

HARMONY GOLD MINING CO LTD

Form 6-K

April 12, 2018

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 April 12, 2018

Harmony Gold Mining Company Limited

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(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    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

Appendix to the Updated Wafi-Golpu Feasibility Study

Johannesburg, Thursday, 12 April 2018. Harmony Gold Mining Company Limited (Harmony) hereby releases an appendix to the announcement “Updated Wafi-Golpu Feasibility Study” released on 19 March 2018. This release includes the JORC Code 2012 Edition – Table 1 which underpins the Golpu Mineral Resource and Ore Reserve. The updated production target which is planned to be mined is based solely on the Probable Ore Reserves.

Golpu Mineral Resource

The Mineral Resources for Golpu Project remain unchanged from the release titled “Golpu feasibility study confirms robust investment case” dated 15 February 2016 (the original release). Harmony confirms that it is not aware of any new information or data that materially affects the information included in the original release in regard to Mineral Resources, and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the original release continue to apply and have not materially changed. Harmony confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original release.

Mineral Resources are reported inclusive of Ore Reserves.

Golpu Ore Reserve

As stated in the market release “Updated Wafi-Golpu Feasibility Study” dated 19 March 2018, the Feasibility Study Update Ore Reserve is estimated to contain 5.5 million ounces of gold and 2.5 million tonnes of copper (Harmony’s 50% interest). This estimate is materially in line with previous estimates and reflects updated long term cost and metal price assumptions and optimised designs in the Golpu Feasibility Study Update (refer Golpu Ore Reserve Table below).

Golpu Ore Reserve<sup>1</sup>

	Tonnes(Mt)	Gold Grade(g/t Au)	Copper Grade(% Cu)	Insitu Gold(Moz)	Insitu Copper(Mt)
Probable Ore Reserve	200	0.86	1.2	5.5	2.5

<sup>1</sup> The Ore Reserve shown represents Harmony’s 50% interest.



JORC Code 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<p>Diamond drill holes are the principal source of geological and grade information for the Golpu deposit. Diamond core drilling was used to obtain continuous samples ranging in size from PQ3 to NQ3 with rare intervals of BQ which were cut into half (in the case of HQ, NQ and BQ) and into half or quarter (in the case of PQ) using a diamond core saw, from which half or quarter is prepared for assay and the remaining core retained in the core farm as reference.</p> <p>The half or quarter core sent for assay was bagged in labelled calico sample bags with the sample number scribed on an aluminium strip included in the bag. The calico bags were placed in larger polyweave bags and transported by road or helicopter to Lae by company employees. Sampling intervals are typically 1m or 2m fixed intervals. The entire half or quarter core is dispatched for sample preparation. Core recovery is recorded to ensure a representative sample is obtained.</p> <p>All core was logged and photographed prior to cutting. Some core was wrapped in tape during sampling to maintain core quality. Oriented core is cut along the orientation line at the bottom of hole to reduce the possibility of sample bias. Sample numbers and drill hole intervals were recorded by the responsible geologist and used by technicians for cutting and sampling. A sample despatch sheet documenting the sample numbers and required assay work was sent with each sample batch to the laboratory.</p> <p>All drill core is sampled and assayed over the entire hole length. However empirical rock strength data is required for geotechnical input to mine designs - since 2011 approximately 20cm of whole core was taken at 50m intervals from all holes for Unconfined Compressive Strength testing which were not assayed. This is not considered to present a material impact on sample quality due to the disseminated, stockwork and micro-fracture infill nature of the mineralisation.</p>
Drilling techniques	<p>Diamond core drilling, PQ, HQ, NQ and BQ in diameter, triple tube core barrels and oriented typically using the ACE core orientation system.</p>
Drill sample recovery	<p>Core recovery is recorded for all diamond drilling on a metre by metre basis as a percentage. Sample recovery was 96.4% over the entire drilling dataset including oxide material and the adjacent Wafi epithermal mineralisation but increases to 98.4% within the Golpu Mineral Resource volume. All drilling is conducted using triple tube core barrels and appropriate core handling protocols. No material relationship has been identified between core recovery and grade due to the diffuse nature of the mineralisation in the Golpu porphyry-style deposit.</p>
Logging	<p>All diamond drill core has been geologically and geotechnically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Geological logging is both qualitative and quantitative and records lithology, mineralisation, alteration mineralogy, weathering, structures and other physical characteristics of the core.</p>
Sub-sampling techniques and sample preparation	<p>Sample preparation protocols for drilling in the Golpu area has varied over time. However, all core is sawn in half or quarter typically cut beside the orientation line. Only minor intervals of second half core submission has been conducted. The entire sawn half or quarter core is submitted for the first stage of sample preparation. All subsequent sampling is by riffle or rotary splitters to ensure sub-sample representivity until homogenised in the pulverisers. Grind size screening was typically applied also to maximise sub-sampling representivity and to ensure compliance to sub-sampling sample mass requirements.</p> <p>Historic sampling from CRAE/Elders drilling 1990-1996 was prepared at Pilbara (Analabs) Laboratories in Lae. All samples were dried and jaw crushed to a nominal 5mm, then entirely pulverised to 180 microns. A sub sample of 500g was obtained with a riffle splitting device which was pulverised in a LM2 to nominal 75 micron. A 100g sub sample (pulp) was obtained and</p>

despatched for analysis.

Sample preparation for Harmony and WGJV drill holes 2005-2011 was carried out at Intertek Lae sample preparation facility with pulps sent to Intertek Jakarta for assay. All samples were dried at 60°C and then jaw crushed to nominal 2mm. A sub sample of 1.5kg was obtained with a riffle splitting device which was pulverised to 75 micron using LM2 mill. An approximate 250g sub sample (pulp) was obtained and despatched for analysis.

Sample preparation for WGJV drill holes 2012-2014 was carried out at the Intertek sample preparation facility in Lae. All samples were dried at 60°C, then crushed in a Boyd Crusher to a minimum 95% passing 2.8mm. A sub sample of 3.5kg (±0.5kg) is obtained using a Rotary Splitting Device (RSD) and pulverised in a LM5 mill with a minimum 95% passing 106 microns. An approximate 250g sub sample (pulp) was obtained and despatched for analysis. Representative pulverised material and crushate reject is retained for all samples. Repeat samples are obtained from pulverised material at the rate of 1 in 20 samples and check crusher duplicates have also been analysed.

The sampling techniques used over the history of the project are considered appropriate for assessment of porphyry mineralised systems.

QAQC protocols for Golpu drilling have varied over the project's 24 year history.

