Superior Resources | ASX Announcement

2 June 2022

Very large scale copper system emerging at Bottletree with latest assays returning an impressive 632m of copper mineralisation in distal part of interpreted porphyry system

Re-modelling of MIMDAS IP highlights 1km-wide zone of potential porphyry mineralisation immediately west of third hole

HIGHLIGHTS:

- Assays confirm extensive strong copper mineralisation in BTDD004 with significant zones of high grade copper from distal part of interpreted porphyry system. Copper mineralised over almost entire length of 658.9m hole:

  Overall Copper intersection:

  - **632m @ 0.21% Cu, 0.03g/t Au, 0.60ppm Ag, 18.0ppm Mo** from 5m below surface

  Significant porphyry-style mineralisation:

  - **224m @ 0.40% Cu, 0.05g/t Au, 0.90ppm Ag, 3.5ppm Mo** from 242m, including:
    - **2m @ 1.01% Cu, 0.24g/t Au, 2.7ppm Ag, 9.5ppm Mo** from 337m
    - **103m @ 0.53% Cu, 0.05g/t Au, 1.4ppm Ag, 3.3ppm Mo** from 363m
    - **1m @ 5.25% Cu, 0.31g/t Au, 10.7g/t Ag, 1.5ppm Mo** from 363m
    - **12m @ 1.01% Cu, 0.07g/t Au, 2.2ppm Ag, 1.9ppm Mo** from 363m
    - **15m @ 1.19% Cu, 0.15g/t Au, 3.6ppm Ag, 1.9ppm Mo** from 451m
    - **3m @ 1.12% Cu, 0.14g/t Au, 4.8ppm Ag, 2.1ppm Mo** from 631m
- Strongly mineralised interval in BTDD004 located at outer eastern part (Zone F) of the regional scale 1.5km x 1km soil copper anomaly that defines the Bottletree Prospect
- Re-modelling of MIMDAS IP geophysical data highlights a 1 km-wide zone (Zone A) immediately west of 2021 drilling at moderate depth, interpreted as potential mineralisation associated with the core or cores of one or more buried porphyry intrusions
- New and potentially very large IP chargeability target also highlighted by re-modelled IP, located 700m to the southeast of BTDD004 and is coincident with a high priority soil geochemistry target (Zone B) that is potentially a porphyry target
- A total of 6 high priority targets identified by interpretation of re-modelled geophysics and multi-element soil data
- Multi-stage deep drilling program targeting potential porphyry core west of 2021 drilling and existing near-surface copper mineralisation on schedule to commence late next week

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) announced today strong assay results from the third deep diamond hole (BTDD004) completed during 2021 at its Bottletree Copper Prospect, located within the Company's 100%-owned Greenvale Project, 210kms west of Townsville, Queensland (Figure 1).

The Company completed three deep diamond drill holes at Bottletree during 2021 (BTDD001, BTDD003 and BTDD004). Hole BTDD002 was terminated early because of excessive and irrecoverable azimuth deviation and was redrilled as BTDD003.

Hole BTDD004, drilled to 658.9m, was the third and last hole drilled at Bottletree during the 2021 field season and was designed to test the potential for porphyry copper-gold mineralisation on the western side of a large and intense MIMDAS induced polarisation (**IP**) chargeability anomaly. Recently received assays confirm that a very extensive zone of copper mineralisation was intersected over almost the entire length of the 658.9m hole. Core from BTDD004 shows variably mineralised quartz-chalcopyrite vein sets and disseminated chalcopyrite including a strongly mineralised 224m interval immediately to the west of the MIMDAS IP anomaly.

Although interpreted to be located some distance from the core of an intrusive porphyry system, the assays returned an impressive main copper zone of **224m @ 0.40% Cu, 0.05g/t Au, 0.9ppm Ag, 3.5ppm Mo** (molybdenum) within an overall mineralised zone of **632m @ 0.21% Cu, 0.03g/t Au, 0.60ppm Ag, 18.0ppm Mo**.

The results in BTDD004 add to the mineralisation reported earlier from hole BTDD001, collared 500m to the east, which returned an overall intersection of 552.6m @ 0.16% Cu, 0.02g/t Au, 0.7g/t Ag from 132m to the end of hole at 684.6m[1].

BTDD004 has returned the best copper intersection so far at Bottletree and is considered to be indicative of better mineralisation towards the interpreted core of a central porphyry system, west of the 2021 MIMDAS IP anomaly.

Assays from the second completed hole, BTDD003, are also reported. BTDD003 targeted the most intense chargeability zone of the main IP anomaly and was drilled directly below and to the east of BTDD001. The results confirm that this part of the main IP anomaly lies outside and to the east of the mineralised porphyry-style zone, having only intersected one significant interval of mineralisation towards the bottom of the hole.

Superior's Managing Director, Peter Hwang commented:

"The better-than-expected results returned from BTDD004 are impressive, particularly considering the mineralisation is thought to be some distance away from the interpreted porphyry core where higher grades are expected. To have intersected such a large interval of significant grade copper at this distal part of the interpreted system, provides us with further confidence that we are dealing with a very large-scale copper-gold system.

"The grades and the very large intersectional widths in hole 4 are similar to, or significantly better than those in many recent porphyry copper discoveries in South America, British Columbia and Australia.

"Importantly, the new MIMDAS model has highlighted an extensive one-kilometre-wide chargeability zone to the west of BTDD004, at the location of the interpreted porphyry core. Together with the new multi-element soil geochemistry data, we have now identified six compelling porphyry system targets at Bottletree.

"This year's drilling program is on track to commence shortly with the first holes targeting the highest priority interpreted porphyry core, west of BTDD004. With two of three holes from last year's program confirming very broad intervals of near-surface copper mineralisation, we will also be building on Bottletree's near-surface, large tonnage potential.

