

HARMONY GOLD MINING CO LTD

Form 6-K

December 15, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

**Form 6-K**

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO  
RULE 13a-16 OR 15d-16 UNDER THE SECURITIES  
EXCHANGE ACT OF 1934

For

15 December 2014

**Harmony Gold Mining Company  
Limited**

Randfontein Office Park

Corner Main Reef Road and Ward Avenue

Randfontein, 1759

South Africa

(Address of principal executive offices)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

Form 20-F  X

Form 40-F

(Indicate by check mark whether the registrant by  
furnishing the information contained in this form  
is also thereby furnishing the information to the  
Commission pursuant to Rule 12g3-2(b) under the  
Securities Exchange Act of 1934.)

Yes

No  X

### **Harmony's Golpu Project to proceed to feasibility**

*Low capital development cost and high grades maximise free cash flow*

- *Staged development of the Golpu deposit with the first stage ('Stage 1') targeting the upper higher grade portions of the ore body*
- *Stage 1 comprises of two block caves. The first block cave operating at 3Mtpa and first production forecast for 2020, followed by a deeper block cave operating at 6Mtpa in steady state from 2024*
- *Attractive return on investment, with an estimated Internal Rate of Return (IRR) of 17%*
- *Lowest quartile cost for copper including capital (C3) at US\$1.42/lb and the cash cost for gold at approximately negative US\$1 700/oz*
- *Approximate life of Stage 1 is 27 years, with annual production peaking at 320 000 ounces of gold and 150 000 tonnes of copper in 2025*
- *Substantially lower project capital, with maximum negative cash flow of US\$785m to be funded by Harmony*

**Johannesburg: Monday, 15 December 2014:** Harmony Gold Mining Company Limited (Harmony) is pleased to advise that the Harmony board has approved the updated prefeasibility study (PFS) of the Golpu Project in Morobe Province, Papua New Guinea (PNG) and has agreed to progress the project to feasibility study stage (FS).

This updated prefeasibility study covers the first stage of Golpu's development. Stage 1 of the Golpu development targets the upper higher value portion of the orebody. Work will continue on optimising a second stage mine development (Stage 2), which will encompass the rest of the ore reserves. Both the feasibility study for the first stage and the updated prefeasibility study for the second stage of the project are scheduled to be completed by the end of calendar year 2015.

The updated prefeasibility study entails low development capital cost, targets high grades to maximise free cash flow generation and demonstrates the potential of this world class ore body.

"The updated prefeasibility study supports our view that Golpu is a spectacular ore body with a large copper component, affordable and mineable. Key objectives of the study have been achieved by reducing the capital of the project, lowering operating costs and improving the rate of return", said Graham Briggs, chief executive officer (CEO) of Harmony.

**Issued by Harmony Gold  
Mining Company Limited**

**15 December 2014**

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**JSE: HAR**  
**NYSE: HMY**  
**ISIN No.: ZAE000015228**  
**Registration number:**  
**1950/038232/06**

Harmony's CEO notes that the development of the Golpu Project aligns with Harmony's strategy of profitable, low-cost operations: "The conclusion of the updated PFS is a major project milestone and has demonstrated the significant potential of this world-class orebody, which contains mineral resources of 20 million ounces of gold and 9.4 million tonnes

of copper. Attributable annual production for Harmony is significant and averages at 500 000<sup>1</sup> gold equivalent ounces per

year in years 2024 to 2029. Stage 1 is expected to have a life of approximately 27 years".

The Golpu project team, with the assistance of WorleyParsons as project consultant, have incorporated a total of 52 000

new drill core samples into the updated study - significantly improving the understanding of the geological framework.

This has redefined the boundaries of the high grade porphyry event in the upper part of the orebody, which will be mined

by block caving method. This enables a reduction in the size of the footprint of the block caves compared to the 2012 prefeasibility study significantly reducing capital requirements.

The Stage 1 project capital on a 100% basis is estimated at US\$2.3bn, yielding an attractive return on investment with an

internal rate of return of 17%. The updated prefeasibility study recommends the development of twin exploration declines

to establish further geotechnical and geological data to support the feasibility study. A decision on the declines is anticipated in the first half of 2015.

The two proposed block caves in Stage 1 are designed to access approximately 40% of the contained metal (gold and copper) of the Golpu reserve. The approximately 60% remaining of the reserve would be extracted by a future deeper block cave (Stage 2). The mining and processing infrastructure of Stage 1 would then be utilised to support development

of Stage 2.

Engagement with key stakeholders, including the PNG national government, the Morobe provincial government, landowners and community representatives continues to ensure clear alignment on the project objectives.

Golpu has the potential to deliver significant benefits to local and regional communities and the broader economy of Papua New Guinea, including local business opportunities, taxation and royalty revenues to all levels of government.

It

will also offer benefits through training and employment opportunities, business and community development programmes, health and education investments and improved regional infrastructure.

