

## **QUARTERLY ACTIVITIES REPORT**

**For the period ended 31 March 2017**

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### **About Crater Gold Mining Limited**

**(ASX CODE: CGN)**

*Crater Gold Mining Limited ("CGN" or "the Company") is focussed on development of the HGZ gold mining project at the potentially world class Crater Mountain gold project in PNG, on the Fergusson Island gold project in PNG and on the A2 polymetallic and Golden Gate graphite projects at Croydon in Queensland, Australia*

### **Crater Gold Mining Limited**

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**Russ Parker**  
**Managing Director**

### **Key Points**

#### **Crater Mountain – High Grade Zone ("HGZ") Gold Mining Project, Papua New Guinea**

- 2nd Adit development

### **Corporate Review**

- Corporate review launched – Objective is to restructure the Company's debt profile and best position the company to advance existing projects and review new acquisition opportunities

## **CRATER MOUNTAIN, PNG**

### **Key developments during the Quarter**

#### **Crater Mountain – High Grade Zone (“HGZ”) Gold Mining Project, Papua New Guinea**

- **2<sup>nd</sup> adit development**

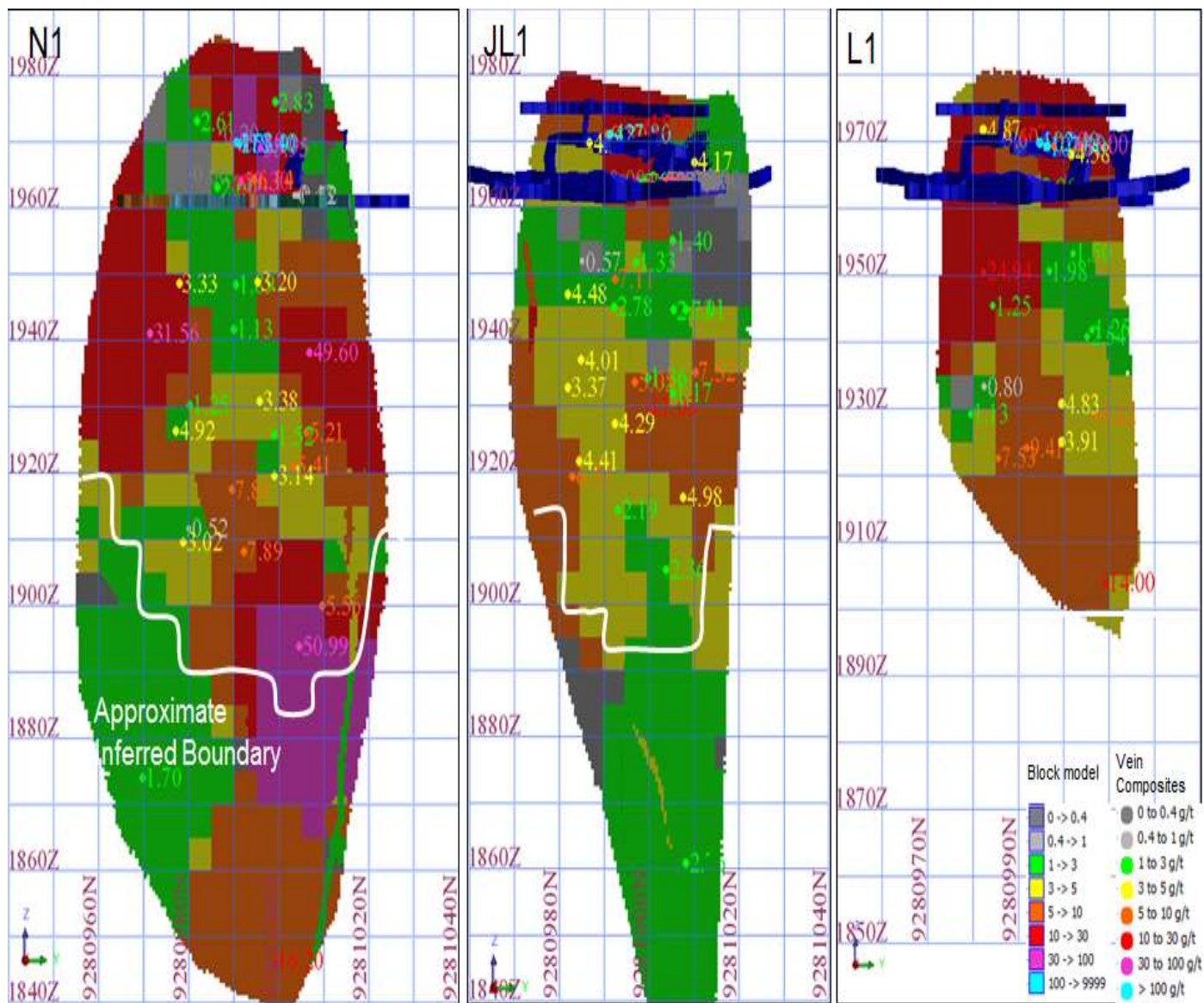
The Company’s focus is on the completion of the 2<sup>nd</sup> adit from the 1930 level. There were logistical issues during the quarter that resulted in delays to the completion of the 2<sup>nd</sup> adit. The Company now expects that the 2<sup>nd</sup> adit will be complete in the next quarter. Gold production is expected to commence with the completion of the 2<sup>nd</sup> adit.

