

**ASX RELEASE**

Suite 2501 Level 25 St Martins Tower  
31 Market Street Sydney NSW 2000 Australia  
(PO Box Q638 QVB Market Street NSW 1230 Australia)  
Tel: +61 (02) 9283 3880

**27 July 2018**

## June 2018 Quarterly Activities Report

Papua New Guinea-focused precious metals exploration company Gold Mountain Limited (ASX: GMN) ("Gold Mountain" or "the Company") is pleased to announce that significant progress has been achieved during the June Quarter and that its exploration programmes are now expanding on several fronts.

### HIGHLIGHTS

- ✓ Bonanza Gold Discoveries Extended, Aggressive Exploration Program to Locate Source
- ✓ Exploration Results Show Strong Indications of Potentially Large Porphyry Gold-Copper System
- ✓ Gold Mountain Commences Phase 5 Conglomerate Gold-Platinum at Crown Ridge
- ✓ Potential to Recover Vanadium, Titanium & Chromium Bi-Products with Gold Concentrate
- ✓ Key Technical Consultant Appointed to Expedite Expanded Exploration Program

### Bonanza Gold Discoveries Extended, Aggressive Exploration Program to Locate Source

- ✓ **Bonanza-type gold has now been discovered along the key drainage headwaters of several creeks starting from the flanks, ridges and spurs of Crown Ridge**
- ✓ **Location constrained around the headwaters to an area of 1,000m x 1,000m**
- ✓ **Fortunate to have narrow target area, aggressively exploring with excavator to pinpoint location**



## Exploration Results Show Strong Indications of Potentially Large Porphyry Gold-Copper System

- ✓ **Exploration at Mongae Creek confirms characteristics of a potentially large porphyry Au-Cu system**
- ✓ **Mineralised system is only 77km north-east of the world-class 24 million ounces Porgera gold mine**
- ✓ **Free gold panned from outcropping gossanous rocks. Abundant coarse gold present in all creeks draining the porphyry system**
- ✓ **Classic signature mineral and alteration suites of large porphyry systems**
- ✓ **Potential for world-class discovery. Drilling commenced in July.**
- ✓ **Early success resulting from exploration teams mobilised to fast track ground-truthing multiple targets in unexplored terrain of Papuan Mobile Belt that hosts World Class mines**

## Conglomerate Gold Bulk Sampling Plant, Expansion of Exploration Activities

- ✓ **Mobile bulk sampling plant for testing nugget-bearing conglomerate gold and platinum unit completed and shipped to PNG**
- ✓ **The plant will improve bulk sample processing speeds and will aid with reconciliation and validation (by trial mining) of the Mineral Resource estimate, which will be based on the 1x1m pits which are currently at the laboratory in Perth for analysis.**

## Potential to Recover Vanadium, Titanium & Chromium Bi-Products with Gold Concentrate

- ✓ **Analyses of black sand concentrates from gold-bearing sediments in the creek systems at Crown Ridge suggest potential for vanadium, titanium and chrome bi-products of gold recovery**
- ✓ **Metallurgical testwork planned to separate minerals into individual concentrates**



## Key Technical Consultant Appointed to Expedite Expanded Exploration Program

- ✓ **Gold Mountain is aggressively expanding its exploration program in addition to developing the Flagship Crown Ridge Conglomerate Gold Project**
- ✓ **Gold Mountain now has a robust exploration team comprising Exploration Director Doug Smith, Murray Hutton (Principal Consultant, Geos Minerals Consultants), Rene Sterk Managing Director RSC Mining and Mineral Exploration Services, Geological Consultant Michael Leu and four experienced national geologists.**

## Bonanza Gold Discoveries Extended, Aggressive Exploration Program to Locate Source

Bonanza-type gold has now been discovered along the key drainage headwaters of several creeks starting from the flanks, ridges and spurs of Crown Ridge. Gold Mountain is fortunate that these delicate gold specimens have been discovered along the headwaters, rather than an area several kilometres downstream. We now have the location constrained around the headwaters to an area of 1,000m x 1,000m and are aggressively exploring to pinpoint the location.