Environmental baseline studies and risk and impact assessments were undertaken as part of the updated pre-feasibility study and will be further developed during the feasibility study in preparation for the submission of an Environmental and

Social Impact Assessment to the PNG Government for consideration.

Harmony and Newcrest each own 50% of the Golpu Project through the Wafi-Golpu Joint Venture (WGJV). The PNG

government retains the right to acquire up to a 30% interest in the project, at any time up to the date of granting the mining lease, at a price equal to the sunk costs at the date of acquisition. If this right is exercised, the government becomes a full equity partner in the project .

"The Golpu project is a significant value accretive game-changer for Harmony", says Graham Briggs, CEO of Harmony.

"Harmony intends to fund the earlier stages of the project from internal cash flows, and reviewing other funding options for

the latter stages. In the current environment of volatile gold prices, we are focussed - more than ever - on cost control and

cash generation at existing operations. In addition, shareholder value is created through investing in Golpu, securing a sustainable, profitable future for Harmony."

**Key items for Stage 1 (100%)**

**Area**

**Measure**

**Unit**

Production

First ore

Date

2020

Steady-state production

Date

2024

Ore mined

Mt

146

Life of Stage 1

Years

27

Cu metal produced

Mt Cu

2.2

Au metal produced

Moz Au

3.7

Peak gold production (Year 2025)

koz pa

320

Peak copper production (Year 2025)

kt pa

150

Gold recoveries

%

77

Copper recoveries

%

94

Capital

Project capital

US\$bn

2.3

Sustaining capital

US\$bn

0.8

Total life of Stage 1 capital

Maximum negative cash flow

US\$bn

US\$bn

3.1

1.6

Operating

Total operating cost (real)

Cash cost (C1) (after gold credits)

Total production cost\* (after gold credits)  
 Cash costs (after copper credits)  
 Total production cost\* (after copper credits)  
 US\$/t  
 US\$/lb Cu  
 US\$/lb Cu  
 US\$/oz Au  
 US\$/oz Au  
 34.6  
 0.78  
 1.42  
 ~ negative 1 700  
 ~ negative 950  
 Economic  
 assumptions  
 Gold price  
 US\$/oz  
 1 250  
 Copper price  
 US\$/lb  
 3.10  
 Exchange rates  
 AU\$/US\$  
 0.90  
 PGK/US\$  
 2.58  
 Stage 1 outcomes  
 Percentage of reserve utilised  
 %  
 ~40  
 Internal Rate of Return  
 Net present value (at a discount rate of 8.58%)  
 %  
 US\$bn  
 17  
 1.1

*\*Includes capital*

### **Overview of mining operations**

Golpu is expected to comprise of at least two stages.

The updated prefeasibility study for Stage 1 of Golpu recommends two block caves accessing the high value core of the

Golpu ore body. Stage 1 extracts 146Mt at an average grade of 1.02g/t gold and 1.60% copper. The proposed start-up production rate is 3Mtpa mined from Block Cave 1 (BC1) and 6Mtpa mined from the deeper Block Cave 2 (BC2).

BC1 is situated approximately 425m below surface and will extract 12Mt of cave ore over a five year period at a peak production rate of 3Mtpa. During caving operations, ore from the block cave draw points will be delivered by diesel load

haul dump units to an underground jaw crusher and then conveyed to surface.

BC2 is situated approximately 1 050m below surface. BC2 will be mined at a rate of 6Mtpa to extract 134Mt of cave ore

over a 23 year period.

Access to the orebody is planned to be via twin declines developed from the Watut River flats. During the production phase it is envisaged that an inclined conveyor is installed in one of the declines for transportation of production ore to the process plant located near the portal; the other being used for ventilation.

**Schematic of proposed operations**

The two proposed block caves in Stage 1 are designed to access approximately 30% of the tonnes, which contain approximately 40% of the metal (gold and copper) of the Golpu reserve. The mining and processing infrastructure would

then be utilised to exploit the remaining 70% of the tonnes, which contain about 60% of the contained metal (gold and copper) of the Golpu reserve. Stage 2 will focus on block cave 3 (BC3). Study work completed to date on Stage 1 and Stage 2 combined indicates no material difference in metal recovered from the 2012 reserve.

**Schematic cross section of Golpu porphyry deposit 2012 compared to 2014**

**Capital costs and funding**

The capital cost estimate has been completed to a Prefeasibility level of accuracy and includes all capital from 1 January 2015.

**Stage 1 capital cost estimate (100%)**

**Area**

**US\$m**

**Direct costs**

Mine

893

Process plant

155

Infrastructure

554

**Total direct costs**

**1602**

**Indirect costs**

Project management

284

Owners' costs

127

**Total indirect costs**

**411**

Contingency

287

**Total capital costs**

**2 300**

Harmony's 50% share of study and capital requirements for Stage 1 is estimated to be as set out in the table below.

