

# Gold Mountain Limited (ASX: GMN)

24/589 Stirling Highway Cottesloe WA 6011 Australia

#### **Directors and Management**

**David Evans**Executive Director

Syed Hizam Alsagoff Non-Executive Director

Aharon Zaetz Non-Executive Director

Rhys Davies
CFO & Company Secretary

#### **Projects**

#### Lithium Projects (Brazil)

Cococi region
Custodia
Iguatu region
Jacurici
Juremal region
Salinas region
Salitre
Serido Belt

#### Copper Projects (Brazil)

Ararenda region Sao Juliao region Iguatu region

REE Projects (Brazil) Jequie

## Copper Projects (PNG)

Wabag region Green River region

ASX:GMN

info@goldmountainltd.com.au

+61 421 903 222

# ASX Announcement/Press Release | 15 August 2024 Gold Mountain Limited (ASX:GMN)

# Commencement of Exploration on Mamba Creek Target, Wabaq, PNG

**Gold Mountain Limited (ASX: GMN) ("Gold Mountain" or "the Company" or "GMN)** is pleased to announce it is commencing exploration on its Mamba Creek target, identified from the EU GEOMAP Program in 2007-9 which is being followed up for the first time.

Revised interpretation of the Crown Ridge geology and mineralisation, drilled by GMN, clearly indicates a northerly source for the gold nuggets recovered by GNM at Crown Ridge.

# Highlights

- Northerly source direction for the Timun Conglomerate has been identified
- Epithermal to mesothermal gold recovered by GMN and artisanal miners interpreted to come from a northerly source
- Major Cu/Zn anomaly identified by Steve Garwin in the Mamba Creek area is principal target zone
- Targets include both epithermal systems and porphyry copper-gold systems
- Program of stream sediment and rock chip sampling commencing late August

## **Future Workplan**

- A two week stream sediment sampling, rock chip sampling and mapping program will be undertaken on Mamba Creek
- Sampling program has been designed to follow up known significant EU stream sediment anomalies
- Potential for both epithermal and porphyry mineralisation will be kept in mind when assessing the geology in the field.

The Wabag tenements lie within the highly productive Papuan Fold Belt which contains several world class porphyry copper deposits, several large, world class epithermal gold deposits and is grossly underexplored.

Regionally, deposits are mainly associated with Miocene to Pliocene intrusives of the Maramuni Intrusive Suite. The Wale Intrusive Complex in the GMN tenements is part of the Maramuni intrusive suite and consists of a composite body ranging from gabbro to diorites and tonalites.

The Timun Conglomerate is a well-known gold bearing conglomerate, up to 100 metres thick, which is exposed in several areas at Crown Ridge and westwards towards Laialam. Gold nuggets are found in the conglomerate, indicating an epithermal source or sources.



The major rock types in the conglomerate include pyroxene gabbro, diorite and tonalite, rock types that are common in the Wale Batholith north of Crown Ridge.

Drainage reversal from southerly into the Timun Conglomerate to a northerly direction is thought to be due to faulting, tilting and uplift.

Major northerly trending faults are followed by Mamba Creek today and were probably a site of previous creeks prior to reversal of drainage directions.

A major Cu/Zn anomaly was highlighted by the Cu/Zn ratio in the EU stream sediment sample data interpreted by Steve Garwin (2023) about 4.5 km north of Crown Ridge in Mamba Creek. This Cu/Zn anomaly is similar to that seen at the Mongae Creek-Monoyal porphyry systems together with epithermal type gold nuggets at Mongae Creek.

Mamba Creek represents a target that may have similar potential to Mongae Creek-Monoyal, a major porphyry system and GMN's principal drilling target at Wabag.

# **Images & Maps**

Figure 1 shows the location of the tenements and location of the project area in PNG.

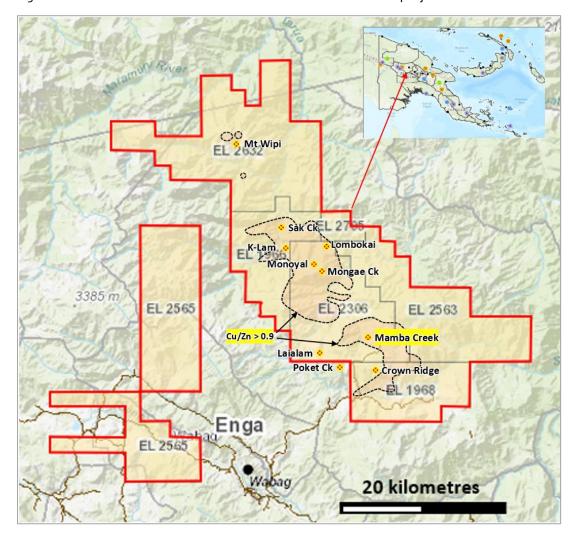


Figure 1. Location of GMN tenements and major Cu/Zn anomalies at Wabag in Enga and East Sepik provinces (MRA website).



