



ASX RELEASE | ASX:GMN

26 October 2022

Exploration and Due Diligence in Brazil Uncovers Potential Lithium Bearing Pegmatites

Highlights

- Geologists from Gold Mountain and Mars Mines Limited are presently in Brazil as part of the Company's technical due diligence of four highly prospective lithium projects
- The presence of potential lithium bearing pegmatites has been observed in outcrop and sub-crop on both the Custodia and Juremal projects*, with initial updates on the Cerro Cora and Porta D'Agua project pending and the Jacurici Project yet to be visited
 - Field observations confirmed the presence of numerous pegmatites of varying widths (0.5 to 5m, and one pegmatite swarm up to ~300m wide) which has been traced for 1100 metres in strike length, but further mapping is required to confirm full continuity and trace the further extent of the swarm
 - Part of this particular swarm is thought to be present in one of the tenements in which several additional occurrences of visually identified spodumene are present
 - None of the project areas have been previously explored for lithium minerals
- Initial rock chip sampling has commenced at Custodia and Juremal with additional work planned in the weeks ahead
- Rock chip samples collected during this program will be submitted to laboratories in Australia and Brazil for analysis with initial results expected within a month of submission
- A more detailed report on the due diligence field work will be announced once the geologists have returned from Brazil

Gold Mountain Limited (**ASX:GMN**) (“**Gold Mountain**” or the “**Company**”) is pleased to announce that geologists from Gold Mountain and Mars Mines Ltd (**Mars**) have commenced high level regional field reconnaissance and due diligence work on the four lithium project areas in Brazil. As announced 18 September 2022, Gold Mountain has an option to acquire up to a 75% interest in the projects from Mars.

This initial reconnaissance survey took approximately 10 days to complete with the geologists visiting three out of the four project areas.

Initial reports from the geologists are encouraging with potential lithium bearing pegmatites observed in sub-crop, outcrop and proximal float at both the Juremal and Custodia project areas (Photographs 1 and 2). Spodumene (lithium aluminium silicate) was visually identified on and adjacent to both of these tenements, hosted by pegmatites.

Rock chip sampling, geological traversing and mapping is underway on the project areas, and once completed the rock chip samples will be submitted to the ALS laboratory in Brisbane and the SGS laboratory in Belo Horizonte in Brazil for analysis.

A more detailed report which will include rock chip locations, descriptions and photographs will be released once all the geologists have returned from the field.

Commenting on the exploration program, Tim Cameron the CEO of Gold Mountain said: *“I am very pleased with feedback I am receiving from the geological team in the field, and it is exciting to hear that they have observed pegmatite outcrops potentially containing spodumene in this first pass reconnaissance program. I am looking forward to the weeks ahead when we will be able to share additional information with the market when it comes to hand on these very exciting projects”.*

The four project areas¹ are presented in Figure 1 and are referred to as the:

- The Juremal Project
- The Custodia Project
- The Cerro Cora Project and the Porta D’Agua Project
- The Jacurici Project

Site visits to the Juremal and Custodia Projects are discussed in this document

¹ First reported to the ASX on 19 September 2022 “Proposed acquisition of up to a 75% interest in a package of highly prospective lithium projects in Brazil” Competent Person Peter Temby



Figure 1. Five projects (four project areas) of Mars' tenements, Brazil

Juremal Project Update

Geological traversing of tracks and arid Caatinga scrub land covering tenement 870208/2022 has resulted in the identification of potential spodumene bearing pegmatites in the southern part of the licence.

Samples are dominantly float from a licence containing minimal outcrop, estimated at well under 0.5%, beneath a widespread thin colluvial and alluvial gravel and cobble layer. Sufficiently incised drainage is present to warrant a detailed stream sediment sampling survey that will define areas for soil sampling. It is thought that soil, colluvial and alluvial cover is very thin overall (1-3m), with outcrops mainly found along the bed and banks of shallow drainage lines. Photographs 1 to 2 show clusters of weathered spodumene crystals within Mars' tenements, which were identified in hand specimen from the hardness, crystal habit and relative density compared to barren pegmatite material.



