

HARMONY GOLD MINING CO LTD

Form 6-K

August 29, 2012

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 29 August 2012

**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

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**Harmony is positioned to measure, measure up and deliver against its stated strategy**

**Johannesburg, Wednesday, 29 August 2012.** Harmony Gold Mining Company Limited (“Harmony” or the “Company”) has positioned itself as a global gold mining company - growing gold production, reserves and profits. Results for the 12 months to 30 June 2012, released on the 16th of August 2012, have proven that Harmony is managing change and increasingly doing so proactively against a clear strategy. The Company has achieved safety milestones, developed exploration projects, diversified geographically, paid dividends and funded its own capital growth.

In Papua New Guinea, the pre-feasibility study on Golpu was completed, confirming that this is a world-class deposit with the potential to be more than one mine. Details of the pre-feasibility study results are attached to this press release as an annexure, marked “Annexure A”.

“The Golpu project has the potential to change the company materially and we are very pleased with the pre-feasibility study results. Both in South Africa, as well as in Papua New Guinea, Harmony is geared and committed to measure, measure up and deliver value on its applied strategy for all shareholders and stakeholders”, said chief executive officer, Graham Briggs.

Harmony will be providing an update to the market (by means of two conference calls and a live presentation) today on the company’s strategy, its operations, exploration and the results of the Golpu pre-feasibility study. The presentations, webcast and dial-in details, as well as the press release on Harmony’s Resources and Reserves (which is released simultaneously with this announcement), will be available on the company’s website at [www.harmony.co.za](http://www.harmony.co.za).

**Issued by Harmony Gold  
Mining Company Limited  
29 August 2012**

**For more details contact:**

**Henrika Basterfield  
Investor Relations Manager  
+27 (0) 82 759 1775 (mobile)**

**Marian van der Walt  
Executive: Corporate and  
Investor Relations  
+27 (0) 82 888 1242 (mobile)**

**Corporate Office:  
Randfontein Office Park  
P O Box 2  
Randfontein  
South Africa 1760  
T +27 (11) 411 2000  
[www.harmony.co.za](http://www.harmony.co.za)**

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

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*This announcement and Annexure A (“documents,”) attached hereto contain “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 these documents 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, 2011 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 these documents, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.*

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## **ANNEXURE A**

### **Golpu Pre-feasibility study - summary results**

(all figures in United States dollars and in 100% terms unless stated otherwise)

Harmony Gold Mining Company Limited (“Harmony or the “Company”) hereby announces the results of a Pre-Feasibility Study (PFS) on the Golpu deposit, which forms part of the Wafi-Golpu project located in Morobe Province, Papua New Guinea (PNG). This announcement includes a new Mineral Reserve estimate for the Golpu deposit and also updated Mineral Resource estimates for the Golpu deposit and the nearby Wafi deposit (collectively referred to as Wafi-Golpu).

We use certain terms in this document such as ‘Measured’, ‘Indicated’ and ‘Inferred’ Resources, which the United States’ (US) Securities and Exchange Commission (SEC) guidelines strictly prohibit US-registered companies from including in their filings with the SEC. US investors are urged to closely consider the disclosure in our Form 20-F.

The Wafi-Golpu project is situated in an outstanding, world-class mineral province. The updated Mineral Reserve estimate for the Golpu deposit demonstrates the size and potential of this province to Harmony. The development of Wafi-Golpu is aligned with the Company’s strategy of investing in high quality, long life gold and gold-copper assets.

Harmony and Newcrest Mining Limited (Newcrest) each currently own 50% of Wafi-Golpu through the Wafi-Golpu Joint Venture (WGJV). The PNG Government retains the right to acquire, 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), a 30% interest in the Wafi-Golpu Joint Venture.

