Superior Resources

ASX Announcement

11 May 2022

Bottletree soils confirm multiple strong porphyry targets west and southeast of 2021 drilling

KEY POINTS:

- **Multi-element soil geochemistry survey from the Bottletree Copper Prospect has highlighted multiple Cu-Au-Mo porphyry targets within and outside a large 1.3 km x 1.0 km interpreted largely buried intrusive complex (defining an "Intrusion Ring" on satellite imagery)**
- **Cu-Au±Mo anomalism remains open to the west and southwest of the survey grid, significantly expanding the area of potential at Bottletree**
- **Buried cores of at least three interpreted porphyry intrusions are clearly defined by Cu, Au, silver (Ag) and molybdenum (Mo), with additional porphyry pathfinder element zonation defining the interpreted central porphyry intrusion**
- **Soil geochemistry clearly distinguishes the copper mineralisation within the IP chargeability target area and 2021 holes BTDD001, BTDD003 and part of BTDD004 as being outside and distal to the interpreted "main" porphyry centre**
- **Recently received assays from 3rd 2021 drill hole (BTDD004) (to be reported shortly) confirm extensive porphyry Cu mineralisation west of the IP anomaly, further supporting the soil results**
- **Potentially related, large gold system is geochemically distinguishable in the south eastern part of the survey area and potentially represents an outer-most distal Au zonation ring**
- **An aggressive drilling program targeting the cores of at least three porphyry intrusions and several large zones of distal copper mineralisation will commence as soon as practicable**

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) has received assay results from a large multi-element soil geochemistry survey conducted over the Company's 100%-owned Bottletree Copper Prospect, in north-eastern Queensland (Figure 1).

Significantly, the results have confirmed the Company's 2021 conclusions by strongly highlighting multiple copper-gold-molybdenum porphyry core targets to the west and southwest of the 2021 area of focus. In addition, porphyry pathfinder elements have defined new targets that extend beyond the survey area, significantly expanding the Prospect's area of interest to 2.5 km by 2.0 km.

Superior's Managing Director, Peter Hwang, said:

"This is a significant boost to what is already a robust and very exciting copper project.

"The results not only validate our expectations of a buried mineralised porphyry lying to the west of the IP chargeability anomaly, but they have also highlighted several other unexpected potential porphyry intrusion centres. Of particular note are two new strongly anomalous zones: one about 700m to the southeast of the IP anomaly coinciding with a "very interesting" chargeability feature, as originally described by contract geophysicists whilst conducting the IP survey in 2018; and one extending to and remaining open at the western margin of the Prospect area.

"Further support for a porphyry core being west of the IP anomaly has been confirmed in soon to be released assays from the third hole drilled in 2021, BTDD004, collared 200 metres west of the IP anomaly, which confirms extensive porphyry-style mineralisation west of the anomaly.

"The soils also indicate that the copper mineralisation intersected at the IP anomaly in 2021 is extensively mineralised over a large area, but is distal to and is not the main porphyry mineralisation. This area and several other similar distal copper zones are therefore secondary targets.

"We're set for an exciting few months ahead of us. We have secured our drilling contractors and subject to the effect of the current weather system and site preparation, we will be commencing an aggressive and large drilling program as soon as practicable. The Bottletree program will be in addition to the Resource expansion program at Steam Engine and programs planned for three other Greenvale porphyry copper-gold prospects."

