EAGLE MOUNTAIN MINING

Lower Cost and Reduced Environmental Impact Potential Identified with Simplified Processing Route

Eagle Mountain is focused on becoming a mid-tier US copper producer at its Oracle Ridge Copper Project in Arizona. A simplified process flowsheet appears possible where LME grade copper is produced on site offering the potential for lower capital and operating costs compared to conventional mining and processing methods as well as delivering a much lower environmental footprint.

Highlights from recent testwork include:

- Mining – Updated Mineral Resource supports larger stopes with multiple mining fronts envisaged which will increase productivity and provide an opportunity for lower unit operating costs. The elevated position of the mineralisation is considered conducive for a battery haulage fleet.
- Ore sorting – up to 30% increase in copper head grade possible by removal of lower grade ore or waste material. This will offer the potential for lower capital and operating costs due to a reduction in grinding requirements.
- Crushing - Initial comminution testwork suggests that high pressure grinding rolls are amendable to Oracle Ridge rock which has the benefit of reduced power requirements compared to traditional crushing equipment and a reduced operating footprint.
- Flotation - Excellent average rougher flotation recoveries of 93% Cu at 100µm grind size with a mass rejection of 92%. Opportunities to further improve rougher floatation recoveries have been identified and are a key focus for future work. Capital, operating costs and environmental footprint will be reduced through the elimination of standard cleaners and scavengers in the flotation circuit.
- Sulphide Leaching – Preliminary glycine leaching of run of mine mineralisation resulted in bottle-roll copper recoveries up to 91% at P_{80} 100µm grind size. Glycine testwork is now being expanded to examine the potential for concentrate leaching, heap leaching lower grade along with leaching existing tailings. Given the strong leaching recoveries of run of mine ore, leaching of rougher concentrate is considered highly probable and testwork will be undertaken as a priority. Sulphide leaching enables production of copper through an SX/EW plant which reduces the infrastructure and costs associated with smelting and refining.
- Locked Cycle testwork which is indicative of standard flotation circuits resulted in a copper concentrate grade of 25% Cu with 90% copper recoveries on average.

Commenting on the results, Eagle Mountain Mining's CEO, Tim Mason, said:

"I'm very excited that our team has identified a far simpler processing method for mineralisation at Oracle Ridge with a raft of cost and environmental benefits. Excellent copper recovery from rougher flotation alone paves the way for direct tank-leaching of the concentrate which in turn feeds to an SX/EW plant onsite that produces LME grade copper sheet. There is no need for filtering and shipping of concentrate to smelters and refiners.

Additional feedstock to the SX/EW could come from a low-grade heap leach process which is in the testing phase. If viable, this could negate the need for a tailings storage facility, eliminating those capital and operating costs for the project.

Glycine leaching is currently being tested on run of mine ore and low grade material. Results received to date are very encouraging and the next stage will be testing the rougher concentrate and the existing tailings.

Importantly, the recent inclusion of copper on the US critical materials list means that production of LME grade copper onsite at Oracle Ridge positions the Company to pursue various US Government funding opportunities.

I am very excited by these latest developments which support our goal to become a mid-tier copper producer in the USA."

Eagle Mountain Mining Limited (ASX: **EM2**) (**Eagle Mountain**, or the **Company**) is pleased to provide an update on its 100% owned Oracle Ridge Copper Mine Project (**Oracle Ridge**, or the **Project**) in Arizona, USA (see Figure 1). A range of metallurgy and communication results have been received which support a simplified flow sheet to produce copper on site via leaching, solvent extraction and electrowinning.

