizing significant efficiencies and cost savings.

Results demonstrated all products, from fine flake to large flake concentrates were produced within specification at high throughput with no material flake size degradation.



Figure 3: An example of the type of screening unit proposed.

This is an important development for Bass as the results confirm graphite concentrates produced from large scale mining and processing can be screened and packaged at rates up to 20,000 tonnes per annum utilizing a single RHEWUM screening unit. As part of its studies Bass is planning for the installation of two units at a new downstream processing and packaging facility to be based at the Port of Tamatave.

## LITHIUM EXPLORATION

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During the quarter the Company commenced a review of its lithium project; Millie's Reward. The desk stop study aims to review previous exploration data in order to determine a detailed plan for the possible recommencement of exploration and development activities at the Project.

### Background

Bass retains 100% ownership of the Millie's Reward Project, a virgin discovery of potentially high-grade pegmatite-hosted lithium project located in central Madagascar. The project consists of over 200 multiple pegmatite surface occurrences along a strike length of 10 km which to date have returned rock-chip grades up to 7.08% Li<sub>2</sub>O.

In 2018, the Company completed its Phase 1 exploration works, including prospecting, geological mapping, rock-chip sampling, geochemical soil sampling, pitting and trenching programs, with a small drill program also completed at Millie's West, one of 8 high priority prospects within the Project area.

Highlights from initial field observations include:

- At Ampatsikahitra the pegmatite occurs at surface over approx. 500 m, with Li<sub>2</sub>O grades up to 7.1%.
- At Ilapa the pegmatite occurs at surface over approx. 700 m, with Li<sub>2</sub>O grades up to 1.8%.
- At Manjaka the pegmatite occurs at surface over approx. 300 m, with Li<sub>2</sub>O grades up to 6.9%.
- At Vietnam the pegmatite occurs at surface over approx. 100 m, with Li<sub>2</sub>O grades up to 6.9%.
- At Tsarafara the pegmatite occurs at surface over approx. 500 m, with Li<sub>2</sub>O grades up to 4.1%.





Figure 4: Tsarafara Prospect – one of 8 outcropping pegmatite targets within the Project area. The lithium-bearing spodumene mineralization at Millie’s Reward can constitute a few points in percentage in volume, up to 30% to 50% in volume of the rock, with most pegmatite dikes and sills in the area >10 meters in thickness and several hundred meters in length.

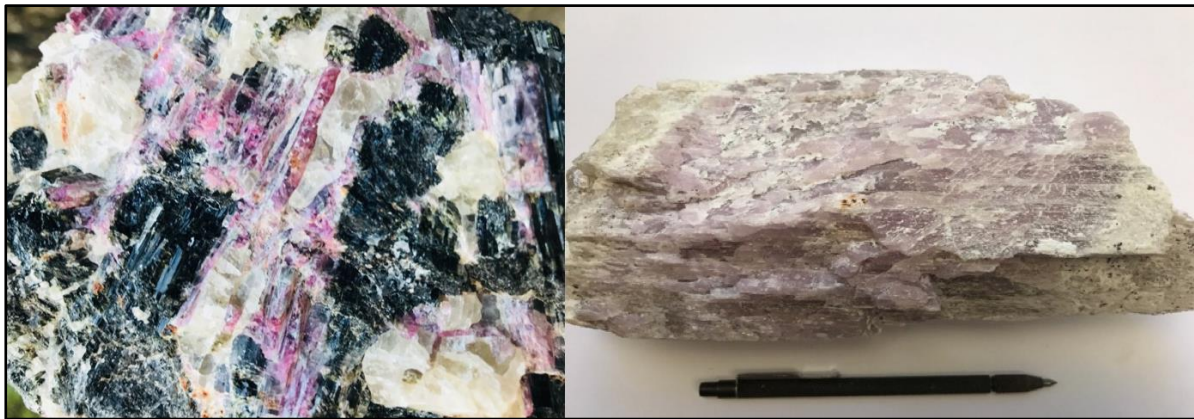


Figure 5: High-grade (near-pure) spodumene recovered from within the Project area. It is considered important to note that the lithium-bearing pegmatites sampled in the project area represent only what was observed largely at surface. It is considered highly likely that other pegmatites may occur beneath the regolith cover.