"2022 promises to be an exciting year for Superior and we expect multiple catalysts from the activities and expected results ahead of us at Bottletree and our other copper and gold prospects."

[1] Refer ASX announcement, 25 January 2022

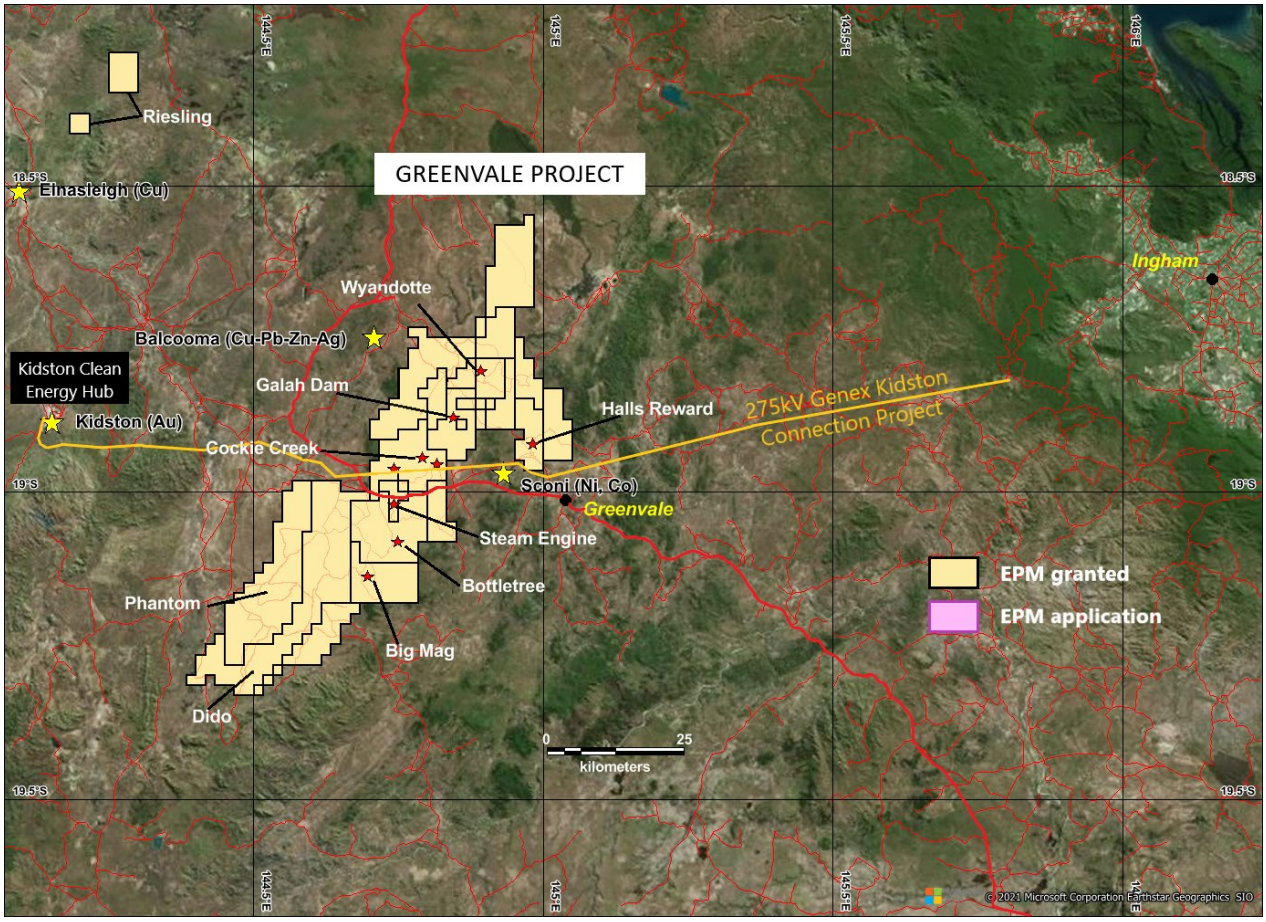

Figure 1. Map showing the locations of the Greenvale Project tenements and select prospects. The Bottletree Prospect, Gregory Highway, Kidston Clean Energy Hub and associated power corridor infrastructure are also indicated.

BTDD003 and BTDD004 results

PORPHYRY-STYLE COPPER MINERALISATION INTERSECTED

BTDD004 returned a very large interval of vein and disseminated copper mineralisation from 5m below surface: **632m @ 0.22% Cu, 0.03g/t Au, 0.6g/t Ag and 18.0ppm Mo**; including a significant interval of strong mineralisation: **224m @ 0.40% Cu, 0.05g/t Au, 0.9ppm Ag and 3.5ppm Mo** from 242m (Table 1). The highest grade interval returned **5.25% Cu, 0.31g/t Au and 10.7g/t Ag from 363m to 364m**.

As a result of observations on the mineralisation intersected in BTDD001, BTDD004 was designed as a scissor hole to test the western side of the intense MIMDAS IP chargeability anomaly for significant porphyry-style copper mineralisation.

The assay results confirm that BTDD004 intersected substantial intervals of copper sulphide (chalcopyrite) mineralised vein sets, as well as disseminated copper mineralisation over almost the entire length of the 658.9m hole (Figure 2).

Importantly, veins of quartz-chalcopyrite-molybdenite which resemble Type-B veins in a porphyry system were identified in drill core. Porphyry Type-B veins are a classic indication of a nearby porphyry system. Relatively high molybdenum values dominate the upper parts of BTDD004 where there is an observed association with dacite porphyry intrusions and folded Type-B veins. Alteration assemblages of silica-sericite, K-feldspar and actinolite affecting the dacite porphyries are considered to represent a high temperature alteration phase, either related to the dacites or to a later buried porphyry located further to the west.

The dacite porphyries have intruded the andesitic volcanic wall rock and both exhibit varying degrees of strong fracturing and local breccia to crackle brecciation.