CRAE and Elders (1990-1996) sampled at Pilbara Laboratories Lae did not have the support of regular submission standards or duplicates and but were supported by regular submission of pulp splits to a second laboratory. Gold was determined by 50g Fire Assay with AAS finish and multi-element analyses including copper, silver, molybdenum, arsenic and iron were determined using AAS. Approximately 20% of composites used in the Golpu Mineral Resource model are derived from CRAE / Elders drilling – this are located in the upper Golpu Porphyry where there is also significant drill data acquired by Harmony.

Drilling by Harmony and WGJV 2005-2014 was analysed at Intertek Laboratories Jakarta and included submission of certified standards, blanks, quarter core duplicates and re-assay of selected pulp splits at a second laboratory. Gold was determined by 50 or 30g Fire Assay with AAS finish, multi-element analyses including copper, silver, molybdenum, arsenic and iron was determined by 2 acid ICPMS/OES finish analyses. From October 2013 multi-element analyses have been determined by 4-acid (full) digest with ICPMS/OES finish. From 2013 gold has been analysed at the Intertek Lae Laboratory. Total sulphur was determined by Leco.

Quality of assay data and laboratory tests

Pulp samples shipped to Jakarta are re-dried in their original pulp packets at <60°C for a minimum of 4 hours or until dry before analysis. Certified reference materials were inserted at the rate of 1 in 20 samples. Matrix-matched samples from coarse reject Wafi-Golpu sample material were homogenised, independently certified and implemented into the QA sample stream from April 2013. Pulp samples (second sample from LM5 bowl) within each sample batch are submitted at the rate of 1 in 20 samples. Coarse duplicates have also been analysed and additionally 5% of all pulps with accompanying new standards are checked at an independent laboratory.

Assay results are assessed on a per-batch basis on receipt of assays to determine appropriate levels of accuracy and bias in gold and copper analyses. The acceptance tolerance must be within defined site QAQC protocols. Routine check assay programmes are conducted on a periodic basis. All preparation and analytical laboratories including check laboratories have been reviewed for operational procedures and QAQC compliance by project geologist and QAQC chemists.

The analysis methods employed are considered appropriate for the material and mineralisation. No material issues have been identified that invalidate the use of primary assays now held in the Wafi-Golpu Datashed database for Golpu deposit grade estimations.

Verification of sampling and assaying

All field data is captured digitally into a Logchief logging system, stored electronically in a Datashed database, and exported to a Lae based Datashed database, which is maintained by the Database Manager. Digital assay files are received directly from the laboratory and input directly to Datashed. Significant intersections are reported by the geology team, and verified by the

Geology Manager.

No specific holes have been twinned at Golpu. However due to the drilling configuration (typically towards grid west or to grid west on the common sections and multiple holes from a single drill pad with small variation in dip), multiple holes cross in close proximity. No inconsistency in sampling and assaying have been identified.

No adjustment has been made to reported assays for use in the estimation of the Mineral Resource. The local grid called Wafi Local Grid (WLG) is a planar grid oriented approximately 45 degrees from north which is used up for block modelling and geology databases. The height datum is Mean Sea Level but 5,000m is added for WLG. WLG is datum point referenced to PNG Geodetic Datum 1994. Topographic control is by digital terrain models derived from a high resolution Lidar survey of the Golpu area conducted in 2007 with a reported spatial accuracy of 0.2m.

Drill hole collar locations are located using hand held global positioning system (GPS) and completed drillhole collars surveyed in the Wafi Local Grid by a qualified and competent surveyor using a theodolite or differential GPS.

Location of data points

Downhole surveys were completed on all holes typically at 18m and then every 30m down the hole. Elders and CRAE drillholes were surveyed using an Eastman single shot camera and Harmony / WGJV drillholes were surveyed using a Reflex downhole survey tool. From 2011 surveys have been conducted by a fully competent and licensed contractor using a north-seeking gyroscope instrument.

For all periods of the drilling programme, downhole surveying was determined using the latest available methodology. These are considered sufficiently accurate to locate all assays to the level of precision required for classification as an Indicated or Inferred Mineral Resource.

Data spacing and distribution

Drillhole spacing within the Golpu deposit ranges from less than 100m x 100m in the upper portion of the deposit and up to 200m x 200m in the lower portions of the deposit. The drill spacing is considered sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource classification of a large porphyry gold/copper system. Drillholes are entirely sampled at regular 1m or 2m intervals regardless of lithological or mineralogical boundaries.

Assays are composited to 10m downhole intervals for use in grade estimation.

Orientation of data in relation to geological structure

The Golpu mineralised system is approximately elliptical in plan elongated towards 345 degrees WLG with a steep west to sub-vertical dip. The majority of drilling is oriented across this orientation, but the dataset does include holes drilled parallel to the long axis. Most holes are complete transects through the porphyry and enclosing mineralised host sediments. The orientation of sampling is considered unbiased toward known structures and adequate for the diffuse nature of the mineralisation style i.e. porphyry gold copper mineralisation.

Sample security

Diamond drill core is delivered directly from the drill rig at the end of each shift by the drill crew to the logging shed within the fenced and patrolled Wafi Camp security compound. Core is marked up and photographed as soon as possible to identify any core loss and ensure size and consistency of the samples. Historically all core was sawn in half at the Wafi site and half core for assay bagged into calico bags and in turn secured in plastic bags. Samples are identified by both internal aluminium tags and external labelling. Some whole core was directly shipped as plastic-wrapped and secured trays to the dedicated core farm within the security patrolled compound at Nine Mile, Lae. Core is sawn, bagged and identified as for the Wafi site procedures.

Whether transported as whole core in trays or bagged sawn core samples, all transport is always under the direct supervision of WGJV employees within tamper evident packaging from site until delivery to the Intertek Laboratory in Lae. Pulps and crusher residues are returned from the Lae laboratory to the Nine Mile core farm for long term storage again under direct supervision of WGJV staff.

Since 2005, core samples were prepared in Intertek, Lae within their secured premises and pulps are air-freighted by international couriers to Intertek Laboratory in Jakarta, Indonesia for assaying. A detailed labelling, documentation and tamper evident packing protocol is in place for this

transfer. Pulps are stored on a long term basis in Jakarta. Assay results from Intertek Jakarta are returned to WGJV network and loaded to the Wafi database by dedicated administrators after correlation against despatch records and after passing QAQC protocols.

Internal reviews of core handling, sample preparation and assays laboratories were conducted on a regular basis by both project personnel and owner representatives. External consultants also reviewed sampling protocols and based on heterogeneity studies for sampling mass and sampling precision provided recommendations to improve QAQC early in the drilling program.