Bonanza-type mineralisation is frequently found in the boiling zones of epithermal gold-sulphide-quartz deposits that are characterised by the presence gold grades possibly to hundreds of grams per tonne (e.g. Zone VII of the 24Moz Porgera Gold Mine, 79km west of Crown Ridge). Some specimens have been shed from clearly very high grade portions of a mineralised structure (refer to photos below). Epithermal gold structures can extend laterally for hundreds of metres and be very deep tapping.

Many of the specimens in the photos below contain abundant gold associated with quartz that consists of interlocking prismatic 'sugar grain-sized' crystals that grew in an open-spaced epithermal environment. Such delicate specimens are clearly close to their source as they would quickly disintegrate when water transported with large boulders. This is further confirmed by the fact they have been found in creeks and rivers at their headwaters.

Many of the specimens of the crystalline wire gold have been shed from a high gold grade source.



**Figure 1:** Bonanza-type gold indicative of boiling zones of epithermal gold deposits. Note quartz consists of interlocking prismatic ‘sugar grain-sized’ crystals that grew in an open-spaced epithermal environment. Such delicate specimens are close to source and would quickly disintegrate when water transported with large boulders. Scale in both inches and centimetres.



**Figure 2:** Crystalline wire gold clearly shed from a high grade gold source. Scale in both inches and centimetres



**Figure 3:** Gold in quartz, nugget nicknamed 'The Golden Kangaroo'. Scale in both inches and centimetres



**Figure 4:** Wire gold clearly shed from a high grade gold source. Scale in both inches and centimetres



## Exploration Results Show Strong Indications of Potentially Large Porphyry Gold-Copper System

Helicopter-supported exploration work by the Company's geologists has confirmed that the Mongae Creek – Mount Wirit area hosts mineralisation indicative of a large porphyry gold-copper system, which is only 77 km north-east of the 24 million ounces Porgera Gold Mine (Figure 5).



Figure 5: Location of Mongae Creek Porphyry Gold-Copper System relative to major World Class 24Moz Porgera Gold Mine

Quartz-sulphide flooding of the intrusive host is widespread confirming a large scale gold-bearing hydrothermal system. In places the quartz flooding and replacement has resulted in weathering resistant, elevated sub-linear zones that identify structures that were major conduits for mineralised fluid flow. **Drilling is now underway to test the width, vertical extent and gold and copper grades of these structures.**

The field work has confirmed abundant alluvial gold in the drainage system of a valley that contains extensive diorite-hosted hydrothermal quartz-pyrite vein mineralisation, with accessory copper (bornite, chalcopyrites, and chalcocite) and molybdenum minerals.

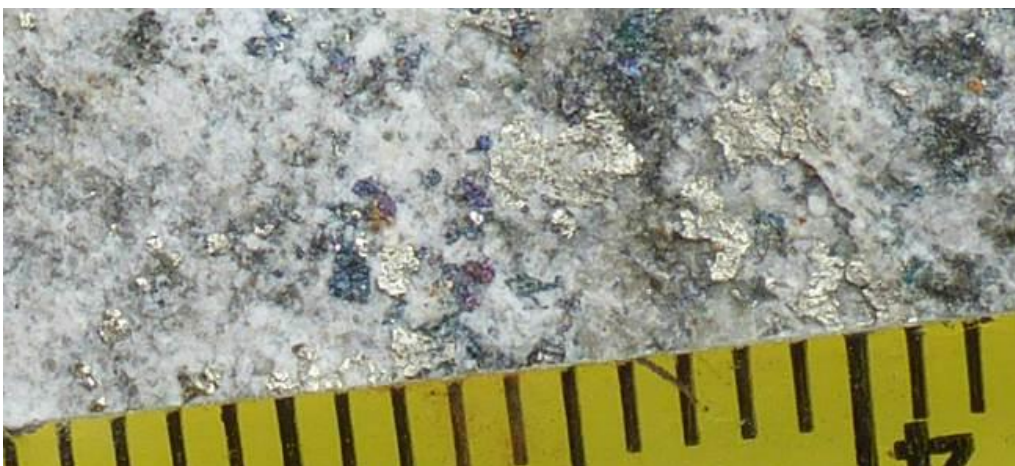
The mineralised outcrops are contained within an elliptical rim structure of 1.6 km x 1.2 km. Drainage sheds from both sides of the narrow elliptical rim.