The 2<sup>nd</sup> adit will access the high-grade gold zone as demonstrated by the previous drilling, sampling programs and the recent mapping undertaken by the Company.

The HGZ is high grade high-sulphidation epithermal quartz-pyrite-gold mineralisation, extending from surface to possibly several hundred metres depth (possibly in excess of 500m); local artisanal miners produced an estimated 15,000 ounces from a small area of shallow workings (maximum 50m depth as encountered by the Company) in the base of a mineralised spur from 2005 to 2011.

The Company previously announced an initial inferred resource estimate reported in accordance with JORC guidelines for its HGZ gold mining project of 44,500 tonnes at 11.9 g/t for 17,100 ounces of gold (cut- off grade of 5 g/t Au).

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 has refined the mining method for maximum gold extraction from the higher cut-off grade of 7.5g/t Au implementing a more focussed mining plan. This will allow more efficient, targeted gold production. The mining plan will be implemented with the completion of the 1930 Level adit.



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

This maiden resource marks a significant milestone for the Company, confirming the potential for profitable gold mining from the HGZ project. 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. 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. However there is also evidence from drilling that gold is encountered at least to a depth of 128m from surface (NEV022). The Company will undertake an in-fill drilling program from the 1930 level In due course.

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

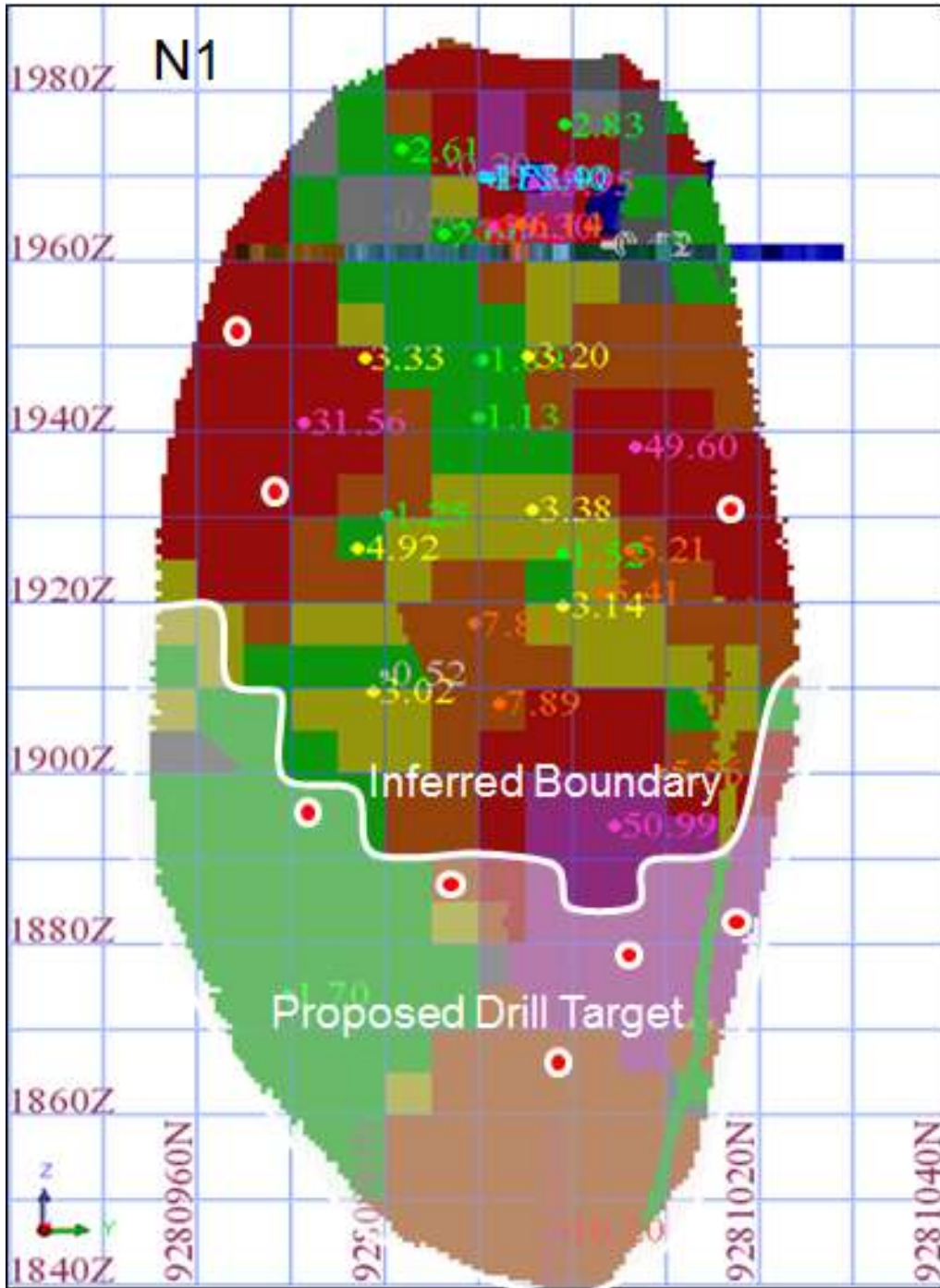


Figure 3 Long Section View showing Proposed Drill Intercepts

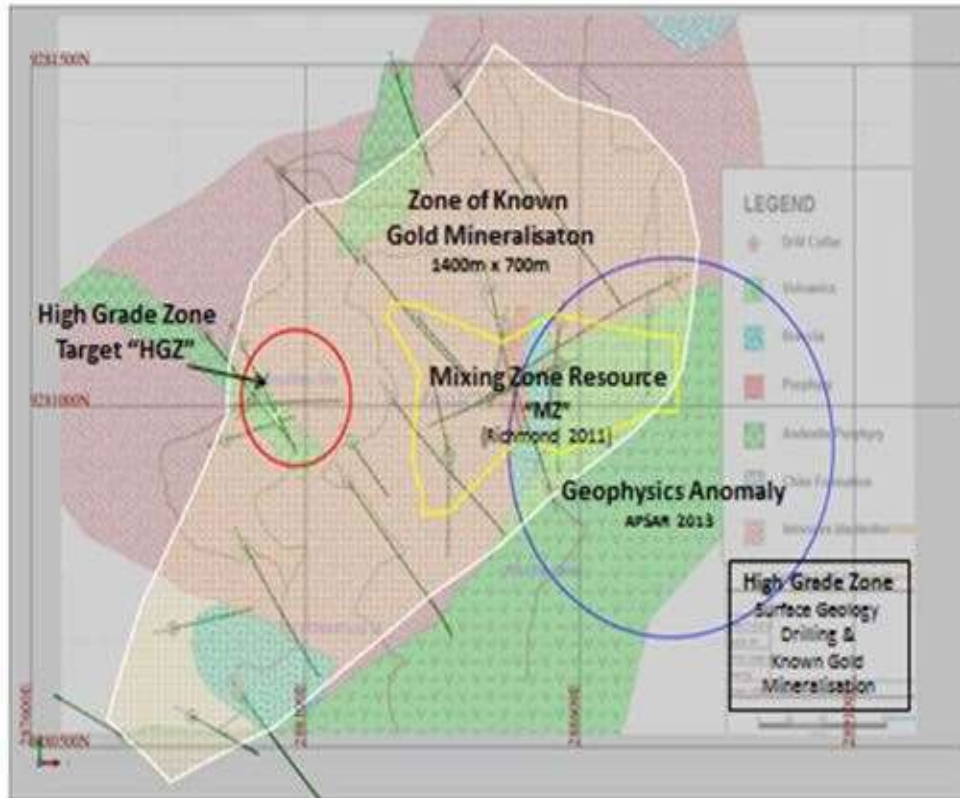