Audits or reviews In the Competent Persons opinion, the sample preparation, security and analytical procedures are consistent with current industry standards and are entirely appropriate and acceptable for the styles of mineralisation identified and will be appropriate for use in Mineral Resource estimates. There are no identified drilling, sampling or recovery factors that materially impact the adequacy and reliability of the results of the drilling programme in place on the Wafi-Golpu Property.

## Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	<p>The Wafi-Golpu project is located in Exploration Licence (EL440) within the Morobe Province of Papua New Guinea. The property is located at approximately 6°52'S latitude, 146°27'E longitude approximately 60 km southwest of Lae, the nearest commercial centre within the region with a population of about 90,000.</p> <p>The owner of the project is the Wafi-Golpu unincorporated joint venture (WGJV), one of three unincorporated joint ventures in the Morobe Province of Papua New Guinea between subsidiaries of Newcrest Mining Limited (Newcrest) (50%) and Harmony (50%) referred to collectively as the Morobe Mining Joint Ventures (WGJV). The WGJV holds two exploration licences covering a total area of approximately 129 km<sup>2</sup>, registered in the name of the WGJV participants Newcrest PNG2 Ltd (50%) (a wholly owned Newcrest subsidiary) and Wafi Mining Limited (50%) (a wholly owned Harmony subsidiary). Key proposed infrastructure areas are located on adjoining EL1105.</p> <p>EL440 tenement licence expires in March 2018 and a renewal was lodged in December 2017 which is currently pending. The EL1105 tenement licence expires in January 2019. Both tenements remain in good standing.</p> <p>Subject to the project being developed, a royalty of 2% of net smelter revenue and a Mining Levy of 0.25% is payable to the Government of Papua New Guinea.</p> <p>A compensation agreement with local landowners is in place whereby specified payments are made due to impacts of exploration activities including loss of trees, impact on water resources, access restrictions, and disturbance to sacred sites and burial sites.</p> <p>Consistent with the current administrative practice of the Government of Papua New Guinea and under the terms of the Wafi-Golpu exploration licences, the Government of Papua New Guinea has reserved the right to acquire up to a 30% equitable interest in the project. In January 2011, the PNG Government indicated an intention to exercise the option, nominating the State-owned Petromin PNG Holdings Limited to take up the interest. The option is exercisable at any time prior to commencement of mining. Under the terms of the State option set out in the Wafi-Golpu exploration licences, the price payable for the interest is the proportionate share of the accumulated exploration expenditure at the point of exercise. Post-exercise, the State holding entity will be responsible for their proportionate share of continuing exploration, development and project costs.</p>
Exploration done by other parties	<p>Exploration has been conducted by the WGJV since 2008. Previous exploration activity has been documented by many workers, and notably includes Harmony, Abelle, Elders and CRA during</p>

their tenure since the 1970's. The Golpu Porphyry was discovered by Elders in 1991 and the high grade Hornblende (Livana) Porphyry by WGJV in 2010. Data transferred from previous exploration programmes has been assessed for quality and risk associated with inclusion of this data evaluated in the Mineral Resource estimation.

The Golpu deposit lies in a block of deformed Upper Mesozoic to Middle Miocene metasedimentary to sedimentary rocks cut by Miocene-Pliocene calc-alkaline dioritic intrusives. Copper and gold mineralisation results from a multiple intrusive porphyry system with the upper portion overprinted by high sulphidation epithermal alteration. Post mineral faulting has displaced and rotated the original intrusive configuration.

The deformational history of PNG is characterised by accretion during oblique collision of the Australian and Pacific plates. A series of arc-normal transfer structures formed across PNG which taped mantle derived melts to high crustal levels. One of these structures termed the Wafi Transfer Structure is interpreted to have facilitated the emplacement of the Golpu intrusives.

The Golpu Porphyry system consists of multiple, hornblende-bearing diorite porphyries intruded into host sediments. The porphyries are separated based on their spatial position, and where not texturally destroyed, into coarse hornblende-rich, feldspathic-rich or quartz 'eye' inclusions variants. Intrusives range from small dykes to small stocks and apophyses. Individual intrusions pinch and swell vertically over tens of metres and form stocks, pipes and dykes.

The Golpu deposit is approximately 800m by 400m elliptical in plan and extends from 200m below surface to approximately 2,000m. Hydrothermal alteration related to the porphyry gol-copper mineralisation forms a predictable zonal arrangement grading from potassic core to propylitic margins. A high-sulphidation epithermal system is 'telescoped' over the upper portion of the porphyry system forming a central alunite-quartz (advanced argillic) core grading out to dickite-kaolinite (argillic) with an outer margin of sericite alteration. This results in either epithermal-dominant, interaction (mixed) or porphyry-only zones within the Golpu deposit. Mineralisation is derived from either the porphyry or epithermal systems. Within the porphyry environment, mineralisation is disseminated, microfracture and stockwork vein controlled. The dominant copper-gold sulphide species varies laterally and vertically within the deposit from an inner bornite (plus chalcopyrite) core, chalcopyrite as the dominant copper sulphide grading to a pyrite only shell. The porphyry system is mineralised with gold, copper, silver and molybdenum. The Livana Porphyry is the main mineralised porphyry. Other porphyries act either as weak mineralisers or as benign hosts.

In the high sulphidation epithermal system which is 'telescoped' over the upper portion of the Golpu Porphyry, gold occurs within pyrite or as electrum associated with pyrite-enargite-tetrahedrite. Abundant arsenian pyrite results in high sulphur and elevated arsenic levels in the epithermal altered volume. Mineralisation broadly follows the metasedimentary and volcanic host rocks stratigraphy (40° dip to east).

Post-mineral thrust (reverse) faulting has dismembered the original porphyry and epithermal systems with offsets of up to 200m within the mineralised column and rotated the high grade porphyry core between faults to dip 70 degrees to grid west.

No exploration has been reported in this statement, therefore there is no drill hole information to report. This section is not relevant to this report on Mineral Resources.

Comments relating to drill hole information relevant to the Mineral Resource estimate can be found in Section 1 – "Sampling techniques", "Drilling techniques" and "Drill sample recovery".

No exploration has been reported in this release, therefore there are no drill hole intercepts to report. This section is not relevant to this report on Mineral Resources.

Comments relating to data aggregation methods relevant to the Mineral Resource estimate can be found in Section 1 – "Sampling techniques", "Drilling techniques" and "Drill sample recovery".

No exploration has been reported in this release, therefore there are no relationships between mineralisation widths and intercept lengths to report. This section is not relevant to this report on Mineral Resources.

