



# Market Release

## Newcrest Mining Limited

21 July 2011

## Significant Increase in Wafi-Golpu Resource

Newcrest is pleased to announce a significant increase in the Wafi-Golpu Mineral Resource following an extensive resource definition drilling program on the Golpu porphyry deposit, located in the Morobe Province of Papua New Guinea. The Wafi-Golpu Mineral Resource<sup>(1)</sup> has increased to over one billion tonnes of ore containing 26.6 million ounces of gold and 9 million tonnes of copper. The previous Wafi-Golpu Mineral Resource<sup>(1)</sup> estimate contained 16 million ounces of gold and 4.9 million tonnes of copper.

Wafi-Golpu comprises the Wafi epithermal gold deposit, the Nambonga porphyry copper-gold deposit and the Golpu porphyry copper-gold deposit. Resource estimates for Wafi and Nambonga remain unchanged from those reported for June 2010. The Golpu Mineral Resource has been updated following a drilling program designed to increase the Mineral Resource along strike and at depth.

The Mineral Resource for Golpu as at June 2011 is summarised in the following table:

### Golpu Mineral Resource as at June 2011<sup>(1)</sup>

Mineral Resource	Tonnes (Mt)	Cu grade (%)	Au Grade (g/t)	Contained Cu Metal (Mt)	Contained Au Metal (Moz)
Indicated	750	1.0	0.66	7.6	15.9
Inferred	120	1.1	0.89	1.3	3.4
<b>Total</b>	<b>870</b>	<b>1.0</b>	<b>0.69</b>	<b>9.0</b>	<b>19.3</b>

The June 2010 Golpu Mineral Resource estimate was reported as 500 million tonnes at 0.95 % Cu and 0.54 g/t Au containing 4.8 Mt Cu and 8.8 Moz Au. The updated June 2011 Mineral Resource represents a 74% increase in tonnes, 88% increase in contained copper and 121% increase in contained gold.

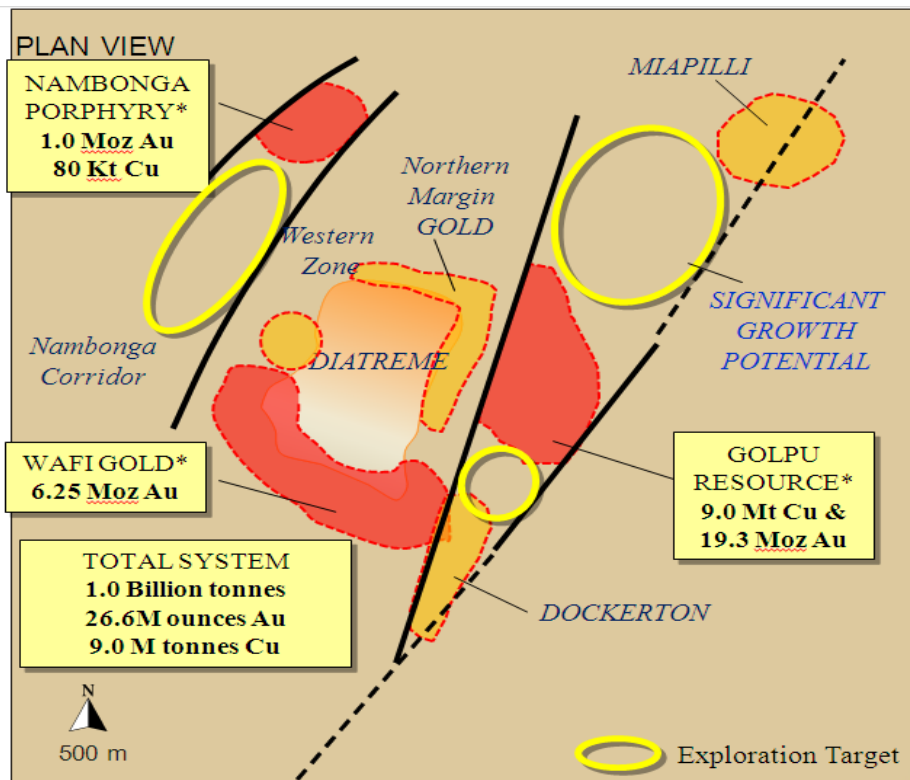
The total Mineral Resource for the Wafi-Golpu project as at 30th June, 2011 is:

### Wafi-Golpu Mineral Resource (including Nambonga) as at June 2011<sup>(1)</sup>

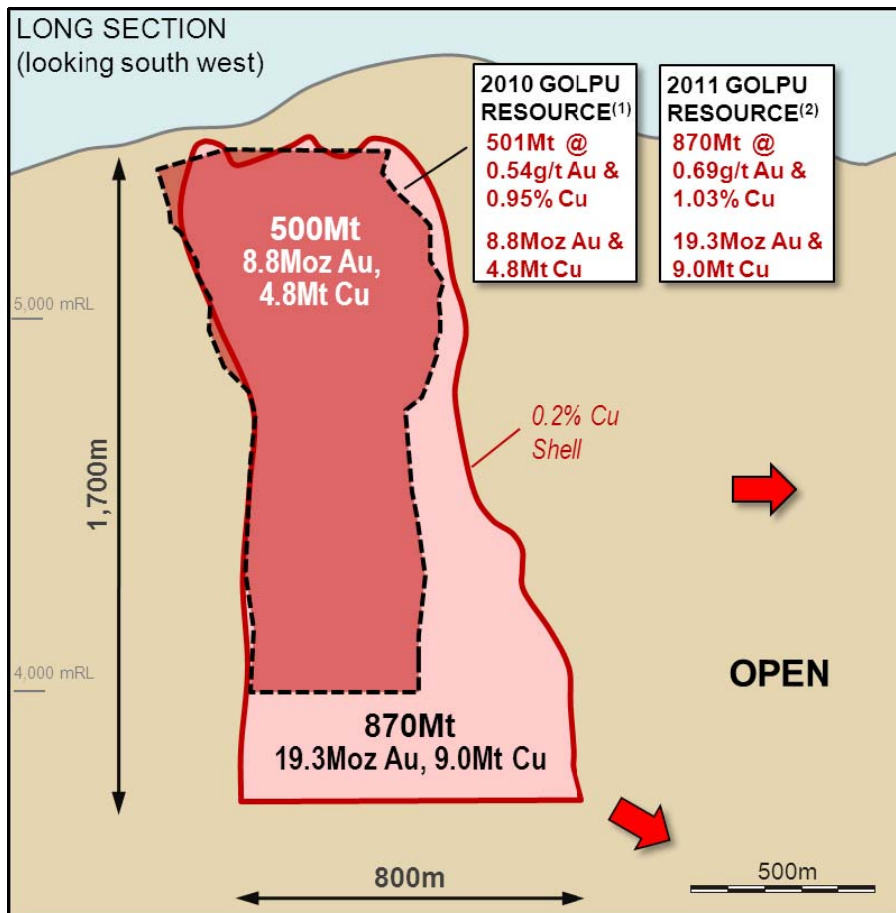
Mineral Resource	Tonnes (Mt)	Cu grade (%)	Au Grade (g/t)	Contained Cu Metal (Mt)	Contained Au Metal (Moz)
Golpu	870	1.0	0.69	9.0	19.3
Wafi	100	-	1.9	-	6.2
Nambonga	40	0.22	0.79	0.1	1.0
<b>Total</b>	<b>1010</b>	<b>-</b>	<b>0.82</b>	<b>9.0</b>	<b>26.6</b>

(1) Reported numbers have been rounded which may cause apparent computational discrepancies. The figures presented are in 100% terms; Newcrest holds a 50% interest. Refer Newcrest website at [www.newcrest.com.au](http://www.newcrest.com.au) for further information regarding resources and reserves.

### Wafi-Golpu Schematic Plan View



### Golpu Schematic Long Section (looking south west)



## Exploration Target

In October 2010, an Exploration Target for the Wafi-Golpu project area in excess of 30 million ounces of gold and 8 million tonnes of copper based on a tonnage range between 900 and 1400 million tonnes was reported. This targeted growth of epithermal deposits to between 100 and 200 million tonnes at a grade range between 1.5 and 2.0 grams per tonne plus porphyry deposits to a range of 800 and 1200 million tonnes at grades between 0.7 and 1.1% copper and 0.5 to 0.9g/t gold<sup>1</sup>.

The updated resource estimate for Wafi-Golpu demonstrates that this previously announced Exploration Target for Wafi-Golpu has been achieved and supports the revised Exploration Target for the Wafi-Golpu project area announced in March 2011 to in excess of 40 million ounces of gold and 15 million tonnes of copper based on a tonnage range between 1200 and 1700 million tonnes. This targets growth of epithermal deposits to between 100 and 200 million tonnes at a grade range between 1.5 and 2.0 grams per tonne plus porphyry deposits to a range of 1100 and 1500 million tonnes at grades between 0.8 and 1.5% copper and 0.6 to 1.0g/t gold<sup>1</sup>.

Deep drilling undertaken and reported in recent quarters continues to show strongly mineralised porphyry at depth and to the north, where the orebody remains open, with grades persisting well into metasediment wall-rocks.

## Competent Person Sign-Off

The information in this statement that relates to Mineral Resources is based on information compiled by Mr Stuart Hayward who is a member of the Australian Institute of Geoscientists and a full-time employee of the Morobe Mining Joint Ventures. Mr Hayward has sufficient experience which is relevant to this 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' (The JORC Code). Mr Hayward consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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<sup>1</sup> The potential quantity and grade of this Exploration Target is conceptual in nature and is expressed in 100% equity terms. At this point 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

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## **Competent Person Statement for Updated Wafi-Golpu Mineral Resource**

Wafi-Golpu comprises the Wafi epithermal deposit, the Nambonga porphyry deposit and the Golpu porphyry deposit. Resource estimates for Wafi and Nambonga remain unchanged from those reported for June 2010. This statement updates the Golpu Mineral Resource estimate.