Figure 4 - High Grade Zone in relation to known mineralisation and the Mixing Zone resource

### 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.

## **Corporate Review**

Although the Board remains confident that the Crater Mountain project has good potential to deliver acceptable financial returns to the Company, delays in the project meeting production and profit targets prompted a project review early in the year. This process is being carried out in parallel with a broader review in order to address the Company's debt profile.

As announced by the Company on 16 March 2017 (and addressed again in the Company's announcement of 24 March 2017), the Company has undertaken an independent valuation of the Crater Mountain tenements in order to underpin carrying values of those assets moving forward. Delays in carrying out this valuation resulted in an Auditor Disclaimer of Opinion for the half-year ended 31 December 2016. The Board does not anticipate that a Disclaimer of Opinion will be applied to the Company's forthcoming 30 June 2017 financial statements.

The Company has now received a draft valuation of the Crater Mountain tenements and is assessing the valuation.

In parallel with the valuation of the Crater Mountain tenements, the Company is part way through a Corporate Review, aimed at delivering a whole-of-company debt solution that will position the company to advance its existing projects and review new acquisition opportunities. Initiatives under consideration include partial asset sales to raise working capital or retire existing debt (refer ASX announcement of 16 February 2017).

These initiatives will be announced as they crystallise and in accordance with Chapter 3 of the ASX Listing Rules.

