CRATER GOLD MINING

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## MAIDEN JORC GOLD RESOURCE AT HGZ PROJECT, CRATER MOUNTAIN, PNG

### Highlights:

- **High grade JORC gold resource**
- **Potential to increase gold resource substantially**
- **3 major gold veins identified contain the majority of the gold**
- **Drilling programme to target extensions of identified high grade veins**

Crater Gold Mining Limited (ASX: CGN or the Company) is pleased to announce a maiden inferred resource estimate reported in accordance with JORC guidelines for its HGZ gold mining project, part of the Crater Mountain Project in Papua New Guinea (PNG) of 44,500 tonnes at 11.9 g/t for 17,100 ounces of gold (cut- off grade of 5 g/t Au).

With the project already being in production and having gold processing facilities on site, the maiden resource paves the way for increased production with minimal additional capital expenditure or development time.

The initial Inferred Resource at HGZ comprises:

| Resource Category | Tonnes | Grade (Au g/t) | Gold Oz |
|---|---|---|---|
| Inferred - cut-off of 5g/t au | 44,500 | 11.9 | 17,100 |
| Within this resource at a higher cut–off of | | | |
| > 7.5g/t Au | 23,500 | 17.2 | 13,000 |

As part of the resource definition, mapping of the HGZ showed three distinct major high grade gold veins Figure 1. The three veins are closely linked and are estimated to carry 11,800 ounces of gold. The Company will now refine the mining method for maximum gold extraction from the higher cut-off grade of 7.5g/t Au implementing a revised, more focussed mining plan. This will allow more efficient, targeted gold production The mining plan will be implemented, with the development of the 1930 Level via a new adit which is currently being established