The PFS technical and commercial analysis undertaken by the project team is complete and sufficient to allow the Wafi-Golpu Joint Venture participants to report a substantially increased Mineral Reserve estimate for Golpu. Block caving is the mining method proposed for Golpu, with two lifts to an aggregate depth of 1.45km. Drilling beneath Lift 2 has returned significant high grade intersections and mineralisation remains open at depth. The development capital costs and resulting preliminary valuations demonstrate a sound business case that supports the updated Mineral Reserve estimate associated with developing Lifts 1 and 2 at Golpu. The Golpu project is not yet in the Feasibility Study phase. The Joint Venture partners are engaging with key stakeholders (including the PNG and provincial governments, landholders and community representatives) to ensure clear alignment on the objectives and requirements for the project development, key elements of the next phase of work and how the project would proceed in the medium term. In addition, capital costs which have been estimated to PFS level are now being closely evaluated to assess what opportunities exist to further refine them given the continuing weaker global economic conditions. It is anticipated that, subject to satisfactory resolution on these outstanding matters, Harmony and Newcrest will progress the Golpu project into the Feasibility Study phase during the first half of calendar 2013.

### **Highlights of the Golpu Pre-Feasibility Study**

- Excellent potential for further mineral discoveries in the region.
- Golpu deposit – a large, low cost, long life, block cave mining operation.  
Updated Golpu Probable Mineral Reserve estimate containing 12.4 million ounces of gold and 5.4 million tonnes of copper for 38.9 million gold equivalent ounces
- Drilling within the Lift 1 post completion of the study have returned higher grades than modelled in the Mineral Reserve, thus there is grade upside potential to the Mineral Reserve estimate.  
First production by 2019, subject to approvals and Feasibility Study.  
Mine life of 26 years and annual production reaches 490 000 ounces of gold and 290 000 tonnes of copper during the period 2026 to 2035 under the PFS base case scenario.  
First quartile cash costs (whether measured by gold or copper unit cost).

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Estimated capital cost to first production of US\$4.85 billion. This estimate is at PFS level and capital costs are undergoing further evaluation with the objective of optimising these.

Harmony has budgeted US\$114M for study and drilling program costs for the 2013 financial year and the company's share of expenditure for the Feasibility Study is estimated to be in the order of US\$400m, over half of which would comprise expenditure on additional resource definition drilling and early stage access decline development.

Total capital expenditure to first production occurs over a 6 year period. Harmony expects to be able to fund its share of the capital expenditure largely from operating cashflow (see Investor Day presentation, dated 29 August 2012).

High grade drill intercepts occur at depth indicating good potential for a third mining lift.

Further metallurgical test work is expected to optimise the metal recoveries assumed in the PFS.

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The Wafi deposit is in Concept Study, with progress to PFS likely to occur later this calendar year.

*1 Gold equivalent based on US\$1400/oz Au and US\$3.50/lb Cu*

**Mineral Resource Estimate for the Golpu Deposit**

**Tonnes**

(Mt)

**Au**

(g/t)

**Cu**

(%)

**Ag**

(g/t)

**Contained**

**Gold (Moz)**

**Contained**

**Copper**

(Mt)

**Contained**

**Silver**

(Moz)

**Gold**

**Equivalent**

**1**

(Moz)

**Indicated Resource**

Golpu

810

0.64

0.92

1.1

16.6

7.45

28.6

53.7

**Inferred Resource**

Golpu

190

0.61

0.80  
1.0  
3.7  
1.52  
6.1  
11.5

**Total Resource**

Golpu  
**1,000**  
**0.63**  
**0.90**  
**1.1**  
**20.3**  
**8.97**  
**34.7**  
**65.2**

**Mineral Reserve Estimate for the Golpu Deposit**

**Tonnes**  
**(Mt)**  
**Au**  
**(g/t)**  
**Cu**  
**(%)**

**Contained**  
**Gold (Moz)**  
**Contained**  
**Copper**  
**(Mt)**  
**Gold**  
**Equivalent**

**1**  
**(Moz)**  
**Probable Reserve**

Golpu  
450  
0.86  
1.2  
12.4  
5.44  
38.9<sup>1</sup>

*The Golpu Indicated Mineral Resource is inclusive of the Golpu Probable Mineral Reserve as set out above. For the purpose of this release, Mineral Resources and Mineral Reserves are reported in 100% terms. Harmony has a beneficial interest of 50% in these resources and reserves.*

*1 Gold equivalent based on US\$1400/oz Au and US\$3.50/lb Cu*

**Overview**

The Wafi-Golpu property, which comprises exploration licences EL1105 and EL440, is located in the Morobe Province of PNG, approximately 65 km west of Lae and is owned by the Wafi-Golpu Joint Venture (WGJV). The WGJV is one of three unincorporated joint ventures in the Morobe Province of Papua New Guinea between Harmony and Newcrest.