Importantly, as announced to ASX on 16 February 2017 and 24 March 2017, Mr. Sam Chan has committed to support the Company. The Company has received consistent support from Mr. Sam Chan via Freefire Technology Ltd ("Freefire") and this support is ongoing as evidenced by Freefire's letter of support to the Company to March 2018.

Part of this review process also includes the assessment of additional mineral sector investment opportunities that may augment the Company's current activities.

## **COMPETENT PERSON STATEMENTS**

*The information contained in this report relating to exploration results and mineral resource estimate at Crater Mountain PNG is based on and fairly represents information and supporting documentation prepared by Mr Richard Johnson, PNG General Manager of Crater Gold Mining Limited. Mr Johnson is a Fellow of The Australasian Institute of Mining and Metallurgy and has the relevant experience in relation to the mineralisation being reported upon to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

**Background to the Company's projects**

**Crater Mountain Project - PNG**

The Company's flagship Crater Mountain gold project is located in the Eastern Highlands of Papua New Guinea ("PNG") near the eastern end of the New Guinea Orogen geological province, which lies along the northern edge of the Australian continental plate and occupies the mountainous backbone of the island of New Guinea. The New Guinea Orogen hosts a number of world-class copper-gold deposits including the world's largest copper-gold mine at Grasberg in Indonesia's Papua Province, and Ok Tedi, Frieda River, Yandera and Wafi-Golpu in Papua New Guinea, as well as the Porgera and Hidden Valley gold deposits in Papua New Guinea. All of these deposits share a common geological mode of formation in large mineralised hydrothermal systems underlying variably eroded volcanic complexes from mid-Miocene to recent in age.

