

---

## **QUARTERLY ACTIVITIES REPORT**

**For the period ended 30 September 2016**

---

### **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**

ABN: 75 067 519 779

PO Box R607  
Royal Exchange  
NSW 1225  
Australia

Phone +61 2 9241 4224

[www.cratergoldmining.com.au](http://www.cratergoldmining.com.au)

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

### **Key Points**

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

- Gold production
- Stopping at HGZ project
- 2nd Adit commenced
- Mixing Zone project exploration to resume at Crater Mountain

### **Corporate**

- Richard Johnson appointed as Director
- Underwritten Rights Issue
- Banking facility

## **CRATER MOUNTAIN, PNG**

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

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

- **Gold production**
- **Stoping commenced at HGZ**
- **2nd Adit commenced**
- **Mixing Zone project exploration to resume at Crater Mountain**

#### **Gold production**

During the quarter the Company announced that stoping commenced within the central high grade gold block at the HGZ Project at Crater Mountain. During the quarter, the Company received AUD127,000 in revenue from gold sales.

The mining focus switched from development and exploration to stoping of the high grade gold block from the 1960m level up. The Company expected that the mining rate and the recovered gold grade would increase with stoping underway.

Gold production had previously been predominantly from development material on 1980m level including material beyond the limits of the central high grade block to confirm the interpretation of the zone and to ensure that high grade gold would not be left behind when stoping began.

The Company was expecting that gold production would further increase as stoping was undertaken on the flat dipping structures as well as the near vertical structures within the central high grade block of the HGZ mine (see ASX release 10 February 2016 for details of the block).

#### **Second adit development**

In the area of mining between the 1960 level and surface artisanal mining was frequently encountered thus diluting the expected gold grade and gold production.

As a consequence, the Company announced the fast tracking of development of a second Adit at the 1930 level, 30m below the existing 1960 level. The area between 1930 level and 1960 level has not been mined by artisanal miners, unlike the area between 1960 level and surface. The Company is confident that the addition of the Second Adit will result in higher gold production. The adit will access the depth continuity of the central block of the high grade zone as demonstrated by the previous drilling program 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

Gold production from the 1960 level will continue until the 1930 level is brought into production. This is anticipated by the end of 2016. Our focus remains on ramping up production to full capacity

In addition, enhancements to the milling circuit are underway, involving the installation of a vibrating screen and the placement of the mills in series rather than in parallel. This will result in a considerable increase in throughput and less wear of hammers and discharge screens.

### **Mixing Zone project exploration to resume at Crater Mountain**

- **Underground drive development to connect High Grade Zone (HGZ) and Mixing Zone (MZ) at Crater Mountain**
- **Mapping and sampling will provide fresh interpretation of Nevera Prospect containing HGZ and MZ projects**
- **Potential to further identify zones of high grade mineralisation within the MZ project**

The Company announced that it is planning to resume exploration at the “Mixing Zone” project at Crater Mountain, with a view to carrying out diamond drilling in a broad 300m zone between the HGZ and the Mixing Zone. No previous drilling has been undertaken in this area. Generally difficult and extreme topography meant that it was not possible to place suitable drill platforms on surface during the previous drilling campaign by the Company ending in 2012.

Development at the HGZ gold mining project since 2013 at the 1960m Level now provides the infrastructure and underground access to be able to construct underground drill platforms.

This will require an extension of the existing underground HGZ drive for approximately 250m east placing it in the middle of the “Mixing Zone” and passing through this zone with no geological data.

Immediate benefits of this development will arise from mapping and sampling fresh rock exposures and hence fresh interpretation of controls to mineralisation. It will also provide an accurate cross section of the hitherto unmapped or drilled zone.

Interpretation will allow formative decisions to be made regarding future drilling and the potential to further identify HGZ mineralisation to the east and to further identify the higher grade gold mineralisation within the MZ project, which includes 9.4Mt at 1.46 g/t using a 1.0 g/t Au cut-off for 440,000 ozs. There remains potential to increase this resource and the total resource of 24Mt at 1.0 g/t Au for 790,000 ounces at the Mixing Zone 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.

No drilling was undertaken during the quarter and the Company is not reporting on any sampling results related to its operations at the HGZ.

## **Corporate**

### **Appointment of Mr Richard Johnson as Director**

The Company announced the appointment of Mr Richard Johnson as a Director of the Company.

Mr Johnson is a mining engineer with extensive experience managing projects in many regions, including PNG. Between 2002 and 2005, Richard was responsible for turning around DRDGold's high grade underground Tolukuma Gold Mine in PNG's Central Province into a highly profitable operation. He has also held senior executive and Director positions in several other resources companies in the region, including Allied Gold and DRDGold.

Richard has been an integral part of the Crater team for several years now; it is a pleasure to welcome him to the Board.

### **Rights Issue**

On 27 July 2016 the Company announced an underwritten 1:8 rights issue at \$0.08 per share to raise \$2.12 million. The rights issue was underwritten by Freefire Technology Ltd, a company associated with Chairman Mr Sam Chan. The rights issue was undersubscribed in the amount of \$822,971. The shortfall was taken up by the underwriter, Freefire Technology Limited.

### **Loan Facility**

The Company advised that it secured a loan facility of up to A\$800,000 from the Industrial and Commercial Bank of China (Asia) Limited (ICBC, or the Bank). The ICBC loan facility is repayable on call and is guaranteed by interests associated with the Chairman, Mr Sam Chan.