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The Wafi-Golpu project, which is located within EL440, comprises multiple porphyry and epithermal gold-copper-silver deposits located on the western flanks of the Timini Range.

The Wafi-Golpu project area is hosted within the Wafi Transfer Zone which can be traced for some 25km.

Two porphyry copper-gold deposits (Golpu and Nambonga) and one high sulphidation gold-silver epithermal deposit (Wafi) have been identified in the Wafi-Golpu project area. The approximate relative location of Wafi, Golpu and Nambonga is as follows:

In addition, there are a number of early stage exploration porphyry targets located along the entire length of the Wafi Transfer Zone, including Mt Tonn, Pekumbe, Kesiago, Miapilli, Semplamu and Zimake. Limited drilling conducted to date has confirmed the presence of porphyry related mineralisation. In the years ahead, exploration will continue in the Wafi Transfer Zone on these and other targets.

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A plan view of the Wafi Transfer Zone showing the location of the Wafi-Golpu project and principal deposits and targets is as follows:

The PFS concluded that the block caving mining method is optimal for extracting ore from the Golpu deposit. Block caving enables the orebody to be mined in two blocks, known as Lifts 1 and Lift 2. As part of the PFS outcomes, revised Indicated Mineral Resource and Probable Mineral Reserve estimates are being reported in respect of the Golpu deposit.

Initial drilling results for the zone of mineralisation beneath Lift 2 (referred to as Lift 3) have also supported an initial Inferred Mineral Resource estimate for that area. The PFS does not take into account the Inferred Mineral Resources at Golpu of 190 million tonnes, grading 0.61g/t gold and 0.8% copper and containing 3.7 million ounces of gold and 1.5 million tonnes of copper. Further exploration drilling of the Lift 3 area is planned for the future. The deposit remains open at depth.

A revised resource estimate is also being reported for the Wafi deposit.

The Golpu orebody is shown in section below. The Golpu deposit comprises a vertical porphyry intrusion with a thrust fault slightly displacing the upper and lower sections of the deposit. The fault is an important structural feature that influences the location of the boundary between Lifts 1 and 2.



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## **Golpu Cross Section**

### **Lease Agreements**

The WGJV holds two exploration licences covering a total area of approximately 129 km

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, registered in the

name of the WGJV participants - Wafi Mining Limited (50%) (a wholly owned Harmony subsidiary) and Newcrest, PNG2 Ltd (50%) (a wholly owned Newcrest subsidiary). The Wafi-Golpu project is located in Exploration Licence EL440.

Under the terms of the Wafi-Golpu exploration licences, the Government of PNG has also reserved the right to acquire up to a 30% equity interest in the Wafi-Golpu project. In January 2011, the PNG Government indicated an intention to exercise the option which can be exercised at any time up to the granting of the mining lease.

Subject to the project being developed, a royalty of 2% of net smelter revenue will be payable to the Government of PNG.

### **Mineral Resource and Mineral Reserve Estimates**

Mineral Resources have been reported for:

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Golpu (porphyry-related copper and gold) deposit - this comprises stockwork vein arrays and disseminated sulphides hosted in altered diorite porphyry intrusions and surrounding metasedimentary rocks. Copper and gold mineralisation is both disseminated and fracture controlled with and without quartz fill. The highest grades are associated with abundant biotite and potassium feldspar alteration, typically rich in chalcopyrite, bornite and gold. The epithermal overprint that caps the porphyry system hosts mineralisation that is disseminated and contains abundant pyrite with lesser covellite, enargite and electrum.