Exploration by the Company at Crater Mountain is focused principally at the northern end of the large Nevera Prospect, one of four prospects identified within the Company's licences since exploration commenced in the region in the 1970s.

The results of mechanical benching and diamond drilling conducted by the Company around the end of a prominent ridge at the northern end of the Nevera Prospect indicate that the Prospect lies within a typical large and complex New Guinea Orogen mineralised hydrothermal system, with excellent potential to host a number of deposits within its bounds. Mineralisation is associated with sub-volcanic magmatic activity related to the locally-prominent Nevera Igneous Complex, and four different types of mineralisation have been identified:

- The relatively shallow Mixing Zone lying 150m to 300m below the northern end of the Prospect ridge, which comprises low-sulphidation epithermal carbonate-base metal sulphide-gold mixing zone mineralisation in excess of 600m long by 250m wide by 150m thick (with similarities to the Hidden Valley deposit in the nearby Morobe Goldfield).
- Note: A resource of 24Mt at 1.0 g/t Au using a 0.5 g/t Au cut-off for 790,000 ounces has been defined in the Main Zone; this includes 9.4Mt at 1.46 g/t using a 1.0 g/t Au cut-off for 440,000 ozs (ASX Release 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). (This inferred resource is open laterally and perhaps to depth, following down a possible steep plunge to the northeast)
- The High Grade Zone ("HGZ") high grade high-sulphidation epithermal quartz-pyrite-gold mineralisation, extending from surface to several hundred metres depth (possibly in excess of 500m); local artisanal miners produced an estimated 15,000 ounces from a small area of shallow workings (maximum 50m depth) in the base of a steep mineralised spur from 2005 to 2012
- A large porphyry copper-gold system identified by drilling at +800m depth below the northern end of the ridge ("Golpu" type from Wafi-Golpu in the Morobe Goldfield)
- A possible lead-zinc related quartz-carbonate-base metal sulphide-gold stockwork vein and breccia feeder zone (for the Mixing Zone mineralisation) at the margin of the deep intrusion (+600m) which is causing intense baking and fracturing of the sub-volcanic basement shales underlying the Mixing Zone (Porgera "Waruwari" type).