## **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.*

### **Schedule of Crater Gold Mining Limited tenements:**

<b>Particulars</b>	<b>Project Name</b>	<b>Registered Holder</b>	<b>% Owned</b>	<b>Status</b>	<b>Expiry</b>	<b>Area (Km<sup>2</sup>)</b>
EPM 8795	Croydon	CGN	100	Granted	6/09/2016	19.2
EPM 9438	Mount Angus	CGN	100	Granted	14/07/2016	19.2
EPM 13775	Wallabadah	CGN	100	Granted	5/03/2017	32
EPM 16002	Foote Creek	CGN	100	Granted Renewal lodged	30/01/2013	28.8
EPM 18616	Black Mountain	CGN	100	Granted	18/06/2018	96
EL 1115	Crater Mountain	Anomaly Ltd <sup>2</sup>	100	Granted	25/09/16	41
EL 2203	Ubaigubi	Anomaly Ltd <sup>2</sup>	100	Granted	10/09/17	88
EL 2249	Crater Mountain	Anomaly Ltd <sup>2</sup>	100	Renewal lodged	11/11/15	10
EL 2318	South Crater	Anomaly Ltd <sup>2</sup>	100	Granted	10/09/17	20
EL 2334	Crater Mountain	Anomaly Ltd <sup>2</sup>	100	Granted	21/05/17	68
EL 2335	Crater Mountain	Anomaly Ltd <sup>2</sup>	100	Granted	22/05/17	78
EL 1972	Gameta	Anomaly Ltd <sup>2</sup>	100	Granted	19/12/16	37
EL 2180	Wapolu	CGN	100	Granted	27/06/17	67

Anomaly Limited is CGN's 100% owned PNG subsidiary

**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.

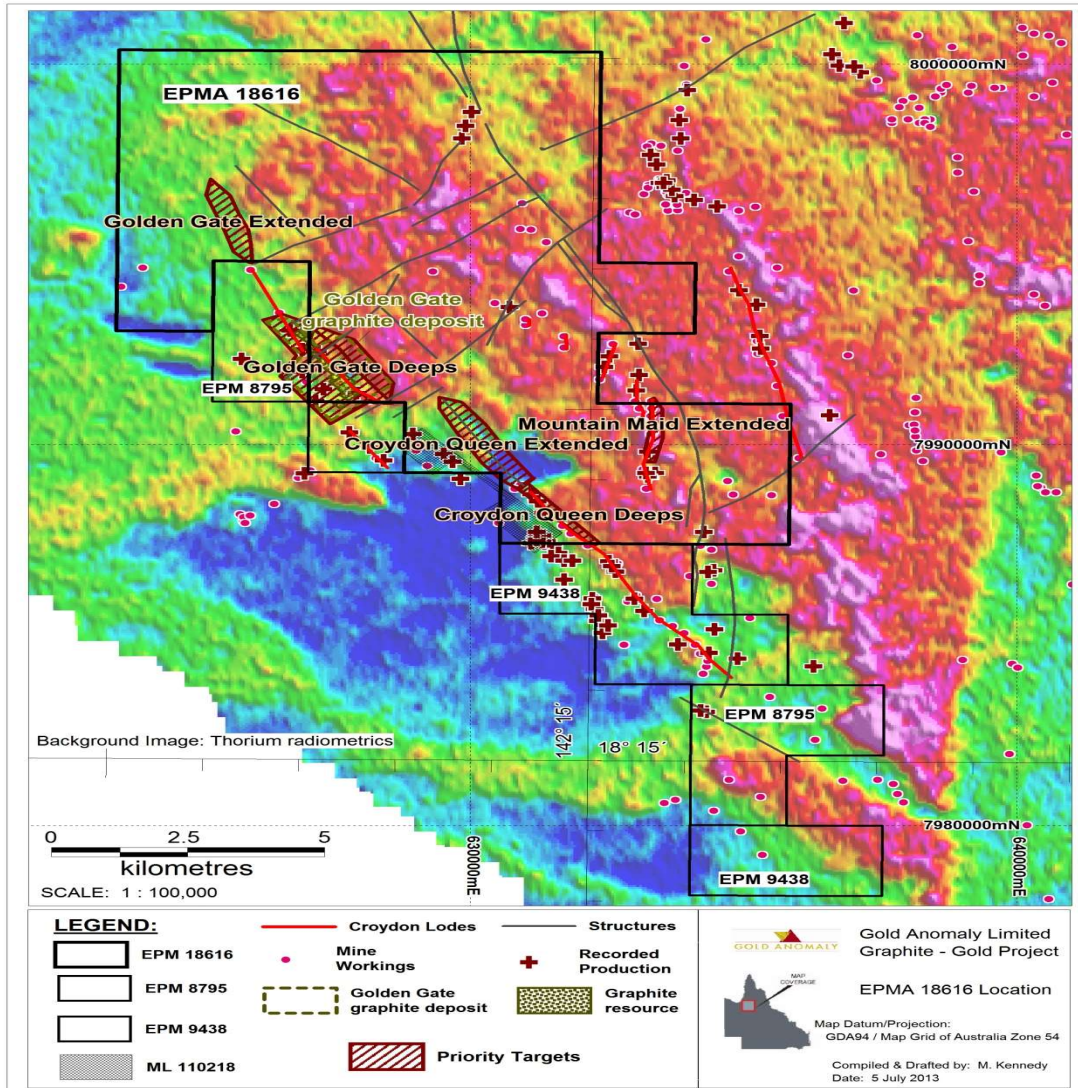


Figure 3 - Location Map of EPM18616 showing the Golden Gate graphite deposit as well as principal gold exploration targets