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- Wafi (gold-bearing epithermal) deposit - this comprises disseminated sulphides and quartz vein stockworks in advanced argillic to intermediate argillic altered conglomerate, siltstone and sandstone units. Alteration and mineralisation is hosted in and around diatreme breccia.

- Nambonga (porphyry-related copper and gold) deposit - this comprises stockwork vein arrays and dissemination hosted in altered diorite porphyry intrusions and surrounding metasedimentary rocks. Structurally-controlled quartz-carbonate veins also occur in the Nambonga deposit.

The Wafi gold deposit comprises:

- Oxide and transition mineralisation suitable for conventional milling and cyanidation processing; and

- Primary mineralisation that requires sulphide oxidation prior to cyanidation to achieve satisfactory gold recoveries.

A Concept Study is presently underway to assess Wafi development options leveraging infrastructure planned for the nearby Golpu deposit. Options being assessed include open pit and underground mining, and ore processing and cyanide leach gold recovery. The Concept Study is targeting completion in 2012.

For Wafi, Golpu and Nambonga, Indicated Mineral Resources totalling 22.7 million ounces of gold, 28.6 million ounces of silver and 7.45 million tonnes of copper have been defined. A further 5.7 million ounces of gold, 9.8 million ounces of silver and 1.6 million tonnes of copper have been defined in Inferred Mineral Resources.

Mineral resources estimated for the deposits which comprise the Wafi-Golpu property are tabulated below.

**Mineral Resources Estimated for the Wafi, Golpu and Nambonga Deposits**

**Tonnes**

**(Mt)**

**Au**

**(g/t)**

**Cu**

**(%)**

**Ag**

**(g/t)**

**Contained**

**Gold (Moz)**

**Contained**

**Copper**

**(Mt)**

**Contained**

**Silver**

**(Moz)**

**Gold**

**Equivalent**

**1**

**(Moz)**

**Indicated Resource**

Golpu (Porphyry Au/Cu)

Wafi (Epithermal Au/Ag)

Nambonga (Porphyry

Au/Cu)

810

110  
 -  
 0.64  
 1.70  
 -  
 0.92  
 -  
 -  
 1.1  
 -  
 -  
 16.7  
 6.0  
 -  
 7.45  
 -  
 -  
 28.6  
 -  
 -  
 53.7  
 6.0  
 -  
**Total Indicated  
 Resource**  
**920**  
**0.77**  
**0.92**  
**1.1**  
**22.7**  
**7.45**  
**28.6**  
**59.7**  
**Inferred Resource**  
 Golpu (Porphyry Au/Cu)  
 Wafi (Epithermal Au/Ag)  
 Nambonga (Porphyry  
 Au/Cu)  
 190  
 22  
 40  
 0.61  
 1.30  
 0.79  
 0.80  
 -  
 0.21  
 1.0  
 -  
 2.87  
 3.7

0.9  
 1.0  
 1.52  
 -  
 0.08  
 6.1  
 -  
 3.7  
 11.5  
 0.9  
 1.4  
**Total Inferred Resource**  
**252**  
**0.70**  
**0.70**  
**1.33**  
**5.7**  
**1.60**  
**9.8**  
**13.8**  
**Total Mineral**  
**Resources**  
**1,172**  
**0.75**  
**0.87**  
**1.15**  
**28.3**  
**9.06**  
**38.4**  
**73.5**

*I Gold equivalent based on US\$1400/oz Au and US\$3.50/lb Cu*  
*Rounding may cause some computational discrepancies in totals*

The Golpu Mineral Resource is reported within a 0.2% Cu shell which reflects the proposed bulk underground mining method of block caving with ore processing by sulphide flotation as proposed by the Golpu PFS. The Wafi Mineral Resource is reported at a cut-off grade of 0.4g/t Au for non-refractory, predominantly oxide material and a cut-off grade of 0.9g/t Au for low recovery, refractory sulphide material. The Mineral Resource estimates were developed using prices of US\$1400/oz gold and US\$3.50/lb copper.

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The Mineral Reserve estimate for Golpu as at the date of this release is tabulated below.