## MINERALISATION AT THE NORTHERN END OF NEVERA PROSPECT

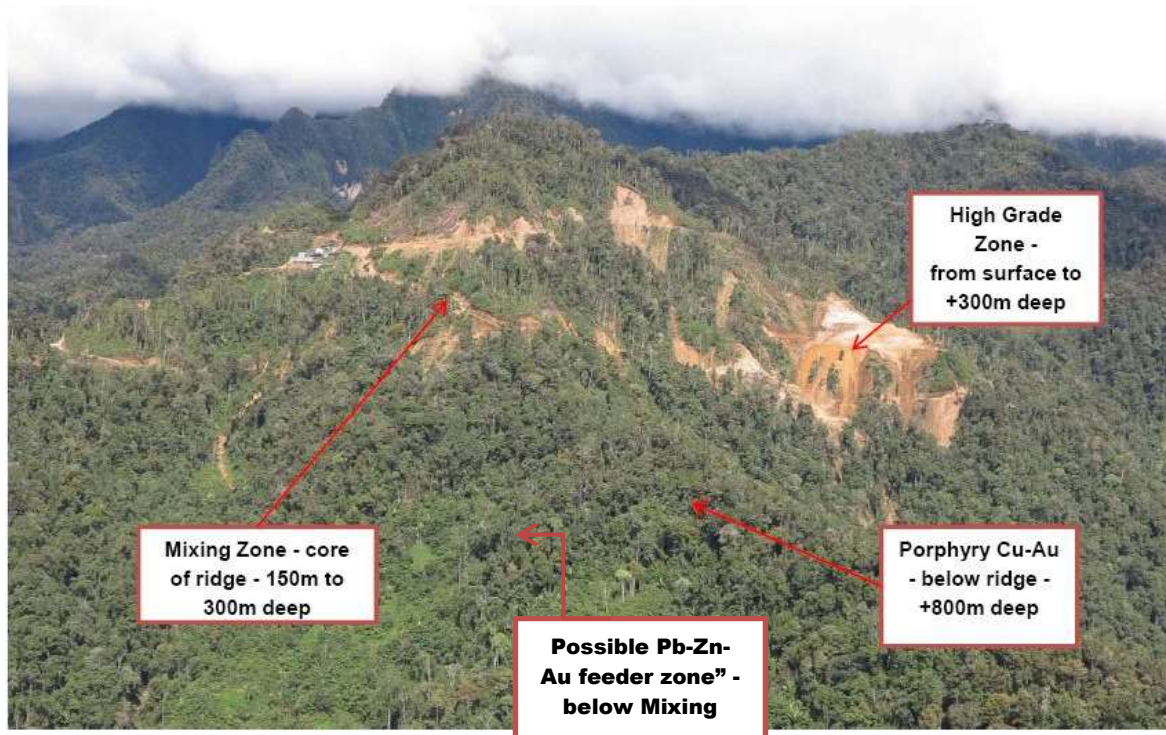


Figure 1 - Nevera Prospect



## Fergusson Island Project - PNG

The Gameta gold deposit and the Wapolu gold deposit, located in close proximity to each other on the north-coast of Fergusson Island in Papua New Guinea, comprise the Company's Fergusson Island Project, upon which over \$15M has been spent since 1996.



Figure 2 – Location of Gameta and Wapolu deposits, Fergusson Island, PNG

The Fergusson Island Project comprises two drilled gold deposits, Gameta and Wapolu. The Company previously announced its first resource estimate reported in accordance with the JORC Code for the Gameta deposit, an Inferred Resource of 5.1 million tonnes at 1.8 g/t for 295,000 ounces of gold at a cut-off grade of 1.0 g/t gold (ASX release 8 October 2010: “Fergusson Island Gameta deposit – 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). Further drilling down-dip can be expected to increase the size of the resource.

The Gameta gold deposit lies close to the coastline in the north east of Fergusson Island in the D'Entrecasteaux Islands of Papua New Guinea's Milne Bay Province and is located about 30 kilometres east of the Wapolu gold deposit.

Mineralisation at Wapolu and Gameta is hosted in the Detachment Fault Zone and within the footwall dioritic gneiss and appears to be both fracture and dyke-related, and sulphide hosted. The overlying ultramafic plate, though strongly dyked, altered and fractured, carries only patchy and sporadic low-grade gold mineralisation.

The two properties have been explored for gold since the early 1980's during which time a total of 296 RC and air core holes (11,646m) and 97 diamond holes (6,401m) have been drilled at Wapolu (EL 2180) and 195 RC holes (10,179m) and 33 diamond holes (4,181m) have been drilled at Gameta (EL 1972). Much of the data from this drilling has not been subject to QA/QC and does not measure up to JORC reporting standards.

## **Croydon Graphite Project - Queensland Australia**

A potentially large graphite deposit is located within EPM 8795 and EPM 18616 at the Golden Gate Project at Croydon, North Queensland.

In July 2004, the Company, when named Gold Aura Ltd, undertook preliminary assessment of a large graphite deposit located at the Golden Gate gold mine. The graphite deposit was systematically drilled as part of a regional gold exploration program in the late 1980's by Central Coast Exploration (CCE). Three vertical reverse circulation holes were also drilled by the Company between 2005 and 2007 that confirmed that a thick graphite zone was present at Golden Gate.

The Golden Gate graphite project is located partially on Exploration Permit Mining EPM8795 and continues onto the contiguous EPM 18616. The graphite deposit has undergone electromagnetic geophysical surveys and systematic drilling during the late 1980's and limited drilling and testwork by CGN in 2004.

The deposit has a north-westerly strike and shallow easterly dip. Hydrothermal or magmatic graphite deposits are an important source of graphite with examples being mined in Sri Lanka and Sweden that produce both flake and amorphous graphite.

Since the Golden Gate graphite deposit is reasonably well defined, the Company's future exploration program will focus on collection of fresh drill core samples for modern metallurgical testwork. Past testwork done on RC chip samples and near surface grab samples with contradictory results.