Photograph 1. Weathered spodumene from Juremal that occurs as large, disseminated masses in the pegmatite. The whole sample shown is composed of part weathered spodumene crystals. *



Photograph 2. Weathered spodumene crystal cluster from Juremal that occur as disseminated masses in the host pegmatite. The entire sample shown is composed of spodumene crystals. *

Custodia Project Update

Lithium pegmatites were reported within the granted Custodia project tenements by Neliton Santos, Mars Mines' local Brazilian geologist.

Neliton Santos carried out a soil and rock chip sample program earlier in the year. Visible spodumene was identified in some of the pegmatite samples which he collected, these samples are currently at the laboratory, pending analysis. The current work comprised resampling the pegmatite and limited mapping. Abundant colourless, pale blue and mauve coloured spodumene (kunzite) crystals were identified within the host weathered pegmatite and structural zone, Photograph 3. Numerous crystals of spodumene recovered by local farmer were also inspected, Photograph 4.

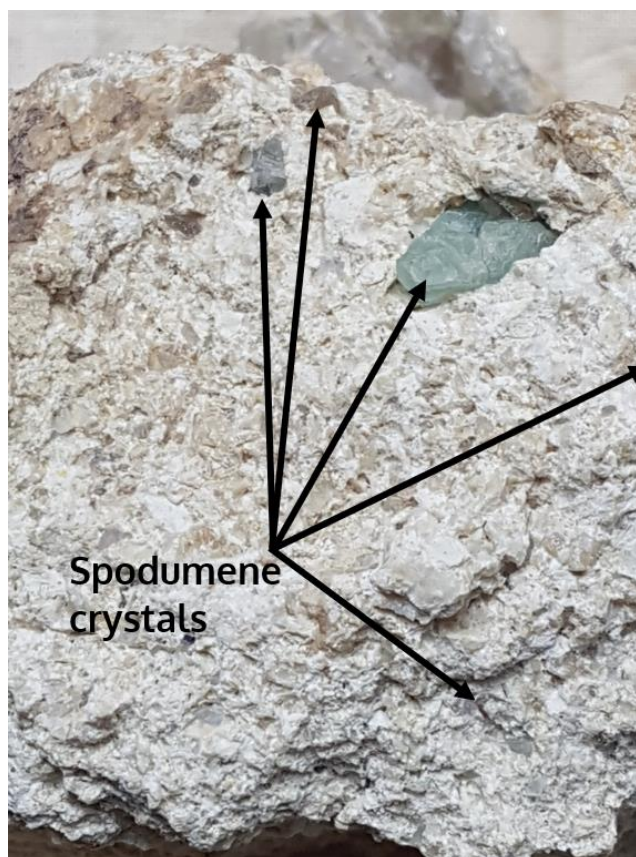
The Mars tenements granted by the Brazilian Mining Agency are designed to cover potentially favourable geology settings for pegmatite, however given the inaccuracy of the regional data this may need to be reviewed.

Favourable pegmatite source geology is considered to be the Brasiliano/Pan African age Itaporanga and Camalau intrusive suites and its immediate hosts within an approximate 5km of the granite margins.

The Mars tenements are located in underexplored lithium bearing pegmatite provinces and very few samples have been collected by the Brazilian Geological Survey during their regional rock sampling program. Several low-level anomalous samples

were recovered by the Brazilian Geological Survey and these are now considered to be of significance due to the rapid leaching of lithium expected in the strongly weathered and lateritized environment present.

This gives Gold Mountain the unique opportunity to be one of the first to effectively explore this highly prospective region.



Photograph 3 & 4. Spodumene bearing pegmatite at Custodia *left* and Spodumene crystal fragments from local resident's gem collecting at the spodumene rich site*

-END-

This announcement is authorised for release by the Board of Gold Mountain Limited.