**Ore Reserve Estimate for the Golpu Deposit**

**Tonnes**  
**(Mt)**  
**Au**  
**(g/t)**  
**Cu**  
**(%)**  
**Contained**  
**Gold (Moz)**  
**Contained**  
**Copper**  
**(Mt)**  
**Gold**  
**Equivalent**

**1**  
**(Moz)**  
Probable  
Reserve  
450  
0.86  
1.21  
12.4  
5.4  
38.9

*1 Gold equivalent based on US\$1400/oz Au and US\$3.50/lb Cu*

The Golpu Mineral Reserve estimate was developed using prices of US\$1250/oz gold and US\$3.10/lb copper. Ore has been classified using a net value, rather than a cut-off grade, to take into account the contributions of both gold and copper. The cut-off value used in this estimate is US\$18/t.

The Golpu Mineral Resource and Mineral Reserve estimate have been the subject of independent external review by AMC Consultants Pty Ltd (AMC). No material issues have been identified in these reviews and AMC concluded that the estimates have been prepared using accepted industry practice and have been classified and reported in accordance with the JORC Code.

**Metallurgical Testing and Mineral Processing**

Metallurgical test work was conducted as part of the PFS.

The Golpu deposit consists predominantly of two major mineralisation types, porphyry and metasediments.

- Within the porphyry, the majority of gold (in excess of 80%) is hosted in copper mineralization and pyrite. Gold associated with copper mineralization is readily recoverable.

- Metasediments are characterised by finer grain sizes and clay alteration that deleteriously affects flotation performance and gold recovery.

PFS laboratory test work indicates copper recovery from porphyry ores is typically +95%.

The PFS assumes an average gold recovery of 61% and an average copper recovery of 93%.

Metallurgical recoveries are yet to be optimised and future test work programs are planned to be conducted during the Feasibility Study phase of the project. The purpose of this work will be to assess alternative flow sheets and reagent options with the objective of improving gold recovery.

In the PFS, mine start-up and development is based on a gradual ramp-up in production. The process plant would be constructed in two stages: initially a 15Mtpa module would be constructed with additional capacity of 7Mtpa added to match the mine ramp-up and achieve a total treatment rate of 22Mtpa of ore. The modular

design of the plant will allow for expansion to higher treatment rates if future mine optimisation supports this. The flow sheet for each concentrator module would comprise:

- a primary crusher, SAG mill, ball mill and pebble crushing circuit;
- bulk rougher flotation followed by regrinding and three stages of concentrate cleaning; and
- concentrate thickening and storage facilities.
- tailings transport and storage

It is proposed that concentrate would be transferred by slurry pipeline to dewatering, storage and ship loading facilities at the Port of Lae.

#### **Mining Operations**

The PFS has proposed the block caving mining method for the Golpu deposit with initial production commencing from Lift 1 whilst ramp development continues down to Lift 2. Lift 1 has an extraction horizon

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located at 4850mRL

1

(700m below surface) and a 250m column height. The extraction horizon for Lift 2 is located at 4100mRL (1.45km below surface) with a 750m column height. In the PFS, production from Lift 1 is scheduled to ramp up to 15Mtpa over a four year period commencing in 2019.

Development of Lift 2 undercut and initial production is scheduled to commence in 2024. Production from Lift 2 would progressively ramp up to reach 22Mtpa in 2029. Mining from Lift 1 would be suspended in 2028 with remaining ore from Lift 1 recovered through overdraw of Lift 2. The mineralisation continues below Lift 2, indicating good potential for a third mining lift (Lift 3).

The mine development for Golpu Lifts 1, 2 and potentially 3 is depicted below:

Underground infrastructure is planned to comprise twin declines for access of mobile equipment and ore handling via an inclined conveyor system. Other significant underground infrastructure would include a dewatering system, electrical reticulation and ventilation systems, crushers and conveyor transfer stations. Preconditioning has been included in the mine plan to reduce the potential for coarse fragmentation to impact on cave propagation and production rate.