Gossanous outcrop has been exposed in the Mongae Creek, where artisanal miners are crushing floaters of this material and recovering gold. Mapping determined that the gossan has been developed within quartz-sulphide-filled structures.

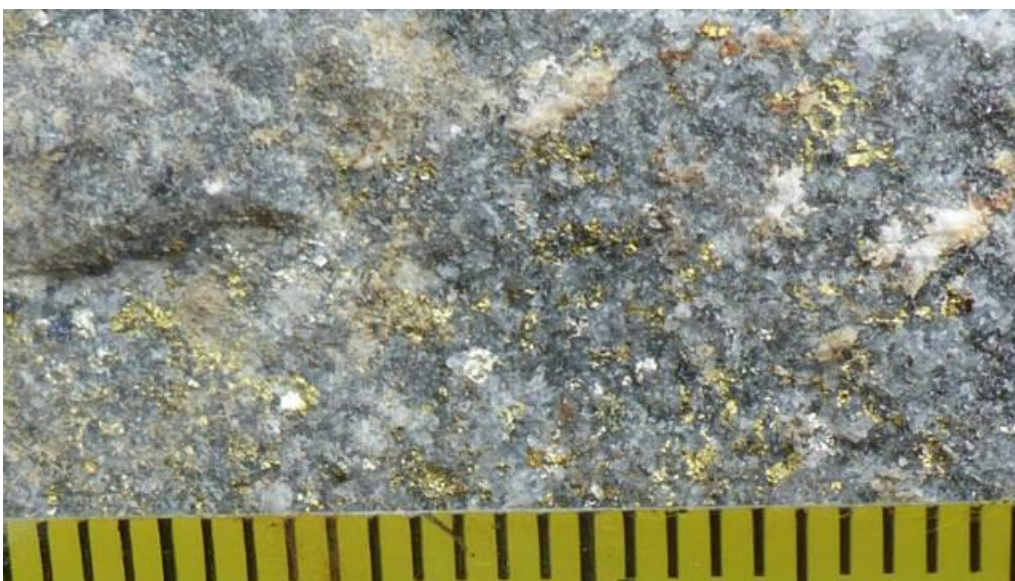
The gold is a mixture of angular and crystalline gold that has undergone minimal transportation from its source; other pieces are rounded due to transportation.



**Figure 6:** Gold from Mongae Creek. Scale: Lower row - divisions in millimetres



**Figure 7:** Diagnostic copper mineral, Bornite (peacock hues) and silvery sulphide. Scale: Divisions in millimetres.



**Figure 8:** Vein fracture with disseminated chalcopyrites (Copper  $\text{CuFeS}_2$ ). Scale: Divisions in millimetres.



## CONGLOMERATE GOLD BULK SAMPLING PLANT PREPARED FOR SHIPMENT, EXPANSION OF EXPLORATION ACTIVITIES

The purpose built, mobile bulk sampling gold plant for testing the nugget-bearing conglomerate gold and platinum unit has arrived at Crown Ridge. The plant was engineered and fabricated in Australia to specifically maximise precious metal recovery in the soil types at Crown Ridge.