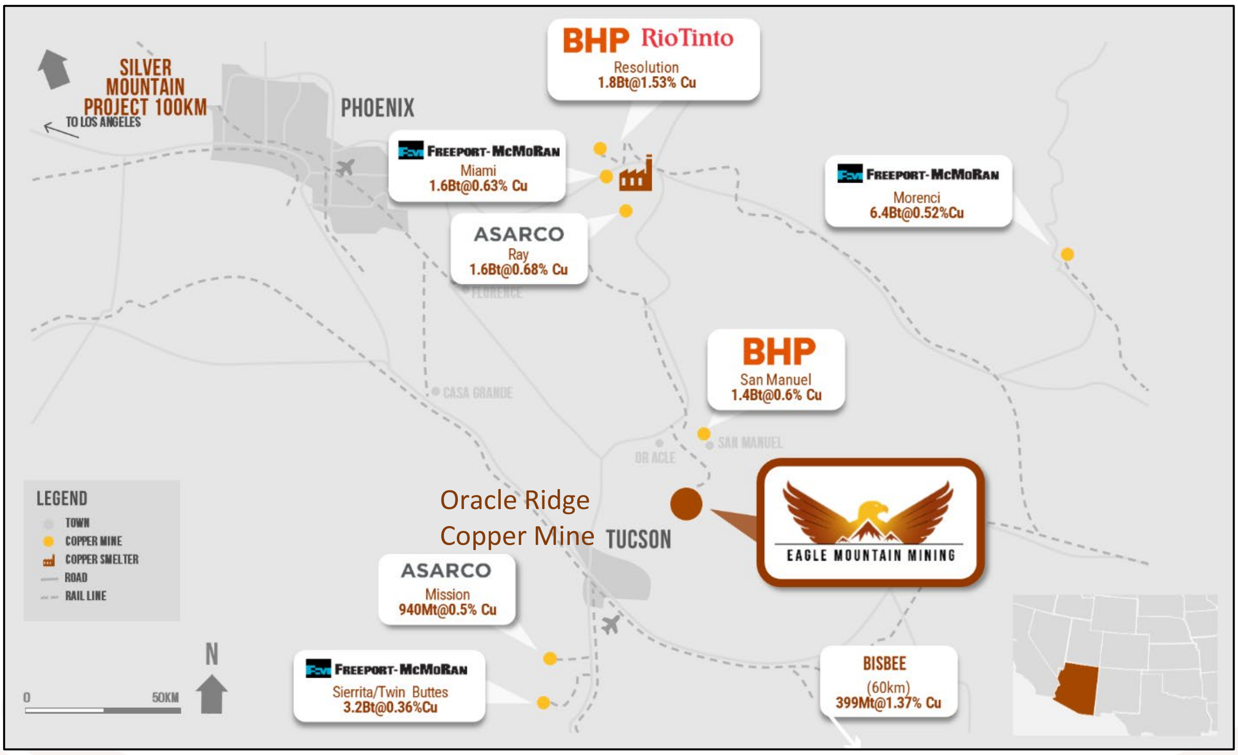

Figure 1 – Location of Oracle Ridge in Arizona

Historical Production

During the early 1990's, a bulk copper, silver and gold concentrate was produced on site using a standard flotation circuit and sold to a nearby smelter. Smelter records showed consistent high-grade concentrate, in excess of 26% copper with payable gold and silver credits[1]. There were no deleterious penalty elements in any of the smelter records. Recovery was not optimum as there was reportedly up to 50% scat recirculating load which impacted processing. This suggests that with improved plant infrastructure (such as appropriate crushers including a pebble crusher), strong metallurgical recoveries can be achieved while also producing high-grade concentrates.

Eagle Mountain's borehole sampling of the historical tailings average just under 0.3% Cu with one sample over 1.0% Cu. This suggests sub-optimum recovery in previous operations.

Glycine leach testwork on part of these tailings will soon commence to identify whether they can be reclaimed via vat leaching.

Mining

The work conducted on the recent updated Mineral Resource Estimate (see ASX announcement dated 21 November 2023) identified that the mineralisation is much more continuous using lower cut-offs supporting potential for larger stopes. It is anticipated that the most suitable mining method will be long hole open stoping with multiple mining fronts allowing higher production rates. Backfill will be incorporated which may include paste fill, waste rock or reclaimed heap leach material. As large portions of the mineralisation are above the current portal, this is well suited to the use of battery powered mobile fleet with the benefit of reduced emissions and reduction of ventilation costs within the mine.

Simplified Processing Flowsheet

While the production of a bulk concentrate remains an option for the project via a conventional process route, a simplified process has been identified that avoids smelting and refining beyond the mine gate. A comparison of a conventional bulk flotation process with the simplified process is shown in Figure 2. The benefits relative to the production of a bulk concentrate include:

- Potentially lower capital and operating costs;
- Avoids downstream transport and processing (smelting and refining) costs;
- Reduced environmental impact from avoiding smelting processes;
- Security of supply of copper, a critical material, for US domestic consumption;
- Supports local jobs and broader social benefits; and
- Increased credentials for securing various US Government funding tied to critical materials production.

Further details of the flotation, ore sorting and leaching optionality within this flowsheet are outlined later in the announcement and in sequence of the flowsheet.