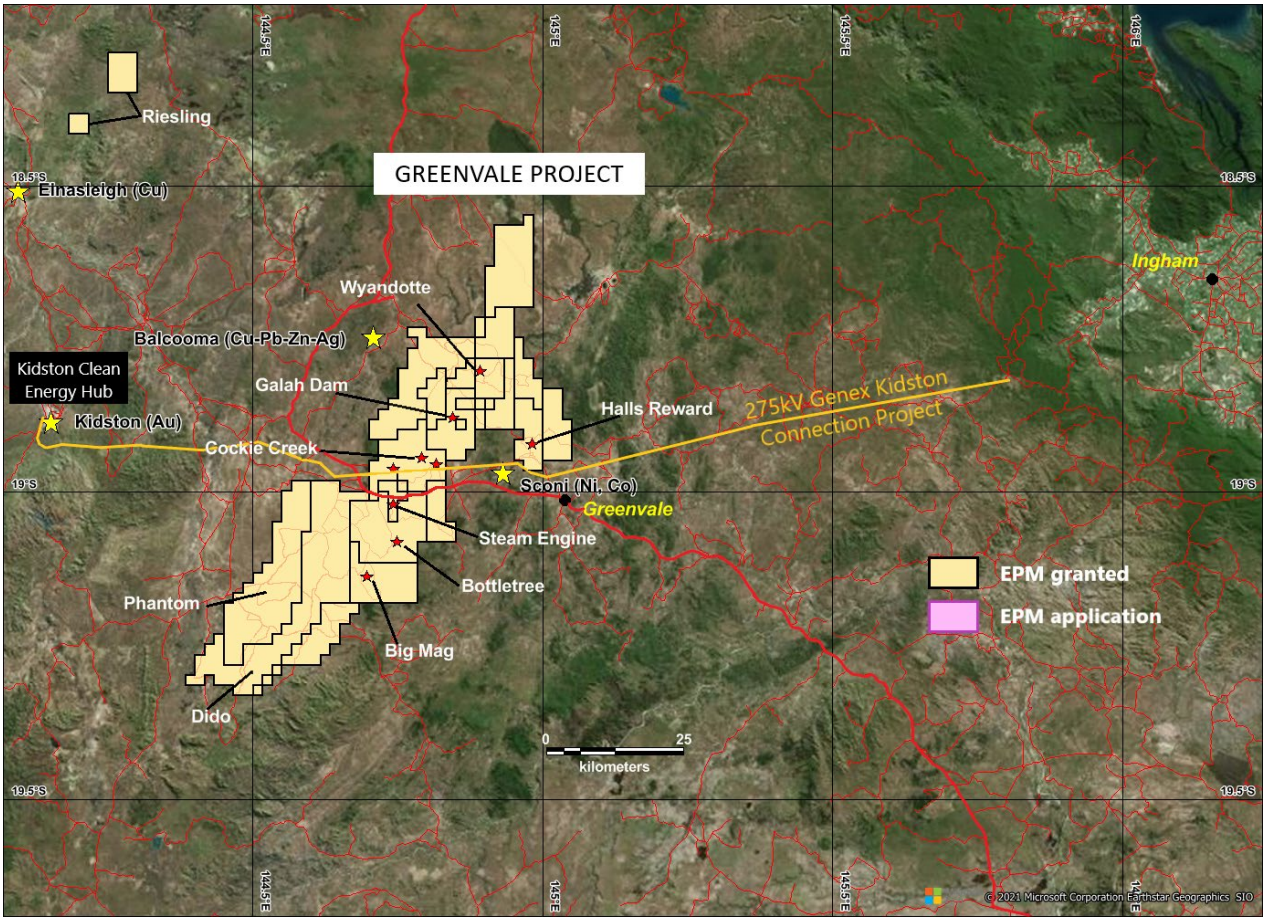

Figure 1. Map showing the locations of the Greenvale Project tenements and select prospects. The Bottletree Prospect, Gregory Highway, Kidston Clean Energy Hub and associated power corridor infrastructure are also indicated.

Bottletree Multi-element Soil Survey

A multi-element soil geochemistry sampling program was conducted over the Bottletree Prospect during late November, 2021 for the purpose of obtaining a broader suite of porphyry pathfinder trace element data and higher density data than is available from historic information.

A total of 1517 samples were collected from a 2.0 km x 1.8 km grid, with 50m sample and line spacings.

The objective of the survey was to identify trace element zonation patterns that would assist with targeting the core of a mineralised porphyry system and the planning of a drilling program.

Survey Results

The soil survey results provide a clear picture of potential porphyry intrusion centres and trace element zonation patterns across the Bottletree Prospect area (Figure 2). In this respect the survey has been instrumental in better defining the location of buried Cu-Au-Mo porphyry intrusions.

At least six target zones (Zones A to F) have been identified on thematic plots of a range of elements with emphasis being placed on the ore elements Cu, Au, Ag and Mo (Figures 2 and 3). Discrete and significantly anomalous pathfinder element concentration zones were also assessed against aeromagnetic imagery, geology, satellite imagery and historic shallow drill hole data.

HIGH PRIORITY PORPHYRY CORE TARGETS

Three or more buried Cu-Au-Mo porphyries (Zones A, B and E) are suggested as highest priority porphyry core targets. Cu-Mo associations, amongst other indicators, are recognised as indicators of porphyry mineralisation that is proximal to the core zone of a porphyry system (e.g. Halley, et al., 2015[1]).

Based on the intensity and distribution of Cu and Mo anomalism, together with observations from the 2021 drill cores (BTDD001, BTDD003 and BTDD004), magnetics and satellite imagery interpretation, **Zone A is interpreted as the central porphyry intrusive**, located within a large ring feature (**Intrusion Ring**) on satellite imagery (Figures 2, 3 and 4).

Zones B and E are located outside the Intrusion Ring and are either related to porphyry systems within the Intrusion Ring or are separate buried porphyry systems. **Zone B is a particularly compelling target as it is associated with the most significant Au anomaly and has associated Cu, Mo and Ag**.