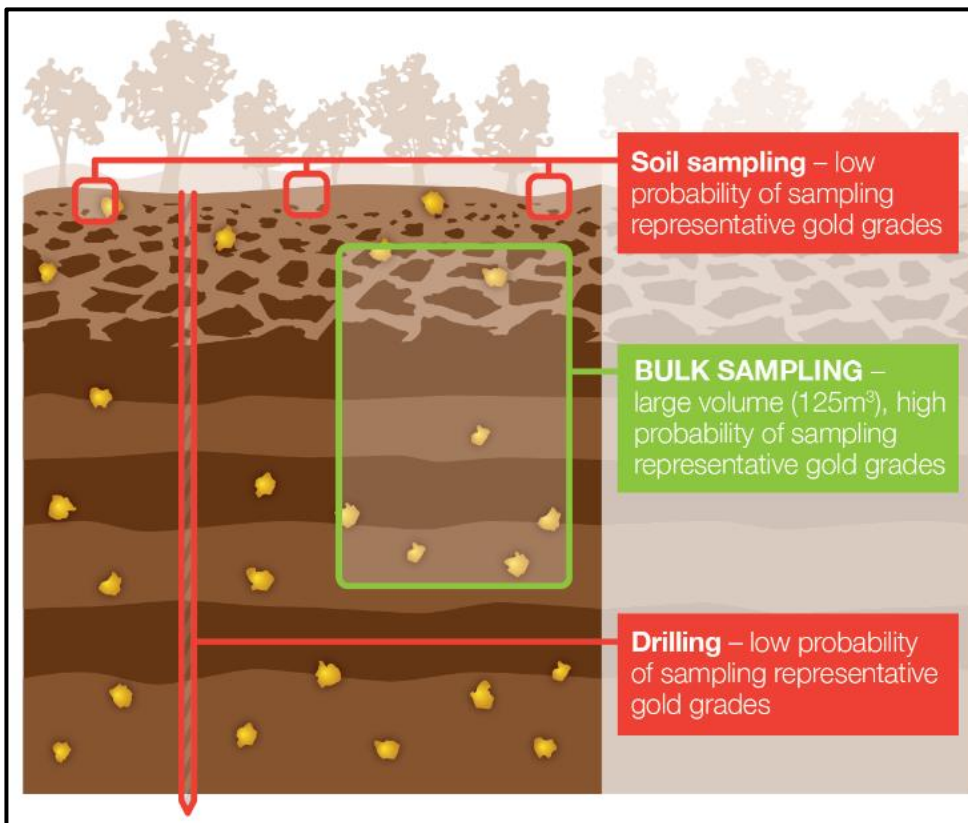
Phases 1-4 have enabled selection of gold-bearing areas for close-spaced 125m<sup>3</sup> bulk samples. Initial 50m x 100m-spaced pitting program successfully completed, full results pending. Best pitting interval results to date (first 10 pits, 1m x 1m dimensions) include: 3.0m @ 235 mg/m<sup>3</sup>, including 0.5m @ 410 mg/m<sup>3</sup>. The containerised modular plant is now being commissioned. This is a significant development as the commencement of this bulk sampling phase will expedite the definition of the Mineral Resources of the shallow gold deposits.

The plant will improve bulk sample processing speeds and will aid with reconciliation and validation (by trial mining) of the Mineral Resource estimate, which will be based on the 1x1m pits which are currently at the laboratory in Perth for analysis.



**Figure 9:** View of trommel and wet scrubber of mobile gravity gold bulk sampling plant





**Figure 10:** Large volume bulk (125m<sup>3</sup>) samples are essential to accurately measure gold grade per cubic metre for nuggety gold deposits. The gold-platinum conglomerate is continuous over hundreds of metres laterally and up to 70-90 metres thick.