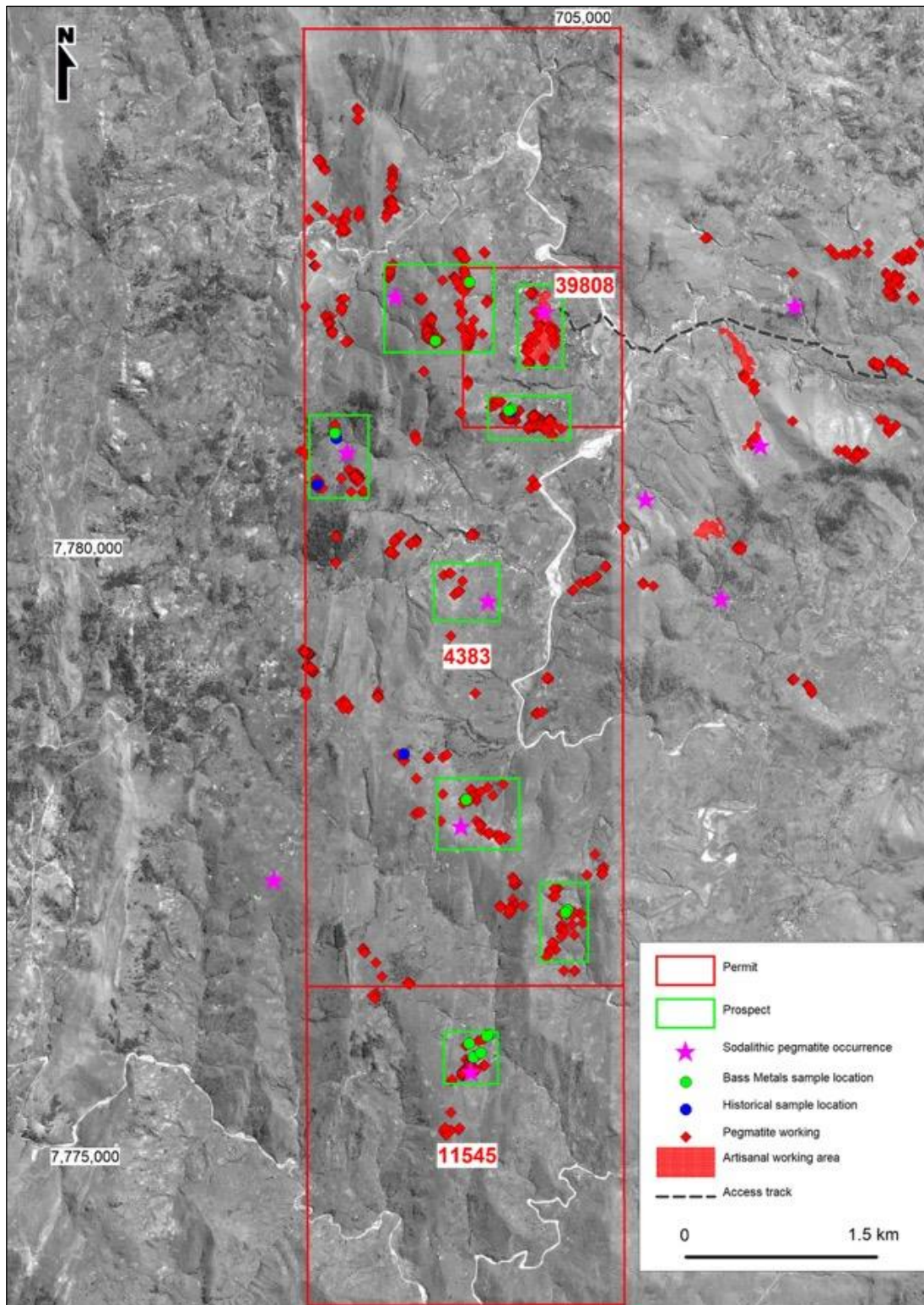


Figure 6: 8 high priority prospects within the Project area.



In addition, the Project retains excellent community support and has well-established mining infrastructure directly adjacent, inclusive of grid power.



Figure 7: Neighbouring Limestone mine within 4km of the Project area.



Figure 8: >40m thick Li-bearing outcrop within the project area.

With the Stage 1 construction and subsequent production ramp up at the Company's graphite operations commencing in 2018, exploration activities at Millie's Reward were placed on hold, until such time as the Company could revise its exploration priorities.

Subsequent to quarters end, the Company's review of Millie's Reward continues, in order to determine a detailed plan for the possible recommencement of exploration and development activities at the Project.

## ADVANCED MATERIALS DEVELOPMENT

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Bass is positioning itself to be a participant in the emerging advanced materials and critical mineral technology sectors, having proven it can produce and sell premium concentrates to specification from its operations in Madagascar.

With a well-developed customer base for its premium concentrates, the Company can confirm its concentrates have already been used in the manufacture of specialty carbon products including expandable graphite, nano-graphite, and maturing graphene technologies.

As such, the Company is continuing discussions in its strategic collaboration with advanced technology partners to install purification and other downstream value addition processes.

### Urbix Alliance

Bass recently concluded a series of advanced tests with prospective alliance partner Urbix Resources (Urbix), a leading US technology firm in the critical minerals and battery materials space that specializes in advanced energy storage cell designs and materials.