Zone E is likely part of a large, historically recognised area of surface copper mineralisation, referred to as the TAG Prospect. Most of the area of the TAG Prospect lies outside the soil grid area as indicated by Mo, Cu and Au trends that remain open on the western side of the soil grid.

SECONDARY COPPER TARGETS

Zones C, D and F, including areas adjacent to these zones (such as between Zones A and F and west of Zone C) **are considered to have high potential for significant copper and gold mineralisation**. These zones are also variably associated with Mo and Ag.

Zone F contains the high intensity IP chargeability anomaly that was drilled during late 2021 and is located on the edge of the Intrusion Ring within a major structural shear zone. As shown in the 2021 drill holes, Cu mineralisation within the IP anomaly is largely related to late shear veins and contains significantly lower Mo values. Zones F is considered to be distal to, and less likely to represent a porphyry core, although the copper mineralisation is extensive and is likely to have been sourced from a porphyry system at Zone A.

As evidenced by recent, soon to be released drill hole assays, BTDD004 has confirmed that substantial, potentially ore-grade porphyry-style copper and gold mineralisation is present in the area between Zones A and F. This area, including Zones C and D, have significant exploration potential (Figures 2 and 3).

[1] Halley, S., Dilles, J.H. and Tosdal, R.M., 2015: Footprints: Hydrothermal Alteration and Geochemical Dispersion around Porphyry Copper Deposits. SEG Newsletter, 100.