## Potential to Recover Vanadium, Titanium & Chromium Bi-Products with Gold Concentrate

Analyses of black sand pan concentrates from the gold-bearing sediments in the creek systems at Crown Ridge indicates potential bi-products will be produced during gold recovery, including:

- Vanadium: up to 0.35% V<sub>2</sub>O<sub>5</sub> average 0.19%<sup>1</sup>
- Titanium: up to 44.9% TiO<sub>2</sub> average 35.4%<sup>2</sup>
- Chrome: up to 14.9% Cr<sub>2</sub>O<sub>3</sub> average 7.7%<sup>3</sup>

Twenty-three black sand pan concentrate (PC) samples were collected from Kiangap, Uman and Timun Creeks (Crown Ridge prospect within ELs 1968 and 2306) and were analysed by ALS Townsville (Certificate of Analysis TV18095683). Each of the PC samples came from 3-5 pan loads (approximately 6-10kg) of active sediment, with the resultant concentrates weighing between 120 grams and 190 grams.

Metallurgical investigations on underway on the black sand pan concentrates to identify hosts of vanadium, titanium and chrome.

<sup>1</sup> Conversion factor: V<sub>2</sub>O<sub>5</sub> = V x 1.785

<sup>2</sup> Conversion factor: TiO<sub>2</sub> = Ti x 1.668

<sup>3</sup> Conversion factor: Cr<sub>2</sub>O<sub>3</sub> = Cr x 1.462



The Company is not aware of any new information or data that materially affects the information included in the market announcements below and referred to in this announcement.

**ASX Releases June Quarter 2018**

*26/6/2018 Potential for Vanadium Titanium Chrome Bi-products Recovery*

*13/06/2018 Strong indications of large porphyry Gold-Copper system*

*30/05/2018 Initial Pitting Results Confirm Gold Grade Tenor*

*17/05/2018 Bonanza Gold Discoveries Extended Program to Locate Source*

*3/05/2018 Conglomerate Gold Bulk Sampling Plant Prepared for Shipment*

*18/4/2018 Consultant Appointed to Expedite Exploration Program*

*12/4/2018 Phase 5 Conglomerate Gold-Platinum at Crown Ridge*

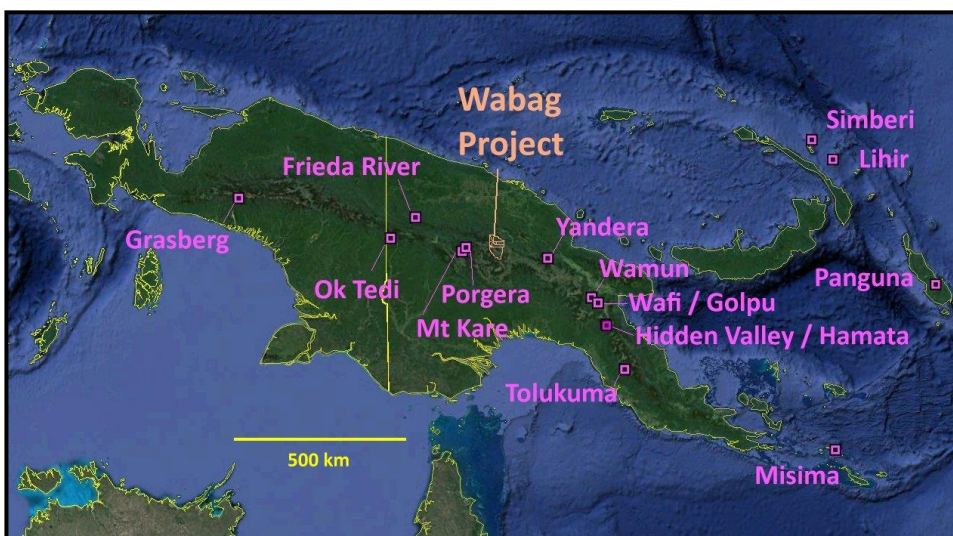
**About Gold Mountain**

Gold Mountain Limited is an Australian-based minerals exploration and development company which is listed on the Australian Securities Exchange (ASX Code: GMN).