Sheeted sericite-pyrite-chalcopyrite and sericite-pyrrhotite veins and some stockwork veins are developed lower in the hole. Structural orientations of the stockwork veins are variable, but general populations show dips to the northeast to north and southeast to southwest, likely indicating at least two porphyry systems to be the source of the veins.

The more intensely mineralised sheeted vein sets are predominantly developed within the andesitic wall rocks and exhibit relatively lower amounts of molybdenum that sharply contrasts with the higher molybdenum in the dacite porphyry-intruded zones.

The extensive mineralisation intersected in BTDD004 is significant and adds to significant copper mineralisation intersected in earlier-reported holes:

- BTDD001: **552.6m @ 0.16% Cu, 0.02g/t Au, 0.7g/t Ag from 132m to the end of hole at 684.6m**[2]; and
- SBTRD006 (2018): **292m @ 0.22% Cu (148.0m to 440.0m)**, including **18.7m @ 1.12% Cu (328.0m to 346.7m)**[3].

BTDD003 intersected a similar suite of andesitic volcanics with more abundant tonalite. Significantly, dacite porphyry intrusions were not encountered. Only minor amounts of copper mineralisation were returned generally throughout the hole, with better grades observed at the lower parts of the hole. BTDD003, being located further to the east, is considered to be outside the zone of porphyry-related mineralisation (Figures 2 to 4).

Table 1. Summary Cu, Au, Ag and Mo geochemistry for holes BTDD003 and BTDD004

Hole ID		From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
BTDD004		**5**	**637**	**632**	**0.21**	**0.03**	**0.6**	**18.0**
	incl	**242**	**466**	**224**	**0.40**	**0.05**	**0.9**	**3.5**
	incl	337	339	2	1.01	0.24	2.7	9.5
	incl	**363**	**466**	**103**	**0.53**	**0.05**	**1.4**	**3.3**
	incl	363	375	12	1.01	0.07	2.2	1.9
		363	364	1	5.25	0.31	10.7	1.5
	incl	451	466	15	1.19	0.15	3.6	1.9
	incl	631	634	3	1.12	0.14	4.8	2.1
BTDD003		290	293	3	0.23	0.04	1.2	1.3
		486	512	26	0.19	0.06	1.1	2.1
		688	778	90	0.10	0.01	0.2	2.8

[2] Refer ASX announcement, 25 January 2022
[3] Refer ASX announcement, 25 October 2018

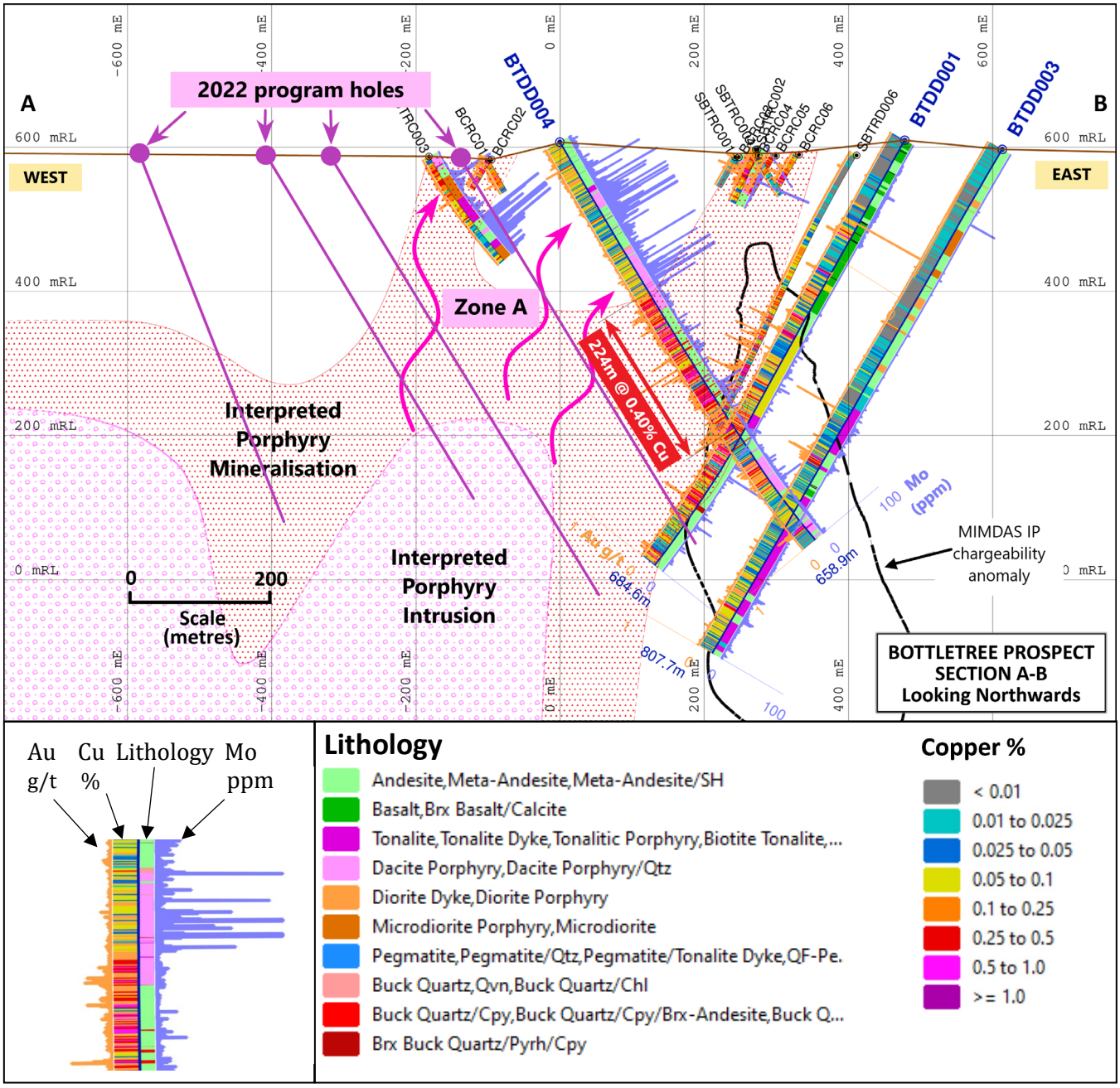

Figure 2. Cross section A-B (refer Figure 3) viewed looking north showing drill hole traces with summary Cu, Au, Mo assays and lithology with diagrammatic cartoon representation of interpreted Zone A porphyry target. Cartoon representation based on drill hole information, soil geochemistry and IP chargeability 2D and 3D models. Select diamond holes to be drilled as part of the upcoming 2022 drilling program are also shown.