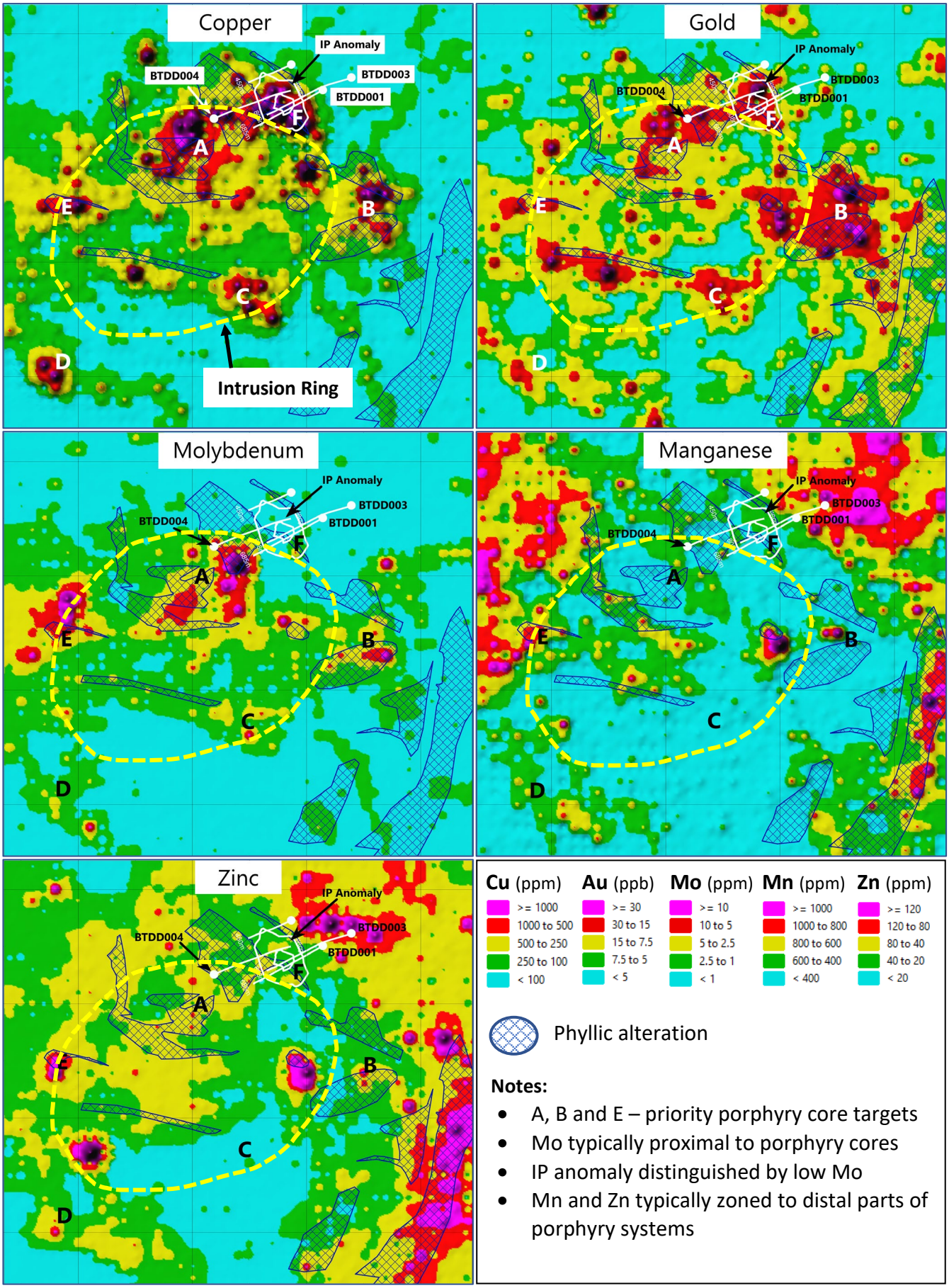

Figure 2. Thematic soil Cu, Au, Mo, Mn and Zn images showing element zonation across the Bottletree Prospect area.

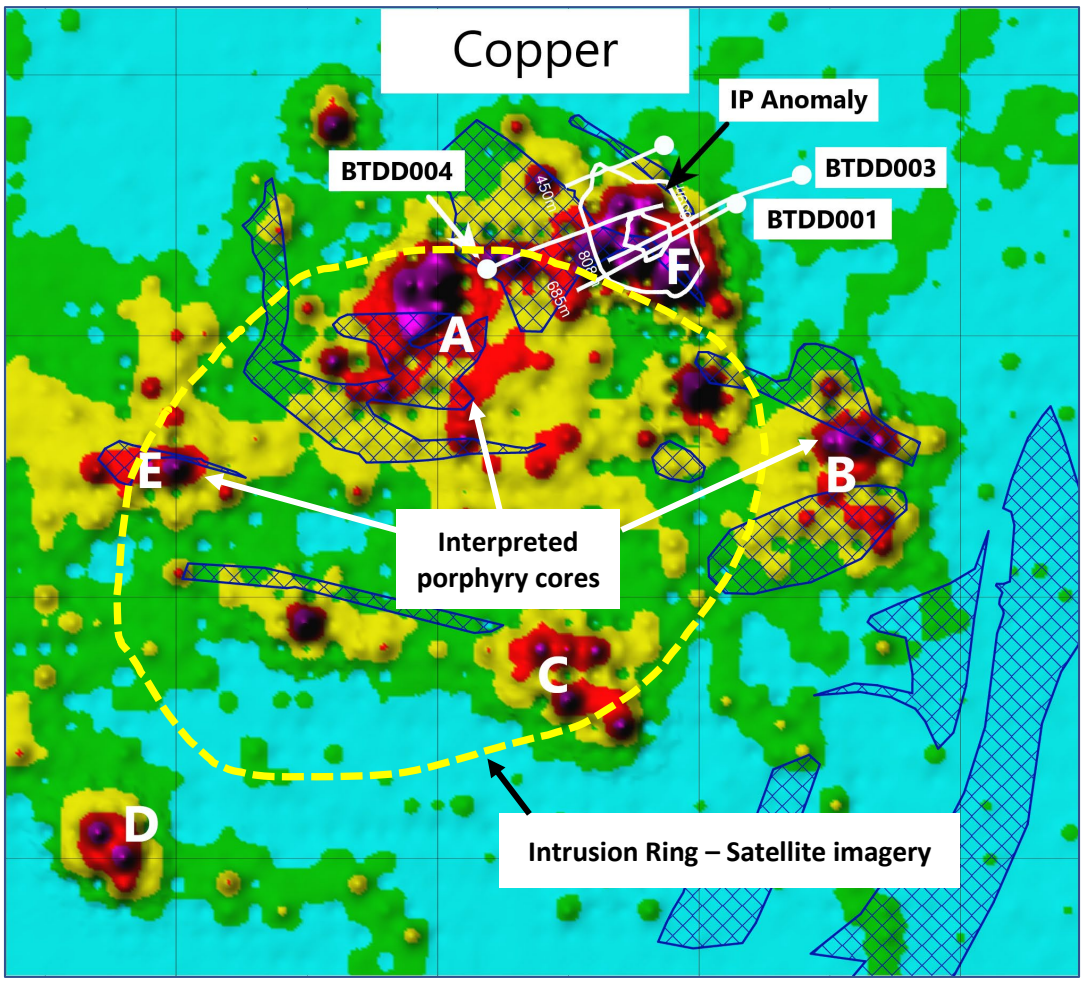

Figure 3. Thematic soil Cu image showing interpreted porphyry core Zones A, B and E, key Cu mineralisation Zones C, D and F and mapped phyllic alteration zones. Zones F, C and the area between Zones A and F are exploration targets that have significant potential for the delineation of substantial copper mineralisation.