Gold Mountain's principal exploration project is in Papua New Guinea, where the Company is exploring and developing a number of highly promising mineralised zones (Figures 1-4).

Gold Mountain holds substantial areas within the fertile Gold-Copper endowed Papuan Mobile Belt that includes world-class mines (Figures 1-2). The majority of the areas within the Exploration Licences (ELs) have never been explored using modern technology. Multiple targets have been identified over the licence area of nearly 2,000 km<sup>2</sup>. Early success indicates significant scale of potential discoveries within the ELs:

- the Flagship Crown Ridge project, with final-stage assessment of potentially high cash-flow free gold and platinum in conglomerate;
- discovery of large porphyry system at Mongae Creek; and
- newly discovered (refer to ASX announcement 5 March 2018) mineralised floaters from a low-sulphidation epithermal gold system at Lialam.
- Large areas remain to be assessed.



**Figure 11:** Location of the Wabag Project relative to major world class gold mines in Papua New Guinea

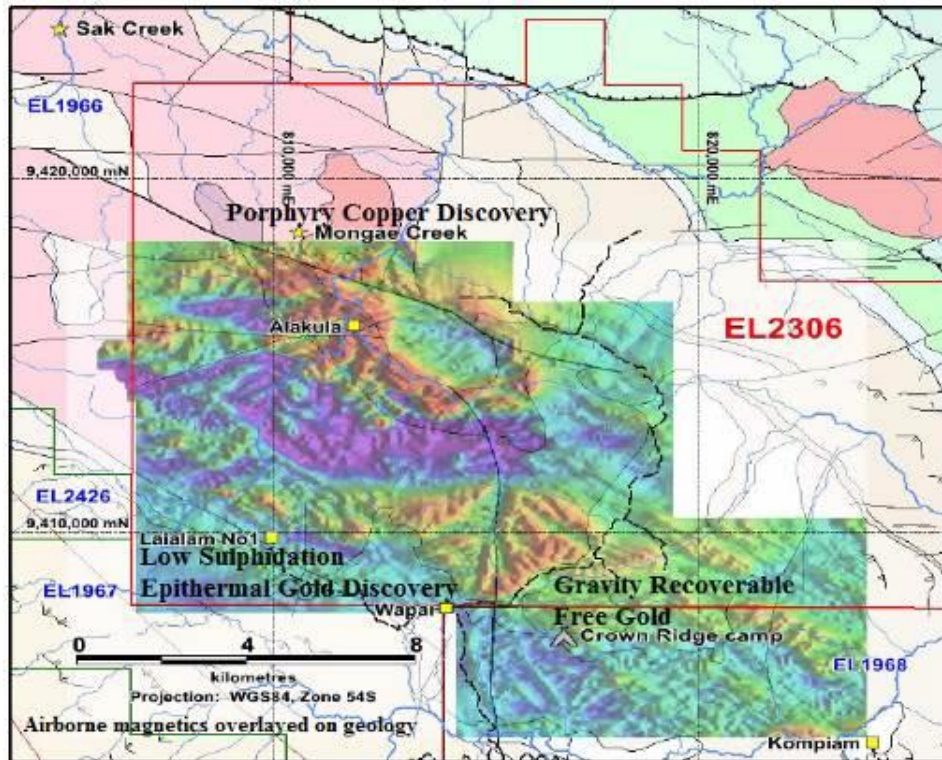


Figure 12: Expanded exploration program to aggressively investigate other potential mineral systems including at Laialam and at Mongae Creek