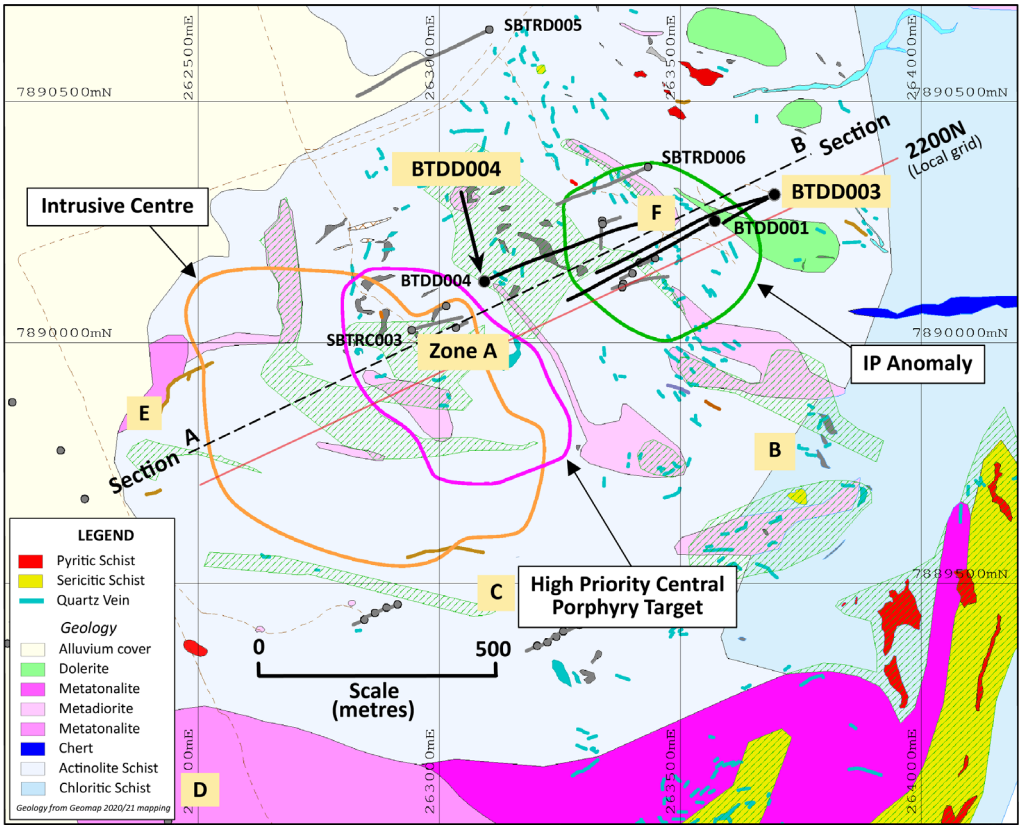

Figure 3. Geological plan showing mapped surface lithology and alteration zones. Key drill holes, interpreted porphyry intrusion system and priority geochemical targets "A" to "F" are also shown.