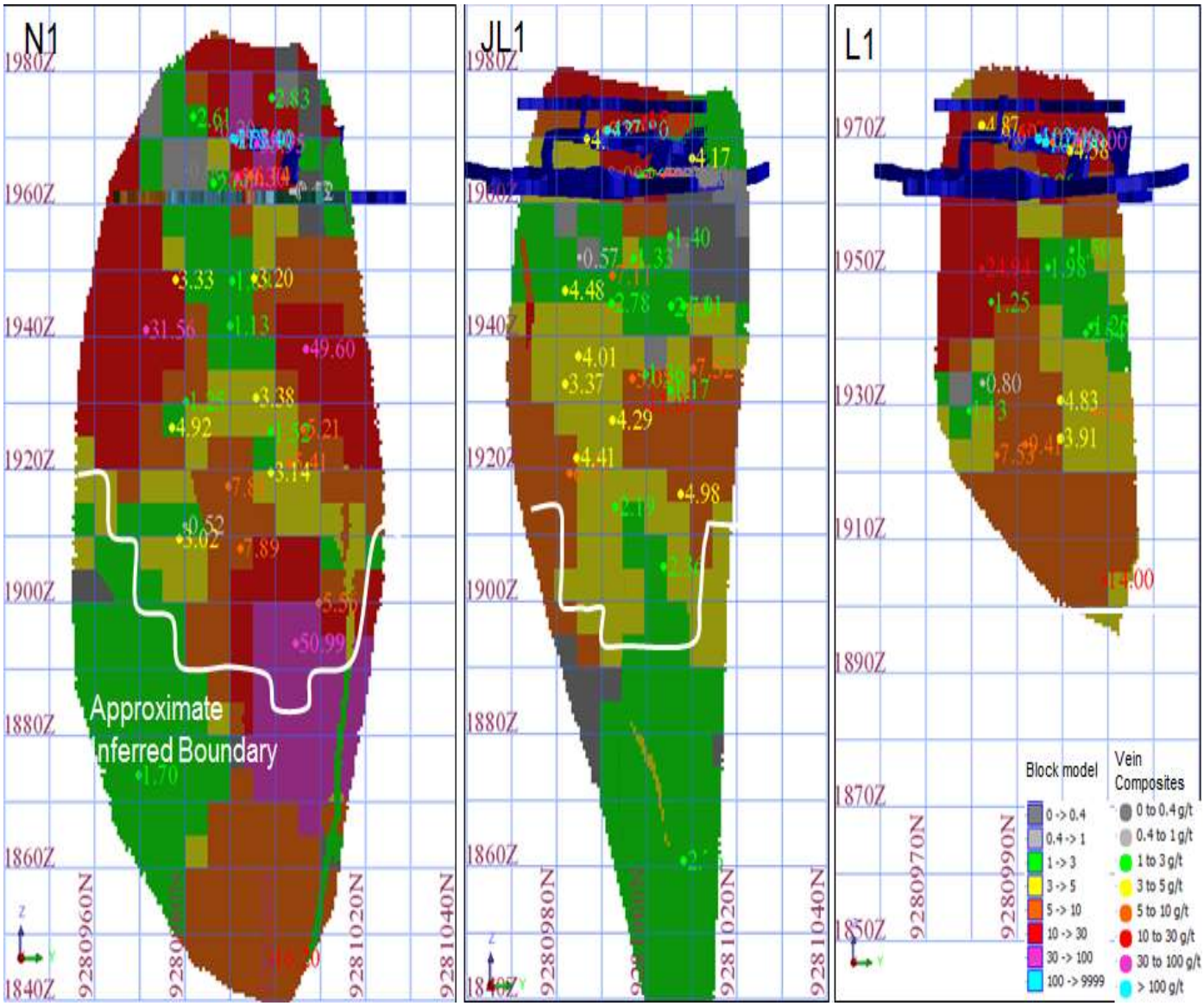


**Figure 1 - - N-S Composite Sections: The 3 identified high grade veins N1, JL1 and L1**

CGN's Technical Director, Richard Johnson commented:

*"This maiden resource marks a significant milestone for the Company, confirming the potential for profitable gold mining from the HGZ project. The report also provides us with more detail of the high grade veins enabling us to target more selective mining of the 3 main high grade veins. going forward. Whilst the initial JORC resource may seem modest, the gold is accessible and all infrastructure is in place, allowing the Company to move quickly to mining of the 3 veins as well as other cross cutting structures.'*

The maiden resource estimate only considers the HGZ as identified to date. Development of the 1930 Level will pass through approximately 100m of previously unexplored ground adjacent to the high-grade zone. This area is considered prospective for finding additional gold bearing structures.

The potential to increase the resource is also considered substantial given that drilling to date has mostly been confined to a maximum depth of 75m from surface (Figure 2). However there is also evidence from drilling that gold is encountered at least to a depth of 128m from surface (NEV022) The Company plans to commence in-fill drilling from the 1930 level which is currently under development as recommended.