[1] Source – All available smelter records from operations during the 1990's

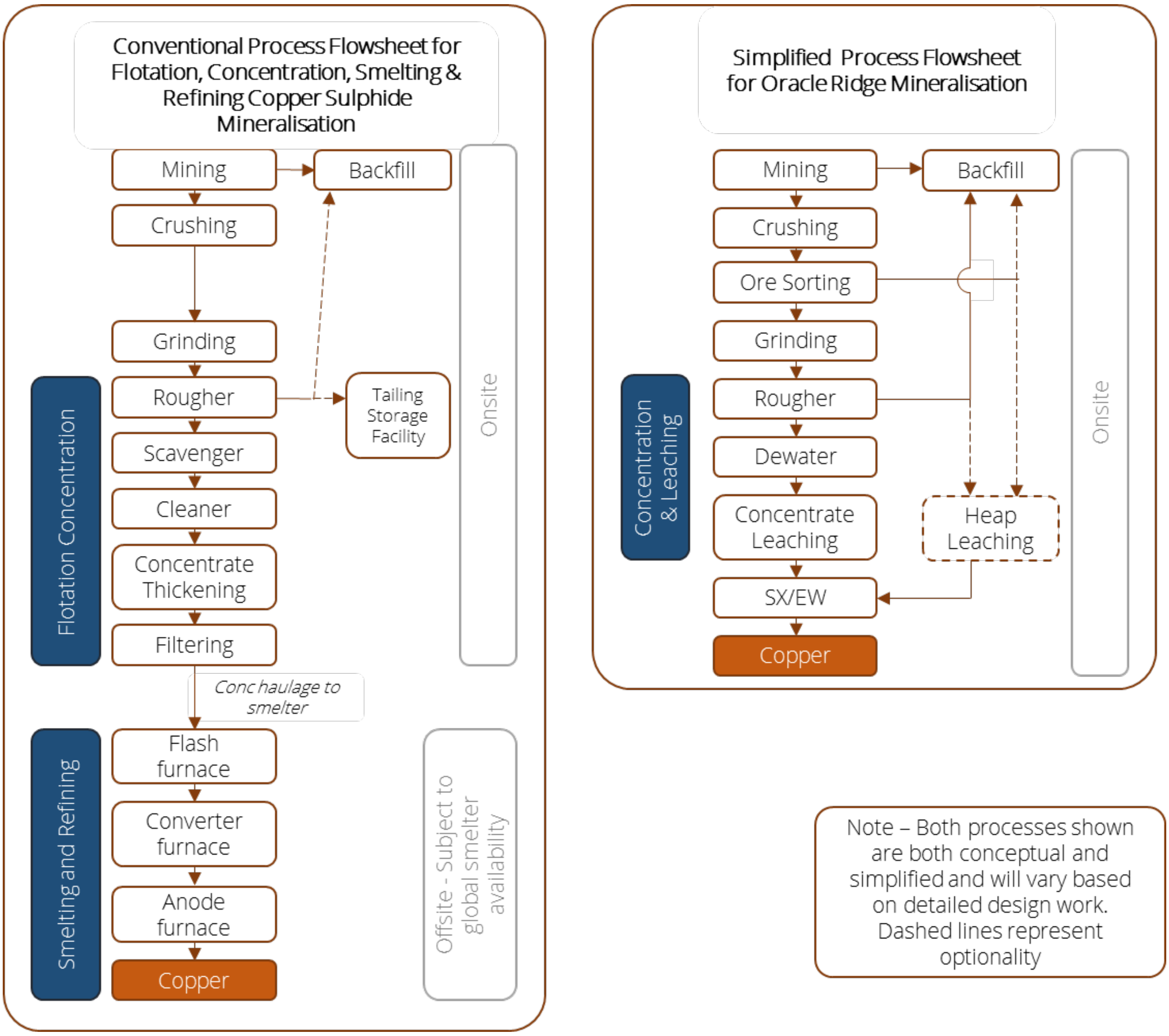

Figure 2 – Conceptual processing flowsheet for the production of LME grade copper at Oracle Ridge. Note, this is a conceptual flow sheet only which has not been economically or technically evaluated as part of any formal study.

Comminution

The results from the following comminution testing indicate that the ore body is a candidate for the use of high-pressure grinding rolls.

Variability comminution testing included Sag Mill Comminution (SMC), Abrasion Index (Ai), Ball Mill Work Index (BWI), and Static Pressure Test (SPT). Based on the available variability sample data set, the material is considered medium soft to medium for copper ore. The average AxB (JK SMC) was 38.7, the Abrasion Index was 0.135, and the BWI was 12.9. A piston press testing program was conducted to evaluate preliminary mineralisation responses to high-pressure comminution. The specific energy across nine samples ranged from 1.72 to 2.22 kWh/t.

Ore Sorting Testwork

The Company believes the mineralisation could be amenable to ore sorting. Two run-of-mine samples, consisting of 600 kg each, were provided for the testwork, which was conducted on a Steinert multi-sensor sorter in Kentucky, USA (Figure 3 and 4). Sample 1 consisted of a coarse size fraction (-4+2") and Sample 2 consisted of a fines fraction (-2+1/2"). The objective of the testwork was to remove waste rock while upgrading the copper content. The evaluation of different sensors showed that the X-Ray transmission and induction sensor combination showed the best potential.

There are two potential scenarios in which ore sorting could be applied. Firstly, focus on high copper recoveries by rejection of non-copper bearing rock (Scenario 1, refer below) with rejects used for underground backfill. Alternatively, a focus on increasing copper head grade for processing in a flotation or tank leaching circuit with rejects directed towards a heap leach (Scenario 2, refer below). Outcomes of the two scenarios were undertaken on both coarse and fine composites with results outlined below.

<u>Results of two ore sorting tests based on two separate scenarios:</u>

Scenario 1 – Maximise recovery:

- Coarser Fraction – an increase in sample grade from 1.41% Cu to 1.62% Cu with a copper recovery of 97.6% and a mass rejection of 15%. The reject grade was 0.23% Cu.
- Finer Fraction – an increase in grade from 1.43% Cu to 1.64% Cu with a recovery of 96.2% and a mass rejection of 16%. The reject grade was 0.33% Cu.

Scenario 2 – Maximise head grade:

- Coarser Fraction – an increase in sample grade from 1.41% Cu to 1.82% Cu with a copper recovery of 85.2%. The mass recovery was 66% indicating that 34% of the material could be rejected. The rejected material still graded an impressive 0.61% copper for treatment on a heap leach.
- Finer Fraction – an increase in grade from 1.43% Cu to 1.81% Cu with a recovery of 84.3% and a mass rejection of 16%. The mass recovery was 66% indicating that 34% of the material could be rejected. The rejected material still graded an impressive 0.67% copper for treatment on a heap leach.

For both size fractions in Scenario 2, the gold and silver recoveries were above 96%. It was also observed that a higher-grade product could be achieved with a reduction in recoveries.

Overall, these results indicate the potential for reduced downstream operating and capital expenditure.