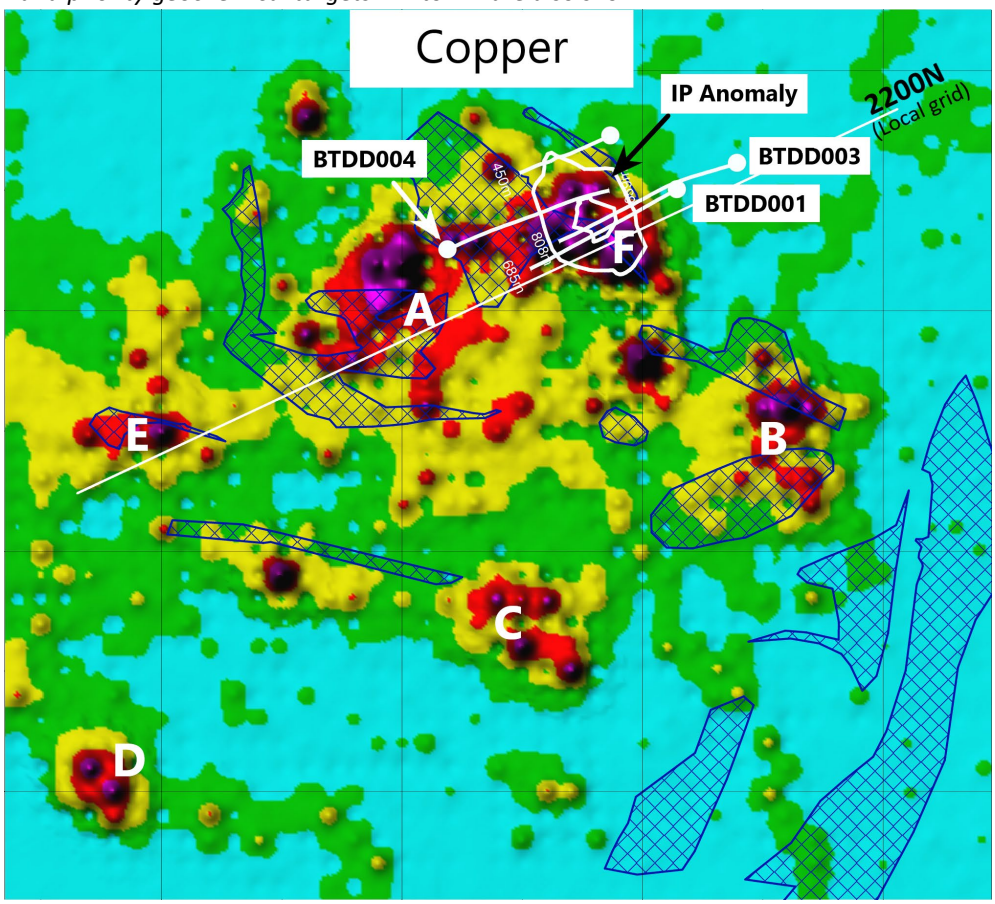

Figure 4. Thematic soil Cu image showing interpreted porphyry core Zones A, B and E, key Cu mineralisation Zones C, D and F and mapped phyllic alteration zones.

New MIMDAS IP model identifies 1km-wide zone of potential buried porphyry mineralisation west of BTDD004

COINCIDENTAL IP CHARGEABILITY, Cu/Mo SOIL GEOCHEM AND AERIAL MAGNETIC ANOMALIES AND SATELLITE IMAGERY FEATURE

Drill holes BTDD001 and BTDD003 confirmed that the intensely chargeable core of the MIMDAS IP chargeability anomaly is not caused by a high degree of copper sulphide mineralisation. In response to this observation, BTDD004 was drilled. The highly successful results from BTDD004 have provided information that has been instrumental to the Company's advancement towards realising the porphyry potential at Bottletree. In particular, there is an apparent correlation between more moderate levels of intrinsic chargeability and strong copper mineralisation. This observation is also apparent in the Company's 2018 drill hole SBTRD006, which intersected **292m @ 0.22% Cu (148.0m to 440.0m)**, including **18.7m @ 1.12% Cu (328.0m to 346.7m)** (Refer ASX announcement 25 October 2018).

As a result of these observations, the MIMDAS IP survey data was remodelled, taking into account the effect of the intense chargeability of the original IP anomaly and the high resistivity in areas to the west of BTDD004 where the highest priority porphyry targets have been identified. Both 2D and 3D remodelling of the MIMDAS data was undertaken with initial results recently received. In contrast to the original IP models, the new models have highlighted an extensive zone of variably moderate chargeability that extends for up to 1 kilometre westwards from BTDD004 with a highly anomalous zone about 500m west of BTDD004 (Figures 5 and 6).

The moderately chargeable IP features are modelled to approximately 300m below surface and are generally coincident with the highest priority Cu and Mo soil anomalies, a large circular aerial magnetic anomaly and circular satellite imagery features. The chargeability anomaly is interpreted to potentially represent extensive areas of significant porphyry copper mineralisation.

Drill holes have been planned to target a range of locations within the new chargeability features.

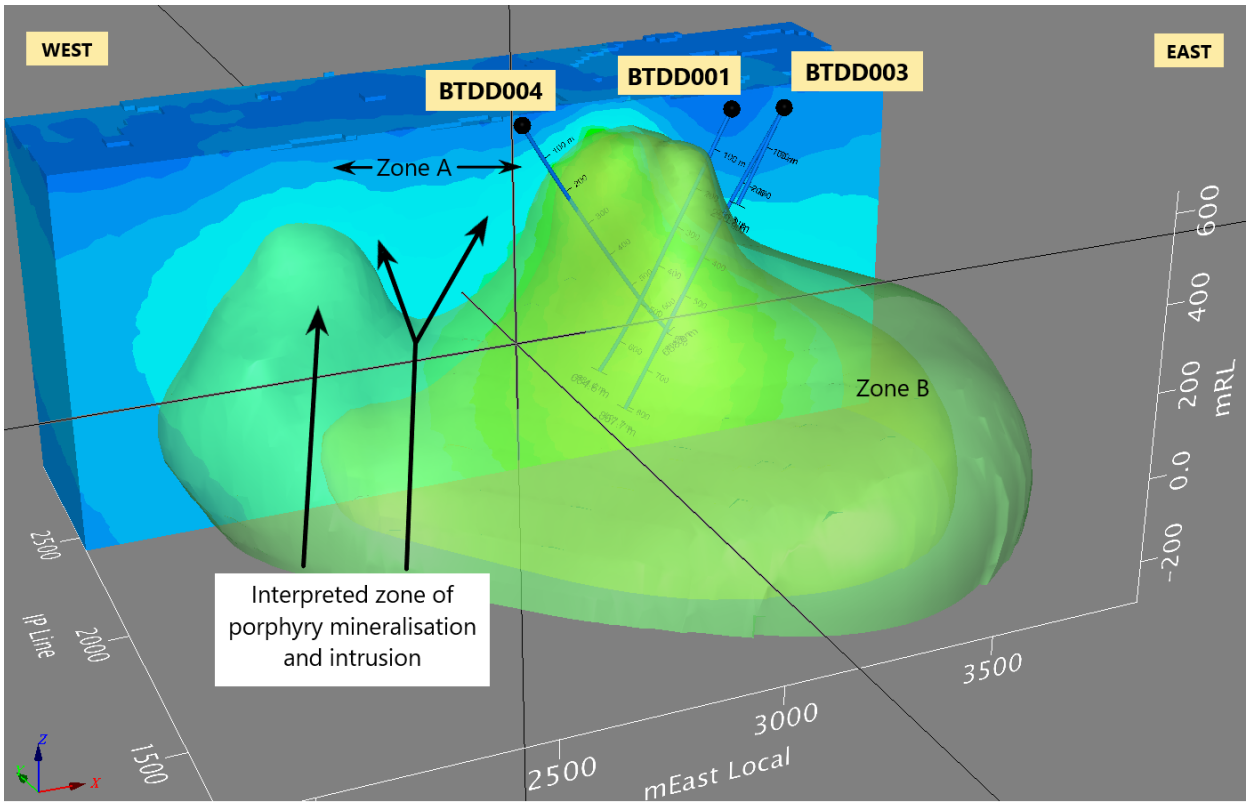

Figure 5. Remodelled 3D MIMDAS IP chargeability model showing anomalous chargeability features at target Zone A.