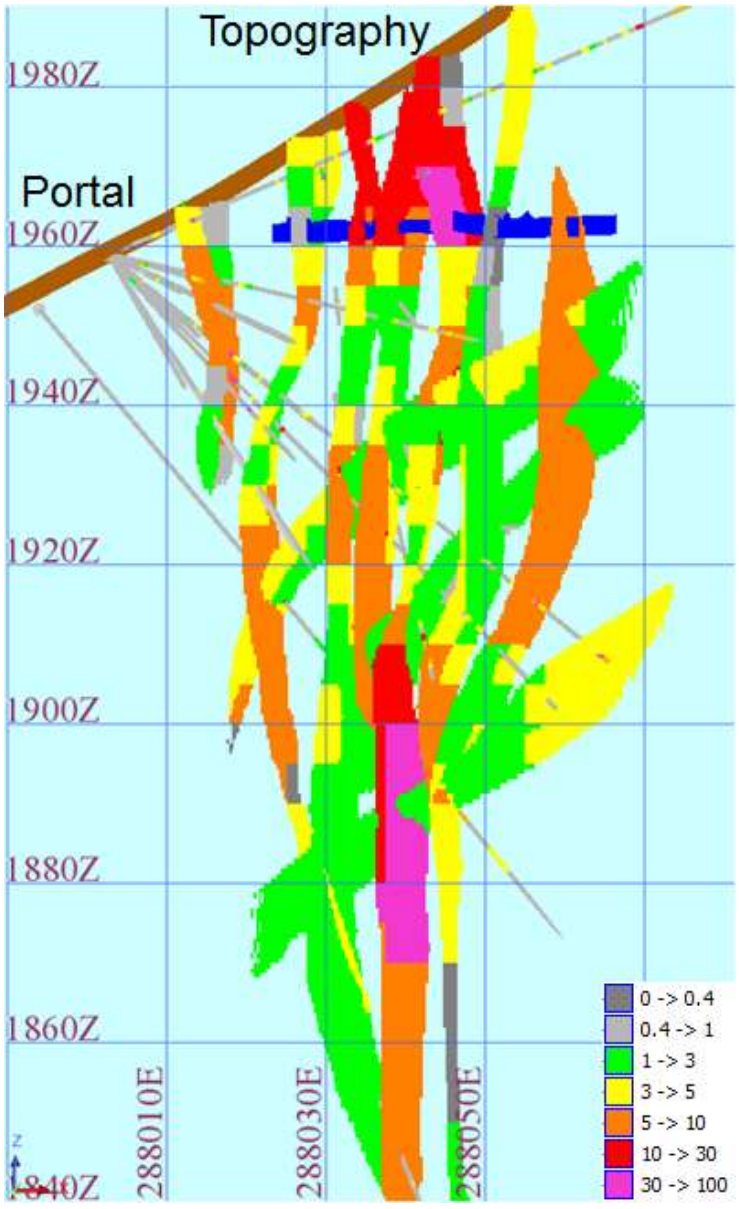


**Figure 2 - Mineralised Zones at Crater Mountain Deposit. (9281000 mN)**

The resource estimate was completed by Ian Taylor, (AusIMM(CP)) of Mining Associates.

The Nevera Prospect was visited by Mr Ian Taylor during the period 26th to 30th September 2016. In the course of the site visit, Mr Taylor viewed mineralised drill core and examined the drill core, processing and storage facilities. He also toured the underground workings, inspecting geology in the backs and walls of underground drives.

From this, he provided a report including the resources estimate, mapping details of high grade veins and recommendations.

**Recommendations**

Mr Taylor states in his report to the Company that there is an opportunity to expand the resource along strike and laterally with further drilling and mapping, and also to improve the confidence of the mineral resources internally by infill drilling and development. Lateral drilling to extend resources should be targeted based on existing intersections and understanding of cross structures and the steeply plunging shoots from the newly developed working pad at the 1930 level. Infill drilling should confirm the strike continuity of vein systems particularly following up intersections identified in the deep drill hole NEV022. Infill drilling and further channel sampling is required to increase level of the resource categories.

An opportunity exists for deeper drilling targeting the high grade shoots during development of the 1930 m RL adit. A drill cuddy could be cut at 9280980 mN and 287990mE (1934 mRL) to provide a suitable platform for 4 to 8 holes (Table 1 & Figure 3) targeting the extensions of identified high grade shoots, particularly veins N1 and L1.

**Table 1: Proposed Drill Holes**

| Proposed Hole | Dip | Azimuth | Depth | Extension or Infill |
|---|---|---|---|---|
| P1 | -6 | 60 | 85 | E |
| P2 | 0 | 100 | 65 | I |
| P3 | 15 | 110 | 70 | E |
| P4 | -36 | 60 | 90 | E |
| P5 | -42 | 65 | 90 | E |
| P6 | -48 | 70 | 85 | I |
| P7 | -48 | 85 | 80 | I |
| P8 | -44 | 100 | 70 | I |

A Long Section showing the outline of the block model, including unclassified targets and proposed targeted drill intercepts Figure 3.