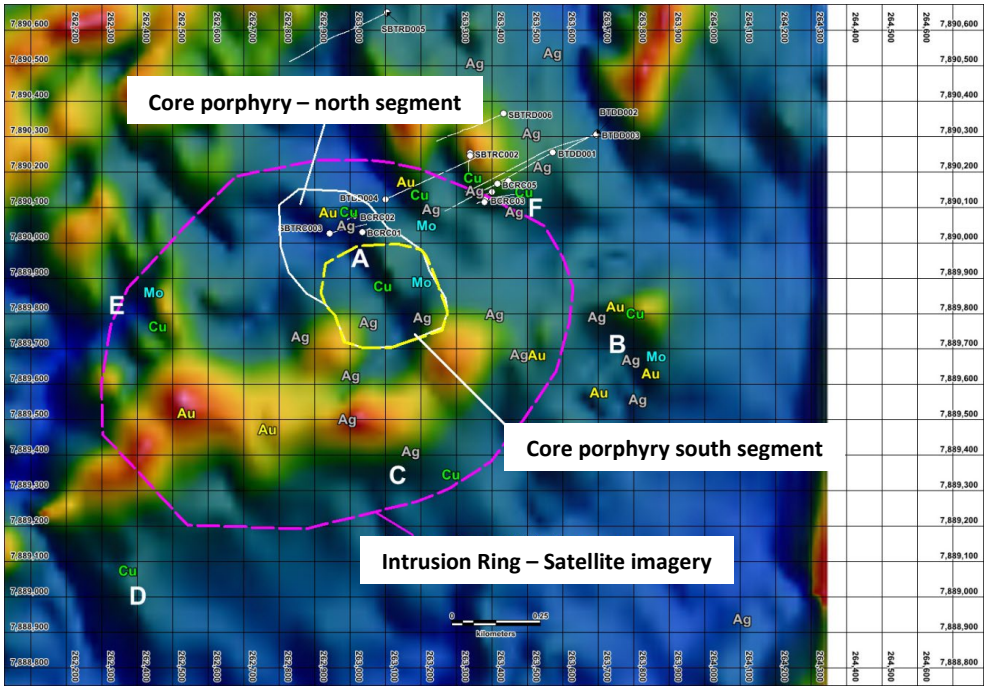

Figure 4. Image indicating generalised soil elemental highs for Cu, Au, Ag and Mo on TDr Vi NSSF processed aerial magnetic image. Main Zones A to F are also indicated.

Porphyry Systems - Background

Porphyry mineral deposit systems, also referred to as porphyry-epithermal mineral systems, are predominantly associated with magmatism that is generated within convergent magmatic arc tectonic settings. Magmatic-hydrothermal and meteoric fluids within these systems form a range of deposit types that include porphyry Cu-Au-Mo deposits, epithermal Au-Ag, Ag-Zn-Pb and Au-Cu deposits as well as various forms of skarn deposits.

Porphyry Cu-Au-Mo mineral systems usually have a close spatial association with volcanic and sub-volcanic intrusions. Mineral deposit systems generated from the magmatic-hydrothermal fluids typically result in the zonation of associated alteration and mineralisation. Numerous recent studies have characterised the alteration and elemental zonation typically observed at proximal to distal distances away from the core of porphyry systems (Figure 5). Various fluid processes operate at different stages of the development, or evolution of a porphyry system, often resulting in significant complexity, including overprinting alteration and mineralisation. Different periods of mineralisation may produce disseminated and vein mineralisation as well as stockworks of sheeted vein sets.

Generally, the most economically important part of a porphyry system is the area immediately enveloping the core intrusion (Figures 5 and 6). Away from the core, distal mineralisation may form Cu, Au and Zn-Pb base metal deposits. **Such mineralisation zonation is considered by Superior to be developed at Bottletree.**