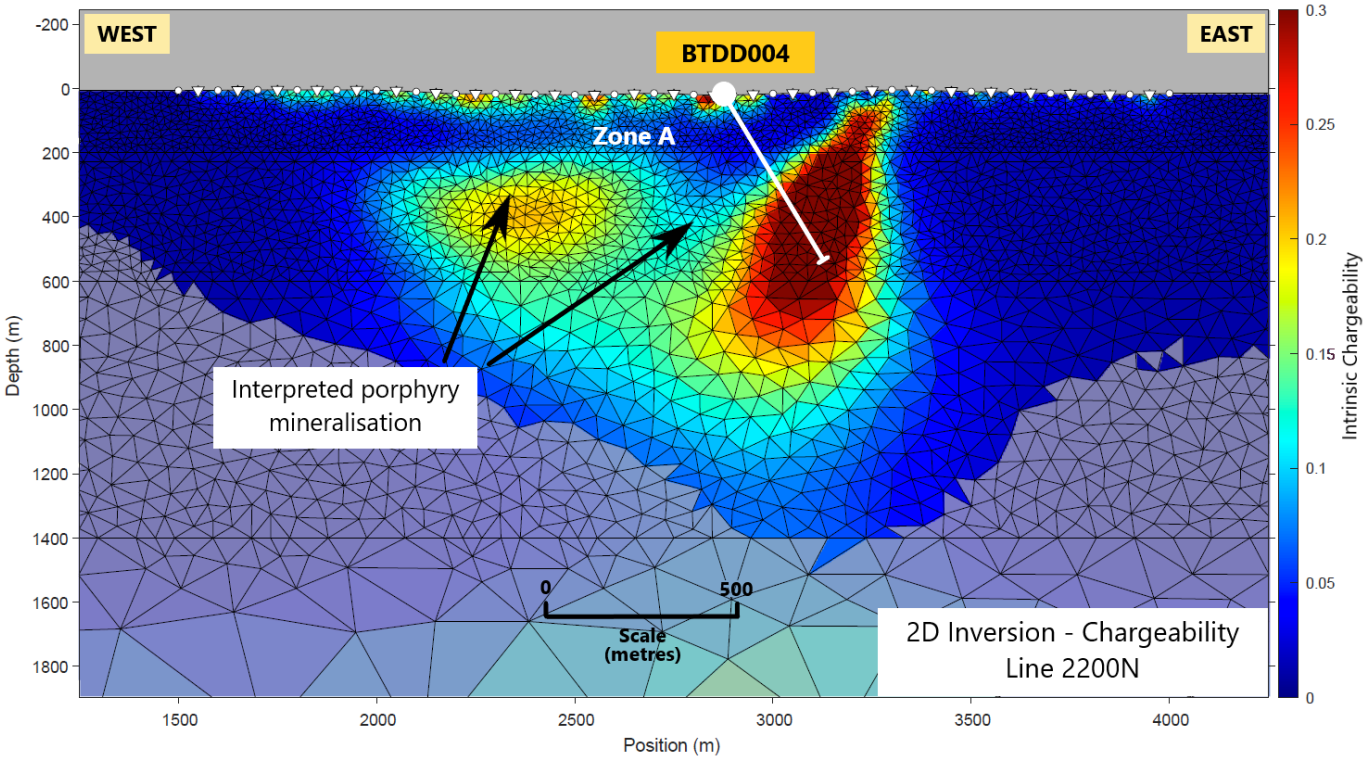

Figure 6. Remodelled 2D MIMDAS IP chargeability model acquired from line 2200N (local grid) showing the interpreted zone of porphyry mineralisation extending approximately 1km west from drill hole BTDD004.

2022 Drilling Program

The 2022 Bottletree multi-stage drilling program is on schedule to commence during the week commencing 6 June 2022.

The program has been designed on the basis of the following two objectives:

- Discovery of a large Cu-Au-Mo porphyry system at Zone A; and
- Delineation of near-surface large-tonnage Cu-Au resources at Zones A, B, C and F.

Stage 1 comprises:

- 8 HQ diamond core holes with expected total depths between 350m and 700m;
- 3,700 total drilled metres.

Stage 2 and 3 will be determined based on the results of Stage 1 drilling.

Significant visually observed mineralisation will be reported to the market as drilling progresses.

Other planned activities

- Extension of MIMDAS IP survey to cover newly identified zones B, D and E.
- Extension of soil geochemistry survey grid.
- Moving loop electromagnetic (MLEM) orientation survey.

Background (Bottletree)

Superior has long recognised the significance of Bottletree, which is expressed at surface as a large, zoned copper mineralised system that extends over several square kilometres (Figure 7). As a result of the Queensland native title regime during important commodity boom periods, Bottletree (and other areas in Qld) was effectively quarantined from the exploration sector. Apart from a small number of shallow historic drill holes over the anomalous area, Superior conducted the only deep investigation of the area with three drill holes during 2017 and 2018.

During September 2021 the Company announced[4] the commencement of deep drilling of a large high-order 3D-modelled MIMDAS IP chargeability anomaly located adjacent to a regionally distinct 1.5km by 1km copper and gold soil anomaly (Figure 7). Drilling during 2018 intersected the northern edge of the chargeability anomaly, which returned 292m @ 0.22% Cu, including 18.7m @ 1.12% Cu[5].