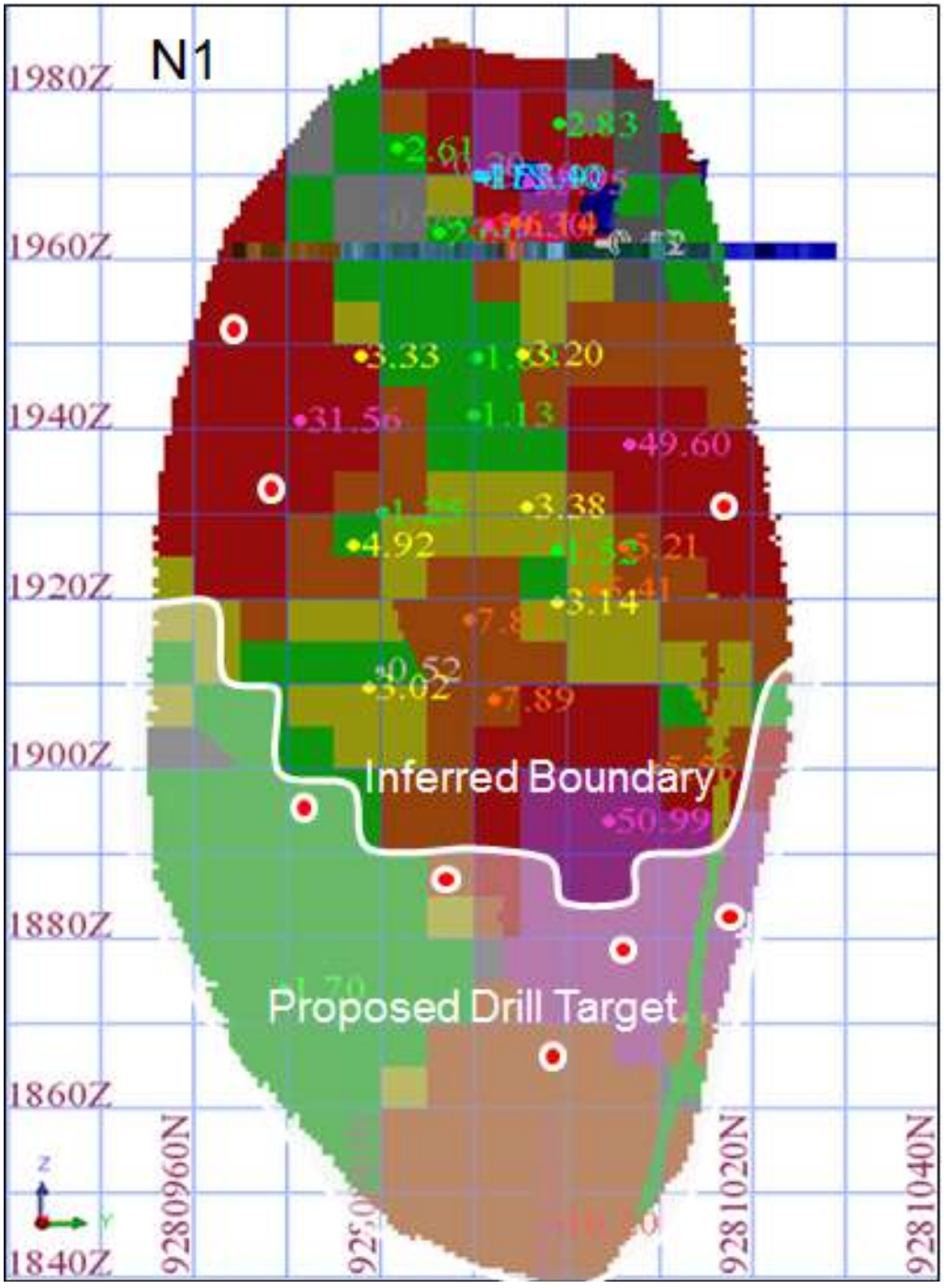


**Figure 3 Long Section View showing Proposed Drill Intercepts**

**Figure 4 - Crater Mountain Site Office and Accommodation**

**HGZ independent technical review.**

Previously, following a site visit in mid-September 2013 by Mining Associates (MA) principal Mr Andrew Vigar, concluded that the target for the HGZ project based on selective underground mining may be stated as:

**HGZ Target – 50 to 250 kt @ 13 to 30 g/t Au for 60 to 100k Oz of contained Au**

MA stated "*It is likely that similar independent high grade gold deposits may be repeated at several places as splays off key structures over a potential area of at least 1400m by 700m.*"

MA did caution that the potential quantity and grade was conceptual in nature. MA was commissioned by the Company to delineate a target for the HGZ area

In its report, MA stated that the HGZ Target was defined by a 100m radius circle centred on the area of artisanal workings. (Figure 2)

