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GRAPHITE AT CRATER GOLD MINING'S GOLDEN GATE PROJECT

- **Graphite mineralisation has previously been identified in the Golden Gate Project at Croydon, NW Queensland.**
- **Confirmatory drilling, representative sampling and metallurgical testing to be planned.**
- **It is encouraging to note that the Golden Gate Project graphite mineralisation, located 80 kilometres to the south of Metallica Mineral's recently announced discovery of high purity graphite at its Esmeralda Graphite Project, is hosted in a similar geological setting to Metallica's Project.**

GOLDEN GATE GRAPHITE PROJECT TENURE

Crater Gold Mining Limited (ASX:CGN, "the Company") is the registered holder of two contiguous tenements in the Croydon region of north west Queensland, which together host the Golden Gate Graphite Project.

LOCATION, ACCESS AND INFRASTRUCTURE

The tenement areas are located 4 to 7 kilometres north-west of the town of Croydon, straddling both the Gulf Development Road and the Gulflander tourist railway line which runs between Croydon and Normanton.

Croydon is a well-established town, with good infrastructure including a sealed, mainly single lane highway, stretching 530 kilometres from Cairns, a 1520 metre long sealed airstrip and all town services, including a range of accommodation. It is a very historic town, with many of the original buildings restored, including among other sites, the original police station, watch house, courthouse and school, in the Historical Village developed by the local council. Several sites in and near Croydon are listed on the Queensland Heritage Register, maintained by the Queensland Department of Environment and Heritage Protection ("EHP")

CROYDON GOLDFIELD AND GOLDEN GATE HISTORY

All of the early mining activity was from the Croydon Goldfield, from the 1880s. Rich discoveries in 1891 at the Golden Gate reef north-west of Croydon led to the 1890s being the most productive years for the Croydon Goldfield, despite increasing competition from emerging mining enterprises in South Africa and Western Australia. There are dozens of old gold mine workings located within 20 kilometres of Croydon.

In recent times, exploration and development was mainly undertaken by larger companies, focussing on gold, with the large low grade Croydon open pit gold mine operated by the Barrack Mines Ltd group ("Barrack") of Western Australia from 1987 until 1990. Graphite occurrences were noted with the gold mineralisation. Mining records show significant zones of graphite occurred within the Golden Butterfly open pit, located about one kilometre north-west of Croydon. No attempt was made to quantify any potential graphite resource within this zone at that time.

In July 2004, the Company, then named Gold Aura Ltd, undertook preliminary assessment of graphite mineralisation identified at the previous Golden Gate gold mine. The graphite mineralisation had previously been identified and drilled as part of a regional gold exploration program in the late 1980's by Central Coast Exploration (CCE). Three vertical reverse circulation (RC) holes were also drilled by the Company between 2005 and 2007 which confirmed that widespread graphite zones were present at Golden Gate.

REGIONAL POTENTIAL FOR GRAPHITE OCCURRENCES

The potential for the discovery of further graphite mineralisation in the general region has been enhanced by the announcement by Metallica Minerals Ltd ("Metallica") in May 2016 of the discovery of high purity graphite mineralisation at their Esmeralda Graphite Project area which is located 80 kilometres to the north of the Golden Gate Graphite Project. The geological setting at the Esmeralda Project area is similar to that encountered in the Golden Gate Project area.

In its ASX Quarterly Report for the December 2015 period, Metallica reported;

"Igneous or hydrothermal-style graphite deposits, such as Esmeralda, are rare. The more common metamorphic-style graphite deposits make up 95% of the world's known graphite deposits. Unlike the metamorphic-style deposits, hydrothermal-style graphite deposits are typically of high purity graphite in either flake or crystalline form. Examples of this style of mineralisation include the high-grade, narrow-vein Sri Lankan deposits and the Albany graphite deposit in Canada. The carbon source is non-organic and the carbon is thought to be from deeper carbon dioxide (CO₂) or methane (CH₄) gaseous injection into the magma chamber, which later crystallises out as pure or near-pure carbon (graphite) crystals."

GRAPHITE SUPPLY/DEMAND AND PRICES

Graphite, one of the four main natural forms of carbon, is flexible, soft (1 to 2 on the Mohs Hardness scale), compressible and malleable but is not elastic. It has low frictional resistance, which gives it a greasy texture making it an efficient lubricant, and has a very high melting point. It is nontoxic, chemically inert and has a high resistance to corrosion. It has a very wide range of end uses, including high-temperature lubricants, brushes for electrical motors, friction materials, pencils, and battery anodes and fuel cells.

Graphite is produced in many countries, with 2015 mine production worldwide estimated at 1.174 million tonnes. However, the very high purity graphite required for lithium-ion battery anodes is currently only produced in Sri Lanka, with future production from the Albany project in Canada and possibly from Metallica's Esmeralda Project.

For battery grade graphite, recent forecasts are for an increase of 213 per cent in demand, then to exceed 250,000 tonnes per annum. At the core of this demand is the production of specialty coated spherical flake graphite, which has been specifically engineered as the anode for lithium ion battery use and which is the highest value flake graphite product available, recently selling for US\$7,000 to US\$12,000 per tonne.

BRINGING THE GOLDEN GATE GRAPHITE PROJECT FORWARD

There are two procedural constraints to the commencement of further drilling.

- The 2009 EHP Queensland Heritage Register listing for the Golden Gate Mining and Town Complex, with development approval required for proposed exploration activities, and a variation to the standard conditions of the Environmental Authority permit required from EHP, with potential approval time of 3+ months.
- The location of much of the project area is within Reserve Land, for which exploration activities consent is needed from the local council, with a potential procedural time required of at least one month.

WORK PROGRAM

An early priority is to undertake additional drilling to confirm the previously identified graphite mineralisation. However, it is uncertain if this further work will allow reporting of mineral resources in accordance with the 2012 JORC Code.

- The first stage of the work program will take place as soon as practicable, anticipated to commence during the second half of 2017.
- If this work is successful and allows a resource estimate to be made in accordance with the 2012 JORC Code, then metallurgical process test work would be carried out thereafter.

Managing director Russ Parker commented:

"We are in an excellent position for diversification. Once we reach the level of optimum gold production from our HGZ project, we will be well placed to fund further evaluation of our other assets including the Golden Gate Graphite Project."

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The information contained in this report that relates to Exploration Results at the Golden Gate Graphite Project near Croydon, Queensland, is based on information compiled by Ken Chapple, who is an Associate Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Chapple has sufficient experience relevant to the style of mineralisation and type of deposit involved to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Chapple is a full time independent principal geological consultant with KCICD Pty Ltd and consents to the inclusion in the report of matters based on his information in the form and context in which it appears.