The Golpu deposit is part of the Wafi-Golpu project located in EL440 which is owned by the Wafi-Golpu unincorporated joint venture between Newcrest PNG2 Limited (50%) and Wafi Mining Limited (50%), wholly owned subsidiaries of Newcrest Mining Limited and Harmony Gold Mining Company Limited (respectively), and operated by Wafi Golpu Services Limited on behalf of the joint venture.

The Golpu porphyry-related Cu-Au deposit is situated 60 km W-SW of Lae, on the western flanks of the Timini Range, Morobe Province, Papua New Guinea. The deposit is located in a block of deformed Paleozoic to Upper Mesozoic metasedimentary rocks that have been intruded by Miocene-Pliocene calc-alkaline dioritic intrusives.

At Golpu, multiple ore-forming events have resulted in the juxtaposition of Au-bearing porphyry copper and epithermal style mineralisation. Geometrically, these mineralisation styles differ, with the porphyry related mineralisation up-right to steeply SW-plunging, and the high sulphidation mineralisation sheet-like and moderately NE-plunging.

In the core of the deposit, the mineralisation is hosted by stockwork vein arrays associated with, and peripheral to, the porphyritic intrusions. Copper and gold mineralisation is both disseminated and fracture controlled with and without quartz fill. The highest grades are associated with abundant biotite alteration, typically rich in chalcopyrite-bornite-gold and lesser covellite and digenite. Cu-Fe sulphides occur both in fractures and as replacement of the primary igneous textures.

Higher in the Golpu system the mineralisation is more disseminated and associated with advanced argillic alteration. The alteration is typical of high-sulphidation epithermal deposits and is characterised by quartz-alunite-kaolinite (dickite-diaspore) and pyrite. Primary copper mineralisation occurs as covellite, and gold mineralisation is associated with pyrite and electrum. The Au-Cu-bearing lenses occur as multiple stacked sheets that are predictably layered kaolinite-quartz-alunite to kaolinite-chalcocite-pyrite to vuggy quartz (enargite). Single layers are metres thick and are part of the thicker (100s of metres) lithocap. Regionally, the lithocap extends over several kilometres. Preserved in the lithocap are relict porphyry-style (Golpu) veins.

Diamond drill holes are the principle source of geological and grade information for the Golpu deposit. Three main periods of diamond drilling have been completed; 1) 1990 to 1996 by Rio Tinto, 2) 2005 to 2006 by Harmony Gold and 3) ongoing drilling since 2009 by MMJV. Drilling density varies from 50m x 50m above 5100m RL to 200m x 200m below 4200m RL.

The Golpu Mineral Resource has been updated following a drilling program designed to increase the Mineral Resource along strike and at depth.

The Mineral Resource for Golpu as at June 2011 (Indicated and Inferred) is estimated at 870 million tonnes at a grade of 1.0 % Cu and 0.69 g/t Au – Table 1. Copper and gold have been estimated via

Ordinary Kriging. A combination of lithological and alteration domains have been used to constrain the estimation process. A parent block size of 40m x 40m x 40m with subcelling to 10m x 10m x 10m was used.

The Golpu Mineral Resource is reported within a 0.2% Cu shell which reflects the proposed bulk underground mining method. The material inside this shell is classified into 'Indicated' and 'Inferred' based on grade and geological continuity and data density.

**Table 1: Golpu Mineral Resource as at June 2011**

Mineral Resource	Tonnes (Mt)	Cu grade (%)	Au Grade (g/t)	Contained Cu Metal (Mt)	Contained Au Metal (Moz)
Indicated	750	1.0	0.66	7.6	15.9
Inferred	120	1.1	0.89	1.3	3.4
<b>Total</b>	<b>870</b>	<b>1.0</b>	<b>0.69</b>	<b>9.0</b>	<b>19.3</b>

*\*Note: Reported numbers have been rounded which may cause apparent computational discrepancies. Mineral Resource reported within a 0.2% Cu grade shell. The figures presented are 100%.*

The June 2010 Golpu Mineral Resource was reported as 501 million tonnes at 0.95 % Cu and 0.54 g/t Au for 4.8 Mt Cu and 8.7 Moz Au. The updated June 2011 Mineral Resource represents a 74% increase in tonnes, 88% increase in contained copper and 121% increase in contained gold.

Accordingly, the total Mineral Resource for the Wafi-Golpu project (including Nambonga) as at 30th June, 2011 is:

**Table 2: Wafi-Golpu Mineral Resource (including Nambonga) as at June 2011**

Mineral Resource	Tonnes (Mt)	Cu grade (%)	Au Grade (g/t)	Contained Cu Metal (Mt)	Contained Au Metal (Moz)
Golpu	870	1.0	0.69	9.0	19.3
Wafi	103	-	1.9	-	6.2
Nambonga	40	0.22	0.79	0.1	1.0
<b>Total</b>	<b>1013</b>	<b>-</b>	<b>0.82</b>	<b>9.0</b>	<b>26.6</b>

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**Stuart Hayward**

Date: 19 July 2011