For further information please visit the website www.goldmountainltd.com.au or contact:



Tim Cameron
Chief Executive Officer & Executive Director
M +61 (0) 448 405 860



Follow Gold Mountain on Twitter at:

www.twitter.com/GoldMountainASX



Follow Gold Mountain on LinkedIn at:

www.linkedin.com/company/goldmountain



Follow Gold Mountain on YouTube at:

[YouTube Channel](#)

Competent Person Statement

The information in this report that relates to Geological Data and Exploration Results is based on, and fairly represents, information and supporting documentation compiled by Mr Peter Temby, who is employed by Mars Mines Limited and is an independent consulting geologist to Gold Mountain Limited, and a Member of the Australian Institute of Geoscientists.

Mr Temby has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Temby consents to the inclusion in this report of the matters based on his information, and information presented to him, in the form and context in which it appears.

Forward Looking Statements and Important Notice

This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations and estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Gold Mountain's control.

Actual results and developments will almost certainly differ materially from those expressed or implied. Gold Mountain has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. To the maximum extent permitted by applicable laws, Gold Mountain makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and without prejudice, to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

*Cautionary Statement

The Company notes that the pegmatites identified by field observation comprised of varying relative abundances of course grained (<4cm) minerals dominantly feldspar, quartz and muscovite mica. At this stage it is too early for the Company to make a determinative view on the approximate percentages of these minerals. Investors should note that while pegmatites are a known host for accessory lithium bearing minerals such as spodumene, it is also known that this is not a universal association.

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	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Soil samples taken were from B horizon soils, taken at approximately 0.4 metres depth, below the organic rich A horizon. One kg samples were taken. Samples currently in the laboratory, no results received. Rock chip samples were random chip samples from outcrops of float in the field, they weighed approximately 1 kg. Are currently at the laboratory with no results yet received. Style of mineralisation sought is pegmatite intrusion hosted lithium and tantalum.
Drilling techniques	<ul style="list-style-type: none"> 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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> No drilling undertaken
Drill sample recovery	<ul style="list-style-type: none"> 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 loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling undertaken
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling undertaken

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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 instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No drilling undertaken
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The analytical techniques requested are fusion with sodium peroxide followed by ICP-MS analysis.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No verification will be undertaken for these initial samples that will not be used in any resource estimate. The samples are to determine the levels of Li and other valuable elements in grab samples
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All sample locations were measured using a handheld Garmin GPS model 60 in WGS84 and UTM coordinates. The accuracy is considered sufficient for a first pass sampling program.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the 	<ul style="list-style-type: none"> Sampling intervals were grid based at 200 metre spaced lines with 20 metre sample intervals along lines

Criteria	JORC Code Explanation	Commentary
	<p><i>Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> Whether sample compositing has been applied. 	
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling undertaken, surface sampling where drainages or interesting rocks found.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples were securely packed and sent by a reliable commercial courier to the laboratory
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews of sampling data undertaken

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenements are held by Tatiana Barbosa de Souza Libardi who is the legal representative and holder of POA as well as the trustee on behalf of Mars Mines Brasil Ltda for all the tenements which have been applied for. These tenements are those that GMN will earn up to a 75% interest in. The tenements consist of 8 granted tenements and 8 applications going through the grant process.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No prior formal exploration is known on any of the tenements however there has been some informal exploration by artisanal miners.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation in the region pegmatite intrusion related lithium and tantalum mineralisation associated with post orogenic intrusives, Mineralisation typically occurs as disseminated crystals or crystal clusters in the host pegmatite
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> easting and northing of the drill hole collar 	<ul style="list-style-type: none"> No drilling undertaken

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ 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. 	
Data aggregation methods	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ No drilling or sample aggregation undertaken
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ▪ 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'). 	<ul style="list-style-type: none"> ▪ No drilling undertaken
Diagrams	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ No drilling undertaken; plan views of soil sample grids are provided
Balanced reporting	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ No results are reported
Other substantive exploration data	<ul style="list-style-type: none"> ▪ 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, 	<ul style="list-style-type: none"> ▪ No additional substantive data

Criteria	JORC Code Explanation	Commentary
	<i>geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> ▪ <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> ▪ <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> ▪ <i>Additional work is regional stream sediment sampling followed up by soil sampling, followed by RC and diamond drilling to define resources.</i>