Geology

Drill hole  
Information

Data aggregation  
methods

Relationship  
between  
mineralisation

widths and  
intercept lengths

Diagrams No exploration has been reported in this release; therefore, no exploration diagrams have been produced. This section is not relevant to this report on Mineral Resources.

Balanced reporting No exploration has been reported in this release, therefore there are no results to report. This section is not relevant to this report on Mineral Resources.

Other substantive exploration data No exploration has been reported in this release, therefore there are no results to report. This section is not relevant to this report on Mineral Resources.

Further work No further exploration is planned for the Golpu Mineral Resource volume. Specific underground drill programs have been designed within the 2015 Golpu FS BC1 and BC2 volumes to increase confidence in local grade precision and refine geotechnical conditions at critical mine and supporting infrastructure locations. Such programs would be implemented after establishment of access declines. Proposed additional surface drilling is confined to infill geotechnical investigations of access paths. These proposed drill programmes are not exploration related.

### Section 3 Estimation and Reporting of Mineral Resources

Criteria Commentary

Data from the Golpu Project is stored within the WGJV 'Datashed' software database located at the Lae office, PNG. Drill core is logged directly into laptops in the core shed with periodic integration to the WGJV database. Assay data is received from the laboratory in digital format which is subsequently uploaded to the WGJV database using import templates. All data uploaded to the database must pass a data integrity checks and reviews. User access to the database is controlled by a hierarchy of permissions and are controlled by WGJV database administrators with oversight of data integrity by an external Datashed software specialist.

Database integrity Historical assay data collated by CRAE was imported into the WGJV database from an existing MS Access database. The process used by CRAE to transfer assay data into their database is not recorded, however checks of the assay data in the database with the original hardcopy results indicate they are satisfactory for use in a Mineral Resource estimate.

Detailed data review was completed before the estimation of the Golpu December 2015 Mineral Resource estimate. Checks included validation of collar surveys against planned locations and downhole surveys consistency of hole path. Assays were reviewed and compared against observed mineralisation. Logging records were reviewed against core photographs as part of the interpretative geology compilation. All corrections were completed before final data extraction for input to the Mineral Resource estimation.

Site visits The Competent Person is an employee of Newcrest Mining and travelled to site on a regular basis as a former member of the WGJV team during the last resource drilling campaign. Site visits validated the documented mapping, drilling, logging and sampling processes and on-site data management. Laboratory visits to the Lae preparation laboratory, Lae fire assay laboratory and Jakarta assaying facilities were conducted to verify assaying and QAQC procedures.

Geological interpretation The December 2015 geology model for the Golpu deposit includes lithology, alteration, oxidation, sulphide distribution and structures wireframes. Fault wireframes include major thrust faults which displace mineralisation. The most significant thrust is the Reid Fault which displaces the upper Golpu mineralisation approximately 200m up-dip with a small displacement to the north. All lithological, porphyry-related alteration and fault models were constructed in Leapfrog software using implicit modelling interpolations from primary logging codes and modified for interpretative correlations of logged intervals. The implicit modelling methodology is considered less subjective than traditional sectional interpretations.

ASD and 'Corescan' spectral mineralogical data was used in conjunction with the current logged alteration dataset. This enables a higher level of resolution of the layered epithermal system especially for subdivision of clays and other difficult to distinguish indicator minerals of alteration

type and intensity.

Estimation domains are a combination of mineralised porphyry or host units, alteration type and fault partition.

All geological contacts are honoured in the geological interpretations used for grade estimation domains. The confidence in the geological volumes and lithological and faulted contact correlations that were used in the estimation domains is reflected in the resource classification. The geological and structural framework used in the Mineral Resource has also been externally reviewed. It is concluded that the current model is supported by contacts seen in core and makes kinematic and geometric sense with no obvious flaws. There is sufficient drill data to constrain the geological model that alternative interpretations will not be materially different from the framework used in the 2015 Mineral Resource. The geological and structural model has defined the major structural and lithological contacts that impact grade continuity.

**Dimensions** The Golpu deposit is approximately 800m by 400m elliptical in plan and extends from 200m below surface to approximately 2,000m depth.

**Estimation and modelling techniques** The Golpu Mineral Resource grades were estimated with Ordinary Kriging using pairwise variograms of 10m composites for seven elements: gold, copper, silver, molybdenum, sulphur, arsenic, and iron with Vulcan software using domain specific variograms and search for informing 10m composites using the variogram anisotropy. The grades were estimated into a block model with 40m x 40m x 40m parent cells with 10m x 10m x 10m resolution on domain margins. This reflects the estimation precision available from the drillhole spacing of less than 100m x 100m in the upper portion of the deposit and up to 200m x 200m in the lower portions of the deposit and the planned mining method (block caving). Variograms are typically low nugget (7-17% for gold and 5-30% for copper) with long ranges. Search parameters vary by element and estimation domain but reflect the orientation and ranges of the variograms. The maximum number of samples per block typically restricts the actual distance of informing samples to substantially less than the search limits. While there are spatial associations between elements, all are estimated independently.

The grade estimation is based on an underlying 'diffusion' model where grade trends from lower to higher values from the mineralisation margin to the porphyry core in a relatively continuous relationship. Domain drift is apparent for the porphyry system and pairwise variograms were used for modelling grade continuity. Contact analyses indicated the Hornblende (Livana) Porphyry has abrupt grade contacts and is modelled independently. Estimation domains are also bounded at all major thrust faults where drilling has demonstrated clear grade truncations. Most other estimation domains are continuous 'diffusive' transitions from mineralised porphyry margins to the mineralisation limit regardless of host lithology. All porphyry-related domains are modelled with an orientation defined by the elongation of the porphyry system. All epithermal, oxidation and cover sequence domains have shallow dips to grid east again reflecting their overall orientation. Top-cuts were applied to gold and copper composite grades but have no impact on global estimated Mineral Resources. No top cuts were applied to arsenic composites. This is a potential contaminant in copper concentrate and sensitivity to high grade arsenic composites is required to evaluate the final As content potentially delivered to concentrate.

Silver and molybdenum are modelled as they may reach potentially extractable by-products however silver and molybdenum are not included in the revenue estimation. Sulphur and iron are estimated as they inform sulphide speciation and gold:sulphur and copper:sulphur ratios are included in metallurgical recovery models.

The model has been validated by comparison with informing composite declustered statistics and alternative modelling methods including conditional simulations. Alternative models constructed included nearest neighbour, inverse distance, raw variogram Ordinary Kriging, Discrete Gaussian Model, and Conditional Simulation models with Sequential Gaussian into nodes and Direct Block Simulation using Turning Bands into 10m blocks. The impact of independently domaining the Livana Porphyry as a 'hard' boundary compared to incorporation into a continuous grade trend was

also evaluated.