Figure 2 shows the regional geology and the location of Mamba creek in relation to the mapped geology.

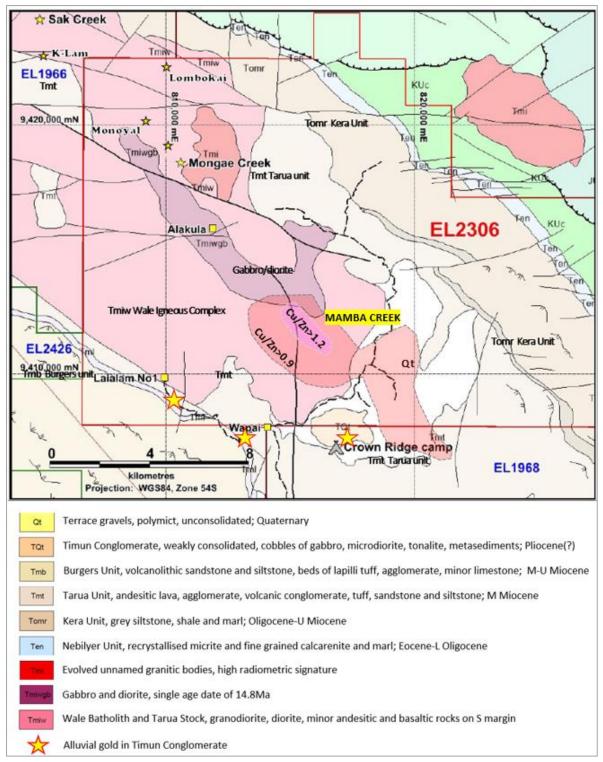


Figure 2. Location of Mamba Creek project and the Cu/Zn anomalies coincident with high order copper anomalies over regional geology.

The north trending major structure passing through Mamba Creek anomalies turns into an arc parallel NW trend in the vicinity of the geochemical anomalies. This structure, together with numerous smaller structures, may have provided a plumbing system for the mineralisation indicated by the regional geochemical data.



Figure 3 shows the interpreted anomalies and previous drainage responsible for deposition of the gold nugget bearing Timun Conglomerate. The gabbroic unit within the Wale Batholith appears to be the source of the pyroxene gabbro clasts in the Timun Conglomerate, which has a measured southerly dip at one exposure.

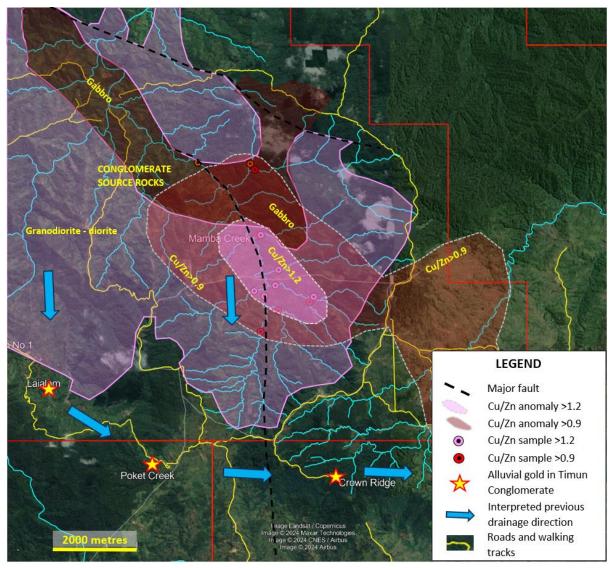


Figure 3. Mamba Creek anomalies, conglomerate source rocks and interpreted previous drainage directions.

Figure 4 shows the detail of the EU stream sediment Cu/Zn ratios, which occur in an area of high order copper anomalies in a large scale Cu/Zn anomaly that has size similar to that over the Mongae Creek-Monoyal-Sak Creek area (figure 1).



