

19 October 2011 ASX Announcement

# Flotation Testing Confirms Favourable Metallurgical Properties of Milo IOCG Rare Earth Prospect

Australian resources company **GBM Resources Limited** (ASX: **GBZ**) ("**GBM**" or "**the Company**") is pleased to advise that its recently completed Stage 1 - Flotation Test Program has confirmed excellent recovery potential of the copper equivalent metals contained within its Milo Prospect in north west Queensland.

### Up Date and Key Highlights are:

- Flotation test work has been completed on the copper equivalent metal samples which has demonstrated good recoveries across all key metals. This is a significant economic milestone for Milo.
- Flowsheet results are:
  - Copper recoveries of 75% -80% with a saleable copper concentrate grading 25%.
  - Molybdenum recoveries up to 80% and Uranium levels achieved over 90%.
  - Gold /silver recoveries in the order of 75%-80% to concentrate and dore.
- The Stage 1 Flotation Test Program was undertaken over 5 months and managed by Core Process Engineering in Brisbane. The flowsheet is based on a standard flotation concentrator plant to produce copper concentrate with gold, silver and molybdenum credits. Cobalt and magnetite recovery test work will be undertaken in the next phase of testing.
- Results of analyses for Rare Earth Elements (REE) in all previous samples acquired within Milo are expected to be available in November. The Company belives that the REE discovery at Milo has the potential to add significant value to the project.
- To build on the understanding of the significant prospectivity already identified at Milo, a a full geological assessment is now underway and the Company has rescheduled its next drill program later in the quarter to coincide with the completion of that work.

#### **Metallurgy – Flowsheet Development**

A flotation testwork campaign was managed by Core Processing Engineering between April and September 2011. The campaign aimed to establish flotation characteristics and produce a saleable copper, gold and molybdenite concentrate, a low grade gold concentrate for cyanidation and tailings for uranium leaching, by processing a series of samples provided by GBM Resources. The testwork showed good recoveries across these key metals.

Below is the metal recovery flowsheet used which is based on a standard flotation concentrator plant to produce a saleable copper concentrate with Au, Ag, Mo and U credits.

All tests to date have used a primary grind size of 80% passing 150 microns and the samples tested to date have proved to be moderately soft. This may have a favourable capital and operating cost impact in the future development of Milo.



Core Process Engineering has been commissioned to manage the initial test work on the Rare Earth Elements (REE) at Milo and will arrange further testwork to advance the flowsheet development for the poly-metallic minerals. This is seen as another key step in adding value to Milo in the path to commercialisation of the project.

GBM Resources Executive Chairman, Peter Thompson, said, "These very positive metallurgical results gives the prospect a huge boost showing that the poly-metallic materials can be recovered, providing us with growing confidence in the value of Milo to the Company's shareholders.

"As I previously stated, we are only early in the discovery phase at Milo with just over 7,500 metres drilled to date on the 2 kilometre mineralised system and we are confident that the initial exploration target has significant potential to be expanded," Mr Thompson said.

The Company has previously estimated an initial Exploration Target of between 30 million tonnes (Mt) and 80Mt of mineralised material averaging between 0.8% and 1.2% Cu equivalent <sup>1</sup> for the Milo breccia hosted, polymetallic IOCG mineralisation. This is currently under review in light of

the success of recent drilling programmes and the discovery of Rare Earth Element and Yttrium (REEY) mineralisation at Milo.

Continuing positive results from Milo will provide the basis for a Preliminary Feasibility Study (PFS) for a proposed Iron Oxide Copper Gold (IOCG) development. The PFS is currently planned to commence during2012.

#### For Further information please contact:

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## **About the Milo Prospect**

Brightlands Tenement and Target Location Plan showing some of the targets identified to date.

The 2011 drilling programme has confirmed consistent mineralisation over long intervals containing large zones of higher grades. Significant results included: BTD024: 107m @ 0.8% Cu equivalent, including 37m @ 1.1% Cu and BTD025: 86m @ 0.8% Cu equivalent, including 27m @ 1.2% Cu equivalent and 18m @ 1.3% Cu equivalent.