Figure 3 – Steinert Multi-Sensor Sorter Testing Oracle Ridge Samples

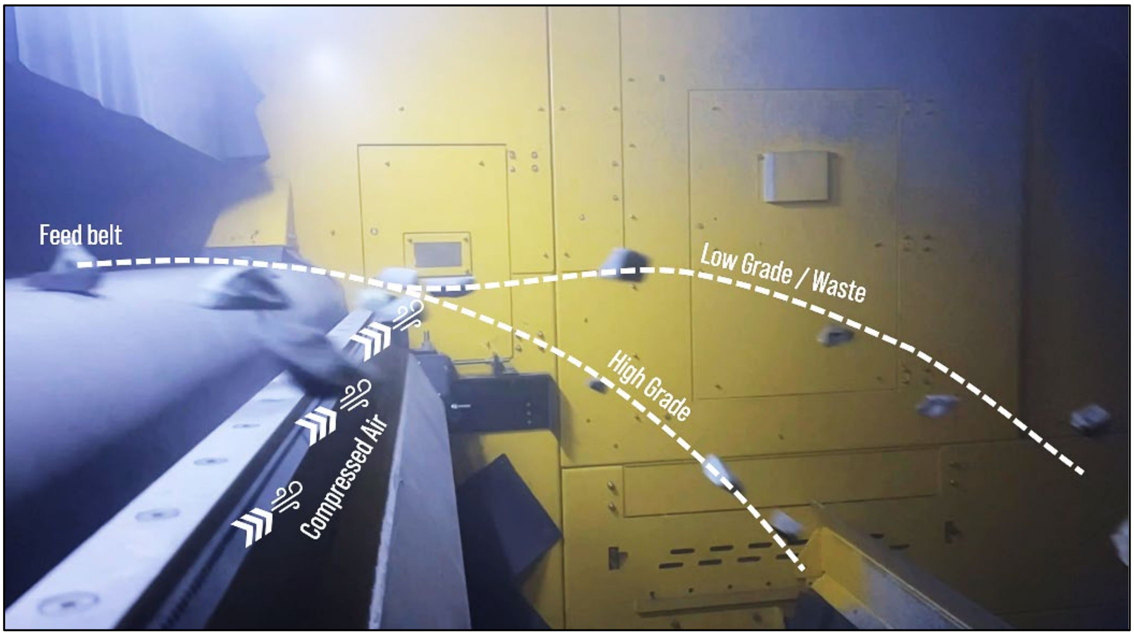

Figure 4 – Ore Sorting in progress of Oracle Ridge Mineralisation, with process shown how compressed air sorts rocks samples off a conveyor belt.

Copper Mineral Speciation

A series of nine variability composites and two master composites were submitted to Base Metallurgical Laboratories in Tucson for various comminution, flotation and mineral speciation testwork. The master composites were a weighted blend of mineralised zones meant to reflect the respective weights of the zones in the MRE, while the individual samples were from the unique mineralised zones.

Mineral speciation can have a significant influence on processing flow sheet optionality. The copper mineral speciation in Master Composite 1 showed that 81% of the copper is contained within bornite and chalcocite. In Master Composite 2, 68% of the copper is contained within bornite and chalcocite. This has significant advantages for Oracle Ridge due to the high-grade nature of these minerals and their increased ability for leaching compared to chalcopyrite, which is the most widespread copper-bearing mineral globally. Table 1 below outlines the copper mineral speciation within each of Master Composites 1 and 2.

Table 1 – Copper Speciation for Metallurgical Testwork Master Composites

	Master Composite 1		Master Composite 2	
Copper Mineral	Proportion [%] of Copper Minerals	Proportion [%] of Total Copper	Proportion [%] of Copper Minerals	Proportion [%] of Total Copper
Bornite (63.3% copper)	66.6	**75.1**	49.8	**59.4**
Chalcocite (79.8% copper)	4.0	**5.7**	5.7	**8.5**
Chalcopyrite (34.5% copper)	27.7	17.0	41.3	26.9
Native Copper (100% copper)	0.9	1.5	2.5	4.7
Other (41.8% copper average)	0.9	0.6	0.7	0.6
Total	**100.0**	**100.0**	**100.0**	**100.0**

Differences may occur in totals due to rounding

Rougher Flotation Concentrate Testwork

Flotation testwork focused on determining the optimum flowsheet in terms of grind, pH and reagents for the two Master Composites. Once an agreed optimised grind size and reagent scheme were selected, testing continued with cleaner development followed by locked cycle tests. The established rougher/cleaner flowsheet was applied to each variability sample as a benchmark.

Rougher testwork indicated that high metal recoveries of 93% on average could be achieved, while rejecting an average of 92% of the mass. This result is encouraging as it may support reduction of capital cost by avoiding the need for cleaning and regrind circuits, concentrate thickeners and filtering, when combined with the leaching of concentrates straight from the rougher flotation. Table 2 below shows the results of baseline rougher testwork with natural pH and moderate grind conditions of P_{80} 100µm.

Given that Eagle Mountain is considering SX/EW as the last component of the copper recovery process rather than exporting a copper concentrate to a smelter, maximising copper recovery in the rougher is the focus for future work.

Table 2 - Rougher recoveries at 100µm grind and no adjustment of pH

	Sample Head Grade			Mass Recovery to Rougher Concentrate	Recovery			Metal Grade		
	Cu %	Ag g/t	Au g/t	%	Cu %	Ag %	Au %	Cu %	Ag g/t	Au g/t
Master Composite 1	1.78	14.6	0.27	11.0%	92.0	86.7	88.4	15.5	122	2.21
Master Composite 2	1.49	14.4	0.26	5.8%	94.8	92.1	78.0	24.2	227	3.44
Average	1.64	14.5	0.27	8.4%	93.4	89.4	83.2	19.85	174.5	2.83

Locked Cycle Flotation Concentrate Testwork

The established locked cycle testwork conditions included a conventional flowsheet by which copper was recovered into a final concentrate carrying gold and silver units. Final projected copper recoveries ranged between 88.5 to 91.5% with copper grades between 19.3% to 30.2% Cu. Silver metallurgical performance measured high, with 88.5 to 90.4% recovery for silver grades in concentrate between 196 to 279 g/t Ag. Gold recoveries ranged between 70.7 to 86.7% recovery for gold grades in concentrate between 3.04 to 3.53 g/t Au. A summary of locked cycle test results are shown in Table 3 below.

Although concentrate grades from the locked cycle tests were higher than rougher flotation only, the result suggests that just using a rougher circuit is all that is required if the concentrate is to be leached.