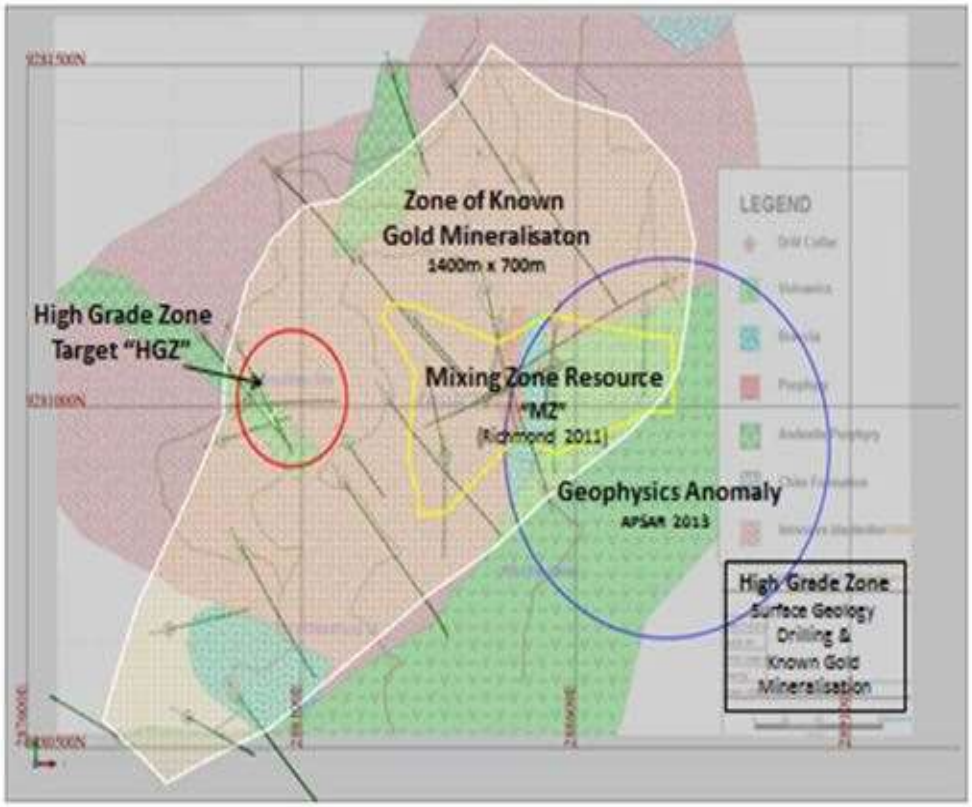


**Figure 2 - High Grade Zone in relation to known mineralisation and Mixing Zone**

## Mixing Zone Project

While the current focus remains on the HGZ mine, there remains potential to increase the resource of 24Mt at 1.0 g/t Au for 790,000 ounces (which includes 9.4Mt at 1.46 g/t using a 1.0 g/t Au cut-off for 440,000 ozs) at the nearby Mixing Zone (MZ) Project at Crater Mountain (refer ASX Release of 24 November 2011: "Crater Mt – Initial Resource Estimate". This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. The Company is not aware of any new information or data that materially affects the information contained in that ASX release. All material assumptions and technical parameters underpinning the resource estimate continue to apply and have not materially changed).

The MZ project lies entirely within the Company's ML 510. This offers scope for fast tracking the development of the MZ project.

Crater Mountain is located 50 km southwest of Goroka in the Eastern Highlands Province of PNG. Formerly a tier-1 BHP asset, there has been in excess of 14,500 metres of diamond drilling to date, the majority focussed on the Nevera prospect, which hosts the HGZ mine

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**Declaration under JORC 2012 and JORC Tables - HGZ Mineral Resource**

The information in this report that relates to the HGZ Mineral Resources estimate was based on information compiled by Mr Ian Taylor, a full-time consultant geologist of Mining Associates Pty Ltd, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM(CP). Mr Taylor has sufficient experience relevant to the type and style of mineral deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Mr Taylor consented to the release of the Mineral Resource estimate, based on the information in the form and context in which it appears in this report.

## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria | Commentary |
|---|---|
| ***Sampling techniques*** | • *Diamond drilling is used to obtain core from which samples at intervals ranging from 0.5-2.0m in length are submitted for analysis using FAA505 methodology. A 50g charge is used for fire assay for analysis for gold.*<br>• *All diamond drill core drilled by CGN is sampled in intervals based on geological logging. Previous diamond drilling was carried out with PQ, HQ and NQ diameter core and all core was cut with half core typically sent for sample preparation at SGS, Lae and pulps sent to SGS, Townsville for assay.*<br>• *Current diamond drilling is with LTK48 core, 35mm diameter. Whole core is sampled and sent for preparation and assay. Whole core is used to ensure sufficient sample mass and representivity.*<br>• *Underground exploration development is also carried out with drives and cross cuts. Face and sidewall channel samples are taken using moil and hammer to obtain samples of approximately 3kg. Channel lengths vary from 0.20-2.0m depending on geology.* |
| ***Drilling techniques*** | • *Diamond drilling is currently carried out using an underground rig with LTK48 rods and standard tube core barrel. Core diameter is 35mm. The rig is also set up to drill from surface.*<br>• *Historical drilling by CGN at the Nevera prospect has been by diamond drilling PQ, HQ and NQ diameter core using triple tube and core orientation with a Reflex ACT II device* |
| ***Drill sample recovery*** | • *Core recovery is measured for the complete hole based on the driller's mark-up, checked during core mark-up in 1m intervals by the geologist. Drill core is measured to accurately quantify sample recovery.*<br>• *Gold mineralisation at the CGN HGZ is typically concentrated in narrow oxidised structures. To ensure representative samples, whole core is sampled.*<br>• *This release relates to result from the first three holes in the current programme. It is not known whether a relationship exists between sample recovery and grade.* |
| ***Logging*** | • *A qualified geoscientist logs the geology of all holes in their entirety including geotechnical features. Drill core is geologically and routinely geotechnically logged to a level of detail considered to accurately support Mineral Resource estimation. The parameters logged include lithology with particular reference to veining, mineralogy, alteration, and grain size.*<br>• *All core is photographed. Recent digital photos and scans of film photography are stored electronically. All of the holes with results mentioned in the release have been logged and photographed in their entirety.* |
| ***Sub-sampling techniques and sample preparation*** | • *For samples of core, whole core is taken and bagged.*<br>• *Channel samples are bagged wet underground.*<br>• *Samples are sent to SGS, Lae for sample preparation.*<br>• *Samples dried in original calico bags at 105°C for 4+ hours in an Essa DO1 two cubic metre drying oven.*<br>• *Dried samples crushed to 90 per cent passing 3 mm using a Rocklabs Boyd Mark III jaw crusher.*<br>• *Crushed samples riffle split to collect 0.6 to 1.2 kilogram subsample.*<br>• *Subsamples pulverised to 90 per cent passing 75 µm, for approximately three minutes in either of two Essa LM2-P pulverisers with B2000 bowl sets.*<br>• *One sample in 20 wet sieved to check pulveriser performance to target standards.* |

| Criteria | Commentary |
|---|---|
| | • *One sample in ten selected randomly and resplit prior to pulverisation, with control samples shipped as part of the batch to SGS Townsville.*<br>• *Prepared assay pulps placed in wire-top bags, with several included in a heat-sealed plastic bag in a shipping box, sealed with packaging and SGS security tape.*<br>• *Up to three shipping boxes placed in a labelled, security sealed and numbered poly-weave sack and shipped to SGS Townsville by DHL Express.*<br>• *Assaying at SGS, Townsville is by FAA505 methodology fire assay for gold* |
| ***Quality of assay data and laboratory tests*** | • *All samples are currently assayed at SGS, Townsville. SGS maintains robust internal QA/QC procedures (including the analysis of standards, repeats and blanks) which are monitored with the analytical data by CGN geologists.*<br>• *Ore grade Certified Reference Material standards and blanks are introduced into the sample stream by the geologists. Blanks are also introduced by SGS after the sample preparation stage in Lae before shipment to Townsville.*<br>• *Based on the results of standard analysis, in addition to the internal QA/QC standards, repeats and blanks run by the laboratory, the laboratory is deemed to provide an acceptable level of accuracy and precision.* |
| ***Verification of sampling and assaying*** | • *Significant intersections are checked by the Senior Exploration Geologist.*<br>• *Twinned holes are drilled to represent approximately 20% of the holes drilled or at least one twinned hole per section line. The core is not sampled but logged and kept as a permanent whole core record.*<br>• *Original laboratory documents exist of primary data, along with laboratory verification procedures.*<br>• *The Crater Mountain drilling and channel sampling database exists in electronic form. The assay data are imported directly into the database from digital results tables sent by the laboratory. The Senior Exploration Geologist manages the drill hole assay database.*<br>• *No adjustment has been made to assay data received from the laboratory.* |
| ***Location of data points*** | • *The initial datum was established using a single station differential GPS (DGPS) at two points. The mean of readings taken over 3 days was accepted as datum. Survey from the datum point is by theodolite with 20 second closure.*<br>• *Grid is UTM WGS84* |
| ***Data spacing and distribution*** | • *Drilling at the HGZ has identify the nature and style of mineralisation.*<br>• *Spacing is sufficient to understand grade and geological continuity* |
| ***Orientation of data in relation to geological structure*** | • *At the HGZ a general north south trending zone of mineralization is interpreted to incorporate north south and east west mineralized fractures.*<br>• *Drilling intersects this zone such that sampling of north south structures is considered unbiased.*<br>• *Possible east west cross cutting structures will require drill testing from additional drill pads or channel samples from development in due course* |
| ***Sample security*** | • *For diamond drilling, whole core is collected in calico sample bags marked with a unique sample number which are tied at the top. Samples are transported to SGS, Lae under direct company supervision or secure independent contractor.* |
| ***Audits or reviews*** | • *No audits or reviews of sampling techniques and data were done* |