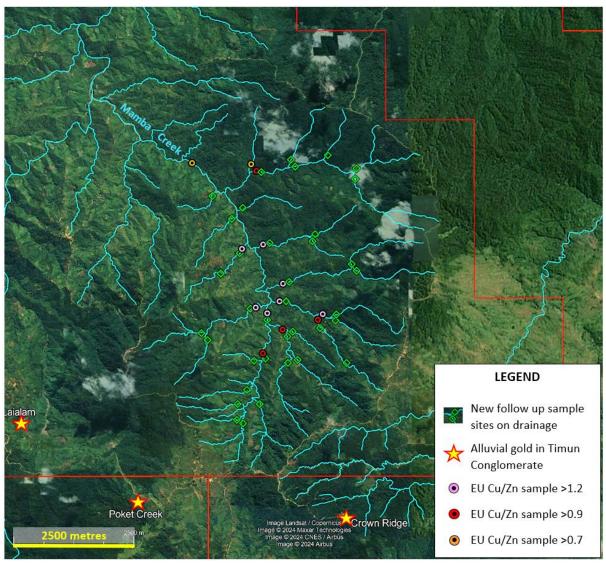


Figure 4. Planned follow up samples in Mamba Creek and the locations of alluvial gold in the Timun Conglomerate.

Figure 5 shows an example of the 30-100 metre thick Timun Conglomerate that contains cobbles and boulders of epithermal mineralisation and epithermal style gold nuggets. Most of the rocks in the conglomerate are derived from the Wale Batholith and from the gabbro unit intruded into the Wale Batholith.





Figure 5. Timun Conglomerate in Trench 1, Crown Ridge prospect Co-ordinates: 816,080mE / 9,407,120mN, WGS84, Zone 54S. Hammer is 33cm long.

Figure 6 shows some of the gold nuggets recovered by GMN at Crown Ridge in 2018. The textures present are typical of epithermal gold with dendritic, crystalline and platy gold textures.





Figure 6. Above: Delicate gold in quartz specimen 4 mm long. Right: Sheets of gold in quartz 9 mm across. Recovered March 3 2018.



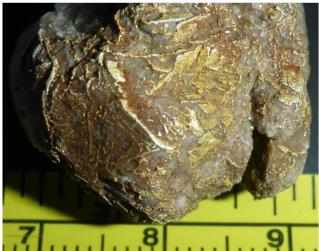




Fig 6 cont. Left plates of gold in quartz 20 mm wide. Above: Crystalline gold in interlocking prismatic quartz 6mm wide.

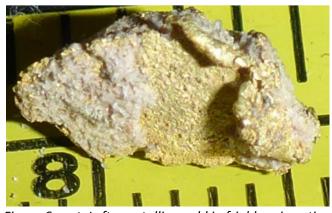




Figure 6 cont. Left: crystalline gold in friable prismatic quartz, 8 mm long. Right: Dendritic gold in quartz pebble 12 mm across that has moderate roundness and low sphericity.

All gold recovered on 3<sup>rd</sup> March 2018 is little worn, other alluvial gold is well rounded or flattened, so significantly travelled. Most of the gold is likely to be epithermal due to the gold textures. A relatively local epithermal gold source is indicated by the textures and form of the gold nuggets. Unworn nuggets may also be released from weathering of mineralized boulders in the Timun Conglomerate.

David Evans, GMN's CEO said "We are excited to be able to update the market with a firm plan to recommence on-ground exploration at Wabag on a new project with excellent potential.



The Wabag project represents an exciting opportunity for GMN within an improving copper and gold market for a timely and potentially significant discovery and development".

#### **Competent Persons Statement**

The information in this ASX release does not include Exploration Results and is based on public information compiled by Peter Temby, a Competent Person who is a Member of Australian Institute of Geoscientists. Peter Temby is an independent consultant working currently for Mars Mines Ltd. Peter Temby confirms there is no potential for a conflict of interest in acting as the Competent Person. Peter Temby has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Peter Temby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

- END -

This ASX announcement has been authorised by the Board of Gold Mountain Limited

For further information, please contact:

**Gold Mountain Limited** 

**David Evans** 

**Executive Director** 

M: +61 421 903 222

E: info@goldmountainltd.com.au

# **About Us**

Gold Mountain (ASX:GMN) is a mineral explorer with projects based in Brazil and Papua New Guinea (PNG). These assets, which are highly prospective for a range of metals including rare earth elements, niobium, lithium, nickel, copper and gold, are now actively being explored.