Bass' commercially proven, large flake graphite concentrates, sourced from the Company's wholly owned Graphmada Mining Complex, delivered outstanding purification results exceeding 99.9% for the >180-micron flake class and 99.7% for the >300-micron flake class<sup>6</sup>.

By purifying large flake concentrates, the resultant product provides a premium feedstock for advanced materials manufacture. Purified material of >180 and

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<sup>6</sup> ASTM-C561 Standard was used to calculate Moisture, Volatiles, Ash, LOI Carbon and Fixed Carbon content.

>300 microns is predominantly used in the manufacture of expandable graphite, which has applications in next-generation fire retardants and can sell for up to US\$4,500 per tonne. These specialist feedstock materials are also key to a number of advanced technology applications, such as 2D material manufacturing that utilizes nano-graphite and graphene technologies.

Urbix's innovative proprietary method for the environmentally conscious purification of natural flake graphite is the only purification technology to receive US Department of Energy funding for the development of Nuclear Grade Feedstock for Next-Gen IV Reactors. The process utilizes 1/20th of the energy as the standard high temperature purification methods and does not use HF Acid.

### Swinburne Partnership

The combination of the unique qualities of a weathered Mineral Resources and clean large flake concentrates leaves Bass well placed to participate in the development of advanced graphite and graphene applications.

Swinburne and Bass continue to seek opportunities for collaborative research activities, including relevant funding opportunities. The Company expects to commence an extensive program of downstream product development in the coming months, focused on advanced materials and the manufacture of new age products.

## CORPORATE

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### Debt restructure

As announced on 24 December 2020, Bass received near unanimous support from existing convertible noteholders to amend the Terms of Issue of the convertible notes currently on issue. The core objective was to remove the necessity to repay this \$7m debt on its original maturity date of 15 June 2021.

In addition to extending the maturity date to 30 June 2023, Bass also reached agreement on other key terms including conversion ratio, interest rate and settlement of interest payments as outlined in the ASX announcement dated 22 December 2020.



The proposed amendments to the Terms of Issue are subject to the approval of shareholders at a meeting to be held in March 2021.

### Cost Reductions

With the ongoing effects of Covid19 including its resultant restrictions to international business, the Company continues to review its business, seeking to maximize the Company's progress at minimal cost.

### Governance

During the quarter the Company held its Annual General Meeting and released its 2020 Annual Report.

### Tasmanian Assets

The Company continues its care and maintenance activities for its Que River tenements (ML 10W/1980).

### ASX listing rule 5.3 disclosures

For the quarter ended 31 December 2020, the Company had net cash outflows of \$296k in exploration and evaluation activities which have been capitalized. No outflows were incurred in relation to development and production activities, as mining and processing are currently suspended and the Graphmada mining and processing infrastructure is in care and maintenance. The total amount paid to directors of the entity and their associates in the period (item 6.1 of the Appendix 5B) was \$98k for directors fees, with a further amount of \$26k accrued for the quarter.

### For more information, please contact:

Tim McManus  
Chief Executive Officer

Peter Wright  
Executive Director

Phone: (07) 3063 3233  
Email: [InvestorRelations@bassmetals.com.au](mailto:InvestorRelations@bassmetals.com.au)  
Website: [www.bassmetals.com.au](http://www.bassmetals.com.au)

This announcement has been approved by the Company's Disclosure Committee for release.

## Tenement & Permit Holding

The Company's interests in mining and exploration tenements and permits are as follows:

COUNTRY	REGION	TENEMENT / PERMITS	INTEREST
AUSTRALIA	Tasmania	CML 68M/1984 Que River Mine Lease	100%
MADAGASCAR	Antsinanana	PE 25600 Loharano (East)	100%
MADAGASCAR	Antsinanana	PE 26670 Mahefedok	100%
MADAGASCAR	Antsinanana	PE 24730 Andapa	100%
MADAGASCAR	Antsirabe	PRE 4383	100%
MADAGASCAR	Antsirabe	PE 11545	100%
MADAGASCAR	Antsirabe	PE 39808	Mineral Rights

Notes - Intec Limited holds a 2.5% NSR Royalty over all Product from Bass' interests in CML68M/1984.

## Disclaimer

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## Forward Looking Statements

This announcement contains certain 'forward-looking statements' within the meaning of the securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as 'may,' 'should,' 'expect,' 'anticipate,' 'estimate,' 'scheduled' or 'continue' or the negative version of them or comparable terminology.

Any forecasts or other forward-looking statements contained in this announcement are subject to known and unknown risks and uncertainties and may involve significant elements of subjective judgment and assumptions as to future events which may or may not be correct. There are usually differences between forecast and actual results because events and actual circumstances frequently do not occur as forecast and these differences may be material.

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This document may not be distributed or released in the United States.

## Competent Person Statement

The information in this document that relates to Exploration Results, Exploration Targets and Mineral Resources 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 mineralization 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.