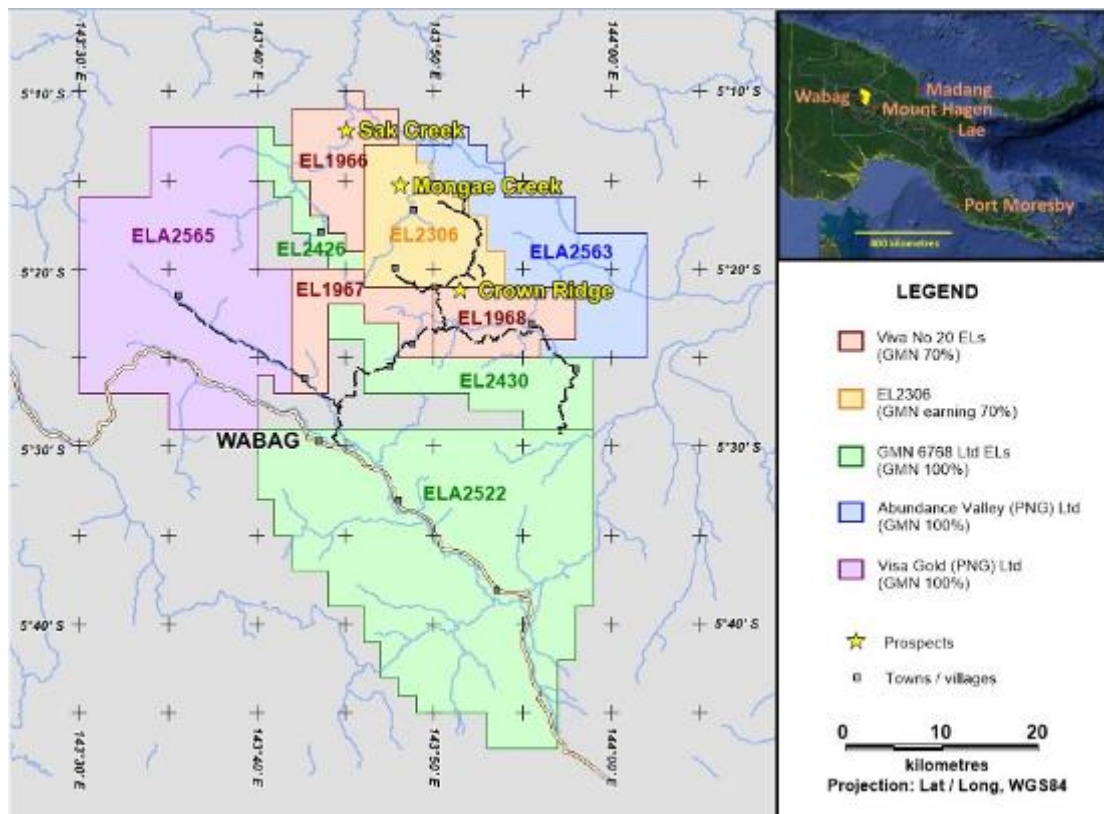


Figure 13: Exploration Licences cover substantial areas within the fertile Gold-Copper endowed Papuan Mobile Belt that includes world class mines



### **Competent Person's Statement**

*Statements contained in this report relating to exploration results and potential are based on information compiled by Doug Smith, who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Doug is a consultant geologist and has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral resources and Ore reserves (JORC Code 2012). Doug Smith consents to the use of this information in this report in the form and context in which it appears.*

### **Forward Looking Statements**

*All statements other than statements of historical fact used in this announcement, including, without limitation, statements regarding future plans and objectives of Gold Mountain Limited are forward-looking statements. When used in this announcement, forward-looking statements can be identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects' or 'intends' and other similar words that involve risks and uncertainties.*

*These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the company, its directors and management of Gold Mountain Limited that could cause Gold Mountain Limited's actual results to differ materially from the results expressed or anticipated in these statements.*

*Gold Mountain Limited cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. Gold Mountain Limited does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law and stock exchange listing requirements.*

**For further information please see our website [www.goldmountainltd.com.au](http://www.goldmountainltd.com.au) or contact:**

**Doug Smith**

**Director Exploration**

**0419 414 460**

**Tony Teng**

**Managing Director**

**0414 300 044**



**Follow Gold Mountain on Twitter: <https://twitter.com/GoldMountainASX>**