#### **Infrastructure and Waste Management**

The Wafi-Golpu project is located in a greenfields location and there is currently insufficient local infrastructure with respect to power, water and roads trafficable by vehicles larger than small trucks. The main infrastructure requirements for the Wafi-Golpu project are therefore access roads, tailings storage, water management, port facilities, worker accommodation and power supply and transmission.

A new road access corridor is proposed to facilitate safe and efficient transport of labour and materials to the site.

A number of viable terrestrial tailings storage sites have been identified. These will be assessed in more detail during the Feasibility Study.

A port facility for the export of concentrates consisting of concentrate dewatering, storage and ship loading facilities is proposed for the project. A number of viable port options have been identified in Lae, including the current port expansion by PNG Ports Authority and these will be further assessed during the Feasibility Study.

Effective management of the water generated, collected and used by the project will be critical to its success.

The PFS contemplates that the project would re-use water where possible, with water treatment facilities and erosion and sediment control structures to manage excess water generated from the underground mine and general site run-off.

1

Note: 5000m has been added to the national height datum to establish the local height datum

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The project scope envisages the establishment of a power supply capable of delivering up to 150MW of electrical power to meet the expected demand for mining and processing operations as well as supporting infrastructure. The power case adopted for the PFS involves establishing 100MW generating capacity for project start-up based on a heavy fuel oil power generation facility at Lae.

There is good potential for hydroelectric or gas-fired power to become available later in the mine life; these options will be considered in consultation with the PNG Government and communities during the Feasibility Study.

### **Environment and Sustainable Development**

The future development and operation of the Wafi-Golpu project will be underpinned by a sustainable business approach. The four key areas of sustainable development focus comprise people, physical environment, social environment, and health and safety.

A key objective of the people strategy is to maximise local employment which will be achieved via a combination of training and development initiatives, supporting the local and regional education systems and preferential employment policies

The project will be developed in accordance with the WGJV's policy and standards which are in line with international standards. Robust environmental management plans and operations will be established for each stage of the project. Environmental baseline studies and impact assessments have been undertaken as part of the PFS.

The Wafi-Golpu project has the potential to deliver significant benefits to local and regional communities, to PNG's economy and to all levels of government in PNG. These benefits would be delivered through training and employment opportunities, business and community development programs, health and education investments, taxes and royalty payments. There will also be social impacts that need to be addressed effectively in order to minimise the disturbance to local communities.

The health, safety and welfare of WGJV employees, contractors, visitors and local communities are of primary importance. The project will continue to develop and sustain appropriate occupational health and safety management systems.

### **Capital Cost and Operating Cost Estimates**

The estimated initial capital cost to first production for the Golpu development from the PFS is set out below. There is potential for capital costs to be optimised from the PFS estimates and capital costs are undergoing further evaluation to leverage cost reduction opportunities presented by forecast weaker economic conditions. No major commitments are being made until this review has been completed.

#### **Capital Cost Estimate**

##### **Area**

##### **PFS Estimate (US\$m)\***

##### **Direct Costs**

Mine

968

Process Plant

652

Infrastructure

558

Power Supply

472

##### **Total Direct Costs**

2,649

##### **Indirect Costs**

Project Management

678

Owners' Costs

635



Drilling and Studies

445

**Total Indirect Costs**

1,758

Contingency

437

**Total Capital Cost**

4,845

\*Figures quoted on 100% basis

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Harmony's share of project expenditure up to completion of the feasibility study is expected to be approximately US\$400 million and a further US\$270 million prior to receiving all approvals and permits necessary for construction to commence in mid 2016. The majority of this pre-execution phase expenditure comprises resource definition drilling, technical studies and access decline development.

In addition to the contingency shown in the capital cost estimate table above, growth allowances have been made in each sub-element of Direct and Indirect Costs.

After first production, there will be ongoing capital expenditure for the remainder of the mine life, including ongoing mine development to deliver the projected production. The PFS estimates total capital expenditure on a 100% basis (including the US\$4.8 billion referred to above) for the life of the project to be US\$9.8 billion. The operating costs per tonne of ore processed for Lift 1 and Lift 2 estimated in the PFS are as follows:

### **Operating Cost Estimate**

#### **Area**

#### **PFS Estimate**

(US\$/t processed)

(Life-of-Project)

Mining

8.64

Processing

7.39

Infrastructure

1.62

G&A

5.01

#### **Total Operating Cost**

22.65

### **Indicative pre-feasibility parameters**

The key outcomes of the study are as follows.