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria | Commentary |
|---|---|
| ***Mineral tenement and land tenure status*** | • *The results are from drilling and underground channel sampling within Exploration Licence EL1115 located at Crater Mountain, Lufa District, Eastern Highlands Province PNG. EL1115 is wholly owned by CGN. An application for renewal of EL1115 has been lodged.* |
| ***Exploration done by other parties*** | • *Four programs of diamond drilling were conducted at the Nevera Prospect from 1994, when EL 1115 was first granted with successive operators BHP Billiton Pty Limited (BHP), Macmin NL (Macmin) and Triple Plate Junction Plc (TPJ). CGN acquired control of EL1115 in 2008* |
| ***Geology*** | • *The Crater Mountain Project lies within a typical large and complex New Guinea Orogen mineralised hydrothermal system. Mineralisation is associated with sub-volcanic magmatic activity related to the locally prominent Nevera Igneous Complex.*<br>• *The mineralisation styles identified to date are:*<br>  ▪ *Low sulphidation epithermal carbonate-base metal sulphide-gold Mixing Zone mineralization* |

| Criteria | Commentary |
|---|---|
| | ▪ *High sulphidation high grade epithermal quartz-pyrite-gold mineralisation (High Grade Zone "HGZ") extending from surface to several hundred metres depth, comprising a series of sub-vertical fractures and associated near-vertical mineralized shoots.*<br>▪ *Deep porphyry copper-gold mineralization.* |
| ***Drill hole Information*** | • *Not applicable to this report.*<br>• *All drill data was used to constrain the interpretation and inform the estimation.* |
| ***Data aggregation methods*** | • *Drill hole intercept grades are reported as down-hole length-weighted averages with any non-recovered core within the reported intervals treated as no grade but included in the sample length. Vein intercepts are generally recorded at a lower cut off of 2 g/t Au where intercepts are limited to 1.0m or less, or as geologically logged vein or breccia material*<br>• *Composited lengths are capped as appropriate before estimation* |
| ***Relationship between mineralisation widths and intercept lengths*** | • *Drilling has been carried out to understand the relationship between lithology, mineralisation widths and intercept lengths, generally drill hole intercepts are close to perpendicular to the vein orientation.* |
| ***Diagrams*** | • *Plan views and sectional views are included in this report.* |
| ***Balanced reporting*** | • MA is an independent consultant to CGN.<br>• The drill hole database contains all flagged drill hole assays within each mineralised interpretation. |
| ***Other substantive exploration data*** | • Not applicable to this report. |
| ***Further work*** | • Extensional drilling for better definition of the deeper portions of the inferred resource |

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

| Criteria | Commentary |
|---|---|
| ***Database integrity*** | • *A selection of drill holes (~5%) were selected for validation purposes by MA. Original drill logs, collar pickups, down hole survey data and core photos were inspected while on site.*<br>• *Drill core inspection on-site.*<br>• *Data is maintained in excel spread sheets.* |
| ***Site visits*** | • *Ian Taylor (AusIMM(CP)) of Mining Associates visited the property in September 2016. Underground exposures and several drill holes were examined during this visit. An assessment was made of the procedures for logging, sample preparation, quality control and SG measurement.* |
| ***Geological interpretation*** | • *The main data used to interpret the geometry of mineralised structures has been surface and underground mapping and drilling.*<br>• *Geological interpretation was conducted in 3D space using drill hole intercepts to define the location of the veins*<br>• *Mineral resource estimation was conducted in 2D space using ordinary kriging to inform a block model Metal accumulation and thickness were estimated , gold content was back calculated.*<br>• *2D models were transformed back to 3D space, providing a block model suitable for scoping studies.* |
| ***Dimensions*** | • *The HGZ mineralisation has been defined in 29 drill holes, totalling 359 mineralised samples.*<br>• *The HGZ is identified as an area of approximately 50 x 50m and extends from surface to a maximum identified depth below surface of 150 m.* |
| ***Estimation and modelling techniques*** | • *Estimation was undertaken in Surpac.*<br>• *Kriging of 5 x 1 x 1m blocks, utilising sub blocks down to 0.625 x 0.3125 x 0.625m for volume definition.*<br>• *Drill hole samples were composited across the vein width.*<br>• *Block size is considered appropriate to mineralisation orientation and drill pattern. (Approximately half dominant drill spacing).* |