The risk associated with the inclusion of historical data has been evaluated by re-modelling without the non-QAQC validated data - there is no material change between models. Historical assays have been included in the Mineral Resource estimate to improve local estimation precision only.

There are no selective mining units applied to the Mineral Resource reflecting the planned mining method.

The grade, recovery and value models used to quantify the Golpu Mineral Resource are considered appropriate for the style of mineralisation and are suitable for the required estimation precision for the planned mining method – block caving.

Moisture

All tonnages are calculated and reported on a dry tonnes basis.

The Mineral Resource estimate is reported within a break-even value shell using the 2017 (unchanged from 2015) Mineral Resource revenues from gold and copper only and the cost structure from the 2015 Stage 2 PFS (Life-of-Mine-Plan based on 14Mt/year from block cave mining with processing by sulphide flotation producing a copper concentrate for pumping to Lae port and shipment to overseas smelters). Costs include block cave mining, treatment / processing and General and Administration (G&A). Net Smelter Return (NSR) includes metallurgical recoveries and off-site realisation (TCRC) including royalties. Gold revenues assumptions are US\$1,300/oz and copper US\$3.40/lb.

Cut-off parameters

The value of each in-situ block is estimated and a smoothed shell generated at the break-even margin. The shell includes internal below value cut-off blocks and excludes isolated above cut-off blocks. While not a block-cave design, the shell is representative the bulk mining method planned – block caving. All Mineral Resources are constrained within the margin breakeven ‘value’ shell representing the limit to eventual economic extraction.

Mining factors or assumptions

The Mineral Resource estimate is reported within a notional constraining shell at the marginal break-even cut-off, based on mass mining by block caving with no internal selectivity. The 40m x 40m x 40m block-model size and the application of a constraining spatial shell that includes all internal materials and excludes above margin break-even blocks outside the notional shell reflects the non-selective planned mining method.

The metallurgical recovery included in the margin estimation is based on ore processing by copper flotation with copper and gold recovery to copper sulphide concentrate.

Significant test-work has been completed to establish recovery algorithms for copper and gold.

Metallurgical domains are based on the host lithology and alteration type. Each metallurgical domain is assigned a recovery algorithm further subdivided on copper:sulphur and gold:sulphur ratios. Estimated metallurgical recovery is included in the quantification of the Mineral Resource reporting margin value cut-off. For the Mineral Resource cut-off, recovery models are applied for porphyry, high chalcopyrite porphyry, sediments and epithermal alteration domains.

Metallurgical factors or assumptions

Silver and molybdenum are included in the Mineral Resource reporting volume but revenues are not included in the margin value estimation in line with the 2015 Stage 2 PFS. There is no dedicated recovery and revenue path in the 2015 Life-of-Mine PFS for these elements but both have reasonable prospects of eventual economic extraction with only minor changes to the metallurgical flow-sheet. Current modelling indicates silver in copper concentrate will not consistently be above payable grades but this can be potentially achieved during concentrate marketing negotiations. Molybdenum will similarly not always be above cut-off grades however potentially economic grades are present within the block-cave volume.

Environmental factors or assumptions

Based on environmental characterisation completed to date, there are no recognised physico-chemical or biological environmental factors that will limit potential mining or milling operations. Geochemical assessment of rock and tailings has been completed to quantify acid forming characteristics and composition of the material. Waste rock locations, construction and dump design alternatives have been evaluated and designed given this information, with adequate controls allowed for acid rock drainage management. Hydrological models have been undertaken and test water bores have been constructed to evaluate mine vicinity water flows. Mine water will

require treatment for both entrained silt contents and acid rock drainage and pH management before eventual discharge to the receiving environment. Treatment of water will ensure a quality that meets PNG Receiving Water Criteria to mitigate potential impacts to downstream communities and the environment. Options for terrestrial tailings dams have been evaluated and viable options designed. All development and production activities will be permitted by the PNG Department of Environment and Conservation under the Environment Act (2000).

**Bulk density**  
Bulk density has been determined on 10cm core samples typically at 10m intervals down all holes. Methods used to derive bulk density values include air/water (approximately 95%) and wax/water (approximately 5%) where samples are friable. The average bulk density, after statistical review and removal of outliers, is assigned to domains derived from a combination of oxidation, alteration and lithology. The assignment of a constant bulk density per domain assumes limited internal variation within the domain. No elements reflecting sulphide mineralogy are considered significantly abundant to correlate bulk density and grade within the reported Mineral Resource volume.

**Classification**  
The Mineral Resource is classified based on: geological confidence as a function of continuity and complexity of geological features; data spacing and distribution; and estimation quality parameters including distance to informing samples for block grade estimation.

Indicated Mineral Resource, where the geological framework can be modelled with confidence and mineralisation continuity can be assumed, is classified from below the intense epithermal alteration zone to the 4,100m Wafi Grid Level (WGL) - approx. 1,400m below surface or to a major interpreted fault at similar depth. Below this fault and above 3780m WGL, drillhole spacing is increased and geological and grade continuity is less reliable – this volume is classified as Inferred Mineral Resource. All Mineral Resources are constrained within the margin breakeven ‘value’ shell representing the limit to eventual economic extraction. It is the Competent Person’s view that the classifications used for the Mineral Resources are appropriate for the deposit.

**Audits or reviews.**  
The geological and structural framework used in the Mineral Resource has also been externally reviewed. It concluded that the current model is supported by contacts seen in core and makes kinematic and geometric sense with no obvious flaws. The Mineral Resource estimate was the subject of independent external review by AMC. No material issues were identified in these reviews and AMC concluded that the estimates had been prepared using accepted industry practice and classified and reported in accordance with the JORC 2012 Code.

**Discussion of relative accuracy/(gold and copper) of the annual production volumes represented by the average height of draw for confidence**  
For an Indicated Resource estimate it is considered reasonable for the local relative uncertainty to be +/- 15% in tonnage, grade and metal (exclusive of each other, i.e., each variable has to satisfy the criteria) for an annual production volume at a 90% confidence level. Direct block co-simulations BC1 and BC2 in the 2015 Golpu FS were evaluated to demonstrate confidence intervals. This evaluation indicates this criterion can be satisfied. Relative uncertainties and confidence level estimates are considered for both copper and gold as they are both significant economic contributors. There is no production from the Golpu deposit to compare relative accuracy and confidence.

#### Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
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Mineral Resource Estimate for conversion to Ore Reserves	The Golpu deposit lies in a block of deformed Upper Mesozoic to Middle Miocene metasedimentary to sedimentary rocks cut by Miocene-Pliocene calc-alkaline dioritic intrusives. Copper and gold mineralisation results from a multiple intrusive porphyry system with the upper portion overprinted by high sulphidation epithermal alteration. Post mineral faulting has displaced and rotated the original intrusive configuration.
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The Golpu Mineral Resource grades were estimated with Ordinary Kriging using pairwise variograms of 10m composites for seven elements: gold, copper, silver, molybdenum, sulphur, arsenic, and iron. The grades were estimated into a block model with 40m x 40m x 40m parent cells with 10m x 10m x

10m resolution on domain margins. This reflects the estimation precision available from the drillhole spacing and the planned mining method (block caving).

The Mineral Resource is classified based on: geological confidence as a function of continuity and complexity of geological features; data spacing and distribution; and estimation quality parameters including distance to informing samples for block grade estimation. Indicated and Inferred Mineral Resources were constrained within a margin breakeven 'value' shell representing the limit to eventual economic extraction.

The reported Golpu Mineral Resources are inclusive of Ore Reserves.

The Competent Person for the Ore Reserve estimate travelled to site on the following occasions:

April 2015 – Site familiarisation to confirm suitability for infrastructure and inspect core.

Site Visits

June 2016 – Inspect progress on geotechnical drilling programme.

June 2017 – Select a site for the proposed Nambonga decline portal.

Study Status

A Feasibility Study Update was completed in March 2018 for the development of an underground mine comprising of three block caves (BC44, BC42 & BC40). The Feasibility Study Update provides supporting basis for this Ore Reserve estimate. BC44 and BC42 are at a Feasibility confidence level, while BC40 is at a Pre-Feasibility confidence level.

These studies show that the mine plan is technically achievable and economically viable taking into consideration all material Modifying Factors.

Cut-off Parameters

The Golpu Ore Reserve employs a value based cut-off determined from the Net Smelter Return (NSR) and site operating costs based on the outcomes of the Feasibility Study Update. The cut-off values applied for the estimation of Ore Reserves are: Activity Units USD (real) Development prior to first BC44 crusher commissioning USD/t ore milled 10 BC44 USD/t ore milled 60 BC42 USD/t ore milled 40 BC40 USD/t ore milled 19.15 The NSR calculation takes into account reserve revenue factors, metallurgical recovery assumptions, transport costs, refining charges and royalty charges. The site operating costs include mining cost, processing cost, relevant site general and administration costs and relevant sustaining capital costs.

Mining factors or assumptions

Estimation of the Golpu Ore Reserve involved standard steps of mine optimisation, mine design, production scheduling and financial modelling. Factors and assumptions have been based on numerical modelling as well as experience and performance in similar caving operations. The basis of the analysis is considered at Feasibility (BC44 and BC42) and Pre-Feasibility (BC40) study levels. Preceding Pre-Feasibility and Feasibility studies completed in 2012, 2014 and 2015 deemed block caving to be the appropriate underground mining method to maximise the economic output of the Mineral Resource. The Feasibility Study Update (on which this Ore Reserve statement is based) defined a three lift block cave mine plan. Extraction levels for the three block caves are; 4400mRL (BC44), 4200mRL (BC42), and the 4000mRL (BC40). Geotechnical assessment during the studies has resulted in the following key block cave mine design parameters in the Feasibility Study Update: Mine Design Parameter Value Undercutting Strategy Advanced Undercut Undercut Design W Cut with Apex level Extraction Level Layout El Teniente Extraction Spacing 30m x 18m Draw Column Height Average BC44 320m BC42 490m BC40 590m Maximum BC44 530m BC42 805m BC40 1,120m Additional drilling will be required to collect further data for further geological, geotechnical and metallurgical studies to inform final design. Grade control during the production phase will be in the form of block cave drawpoint sampling. The in situ grade model estimated in July 2014 was the

basis for the Ore Reserve estimate. The Feasibility Study Update proposes the following mining approach: Secondary/Initial underground access via the Nambonga Decline to provide earlier and quicker access to underground drill platforms, second means of egress and ventilation. Primary underground access via the Watut Portal and the twin Watut Declines to the underground block cave mine. The Watut Declines also form part of the primary ventilation circuit and materials handling system conveying ore to the Watut Process Plant. A 'Cave Engineering Level' established above the Reid Fault at 4870mRL for data gathering, further refinement of the rock mass, monitoring of the cave and potentially dewatering. Ore extracted via three block caves producing at 17Mtpa (design capacity) using an inclined conveying system to discharge on a stockpile on the surface. The following Modifying Factors have been applied: All development has mining factors for dilution and recovery applied to accurately represent the expected mined tonnes. Decline, access and infrastructure shapes for BC42 and BC40 outside of the Mineral Resource have tonnes contributing but not metal; these tonnes are allocated to unclassified material. PCBC™ software is used for cave production scheduling and estimation of grade for material drawn from the block caves. The total Life of Mine dilution is approximately 17%. The geological model is classified as Indicated and Inferred Mineral Resources. There is no Measured Mineral Resource. Mine plans are based on the extraction of caving blocks solely delineated on the basis of Indicated Mineral Resources. Ore Reserves estimates and statements are required to include estimates of dilution. The dilution included in the total Ore Reserve (400Mt on 100% basis) is approximately 79Mt due to the block cave mining method. The dilution included in the Ore Reserve contains 7% of the gold metal and 5% of the copper metal of the Ore Reserve and does not have a material impact upon the estimate. Even without consideration of the metal contained in the dilution incorporated in the Ore Reserve, the economic analysis indicates an economic Probable Ore Reserve. The Wafi-Golpu Project is a greenfield block caving project and will require the following mining infrastructure to support the block caves: ventilation fans and refrigeration equipment; dewatering equipment; crushing and conveying equipment; and underground workshop, service and personnel facilities.

Metallurgical factors or assumptions

The ore will be processed on site at the proposed treatment plant with a design capacity of 17 Mtpa using conventional single stage SAG and ball mill grinding, recycle crushing and flotation methods that are incrementally sized to match the mining rate to produce a copper and gold concentrate. The technology associated with the ore processing is industry standard for this style of deposit. The key metallurgical testwork for the Golpu deposit can be grouped into five main programmes as follows:

Testwork completed prior to 2011 on samples from above 5120mRL.

2012 PFS Variability testwork and Metallurgical Domain Model completed on samples over the vertical extent of the known Golpu deposit from 5120mRL to 3850mRL across 14 exploration drill holes.

2013/14 Variability and flowsheet development testwork from 102 composites in the 2012 PFS programme. Variability samples were prepared from material selected from exploration drill holes to provide spatial and grade variability within the respective domains. The testwork samples were obtained from 14 exploration drill holes across seven metallurgical domains.