**Harmony equity**

**(50%)**

**Harmony equity (35%)**

**PNG Government**

**buy-in**

**Year**

**Project capital**

**US\$m**

**Project capital**

**US\$m**

2HFY15

(15)

(15)

FY16

(55)

(55)

FY17

(105)

45\*

FY18

(205)

(140)

FY19



(250)

(175)

FY20

(155)

(110)

**Total**

**(785)**

**(450)**

*\*Assuming PNG government buys a 30% interest in the project*

Harmony will fund the first three years from operating cash flows and from FY18 onwards, debt financing will also be considered. From FY21 Stage 1 will be cash flow positive after capital expenditure.

### **Operating costs**

The key driver for the mining costs is the power requirements for ventilation, cooling and mine dewatering, which accounts for \$6.56/t (55%) of the mining costs. The key driver for ore treatment costs is also power, which accounts for 42% of treatment costs.

Power is a key project driver that influences both mining and treatment cost assumptions. The study has used a power price assumption of US20c/kWh. The Project will source bulk power from either its own power station or from an independent power producer.

Operating costs

US\$/t

Underground mining

11.83

Treatment

12.86

Infrastructure

3.17

General and administration costs

6.78

**Total**

**34.64**

### **Production profile of Stage 1**

The Stage 1 production schedule below outlines the ore mined and the metal recovered from BC1 and BC2 (on a 100% basis).

The cash flow for Stage 1 forecasts a maximum negative cash position of US\$1.6bn in 2020 as the project moves into initial production from BC1. Once BC2 is in full production in 2024, it is estimated the project will produce significant free

cash flows, with total undiscounted free cash flow of approximately US\$5.8bn over the 27 year life of Stage 1.

Stage 1 positions Golpu as a lowest quartile cost producer with copper including capital (C3) at US\$1.42/lb and the cash

cost for gold at approximately negative US\$1 700/oz.

### **Process plant, infrastructure and waste management**

The updated study anticipates the construction of a 6Mtpa process plant scheduled for commissioning in the first year of

production in calendar year 2020, which will produce a copper-gold concentrate.

The Golpu project is located in a greenfields location. The main infrastructure requirements for the Golpu project are access roads, tailings storage, water management, port facilities and power supply and transmission.

It is expected that the copper-gold concentrate will be filtered at the mine site and transported to the Port of Lae by trucks

for the initial production, with the concentrate to be pumped to the filtration plant located at the port as production rates

increase.

### **Summary of next steps**

The updated prefeasibility study recommends the development of twin exploration declines to establish further geotechnical and geological data. A decision on the declines is anticipated in the first half of 2015.

The feasibility study will address and finalise technical issues identified in the prefeasibility study. It will progress further

environmental, social and cultural heritage studies associated with access roads and tailings storage. Further work will also be conducted to identify the optimal solution for power for the operations.

Advanced exploration activities are subject to board and government regulatory approval. The Harmony board will consider the advanced exploration activity in the first half of calendar year 2015, once a pre-development agreement has

been concluded.

Both the Stage 1 feasibility study and the updated prefeasibility study for Stage 2 are targeted to be completed by the end

of calendar year 2015.

<sup>1</sup> Equivalent gold ounces converted by using a copper price of US\$3.10/lb and a gold price of US\$1250/oz

**Please also refer to [www.harmony.co.za/investors](http://www.harmony.co.za/investors) for the presentation in support of this release.**

### **Forward looking statements**

*This release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and*

*21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the safe harbour created by such*

*sections. These statements may be identified by words such as "expects", "looks forward to", "anticipates", "intends", "believes", "seeks", "estimates", "will", "project" or words of similar meaning. All statements other than those of historical facts included in this*

*release are forward-looking statements, including, without limitation, (i) estimates of future earnings, and the sensitivity of earnings to*

*the gold and other metals prices; (ii) estimates of future gold and other metals production and sales, (iii) estimates of future cash costs;(*

*iv) estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices; (v) statements regarding future*

*debt repayments; (vi) estimates of future capital expenditures; and (vii) estimates of reserves, and statements regarding future*

*exploration results and the replacement of reserves. Where the Company expresses or implies an expectation or belief as to future*

*events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis.*

*However, forward-*

*looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future*

*results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, project cost overruns, as well as political, economic and operational risks in the countries in which we operate and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Annual Report on Form 20-F for the year ended June 30, 2014 which is on file with the Securities and Exchange Commission, as well as the Company's other SEC filings. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.*

**Competent Persons Statement**

*The information in this presentation that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Gregory Job, BSc, MSc, who has 26 years' relevant experience and is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of Harmony. He is entitled to participate in Harmony's equity long term incentive plan, details of which are included in Harmony's 2014 Remuneration Report. Mr Job has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which he is undertaking 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 (the "JORC Code"). Mr Job consents to the inclusion in this presentation of the matters based on this information in the form and context in which it appears. For details of Exploration Results, Mineral Resources and Ore Reserves refer to the Harmony website.*  
ends.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: December 15, 2014

Harmony Gold Mining Company Limited

By:

/s/ Frank Abbott

Name: Frank Abbott

Title: Financial Director