#### **Pre-feasibility base case**

#### **22Mtpa capacity**

#### **Units**

#### **Result\***

Production Life

Years

26

Peak Au Production

koz pa

560

Peak Cu Production

kt pa

335

Annual Au Production.

1

koz pa

490

Annual Cu Production.

1

kt pa

290

Gold Cash Cost

2

US\$/oz

Negative 2,600

3

Copper Cash Cost

2

US\$/lb

0.54

3

Total Initial Capital

US\$B

4.85

Total Capital

US\$B

9.75

1. For the period 2026 - 2035 2. Net of by-product credits 3. Price assumption used: Gold \$1 650/oz and Copper US\$3.50/lb

\*Figures quoted on 100% basis

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The gold and copper production profile and mill feed schedule for the PFS Base Case is presented below:

**Metal Production and Mill Feed Schedule – PFS Base Case**

**Enhanced Production Case**

Golpu is a large near vertical orebody with horizontal dimensions ranging from 250 to 800 metres and a height of more than 1700 meters. Significantly more drilling will be required to fully define the extent of economic mineralisation. From the drilling to date several factors have been identified which have the potential to impact production, grade and metal recoveries beyond that assumed and modelled for the PFS development case.

These factors are assessed in an Enhanced Production Case. Harmony is yet to complete preliminary financial evaluations for these potential enhancements. The potential enhancements are summarised as follows:

- Higher Grade and Recovery in Lift 1: A further three holes recently drilled into the upper section of the Golpu deposit returned high grade intercepts within the Lift 1 envelope. This drilling has revealed that the volume of high grade porphyry is potentially greater than is currently modelled in the upper section (Lift 1) of the Golpu deposit, potentially resulting in higher grades and higher metal recoveries that are assumed for Lift 1 in the PFS.
- Optimised Metallurgical Recovery for Gold: Metallurgical recoveries are yet to be optimised and a range of laboratory test work programs are planned during the Feasibility Study phase of the project with the objective of improving gold recovery and enhancing the metallurgical performance of the concentrator. It is postulated, based on precedent, that a 10% increase in gold recovery may be achievable.
- Ramp up and Production Rate: The PFS Base Case adopts conservatively benchmarked assumptions regarding mine ramp up and sustainable production rates. An Enhanced Production Case will examine the impact of contemporary block cave development strategies to accelerate the ramp up in production and sustain a 25 million tonne per annum mining and processing rate.
- Mining Lift 3: Holes drilled at depth beneath Lift 2 (lower horizon of the Probable Mineral Reserve) have returned high grade drill intercepts which indicate good potential for a third mining lift beneath the current base of the Golpu Probable Mineral Reserve. An Enhanced Production Case will assess the impact of a third mining lift at Golpu. The grades applied for Lift 3 are based on the mean value of the grade of drill intercepts in the volume assumed for Lift 3.

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The indicative gold and copper production profile and the mill feed schedule developed for a possible Enhanced Production Case is below:

**Metal Production and Mill Feed Schedule – Possible Enhanced Production Case**

***Ore Reserves and Mineral Resources Reporting Requirements***

*The Mineral Resources and Mineral Reserves in the summary tables in this Annexure are based on information compiled*

*by the following competent persons:*

*James Francis for the Wafi Golpu Mineral Resources, German Flores for the Golpu Mineral Reserve. Messers Francis*

*and Flores are corporate members of the Australian Institute of Mining and Metallurgy and all have relevant experience in*

*the type and style of mineralisation for which they are reporting, and are 'Competent Persons' as defined by the JORC and SAMREC codes.*

**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: August 29, 2012

Harmony Gold Mining Company Limited

By: /s/

Frank

Abbott

Name: Frank Abbott

Title: Financial Director