Gold Mountain has gradually diversified its project portfolio. The Company has highly prospective rare earth element, niobium, copper and lithium licenses located within the eastern Brazilian lithium belt, spread over parts of the Borborema Province and São Francisco craton in north-eastern Brazil including in Salinas, Mines Gerais.

In PNG, Gold Mountain is exploring the Wabag Project, which covers approximately 950km² of highly prospective exploration ground in the Papuan Mobile belt. This project contains three targets, Mt Wipi, Monoyal and Sak Creek, all lying within a northwest-southeast striking structural corridor. The three prospects have significant potential to host a porphyry copper-gold-molybdenum system and, or a copper-gold skarn system. Gold Mountain's current focus is Mongae Creek, which has been subjected to several phases of exploration, and the potential to host a significant copper-gold deposit is high. The current secondary targets are, in order of priority, Mt Wipi, Lombokai and Sak Creek. A new target, potentially another epithermal/porphyry system has been identified and is about to be sampled.

Gold Mountain has also applied for a total of 1,048 km<sup>2</sup> in two exploration licences at Green River where high grade Cu-Au and Pb-Zn float has been found and porphyry style mineralisation was identified by previous explorers. Intrusive float, considered to be equivalent to the hosts of the majority of Cu and Au deposits in mainland PNG, was also previously identified.



#### List of references

Davies H, 1983. 1:250,000 Geological Series - Explanatory Notes, Wabag, Papua New Guinea, Sheet SB/54-8. Department of Minerals and Energy, Geological Survey of Papua New Guinea.

Garwin S, 2023. Wabag Project, Papua New Guinea: Geoscientific Interpretation and Assessment of Prospectivity. Presentation to Gold Mountain Limited, 24th of July, 2023.

Garwin S, Hall R, Watanabe Y, 2005. Tectonic Setting, Geology, and Gold and Copper Mineralization in Cenozoic Magmatic Arcs of Southeast Asia and the West Pacific.

Gold Mountain Limited ASX release, 5 March 2018. Bonanza Grade Type Gold Nuggets Discovered at Crown Ridge

Gold Mountain Limited ASX release, 12 April 2018 Gold Mountain Commences Phase 5 Conglomerate Gold-Platinum at Crown Ridge

Gold Mountain Limited ASX release, 17 May 2018 Bonanza Gold Discoveries Extended, Aggressive Exploration Program to Locate Source

Gold Mountain Limited ASX release, 12 January 2017 Intensive Bulk Sampling ramps up at Crown Ridge

Gold Mountain Limited ASX release, 15 February 2017 More Gold and Platinum and a Hard Rock Sample recovered from Bulk Sampling at Crown Ridge

Gold Mountain Limited ASX release, 16 March 2017 Gold mountain extends free gold target to over 7km<sup>2</sup>

Gold Mountain Limited ASX release, 6 April 2017 Geophysical modelling builds case for bulk mining at Crown Ridge

Gold Mountain Limited ASX release, 3 November 2017 Drilling and bulk Sample Pitting Commenced at Crown Ridge Gold Project

Gold Mountain Limited ASX release, 14 December 2017 Exploration Update Crown Ridge Drilling & Pitting

Gold Mountain Limited ASX release, 1 September 2016 Visible gold in preliminary trenching at Crown Ridge gold project, PNG

Gold Mountain Limited ASX release, 22 September 2016 Bulk Sampling program commences at Crown Ridge Gold Project

Gold Mountain Limited ASX release, 3 November 2016 Significant free gold recovered from ongoing Bulk Sampling Program

Gold Mountain Limited ASX release, 13 December 2016 3D Magnetic Survey Identifies Multiple Future Shallow Free Gold Zones and Significant Porphyry Target at Crown Ridge

Gold Mountain Limited ASX release, 23 December 2016 3D Modelling identifies two potential large Calderas within Crown Ridge

Gold Mountain Limited ASX release, 2015 AGM Presentation 27 Nov 2015

Hoeflaken van F, Dobmeier CJ, 2012. 1:100 000 Geological map publication series of Papua New Guinea Sheet 7687 Wabaq. Port Moresby: Mineral Resources Authority.



Hutton M, 2015. Annual Report to 27/11/2015, EL1968 Wabag 3, 28 November 2014 to 27 November 2015, Viva No 20 Limited.