Table 3 - Locked Cycle Testwork results including roughers, cleaners and scavenger cells at 100µm grind and no adjustment of pH

	Sample Head Grade			Mass Recovery to Concentrate	Recovery			Metal Grade in Concentrate		
	Cu %	Ag g/t	Au g/t	% to Concentrate	Cu %	Ag %	Au %	Cu %	Ag g/t	Au g/t
LCT 42	1.74	18	0.29	12.0	91.5	90.4	86.7	19.3	196	3.04
LCT 43	1.49	14	0.22	6.5	88.5	88.5	70.7	30.2	279	3.53
Average	1.62	16	0.26	9.3	90.0	89.4	78.70	24.7	237.50	3.29

Glycine Leaching

To support the aim of producing copper on site, the Company has identified a sulphide leaching process that utilises glycine to leach copper, silver and gold from both ore and concentrates. The processes have been shown to be more applicable to leaching copper within bornite and chalcocite, compared to chalcopyrite. The process has the following significant potential benefits:

- Cost Savings – lower processing costs, no downstream smelting and haulage costs
- USA Copper production – the dissolved copper will be recovered through an SX/EW plant producing LME grade copper cathode supporting domestic decarbonisation goals
- Environmental – the process uses glycine which is used in the food and pharmaceutical industries
- Recyclable – the glycine is recovered and stays in circuit prior to the SX/EW process

All glycine testwork was done by the Draslovka Mining Innovation Centre in Perth. Two samples were delivered to Draslovka that were derived from the ore sorting tests, being one higher grade and one lower grade sample, which were crushed and ground by Draslovka prior to leach tests.

The higher grade sampled assayed 1.75% Cu, 21.97 g/t Ag and 0.35 g/t Au.
The lower grade sample assayed 0.61% Cu, 4.23 g/t Ag and 0.27 g/t Au.

Twenty-four diagnostic leach tests were completed for both the high and low grade samples to determine the criteria for subsequent bottle roll tests. For each of the high grade and low grade samples, 3 glycine tests were run, plus one high acid reactor leach test as a base case. The bottle roll tests included two glycine with NaOH at different concentrations, plus a glycine with NH_3 (28% solution) test. The tests were run over 7 days at a pH of approximately 10.

GlyAmm™ (glycine-ammonia) gave the highest bottle roll recoveries (Figure 5), as follows:
High grade: 91.4% Cu (Ag and Au results pending)
Low Grade: 46.7% Cu (Ag and Au results pending)

Draslovka is in the process of running GlyCat™ (glycine-cyanide) on the residue which targets recovery of silver and gold. Given the bottle roll results on the low grade, they are in the process of conducting various mini-column tests on the low grade. Results planned to be received in the first quarter of 2024.

Eagle Mountain is encouraged by the results from the higher grade sample and will commence glycine leach tests on rougher concentrate as soon as enough concentrate has been produced at BaseMet's Tucson facility.

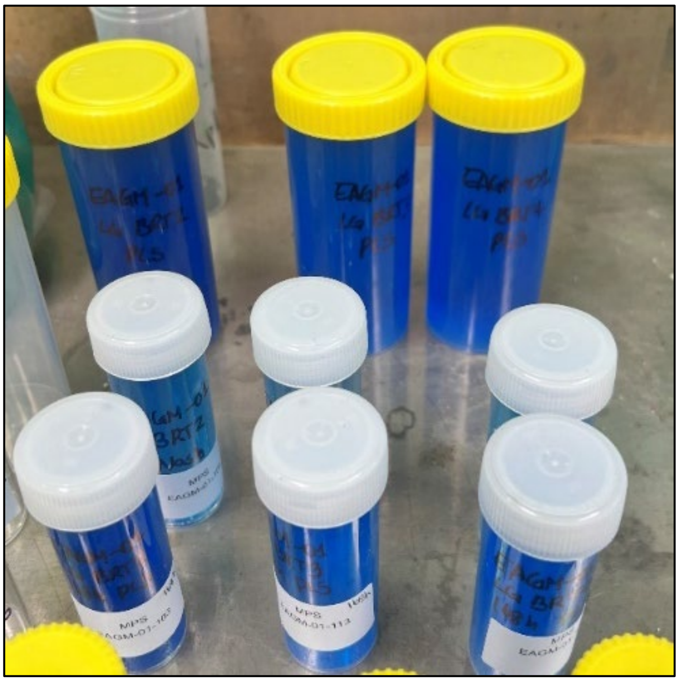

Figure 5 – Copper rich solution (copper glycinate) following bottle roll leach testwork

Next Steps

The current planned work to progress these evaluations on the Project includes:

- Incorporate copper speciation, mineralogy, comminution and flotation data for each unique geologic zone into the grade model. Once completed, this will lead to a better prediction of mine production for the first five years that will then be used to optimise ore blends for further testwork.
- Undertake concept mine design and scheduling, with a focus on maximising production rates possible at cut-off grades as low as 0.6% copper. It is anticipated that lower unit mining costs can be achieved with lower cut-offs due to:
  - Increased size of stopes and improved production efficiency;
  - Mine designs leveraging the use of gravity as large portions of the resource are located above the existing portals; and

- Expected ability to open multiple mining areas providing less geotechnical sequencing constraints compared to other underground mining operation.

- Rougher concentrate leach tests including glycine leach and other hydrometallurgical options.
- A second phase of flotation testwork focused on increasing final concentrate grades and metal recoveries. This work will include, but not be limited to:
  - Flash flotation in the grinding circuit;
  - New reagent schemes to depress certain gangue minerals such as talc; and
  - Regrinding rougher concentrate before cleaner flotation.
- Confirmatory testwork using actual laboratory (Labwal) or pilot size high pressure grinding rolls. The results will allow trade-off studies of multiple flowsheets to be evaluated with a much higher degree of confidence.
- Undertake column leach testwork to simulate heap leaching of low-grade copper minerals using glycine as part of the lixiviant.
- Undertake testwork on the leaching kinetics of the existing tailings. The existing tailings of approximately one million tonnes were drilled a few years ago. It is estimated that the average grade of the tailings based on a simple averaging of the samples is just under 0.30% Cu. Bulk samples are being sent for tank leaching testwork. If reasonable recoveries can be achieved, they can be vat leached and placed back in the existing tailings facility, providing some early cash flow to the Project at minimal cost.
- Assess alternative renewable energy supply options, including pumped hydropower supported by solar power.