| Criteria | Commentary |
|---|---|
| | • *Experimental variograms were modelled in 2D space using Surpac 6.7.3 for Au (g/t), thickness (m) and accumulation (g.m) within each domain separately.*<br>• *Variogram models are generally well defined, with relatively low nugget effects and short ranges (30m) Variogram and search ellipse parameters used summarised in separate table.*<br>• *Search neighbourhood: minimum samples 1, maximum 5, maximum search distance (30m) and anisotropy orientations varied by vein groups and element on basis of variography.*<br>• *No other variables were considered in this resource estimate.*<br>• *Mineralisation wireframes were used to constrain estimates for Au (g/t), thickness (m) and accumulation (g.m) in 3D space.*<br>• *Informing samples were composited across the width of the vein, grade capping was applied to grade, thickness and accumulation, to reduce the effect of outlier grades on the estimate.*<br>• *Declustered mean grades for estimated blocks and drillhole samples compared closely to estimates.*<br>• *Ordinary krige estimates were compared to nearest neighbour and inverse distance estimates, to assess the impact of data clustering semivariograms and sensitivity to estimation method.*<br>• *No reconciliation data is available for Crater Mountain project as limited hand held mining has taken place. The resource has been depleted for mined blocks* |
| ***Moisture*** | • *Tonnages are based on dry tonnes. Density of the host rock was determined by the immersion method of wax coated drill core pieces.* |
| ***Cut-off parameters*** | • *Assumed costs for Administration, mining and processing were applied to the deposit. It is assumed that Mineral Processing will produce a single concentrate via a concentrator circuit.*<br>• *Resources have been reported above 5g/t, grade tonnage curves are included in the body of the report.* |
| ***Mining factors or assumptions*** | • *The deposit is a narrow vein epithermal gold style of deposit suitable to small scale selective mining methods.*<br>• *Assumed minimum mining width of 1.2 m was been applied to the veins. Veins have been diluted with 0g/t where required.*<br>• *No recovery factors or loss factors have been applied to the resource.* |
| ***Metallurgical factors or assumptions*** | • *The deposit is low sulphidation epithermal and expected to be free milling, the lower grade areas (not estimated) are associated with the argillic alteration halos may have lower recoveries.*<br>• *Preliminary testwork provides direction for further metallurgical test work, e.g. Litho-geochemistry.* |
| ***Environmental factors or assumptions*** | • *Preliminary investigations have identified a number of potentially suitable locations for storage of waste and tailings.*<br>• *Waste is anticipated to be minimal, due to limited underground development requirements. To date the waste has been used for mill pads and road building.*<br>• *Flora and fauna assessments of the site are on-going and have raised no particularly sensitive issues.* |
| ***Bulk density*** | • *Each sample is a minimum of 5 cm long and up to 10 cm.*<br>• *Samples are wax coated.*<br>• *The sample is then weighed dry on a scale with 0.01 g accuracy, however readings are rounded to the nearest 5g.*<br>• *The sample is immersed in a vessel and the change in water level is recorded in 2mm increment. Volumes are calculated from the known internal area of the vessel and change in water level.*<br>• *Density = mass of dry sample in air / volume sample.*<br>• *314 density samples are available.*<br>• *The Bulk Density for mineralised material is currently assigned as 2.3 t/m$^3$, there is no relationship between density and depth.* |
| ***Classification*** | • *Data quality, drill hole spacing and geological continuity and model have all been considered sufficient to classify the mineralisation as a resource.*<br>• *Confidence in the quality of the data justified the classification of inferred resources.*<br>• *Geological continuity has been demonstrated at 20 m grid spacing over the entire strike of P* |

| Criteria | Commentary |
|---|---|
| | *deposit. The mineralisation commonly outcrops demonstrating continuity at surface..* |
| ***Audits or reviews*** | • *No external audits or reviews of the resource estimate have been carried out to date.* |
| ***Discussion of relative accuracy/ confidence*** | • *There is sufficient geological and sampling information to define inferred resources.*<br>• *More work is required to define metallurgical characteristics of mineralisation and recoveries.*<br>• *The ordinary kriging result, due to the high level of smoothing, should only be regarded as a global estimate, and is suitable as a life of mine planning tool. Should detailed local estimates be required for detailed mine scheduling additional channel sampling and infill drilling will be required.* |

## Section 4 Estimation and Reporting of Ore Reserves

(No ore reserves are reported)