The drilling programme confirmed consistent mineralisation over broad intervals with significant results for Copper, Gold, Silver, Molybdenum, Cobalt and Uranium. Initial sectional interpretation indicates that the mineralisation is contained within a steep north easterly dipping envelope of intense alteration, deformation and breccia development associated with strong sulphide mineralisation, magnetite development and variable chlorite, albite and k-feldspar alteration.

The mineralisation envelope outlined above is in turn enclosed within a broader (approximately 350m wide) zone of fractured to brecciated, altered calizate host rock. Zones of Copper mineralisation occur within the steep north easterly dipping altered and brecciated envelope. These range from a broad continuous zone at a 0.1% Cu cuoff, to smaller zones (widths up to 30m down hole) at higher grade (>1% Cu equivalent).

A significant advance in the prospectivity of Milo has been the discovery of significant Rare Earth Element and Yttrium (REEY) mineralisation. A review of the assay results of the recent drilling programme discovered elevated Rare Earth metals in the reverse circulation pre-collars of drillholes MIL001 and MIL002. A review of the existing holes was subsequently undertaken resulting in the discovery of multiple zones of Lanthanum enrichment. Based on complete analyses available for holes MIL001, 2 and 7, the Lanthanum is closely related to the occurrence of a broad suite of Rare Earth Elements, strongly suggesting that further widespread zones of overall REEY enrichment are present at Milo.

Lanthanum appears to define a broad halo surrounding and overprinting the zone of polymetallic Copper mineralisation, however the relationship between these styles is still being investigated. All previous samples are being analysed for a full REE suite, and additional zones have been sampled and submitted for REE analyses. An average of 87% of the TREEYO (total Rare Earth and Yttrium Oxides) contained in Milo samples analysed to date is comprised of four Rare Earth Element and Yttrium(REEY) elements; CeO2 (39%), La2O3 (25%), Nd2O3 (13%) and Y2O3 (9%). Oxides of rare earth elements Ce, La, Y, Dy, Er, Eu, Gd, Ho, Lu, Nd, Pr, Sm, Tb, Tm and Yb are included in the estimate of average TREEYO.

Based on the abundances of various REEY in samples analysed to date, the value of this mix of metals would have a weighted average value of approximately US\$150/kg. For comparison, the current value of Cu is approximately \$9.00/kg.



Milo Drillhole Location Plan showing areas of anomalous Copper and Lanthanum (REE) from soil geochemsitry.





Milo Long Projections showing La and Cu Eq intersection summary

#### **Explanatory Notes**

\* Copper Equivalent calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result. However it is the company's opinion that elements considered here have a reasonable potential to be recovered. It should also be noted that current state and federal legislation may impact any potential future extraction of Uranium. Prices and conversion factors used are summarised below, rounding errors may occur.

Commodity	Price		Units	unit value	unit	Conversion factor
						(unit value/Cu % value)
copper		6836	US\$/t	6	8.36 US\$/%	1.0000
gold		1212	US\$/oz	3	8.97 US\$/ppm	0.5700
cobalt		40000	US\$/t		0.04 US\$/ppm	0.0006
silver		18	\$/oz		0.58 US\$/ppm	0.0085
uranium		40	US\$/lb		0.08 US\$/ppm	0.0012
molybdenum		38000	US\$/t		0.04 US\$/ppm	0.0006

<sup>1</sup> It should be noted that this is an exploration target only, potential quantity and grade is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. The tonnage estimate is based on a 475 metre strike length with an average combined width of 80 metres and depth of 500 metres being the volume broadly tested by drilling to date. A nominal bulk density of 3.0 t/m<sup>3</sup> was assumed. An accuracy of +/- 50% was assumed to provide a tonnage range reflecting the conceptual nature of this target estimate. Grade ranges represent the range of downhole intersections available over significant widths to date.

The information in this report that relates to Mineral Resources and Exploration Results is based on information compiled by Neil Norris, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Norris is a full-time employee of the company. Mr. Norris has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.