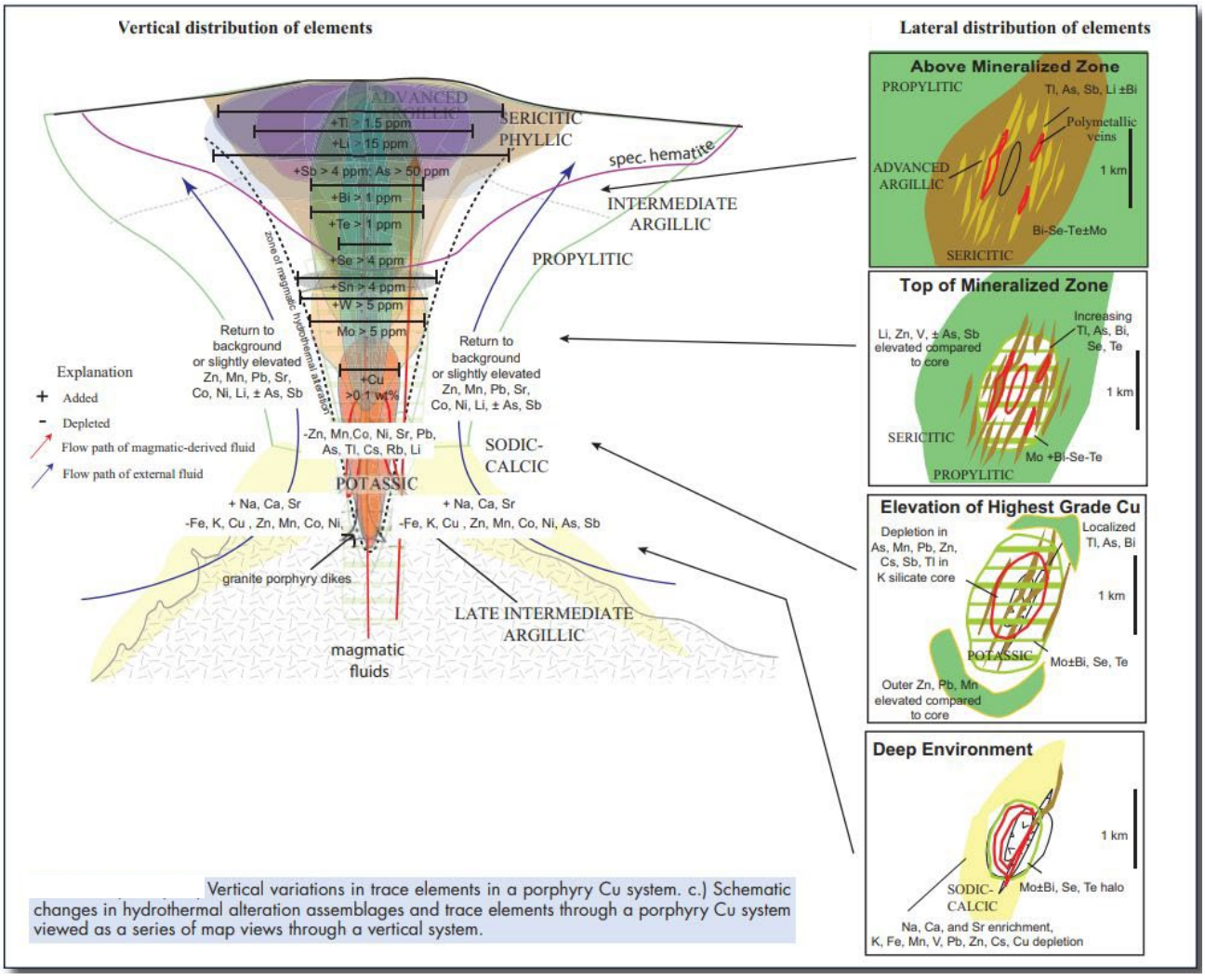

Figure 5. Vertical and lateral zonation in elements through a typical porphyry copper deposit, with horizontal section views at different levels of the system (After Halley, S., Dilles, J.H. and Tosdal, R.M., 2015: Footprints: Hydrothermal Alteration and Geochemical Dispersion around Porphyry Copper Deposits. Economic Geology, 105, 3-41).