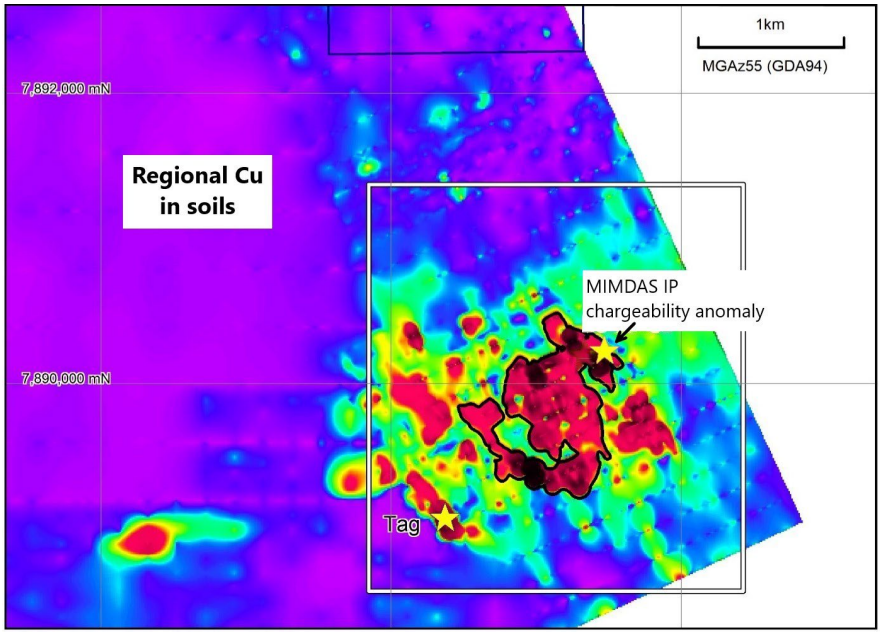

Figure 7. Regional Cu-in-soil processed image showing the large scale Bottletree copper anomaly and location of the MIMDAS IP chargeability anomaly that has been targeted with drilling in 2021.

2021 Drilling Program

The 2021 drilling program commenced with the drilling of two holes (BTDD001 and BTDD003) targeting the modelled centre of the chargeability anomaly at different depth levels. Drill holes BTDD001 and BTDD003 confirmed that the intensely chargeable core of the MIMDAS IP chargeability anomaly is not caused by a high degree of copper sulphide mineralisation. In response to this observation, BTDD004 was drilled. The highly successful results from BTDD004 have provided information that has been instrumental to Company's advancement towards realising the porphyry potential at Bottletree. One or more large porphyry systems located to the west and southwest of BTDD004 are considered to be the source of copper mineralisation intersected in the 2021 drill holes.

[4] Refer ASX announcement dated 17 September 2021
[5] Refer ASX announcement dated 25 October 2018

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 Exploration Results: *The information in this report as it relates to exploration results and geology was compiled by Dr Peter Gregory and Peter Hwang. Dr Gregory 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. Mr Hwang is Managing Director and a shareholder of Superior Resources Limited. Mr Hwang is a Member of the Australian Institute of Geoscientists and 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 Hwang consents to the inclusion in the report of the matters based on the information in the form and context in which it appears*

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APPENDIX 1

REPORTED DRILL HOLE COLLAR DETAILS

Hole ID	Easting (m)	Northing (m)	RL (m)	Depth (m)	Dip°	Azimuth°
BTDD001	263571.7	7890252.3	609.5	684.6	-60	245
BTDD002	263695.7	7890306.2	597.0	250.3	-60	245
BTDD003	263695.9	7890306.9	596.8	807.7	-59	250
BTDD004	263094	7890127	607.0	658.9	-60	65

APPENDIX 2

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.*	• BTDD001: Drilling from surface comprised reverse circulation (**RC**) drilling of pre-collars followed by NQ diameter diamond core drilling to end of hole. • BTDD003 and BTDD004: Drilling from surface comprised HQ diameter diamond core drilling to end of hole. • Reverse Circulation (**RC**) drill samples are collected as drilled via a riffle splitter attached to the drill rig cyclone and collected as 1m riffle split samples. Approximately 1-3kg of sample was collected over each 1m interval used for assaying. • Diamond core samples were obtained by splitting core in half using a core saw. • The drill bit sizes used in the drilling are considered appropriate to indicate the degree and extent of mineralisation. • 2m representative samples were assayed for base metals, gold, silver and other elements at Intertek laboratories in Townsville. • Assaying for gold was via fire assay of a 50-gram charge. • Sample preparation at Intertek laboratories in Townsville for all samples is considered to be of industry standard.
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.).*	• Drilling from surface was performed using standard RC and diamond drilling techniques. • Drilling was conducted by AED (Associated Exploration Drillers) using a McCullochs DR950 drill rig. • All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample recovery was performed and monitored by Terra Search contractor and Superior Resources' representatives. • The volume of sample collected for assay is considered to be representative of each 2m interval. • The RC drill rod string delivered the sample to the rig-mounted cyclone which is sealed at the completion of each 1m interval. The riffle splitter is cleaned with compressed air at the end of each 1m interval and at the completion of each drill hole. • Diamond drill core recovery was logged. Recovery overall was close to 100%.
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.*	• Geological logging was conducted during the drilling of each hole by a Terra Search geologist having sufficient qualification and experience for the mineralisation style expected and observed at each hole. • All holes were logged in their entirety at 1m intervals. • All logging data is digitally compiled and validated before entry into the Superior database. • The level of logging detail is considered appropriate for resource drilling. • The RC Chip trays were photographed. • Magnetic susceptibility data for each 1m sample interval was collected in the field. • All core was logged for structure with structures being recorded in relation to a bottom line marked on the core and established using Reflex equipment. Logging included both and Alpha and Beta angles. Data from structural logging of planar features was converted to grid dips and dip directions as well as plan parameters to allow structures to be plotted on sections and allow structures to be projected to the ground surface by software.
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*	• The sample collection methodology is considered appropriate for RC and diamond drilling and was conducted in accordance with standard industry practice. • The RC drill hole samples are split with a riffle splitter at 1m intervals as drilled. Split 1 metre samples are regarded as reliable and representative.