This ASX announcement was authorised for release by the Board of Eagle Mountain Mining Limited.

For further information please contact:

Tim Mason
Chief Executive Officer
tim@eaglemountain.com.au

Mark Pitts
Company Secretary
mark@eaglemountain.com.au

Jane Morgan
Investor and Media Relations
jm@janemorganmanagement.com.au

COMPETENT PERSON STATEMENT

The information in this report that relates to the Processing and Metallurgy for the Oracle Ridge Project is based on and fairly represents information and supporting documentation compiled by Mr Charles Bass who is a Fellow of The Australasian Institute of Mining and Metallurgy and the Managing Director of Eagle Mountain Mining Limited. Charles Bass has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity 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'. Charles Bass consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this document that relates to Exploration Activities is based on information compiled by Mr Brian Paull, who is a member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience relevant 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 (JORC Code 2012). Mr Paull is the Director of Exploration at Eagle Mountain Mining Limited's wholly-owned subsidiary, Silver Mountain Mining Inc, and consents to the inclusion in this document of the information in the form and context in which it appears. Mr Paull holds shares and options in Eagle Mountain Mining Limited.

ABOUT EAGLE MOUNTAIN MINING

Eagle Mountain is a copper-gold explorer focused on the strategic exploration and development of the Oracle Ridge Copper Mine and the highly prospective greenfields Silver Mountain Project, both located in Arizona, USA.

Arizona is at the heart of America's mining industry and home to some of the world's largest copper discoveries such as Bagdad, Miami and Resolution, one of the largest undeveloped copper deposits in the world.

Follow the Company's developments through our website and social media channels:

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Attachment 1

Sulphide Leach Testwork

The Company has identified a potential avenue to leach copper, silver and gold using either a tank or heap leach environment, depending upon grade and circuity. The processes known as GlyLeach™ and GlyCat™ are patented leaching processes from company Draslovka that are undertaken in an alkaline environment using glycine. Glycine is a widely available bulk reagent that is non-toxic, water-soluble, stable, non-volatile, fully biodegradable and reusable. Glycine is used as a food additive for both humans and animals.

The processes that are potentially applicable to Oracle Ridge are sequential in that they first leach the copper (GlyLeach™) followed by the gold and silver (GlyCat™).

The GlyLeach™ process operates in an alkaline environment and is thereby suitable for carbonate-hosted copper deposits such as Oracle Ridge. The process is undertaken at atmospheric pressure and ambient temperatures. Glycine is unique in its ability to selectively leach certain base and precious metals. The common gangue minerals in general do not react under GlyLeach™ conditions. Silicates and carbonate minerals such as calcite and dolomite are all essentially inert.

GlyCat™ also operates in an alkaline process that combines glycine with sodium cyanide with the benefit of improving leaching efficiency and reducing cyanide consumption by up to 90%.

In both processes, the glycine is recoverable and recyclable, thereby providing a major cost advantage. The processes can be undertaken in either tank or heap leach conditions and it is expected that leach kinetics will be related to leach residence times and rock crush or grind sizes.

Other testwork has shown that the copper in solution can be recovered through a conventional solvent extraction and electrowinning circuit to produce an LME copper cathode. The process eliminates the need for smelting and shipping concentrate between facilities, with copper cathode sulphate produced directly at the mine site.

The GlyLeach™ process is currently being piloted at projects globally while the GlyCat™ has successfully achieved a commercial application on a heap leach in Mongolia.[2]

The copper minerals at Oracle Ridge are predominantly in bornite, followed by chalcopyrite and chalcocite within a limestone host rock. The GlyLeach™ process has been shown on testwork in other projects to have faster leach kinetics on bornite and chalcocite compared to chalcopyrite. This bodes well for the Oracle Ridge project. Testwork has commenced on Oracle Ridge mineralisation including both tank and column tests.

A range of alternative hydrometallurgical sulphide leaching processes have been used commercially and will be considered for future testwork on the leaching of rougher concentrates. These options include a range of pressure, temperature, pH, oxygen and/or additive conditions. Downstream of leaching processes could include a conventional solvent extraction and electrowinning plant.

[2] https://www.draslovka.com/first-global-commercial-heap-leach-use-of-glycat-process-45

Attachment 2

Summary table of metallurgical testwork sample information

Testwork ID	Source Material	Easting	Northing	Elevation	Dip	Azimuth	Depth
		[m]	[m]	[m]	[∘]	[∘]	[m]
Var-1	WT-21-63	523959	3593091	2093	-52	31	344
Var-2	WT-21-63	523959	3593091	2093	-52	31	344
Var-3	WT-21-58	524024	3593225	2098	-61	259	208
Var-4	WT-21-58	524024	3593225	2098	-61	259	208
Var-5	WTU-23-05	524147	3593187	1920	-47	120	47
Var-6	WT-20-16	524437	3593062	2102	-55	248	339
Var-7	WT-20-16	524437	3593062	2102	-55	248	339
Var-8	UG Bulk Sample 1	524237	3592752	1922	0	45	51
Var-9	WT-22-160	524604	3592183	2059	-68	185	935
Master Comp 1	Var-1 to 5	Various	Various	Various	Various	Various	Various
Master Comp 2	Var-6 to 8	Various	Various	Various	Various	Various	Various

Summary table of intervals used for metallurgical testwork and previous assay results

Note - All reported intervals are downhole widths (horizontal channel width for Var-8).