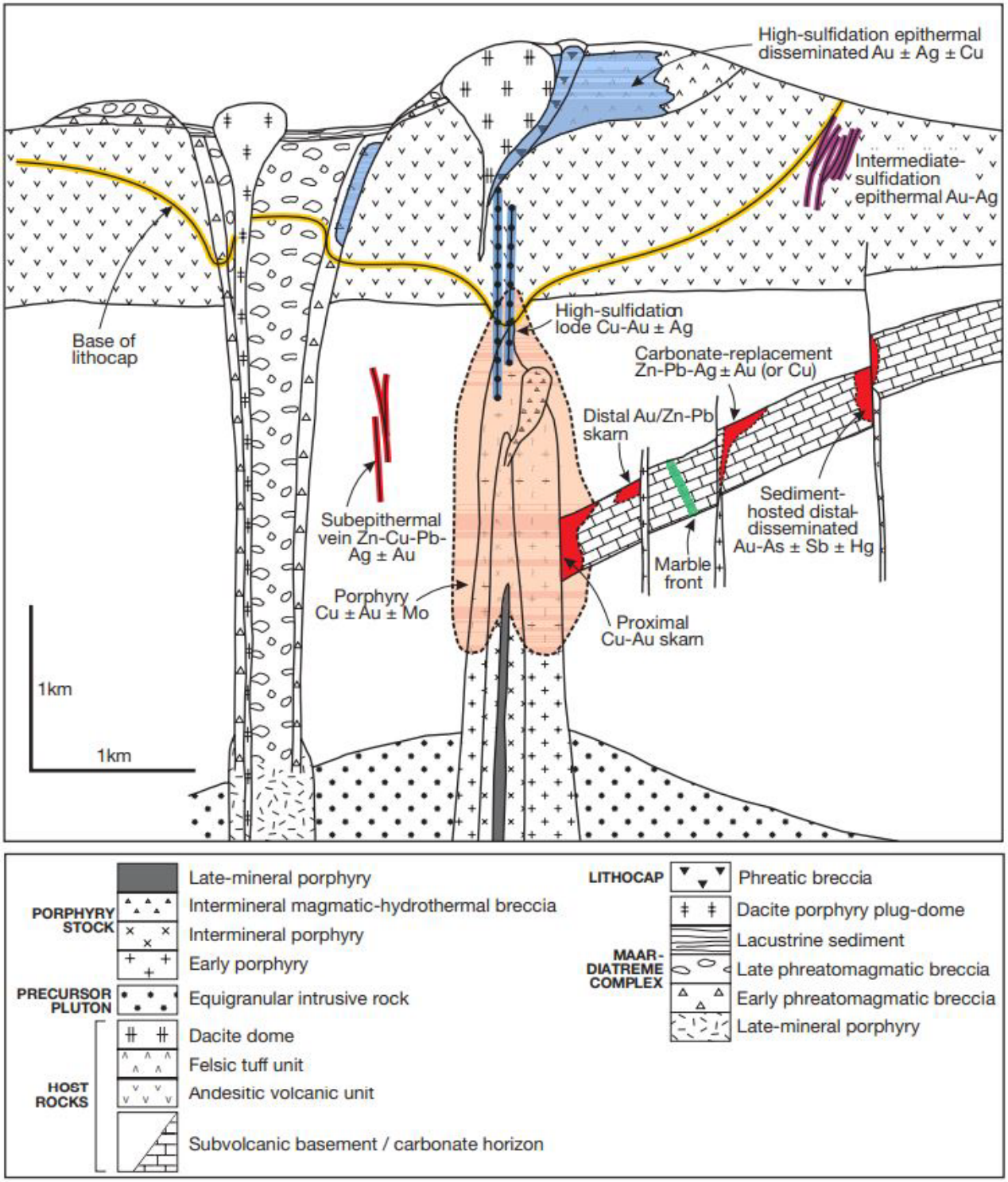

Figure 6. Anatomy of a telescoped (late evolution stage) porphyry Cu-Au-Mo deposit (after Sillitoe, 2010)[2].

[2] Sillitoe, R.H., 2010: Porphyry Copper Systems. Economic Geology, 105, 3-41.

Forward plans

A significant amount of work continues to progress, with the immediate focus being the finalisation of this year's exploration program at Bottletree.

Continuing and planned work includes:

1. Finalisation of planning for 2022 drilling program;
2. Complete drill pad preparation, cultural heritage clearances;
3. Commencement of drilling targeted for late May – early June 2022;
4. Conduct moving loop electromagnetic (MLEM) geophysical survey over the prospect area;
5. Conduct molybdenite Re/Os dating to obtain a mineralisation age date; and
6. Conduct structural analysis study of mineralisation vein structures recorded from drill core.

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About Superior Resources

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large lead-zinc-silver, copper, gold and nickel-copper-cobalt-PGE deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company is focused on multiple Tier-1 equivalent exploration targets and has a dominant position within the Carpentaria Zinc Province in NW Qld and Ordovician rock belts in NE Qld considered to be equivalents of the NSW Macquarie Arc. For more information, please visit our website at www.superiorresources.com.au.