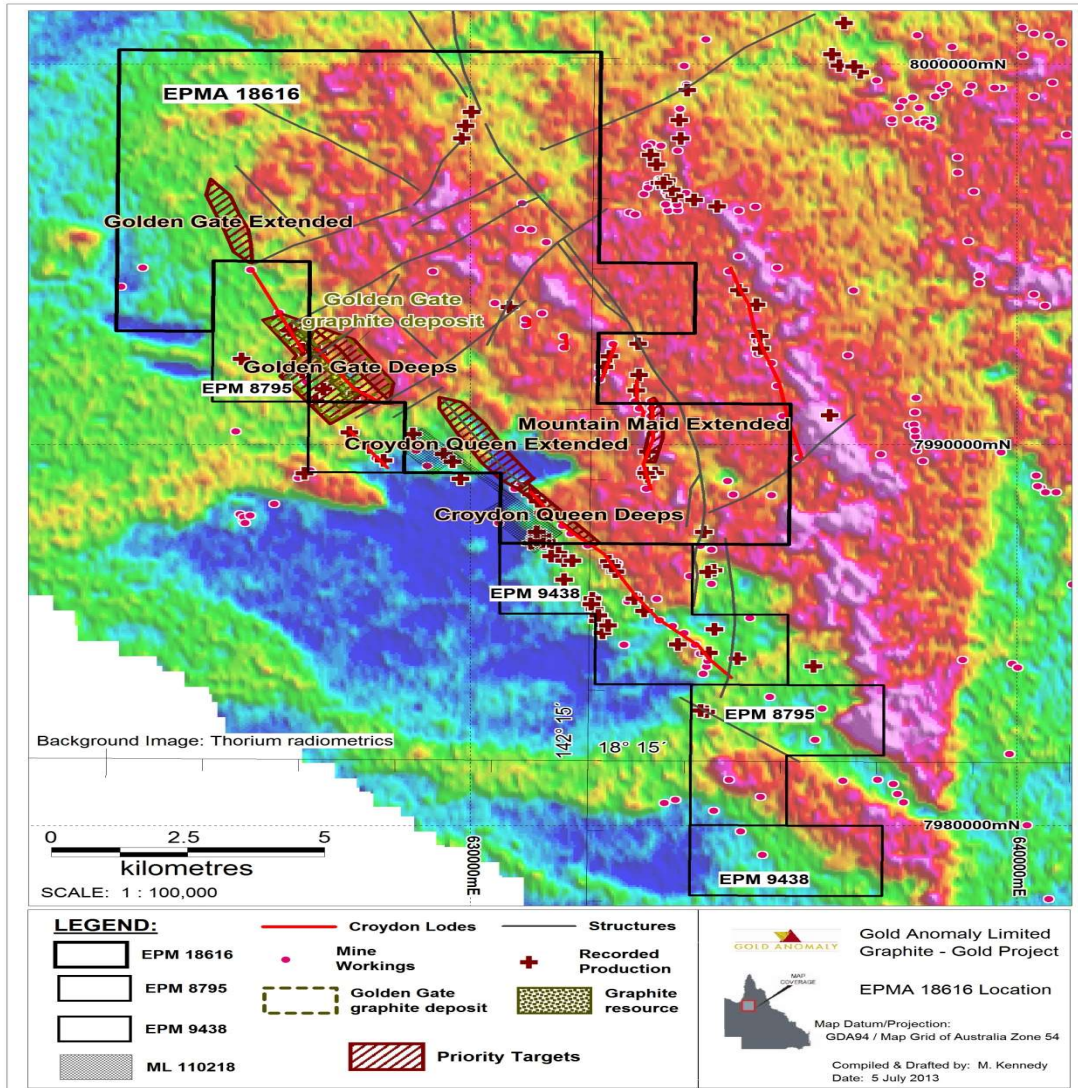


Figure 3 - Location Map of EPM18616 showing the Golden Gate graphite deposit as well as principal gold exploration targets