2015 Feasibility Study testwork programme executed testwork through the chosen process flowsheet using bulk samples from a mine plan targeting the development of two block caves. Based on the mine development, the ore types identified in the early years of production included domains 29 (Sericitic metasediment), domain 30 (Sericitic porphyry) and domain 33 (Actinolite porphyry) and

account for 92% of material mined within the planned block caves.

2018 Feasibility Study Update testwork programme including comminution testwork to determine milling characteristics for ore from 4000mRL. This ore is characterised by higher work indices than the ore higher in the orebody, thus additional work will be executed in the near future to confirm characteristics and if necessary alter the mill specifications during detailed design.

A total of 13 geometallurgical domains were assigned to represent an improved geological interpretation of the Golpu deposit and increase the understanding of the copper and gold recoveries in the deposit. Gold and copper recoveries are calculated for each domain. The geometallurgical domains are based upon 103 composite samples assembled from 17 exploration drillholes through the entire deposit. Life of Mine metallurgical recoveries are:

Gold 68%

Copper 95%

Final concentrate derived from the testwork was utilised to conduct a product quality assessment, which incorporated chemical analysis for major elements and potential deleterious elements. The analysis indicated that the levels of deleterious elements in concentrate did not exceed any of the typical concentration restrictions for sale.

Feasibility study level analysis is in progress assessing the potential environmental impacts of the mining and processing operations required for the mining of the Golpu deposit and an Environmental Impact Statement is proposed to be submitted by the WGJV to the PNG government by the end of June 2018.

Environmental

NAF (Non-Acid Forming) waste rock would be produced from the first 300m of the Nambonga Decline and the first 2,000m of the twin Watut Declines. This material would be used to construct the retaining wall, base and access road for the PAF (Potentially Acid Forming) cells. PAF would be expected to be encountered from below these points for the remaining scope of the mine. This material will either be stored in cells encapsulated in impervious material or treated via the processing plant.

Deep Sea Tailings Placement (DSTP) has been identified in the Feasibility Study Update as the preferred method for tailings management.

Infrastructure

The Wafi-Golpu Project is a greenfield project and currently does not have infrastructure to support mining operations. Major Infrastructure is required and included in the Feasibility Study Update, including:

access road;

ventilation and refrigeration plant;

processing plant (copper concentrator);

Deep Sea Tailings Placement system including tailings pipeline from site to the discharge point near Lae;

concentrate export pipeline plus associated dewatering and loading facilities at the existing Lae Port;

accommodation camp; and

on site power station.

The land in which the Project is located is mostly under customary land title, some of which has been in dispute between customary land title holders since mineral exploration began in the early 1980s. The compensation of landholders is a requirement to the start of work however, Section 160 of the Mining Act 1992 means that a dispute between customary land title holders of this nature will not impede Project execution.

Capital and Operating costs have been determined as part of the Feasibility Study Update. Capital cost estimates are based on multiple market prices across all technical disciplines. Provision has been made for capital expenditure requirements for new equipment, infrastructure and replacement of infrastructure and equipment during the life of the mine. Contingency has also been factored into the capital cost estimate consistent with the level of accuracy of the study.

Operating cost estimate first principles cost modelling expenses have been quantified as far as possible and where practicable supported by quotations.

Long term metal prices and exchange rate assumptions adopted in the Ore Reserve estimate are the WGJV approved long term assumptions for the Project.

Costs

No cost impact is expected from deleterious elements. It has therefore not been necessary to include realisation penalties (additional costs) relating to minor elements when preparing the Ore Reserve estimate.

Transport and refining charges have been based on forecast supply and demand assumptions.

The following allowances have been made for royalties payable in the preparation of the Ore Reserve estimate:

Royalty of 2.00% of net smelter revenue (i.e. gross revenue from all mining sales adjusted for realisation and freight charges).

Mining Levy of 0.25% of gross revenue from all mining sales.

Revenue factors Long term metal prices and exchange rate assumptions adopted in the Ore Reserve estimate are the WGJV approved long term assumptions for the Project and are:

USD1,200/oz for gold

USD3.00/lb for copper

USD/AUD 0.75

PGK/USD 3.10

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The NSR calculation takes into account reserve revenue factors, metallurgical recovery assumptions, transport costs and refining charges and royalty charges.

Metallurgical test work analysis has indicated that the levels of deleterious elements in concentrate did not exceed any of the typical concentration restrictions for sale.

Third party forecasts were used in the Feasibility Study Update (noting that this information is commercial in confidence).

Market  
assessment

The Wafi-Golpu Project's natural market for concentrate is Asia due to the proximity of the mine to Asian region smelters.

The Wafi-Golpu Project is expected to achieve first ore milled approximately 4.75 years post SML grant. At such time, the Wafi-Golpu Project may face competition from both new and established mines.

Concentrate volume forecasts were derived from the Feasibility Study Update production schedule.

Economic

The Ore Reserve has been evaluated through a financial model. All operating and capital costs as well as revenue factors stated in this document were included in the financial model. A discount factor of 8.5% real was applied. This process demonstrated the Golpu Ore Reserve to have a positive NPV. Sensitivities were conducted on the key input parameters including commodity prices, capital and operating costs, ore grade, discount rate, exchange rate and recovery which confirmed the estimate to be robust. The NPV range has not been provided as it is commercially sensitive.

Social

To assess the social and economic impacts of the Project upon communities, the Feasibility Study Update included an in depth Social and Cultural assessment, including leveraging off historical assessment work completed. In addition an assessment of the potential economic impacts of the Project (if developed) was undertaken by WGJV.

The land in which the Project is located is mostly under customary land title, some of which has been in dispute since mineral exploration began in the early 1980s. The compensation of landholders is a requirement to the start of work however, Section 160 of the Mining Act 1992 means that a dispute of this nature will not impede Project execution.

Other key agreements that will be required for project development include: the Memorandum of Agreement (a Development Forum process) in relation to benefits that might be accrued to effective landholders and a Mining Development Contract with the Independent State of PNG.

The respect for all landowners, and regular engagement with them, will be vital to the maintenance of a social licence to operate.

Other

A Level 2B Environment Permit (EP) has been granted for exploration activities.

Applications for a Special Mining Lease (SML) and related ancillary tenements have been submitted by WGJV to the Mineral Resources Authority.

Approval of the Project by the PNG Government will be founded on the assessment of the Environmental Impact Statement (EIS) due to be submitted by the WGJV to the PNG government by the end of June 2018. This EIS will inform government's decision to grant an SML, related ancillary tenements and a Level 3 EP. The grant of these key instruments is a prerequisite for execution of the Project.