Reporting of Mineral Resources: *Information contained in this report as it relates to exploration results, geology, geophysical imagery and drilling was compiled by Dr Peter Gregory, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and an independent consultant to the Company. Dr Gregory does not hold shares or any other interest in the Company. He has not been on the Bottletree Project site, but has reviewed all primary data, inspected drill core located in Townsville and its context, 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'. Dr Gregory consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*

Reliance on previously reported information: *In respect of references contained in this report to previously reported Exploration Results or Mineral Resources, Superior confirms that it is not aware of any new information or data that materially affects the information, results or conclusions contained in the original reported document. In respect of previously reported Mineral Resource estimates, all originally reported material assumptions and technical parameters underpinning the estimates continue to apply and have not been materially changed or qualified. The form and context in which the relevant Competent Person's findings are presented have not been materially modified from the original document.*

Forward looking statements: *This document may contain forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "indicate", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Indications of, and interpretations on, future expected exploration results or technical outcomes, production, earnings, financial position and performance are also forward-looking statements. The forward-looking statements in this presentation are based on current interpretations, expectations, estimates, assumptions, forecasts and projections about Superior, Superior's projects and assets and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made. The forward-looking statements are subject to technical, business, economic, competitive, political and social uncertainties and contingencies and may involve known and unknown risks and uncertainties. The forward-looking statements may prove to be incorrect. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results expressed or implied by any forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements.*

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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 (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Soil geochemistry samples were collected from approximately 10 to 20 cm below the ground surface. • Due to the wet weather conditions, each of the samples were collected as a bulk sample and not sieved in the field.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• No drilling conducted.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• No drilling conducted.

Criteria	JORC Code explanation	Commentary
	• *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.*	
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.*	• No drilling conducted.
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.*	• Samples were placed directly into pre-numbered sample bags at each sample location. • No sample preparation was conducted by the Company. • Samples were submitted in bulk to SGS Laboratories in Townsville for sample preparation and assaying.
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.*	• All samples were submitted to SGS laboratories in Townsville for gold and multi-element analysis. • Samples were sieved to #80 mesh with SGS method G SCR D, crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed using an Aqua Regia digest with ICP-MS Finish by assay method GE_ARMV25 using a 25 gram sample.

Criteria	JORC Code explanation	Commentary
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Multi-element analyses were conducted for the following 26 elements: Ag, As, Ba, Be, Cd, Ce, Co, Cu, Hg, In, Li, Mn, Mo, Nb, Ni, Pb, Pr, Re, Sb, Sc, Se, Sn, Sr, U, W, Y, Zn by the above method. All elements were recorded in ppm, except for Au which was recorded in ppb. • Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratories for QAQC. Laboratory assay results for these quality control samples are within 5% of accepted values. • Additionally, the laboratories used a series of their own standards, blanks, and duplicates for the QC of the elements assayed.
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.*	• Sample information was recorded by Terra Search field technicians on hard copy sampling sheets which were entered into spreadsheets for merging into a central database. • Laboratory assay files were merged directly into the Company database. • The data is routinely validated when loading into the database. • No adjustments to assay data were 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.*	• Sample location information was recorded in the field using handheld GPS with three metre or better accuracy. • The area is located within MGA Zone 55.
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.*	• The soil samples were collected at regular intervals and based on a 50m x 50m sample grid.
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.* • *If the relationship between the drilling orientation and the*	• The soil samples were collected at regular intervals and based on a 50m x 50m sample grid. • No orientation sample bias has been identified.

Criteria	JORC Code explanation	Commentary
geological structure	*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.*	• The soil samples were collected in geochemically appropriate bags which were immediately sealed. • Sample bags were delivered directly to SGS Laboratories in Townsville by Terra Search employees. • Sample security measures within SGS Laboratories are considered adequate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of the sampling techniques and data have been undertaken to date.

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 areas reported lie within Exploration Permit for Minerals 25659 and is held 100% by Superior. • Superior holds much of the surrounding area under granted exploration permits. • Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area. • No regulatory impediments affect the relevant tenements or the ability of Superior to operate on the tenements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No historic exploration data was incorporated in this report.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Bottletree Prospect is hosted in Lower Palaeozoic deformed mafic meta-volcanic lavas and volcaniclastics. • Mineralisation style is disseminated and vein sulphide of probable porphyry-style

Criteria	JORC Code explanation	Commentary
		intrusion-related magmatic-hydrothermal origin.

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) 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.*
		• No drilling conducted.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results are represented as colour thematic trace element images, based on assay results as received from SGS Laboratories.
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 (e.g. 'down hole length, true width not known').*	• No drilling conducted.
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*	• Included.

Criteria	JORC Code explanation	Commentary
	of drill hole collar locations and appropriate sectional views.	
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 sample assay results in respect of particular key elements have been included in the relevant thematic images.
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.*	• N/A.
Further work	• *The nature and scale of planned further work (e.g. 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.*	Continuing and planned work includes: • Finalisation of planning for 2022 drilling program; • Complete drill pad preparation, cultural heritage clearances; • Commencement of drilling targeted for late May – early June 2022; • Conduct moving loop electromagnetic (MLEM) geophysical survey over the prospect area; • Conduct molybdenite Re/Os dating to obtain a mineralisation age date; and • Conduct structural analysis study of mineralisation vein structures recorded from drill core.