Testwork ID	Source Material	From	To	Width	Cu	Ag	Au
		[m]	[m]	[m]	[%]	[g/t]	[g/t]
Var-1	WT-21-63	69.0	95.6	26.6	2.39	21.58	0.44
Var-1	WT-21-63	112.5	129.0	16.5	2.89	29.15	0.35
Var-2	WT-21-63	199.6	226.9	27.3	1.52	20.43	0.19
Var-2	WT-21-63	237.7	261.5	23.8	2.18	19.09	0.23
Var-3	WT-21-58	109.0	140.0	31.0	1.19	11.73	0.14
Var-4	WT-21-58	140.0	159.4	19.4	1.45	20.84	0.23
Var-5	WTU-23-05	0.0	23.6	23.6	0.71	7.38	0.12
Var-6	WT-20-16	205.9	219.9	14.0	1.29	16.19	0.20
Var-7	WT-20-16	275.3	297.7	22.4	1.19	15.03	0.18
Var-8	UG Bulk Sample 1	0.0	51.0	51.0	N/A	N/A	N/A
Var-9	WT-22-160	160.8	227.1	66.3	1.60	11.97	0.46

Attachment 2

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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 downhole 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.*	• Metallurgical testwork samples were acquired from previously drilled WT-series (Wedgetail) diamond core and underground bulk rock chip channel samples. • Representative testwork samples were selected based on their location, geological logging information and assay data. • Nine individual samples (Var-1 to Var-9) were selected from unique mineralised zones for various testwork. • Two master composites (Master Comp 1 and 2) were produced from the nine individual samples. The master composites comprised representative resource proportions of the nine individual samples. These samples were located within the Measured and Indicated portions of the Mineral Resource expected to be mined in the first five years of operation.
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, face-sampling bit or other type, whether the core is oriented and if so, by what method, etc).*	• Not applicable as drilling was not 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*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	• *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.*	• Not applicable as drilling was not 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 instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not applicable as drilling was not undertaken.
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*	• Commercial certified reference materials (CRMs) and blanks were inserted by Base Metallurgical Laboratories Ltd into the metallurgical sample chain. The CRMs and blanks accounted for 10% of samples as part of their quality assurance and quality control (QAQC) program. • Reconciled head calculations were compared to the direct head for each test to verify the accuracy and consistency of test charges between any given test. • Assaying: ○ Base metal (Cu, Fe) analysis was completed by aqua regia

Criteria	JORC Code explanation	Commentary
	established.	digestion with an atomic absorption (AA) finish. ○ Gold analysis was completed by fire assay with an AA finish. ○ Silver analysis was completed by aqua regia digestion and an ICP-finish. ○ Total sulphur was determined by a Leco sulphur analyser. • Mineralogy: ○ Feed and concentrate analysis was analysed by QEMSCAN using particle mineral analysis (PMA). ○ Tailings were scanned using a combination of PMA and trace mineral search (TMS).
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 adjustments to assay data.*	• Not applicable as drilling was not undertaken.
Location of data points	• *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.*	• Not applicable as drilling was not 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 continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Not applicable as drilling was not undertaken.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
geological structure	• *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.*	
Sample security	• *The measures taken to ensure sample security.*	• Metallurgical samples were selected from material secured at the Company's Tucson logging facility. • Company personnel arranged sample delivery to Base Met Laboratories at their Tucson, Arizona and Kamloops, British Columbia facilities for processing. • The Base Met facilities are locked with security systems in place.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques have been completed.

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.*	• The Oracle Ridge Mine Project (Project) is located in the Marble Peak area, approximately 30 kilometres by air north-east of Tucson, Arizona, U.S.A. It is located in Sections 17, 18, 19 and 20 of Township 11 South, Range 16 East, Gila and Salt River Base and Meridian of the U.S. cadastral system. The geographical coordinates are approximately Latitude 32°28' North, Longitude 110°41' West. • The Project is 100% owned by Eagle Mountain Mining Limited through its Arizona subsidiaries Wedgetail Operations LLC (100%) and Wedgetail Holdings LLC (100%). • The Project consists of four main areas: Oracle Ridge, OREX, Golden Eagle and Red Hawk. • There is a 3% net smelter returns royalty on the future sale of any metals and minerals derived from the Oracle Ridge mine. Oracle Ridge (including historical Tailings Storage Facility) • Oracle Ridge comprises 60 Patented Mining Claims and 50 Unpatented Mining Claims within the Coronado National Forest (United States Forest Service). • 100% of the mineral rights starting from 15.2m (50 feet) below surface are owned by Wedgetail Operations LLC. • In 2009, the surface rights for the area necessary for potential mining access (e.g. portals), processing facilities and offices have been secured by an industrial property lease. Under the agreement, Wedgetail Operations LLC leases the surface rights to the project for the purpose of carrying out its exploration, potential development and mining. The lease has an initial term of three years and is renewable for nine additional extensions of three years each. • A separate surface access agreement is in place to allow access

Criteria	JORC Code explanation	Commentary
		to drill sites and drill pads construction. • The mineral rights of Patented Claims at Oracle Ridge have a reversionary interest to Marble Mountain Ventures, which occurs on 18 February 2025, unless the Company exercises its Extension Option upon which the Company's interests in the mineral rights are extended to 18 February 2040. OREX • The OREX area is covered by 93 Unpatented Mining Claims within the Coronado National Forest (United States Forest Service). • 100% of the mineral rights are owned by Wedgetail Operations LLC. • The OREX area is also partly covered by Patented Mining Claims controlled by Pima County. The Company has an agreement in place for non-ground disturbing exploration work to occur on Pima County's Patented Mining Claims. The Company does not currently control the Mineral Rights over Pima County's claims. Golden Eagle • The Golden Eagle area is covered by 27 Unpatented Mining Claims within the Coronado National Forest (United States Forest Service). • 100% of the mineral rights are owned by Wedgetail Operations LLC. • The Golden Eagle area is also partly covered by Patented Mining Claims controlled by Pima County. The Company has an agreement in place for non-ground disturbing exploration work to occur on Pima County's Patented Mining Claims. The Company does not currently control the Mineral Rights over Pima County's claims. Red Hawk • The Red Hawk area is covered by 24 Unpatented Mining Claims