Criteria	JORC Code explanation	Commentary
	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.*	• Approximately 1-3kg of sample was collected over each 1m interval. • Samples were collected as dry samples. • Diamond drill core was split in half using a diamond saw with half of the sample being sent for assay and the remainder retained for reference. Core halving was done along the bottom line marked on the core for structural logging. • The sample sizes are considered appropriate to the style of mineralisation being assessed. • Quality Assurance (**QA**)/Quality Control (**QC**) protocols were instigated such that they conform to mineral industry standards and are compliant with the JORC code. • (QA) processes with respect to chemical analysis of mineral exploration samples includes the addition of blanks, standards and duplicates to each batch so that checks can be done after they are analysed. As part of the (QC) process, checks of the resultant assay data against known or previously determined assays to determine the quality of the analysed batch of samples. An assessment is made on the data and a report on the quality of the data is compiled. • Quality control included determinations of duplicate samples every 50 samples or so to check for representative samples. There was a conscious effort on behalf of the samplers to ensure consistent weights for each sample. Comparison of assays of duplicates shows good reproducibility of results. • The above techniques are considered to be of a high quality and appropriate for the nature of mineralisation anticipated. The 2-3kg sample size is appropriate for the rock being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards,*	• Samples from BTDD001 and BTDD003 were submitted to Intertek laboratories in Townsville for gold and multi-element analysis. Samples from BTDD004 were submitted to SGS Laboratories in Townsville for gold and multi-element analysis. • Samples were crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method FA50/OE04 (Intertek) and GO_FAA50V10 (SGS) using a 50 gram sample.

Criteria	JORC Code explanation	Commentary
	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 using a four acid digestion followed by an OES finish using method 4A/OE33 (Intertek) for the following 33 elements: Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, Zn. SGS ICP-MS method GO_IMS41Q100 was used for 41 elements. • Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratory for QA/QC. • Additionally, Intertek used a series of its 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.*	• No holes were twinned. • Logs were recorded by Terra Search field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central database. • Laboratory assay files were merged directly into the 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.*	• Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The collar locations have been further defined using DGPS to give sub-one metre accuracy. • The area is located within MGA Zone 55. • Topographic control is currently from DGPS point data that has been merged with RL-adjusted contours.
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.*	• Further drilling is necessary to establish a Mineral Resource.
Orientation of data in	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is*	• The majority of holes have been designed to drill normal to interpreted mineralisation trends. However, there has been insufficient drilling and geological interpretation to

Criteria	JORC Code explanation	Commentary
relation to geological structure	*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.*	determine if there is a bias to sampling as a result of drilling oblique to or down dip on mineralised structures. • No orientation sample bias has been identified at this stage.
Sample security	• *The measures taken to ensure sample security.*	• Sub-samples selected for assaying were collected in heavy-duty polyweave bags which were immediately sealed. • These bags were delivered directly to the Intertek and SGS assay laboratories in Townsville by Terra Search or Superior Resources' employees. • Sample security measures within the Intertek 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 for the Bottletree Prospect lie within Exploration Permit for Minerals 25659, which is held 100% by Superior Resources. • Superior Resources 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 Resources to operate on the tenements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• All historical drilling reported in this report has been completed and reported in accordance with their current regulatory regime. • Previous work on the prospect has been completed by Pancontinental Mining.

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		• Soil geochemical survey data compiled by Pancontinental Mining was used in this report for the purpose of part characterising the Bottletree mineralisation. • Compilation in digital form and interpretation of the results of that work in digital form has been completed by a Competent Person.
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 intrusion-related hydrothermal origin. • On the basis of observations made in holes BTDD001, BTDD003 and BTDD004, the mineralisation at the Bottletree Prospect is considered to be intrusive-related. More geological, geochemical and drill data is required to fully understand the mineralisation setting.

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.*
		• A drill hole collar table is included in the main body of the report.

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.*	• In the intervals quoted broad intervals are done so using a cut-off grade of 0.1% Cu. These broader intervals may include some narrow intervals of less than 0.1% copper. Higher-grade copper intersections are quoted on a cut-off of 0.5% copper. Intervals used for sampling of core were designed to separate areas of high-grade copper from areas from low-grade copper intervals to maximise the value of the information captured. This approach compares with a regular sample interval which does not collect this extra detail. In compositing of the mineralised intervals by standard

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	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	weighted averages the two approaches are equivalent. • No metal equivalent values are reported.
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').*	• Downhole length, true width not known until further drilling provides more information on the nature of the mineralised body. • Detailed drill sections are not available until assay results have been received from the laboratory.
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.*	• Included.
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.*	• Only significant mineralised intervals 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.*	• Publicly available and historic soil geochemical data and airborne magnetic survey data was compiled, examined and interpreted to aid in the interpretation of geological observations made from the available drill core. • Images from advanced 2D and 3D models of a MIMDAS IP survey are included in the report to allow an appreciation of the relationship of the mineralised intervals with the modelling results.
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.*	• Further detailed drilling is required for the targets to establish continuity, thickness and grade and extensions to mineralisation. • Proposed further work is outlined in the report and includes proposed further drilling. • Insufficient information currently exists to evaluate the geometry of mineralisation. Specific upcoming activities include: • execute 2022 Bottletree drilling program;

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		• extend MIMDAS IP geophysical survey to cover newly identified potential porphyry target areas; • extend soil geochemical survey; and • conduct geochronological dating on intrusions and molybdenite for age correlation with intrusions in the Macquarie Arc in NSW, which hosts the world class Cadia and North Parkes porphyry Cu-Au deposits.