The Golpu deposit is located in a seismically active area in a region close to a source of earthquakes that can produce seismic accelerations at the site. This risk has been taken into account in infrastructure and mine design.

Classification

The Ore Reserve classification is based on Indicated Mineral Resources only. No Measured Mineral Resources are stated for this deposit. This classification is based on geological confidence as a function of continuity and complexity of geological features; data spacing and distribution and estimation quality parameters including distance to informing samples for block grade estimation.

Diluting material has been included within the Probable Ore Reserve as mined dilution due to the non-selective nature of block cave mining. This represents 7% of the gold metal and 5% of the copper metal in the Ore Reserve. Even without consideration of the metal contained in the dilution incorporated in the Ore Reserve, the economic analysis indicates an economic Probable Ore Reserve. It is the Competent Person's view that the classifications used for the Ore Reserves are appropriate.

Audits or reviews

SRK Consulting (Australasia) Pty Ltd (SRK) was commissioned to conduct an independent review of the mining section of the Feasibility Study Update, which included the Ore Reserve estimation processes and results.

SRK concluded that the Ore Reserve estimates had been prepared using normal industry practice and has been appropriately classified as Probable Ore Reserve. SRK did not identify any material issues with the estimate.

Discussion of relative accuracy/confidence

The accuracy of the estimates within this Ore Reserve is mostly determined by the order of accuracy associated with the Mineral Resource model.

BC44 and BC42 are at a Feasibility confidence level (+/-15% accuracy), while BC40 is at a Pre-Feasibility confidence level (+/- 25% accuracy).

The Competent Person views the Golpu Ore Reserve a reasonable assessment of the global estimate.

The remaining areas of uncertainty at the current study stage are with the geotechnical parameters for the mining area below 4200mRL (i.e. BC40) that has been investigated to a Pre-Feasibility Study (PFS) level of confidence and is constrained by an incomplete set of orebody data with rock strength only being confirmed in the north east quadrant of the planned BC40 footprint. An analysis has indicated that based on the known rock strength being extrapolated across the remaining areas of lower orebody knowledge, mining is feasible. The Modifying Factors (key inputs) applied within PCBC™ cave scheduling software relies upon geology and geotechnical data such as structural geology and rock mass strength.

Further orebody data is required to confirm the geological and geotechnical information and is planned as part of the Forward Works Programme.

Golpu is a greenfields site and there is no previous production from the Golpu deposit to compare relative accuracy and confidence.

#### About the Wafi-Golpu Project

Harmony and Newcrest each currently own 50% of Wafi-Golpu through the WGJV.

The State of PNG retains the right to purchase, at a pro rata share of accumulated exploration expenditure, up to 30% equity interest in any mineral discovery at Wafi-Golpu, at any time before the commencement of mining. If the State of PNG chooses to take-up its full 30% interest, the interest of each of Newcrest and Harmony will become 35%.

The Golpu deposit is located approximately 65km south-west of Lae in the Morobe Province of PNG which is the second largest city in PNG and will host the Wafi-Golpu export facilities. The proposed mine site sits at an elevation of approximately 200 metres above sea level in moderately hilly terrain and is located near the Watut River approximately 30km upstream from the confluence of the Watut and Markham rivers.

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### Competent Person's Statement

The information in this report that relates to Golpu Mineral Resources is based on information compiled by the Competent Person, Mr David Finn, who is a member of The Australasian Institute of Mining and Metallurgy. Mr David Finn, is a full-time employee of Newcrest Mining Limited or its relevant subsidiaries. Mr David Finn has sufficient experience which is relevant to the styles 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 JORC Code 2012 and SAMREC 2016 (materially the same as the JORC code).. Mr David Finn consents to the inclusion of material of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Golpu Ore Reserves is based on information compiled by the Competent Person, Mr Pasqualino Manca, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Pasqualino Manca, is a full-time employee of Newcrest Mining Limited or its relevant subsidiaries, Mr Pasqualino Manca has sufficient experience which is relevant to the styles 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 JORC Code 2012 and SAMREC 2016 (materially the same as the JORC code). Mr Pasqualino Manca consents to the inclusion of material of the matters based on his information in the form and context in which it appears.

Mr Gregory Job, BSc, MSc, who has 29 years' relevant experience and a member of the Australian Institute of Mining and Metallurgy (AusIMM), is Harmony's competent person for Papua New Guinea.

Mr Jaco Boshoff, BSc (Hons), MSc, MBA, Pr. Sci. Nat, MSAIMM, MGSSA is Harmony's lead competent person. Mr Boshoff who has 22 years' relevant experience, is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a member of the South African Institute of Mining and Metallurgy (SAIMM) and a member of the Geological Society of South Africa (GSSA).

### Forward Looking Statements

This report contains forward-looking statements within the meaning of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended, with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters. These include all statements other than statements of historical fact, including, without limitation, any statements preceded by, followed by, or that include the words "targets", "believes", "expects", "aims", "intends", "will", "may", "anticipates", "would", "should", "could", "estimates", "forecast", "predict", "continue" or similar expressions or the negative

These forward-looking statements, including, among others, those relating to our future business prospects, revenues and income, wherever they may occur in this report and the exhibits to this report, are essentially estimates reflecting the best judgment of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this presentation. Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation: overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere, estimates of future earnings, and the sensitivity of earnings to the gold and other metals prices, estimates of future gold and other metals production and sales, estimates of future cash costs, estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices, statements regarding future debt repayments, estimates of future capital expenditures, the success of our

business strategy, development activities and other initiatives, estimates of reserves statements regarding future exploration results and the replacement of reserves, the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, fluctuations in the market price of gold, the occurrence of hazards associated with underground and surface gold mining, the occurrence of labor disruptions, power cost increases as well as power stoppages, fluctuations and usage constraints, supply chain shortages and increases in the prices of production imports, availability, terms and deployment of capital, changes in government regulation, particularly mining rights and environmental regulation, fluctuations in exchange rates, the adequacy of the Group's insurance coverage and socio-economic or political instability in South Africa and Papua New Guinea and other countries in which we operate.

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 Integrated Annual Report and Form 20-F which is on file with the Securities and Exchange Commission, as well as the Company's other Securities and Exchange Commission filings. The Company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events, except as required by law.

Ends.

12 April 2018

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NYSE:  
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ISIN no: ZAE000015228

Registration no: 1950/038232/06

JSE Sponsor: J.P. Morgan Equities South Africa Propriety Limited

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.

Harmony Gold Mining  
Company Limited

Date: April 12, 2018 By: /s/ Frank Abbott  
Name Frank Abbott  
Title Financial Director