Criteria	JORC Code explanation	Commentary
		within the Coronado National Forest (United States Forest Service). • 100% of the mineral rights are owned by Wedgetail Operations LLC. • The land tenure is secure at the time of reporting and there are no known impediments to obtaining permits to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Oracle Ridge • The Oracle Ridge Mining District was discovered in 1873. In 1881, an 18 tonne per day copper smelter was erected at nearby Apache Camp. The ore for this smelter was supplied from the Hartman, Homestake, Leatherwood, Stratton, Geesaman and other small mines in the area. • Phelps Dodge Copper Company (Phelps Dodge) entered the District in 1910 and undertook considerable development and exploration work. • Continental Copper, Inc began exploring in the District in the 1950s. Continental leased the property in 1968 with an option to purchase and undertook a large exploration and development program. This was the first time there was a large scale assessment of the mineralisation. • Union Miniere began a new exploration program in April 1980. In 1984, a feasibility study for an 1,814 short ton per day operation was completed. • In October 1988, South Atlantic Ventures acquired Union Miniere's interest and entered into a 70-30 partnership with Continental to develop the mine. Minproc Engineers Inc. was contracted to supervise the confirmatory metallurgical testwork. A detailed design was started in November 1989 on a column flotation plant. Construction of the facility commenced in April 1990 and the first ore was processed through the plant on March 3, 1991. The capacity of the mill was initially set at

Criteria	JORC Code explanation	Commentary
		771 short ton per day. The mill capacity was later expanded to approximately 1,000 short ton per day. • The mine closed in 1996. Production records show that approximately 1,200,000 short tons were milled since commencement of the operation. • Between 2009 and 2015 the project was owned by Oracle Ridge Mining, a TSX-V listed company, which drilled approximately 130 surface and underground holes. Golden Eagle • Small-scale mining occurred in the Golden Eagle area in the first half of the 1900s focussed on gold. The largest operation was the Sanderson Mine. The mine is part of the Golden Eagle mineralised system but is located outside the Company's landholding. It reported smelter returns between 1936 and 1941 averaging 0.4 Oz/short ton Au (13.7 g/t Au), 0.65 Oz/ton Ag (22.3 g/t Ag) and 0.46% Cu (small tonnage). • Oracle Ridge mining conducted exploration at Golden Eagle in the mid-1990s. A geophysical magnetic survey was flown over the area. Few magnetic anomalies, postulated to be magnetite-rich skarn were tested by reconnaissance drilling. Results were not deemed sufficiently encouraging and no further drilling was conducted in the area. OREX • Details of historical (pre-1980s) exploration and mining activities in the OREX area are not known. Few small-scale workings were found during mapping. • In 1980 a Joint Venture between Gulf Minerals Corporation and W.R. Grace Company completed mapping of the area and drilled 7 holes. Results of the program were reviewed by Oracle Ridge Mining Partners and summarised in an internal communication in 1992. Red Hawk

Criteria	JORC Code explanation	Commentary
		• No historical exploration nor mining activities are known for the Red Hawk area.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Oracle Ridge • The deposit is classified as copper dominated skarn. Minerals representative of both prograde and retrograde skarn development are present, the former being represented by diopside and garnets, the latter by epidote, magnetite and chlorite. • Copper dominated mineralisation generally contains chalcopyrite and bornite. The deposits are most commonly associated with Andean-type plutons intruded in older continental-margin carbonate sequences. The associated intrusive rocks are commonly porphyritic stocks, dikes and breccia pipes of quartz diorite, granodiorite, monzo-granite and tonalite composition, intruding carbonate rocks, calcareous-volcanic or tuffaceous rocks. The deposits shapes vary from stratiform and tabular to vertical pipes, narrow lenses, and irregular zones that are controlled by intrusive contacts. • The copper rich skarn deposits at Oracle Ridge are found in conformable lens along the contact with the Leatherwood Granodiorite or associated with faults and shear zones which intersect the Leatherwood. These have acted as feeders into the reactive carbonate horizons. The latter can form a "Christmas Tree" type shape. Golden Eagle • Based on early stage exploration drilling, interpretation of the deposit type for Golden Eagle is ongoing. The majority of elevated gold and base metals (copper, lead, zinc) from drill results are hosted within granitic rocks. These granites are bounded by what are interpreted to be younger intrusive rocks to the east and schists to the west. • The gold-rich system is proximal to the lithological contact

Criteria	JORC Code explanation	Commentary
		between the granites and younger intrusion. Although not visible in core, the gold is coincident with increased brecciation and oxidation. The base metal or polymetallic system occurs within the granites and occur as disseminations and veinlets.

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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *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.*
		• Source sampling information used for metallurgical testwork is summarised in Attachment 2.

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.*	• Not applicable as drilling was not undertaken.
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*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
	should be a clear statement to this effect (eg 'down hole length, true width not known').	
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.*	• Drilling is not being reported, however, refer announcement for relevant diagrams and maps.
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.*	• All exploration results relating to metallurgical testwork obtained so far have been reported.
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.*	• No other meaningful and material exploration data beyond this and previous ASX announcements by the Company.
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.*	• Further work will involve additional metallurgical testwork as outlined under Next Steps within the body of the Announcement.