Simpson C 2015. Petrographic Description of Ten Outcrop Samples from the Timun Conglomerate – Crown Ridge Prospect, PNG. Report prepared for: Murray Hutton @ Geos Mining.

Temby P, Souza-Castell L, May 2024. Wabag Project Enga and East Sepik Provinces, Papua New Guinea. Reinterpretation of Existing Data and New Target Generation.

Appendix 1 JORC Code, 2012 Edition – Table 1

# Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.	No samples taken or analysed Style of mineralisation sought is porphyry coppergold and epithermal gold related to Maramuni suite intrusives in the Papuan Mobile Belt.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	



Criteria	JORC Code Explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling undertaken
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential	No drilling undertaken, no sampling undertaken.
Logging	loss/gain of fine/coarse material.  Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  The total length and percentage of the relevant intersections logged.	No drilling undertaken, no sampling undertaken.
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for	No drilling undertaken No sampling undertaken



Criteria	JORC Code Explanation	Commentary
	instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	No samples taken or analysed
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	No samples taken or analysed
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  Specification of the grid system used.  Quality and adequacy of topographic control.	No samples taken or analysed, no drilling undertaken.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade	No sampling undertaken.



		Limited
Criteria	JORC Code Explanation	Commentary
	continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No drilling undertaken.
Sample security	The measures taken to ensure sample security.	No samples taken or dispatched
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No samples taken No audit of the samples taken by the EU has been conducted by GMN



# Section 2 - Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Els held 100% by GMN subsidiaries are: Abundance Valley (PNG) Limited EL2563 and ELA2779, Viva Gold (PNG) Limited EL2565; Els held 70% by GMN are EL1966 and EL1968 held by Viva No 20 Limited and EL 2306 held by Khor ENG Hock & Sons (PNG) Limited / Abundance Valley (PNG) Limited
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Parts of the area of EL1966 were held by International Nickel Southern Exploration Limited during 1967-72, by Carpentaria Exploration Company during the late 1970s and by Placer (PNG) and joint venture partners during the early 1980s. These companies concentrated their exploration efforts on other prospects and no meaningful exploration was undertaken within the area of EL1966. PA644 - Brisa Minerals (wholly-owned subsidiary of Carpenters Pacific Resources NL) 1985 – 1997? Brisa evaluated the area in 1985, prior to application for PA644 (Harnish, 1987). The proposed PA (Prospecting Authority, the precursor to ELs) contained four known prospects: Kundoron – porphyry Cu-Mo prospect, NE of EL1966 Lumoro - porphyry Cu-Mo prospect, NE of EL1966 Lamant River alluvials, east of El1966 Timun River alluvials, within EL1968  The EU sponsored the GEOMAP program, which included regional stream sediment sampling and airborne magnetics + radiometrics surveys (flown by Fugro), over a large part of the Highlands region. Anomalous gold and copper values were recorded for samples from within the EL1966 and EL2306 areas. The anomalous areas appear to be associated with northwest and north trending structures and granodiorite/diorite and gabbro intrusions.



Criteria	JORC Code Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The mineralisation in the region consists of very widespread alluvial gold, coming from a range of relatively proximal sources. Extensive work by GMN over the last 10 years has shown the presence of skarn and porphyry proximal mineralisation in drill holes. An early focus on alluvial gold was not successful.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  o easting and northing of the drill hole collar  o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  o dip and azimuth of the hole  o down hole length and interception depth  o hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	No drilling undertaken  Stream sediment sample locations were transferred to Google Earth for assessment of actual drainage locations sampled.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	No drilling or sample aggregation undertaken, no cut off grades applied. Cu/Zn ratios used are based on the original reported data with no alteration to values.



Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	No drilling undertaken No known in situ mineralisation known at Mamba Creek
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No drilling undertaken; plan views of previous stream sediment sample locations are provided and of proposed follow up samples.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No sampling undertaken No new exploration results reported, historic results are reported as Cu/Zn ratios to indicate areas with potential for mineralisation.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	The author has examined the GMN data base and ASX releases from the past 11 years and relies upon the expertise of the competent persons who reported the data.  The EU data is used as reported and interpreted to allow identification of anomalous areas.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional work is targeted stream sediment sampling, rock chip sampling and mapping of outcrop.  Priority is to concentrate on assessment of Mamba Creek about 4-5 km north of Crown Ridge.