Superior Resources

ASX Announcement

23 April 2024

New drilling results confirm continuity of porphyry Cu-Au-Mo mineralisation at Bottletree and highlight porphyry potential in the southwest

HIGHLIGHTS:

- **Drill holes BTDD011 and BTDD012 intersected broad widths of lower grade porphyry Cu-Au mineralisation associated with the Discovery Outcrop zone in the northeastern part of the Bottletree prospect. These results confirm that gaps between drill holes are mineralised and there is good continuity of mineralisation in that zone.**
- **BTDD011 includes:**
    - **463m @ 0.15% Cu, 0.02g/t Au** and **9ppm Mo** from 22m
        - incl. **394m @ 0.17% Cu, 0.02g/t Au** and **10ppm Mo** from 55m
        - incl. **264m @ 0.20% Cu, 0.02g/t Au** and **13ppm Mo** from 126m
        - incl. **40m @ 0.30% Cu, 0.04g/t Au** and **5ppm Mo** from 127m
        - incl. **57m @ 0.29% Cu, 0.04g/t Au** and **28ppm Mo** from 221m
        - incl. **51m @ 0.28% Cu, 0.03g/t Au** and **9ppm Mo** from 339m
- **BTDD012 includes:**
    - **433m @ 0.13% Cu, 0.01g/t Au** and **2ppm Mo** from 5m
        - incl. **360m @ 0.15% Cu, 0.01g/t Au** and **2ppm Mo** from 77m
        - incl. **32m @ 0.20% Cu, 0.03g/t Au** and **2ppm Mo** from 108m
        - incl. **166m @ 0.19% Cu, 0.02 g/t Au** and **3ppm Mo** from 201m
        - incl. **36m @ 0.27% Cu, 0.03g/t Au** and **1ppm Mo** from 201m
        - incl. **33m @ 0.30% Cu, 0.02g/t Au** and **3ppm Mo** from 292m
        - incl. **23m @ 0.36% Cu, 0.03g/t Au** and **3ppm Mo** from 302m
- **BTDD013 targeted an area several hundred metres further southwest than previous drilling and intersected hundreds of metres of low grade Cu-Au mineralisation associated with weak to moderate biotite (potassic) and actinolite (calcic) alteration in meta-andesite and minor intrusions. The extensive interval of mineralisation and alteration in BTDD013 is interpreted as an outer propylitic alteration halo that is less likely to be associated with the Discovery Outcrop zone, but more likely to be caused by a buried Cu-Au-bearing porphyry intrusion to the southwest.**
- **Results from BTDD013 support earlier modelling indicating that a porphyry potassic core is likely to be located several hundred metres to the southwest of the Discovery Outcrop.**
- **BTDD013 includes:**
    - **34m @ 0.05% Cu, 0.01g/t Au** and **85 ppm Mo** from 0m
    - **18m @ 0.05% Cu** and **9ppm Mo** from 87m
    - **332m @ 0.06% Cu, 0.01g/t Au** and **31ppm Mo** from 194m

- incl. **31m @ 0.10% Cu, 0.01g/t Au** and **8ppm Mo** from 402m
- incl. **11m @ 0.11% Cu, 0.02g/t Au** and **5ppm Mo** from 513m

- **Higher grade Cu-Au mineralisation occurs in narrower zones of strongly foliated intervals within a broader zone of lower grade mineralisation. Predicting the extensions of these strongly foliated and mineralised intervals could be a useful exploration vector for further developing the dimensions of the Cu-Au-mineralised Discovery Outcrop zone.**
- **Veins typically associated with porphyry Cu-Au deposits ("A" and "D" veins) are recognised in Bottletree drill core. These veins are similar to those at the Cockie Creek Cu-Au Prospect. Both prospects have a sulphide mineral assemblage and associated hydrothermal alteration that is consistent with formation from relatively reduced magmatic-hydrothermal fluids associated with a reduced I-type volcanic arc magma (pyrrhotite-bearing and general absence of primary anhydrite, gypsum, and hematite) (*classified as 'reduced porphyries' as opposed to 'oxidised porphyries'*).**
- **Superior has been awarded a $300,000 Collaborative Exploration Initiative (CEI) Critical Minerals grant from the Queensland Government for the drilling of two deep diamond holes targeting the modelled core of the Bottletree porphyry Cu-Au-Mo system, located to the southwest of BTDD013.**

Superior's Managing Director, Peter Hwang commented:

"Results from the three 2023 drill holes have provided valuable information to enable further modelling of the Bottletree porphyry system in 3D. We are pleased to see the continuity of mineralisation being confirmed in the wall rocks at the Discovery Outcrop zone and importantly, that Hole 13 has provided important information to support the potential existence of a porphyry core several hundred metres to the southwest of the Discovery Outcrop. This effectively reinforces our 2023 porphyry vector modelling.

"Based on geological information from all holes drilled to date, our new 3D models have enabled us to further delineate a high priority porphyry core target, located about 700 metres to the southwest of the Discovery Outcrop.

"We are very excited about the modelled target, including its recognition by the Queensland Government with the recently announced $300,000 CEI Critical Minerals grant. The CEI grant will be applied directly to drilling of the porphyry core target and we are currently preparing logistics to enable commencement of drilling as soon as possible.

"Further details about the 2024 Bottletree drilling program as well as new exploration findings will be presented to the market in due course."

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) is pleased to announce new copper, gold and molybdenum assay results from the eleventh, twelfth and thirteenth holes drilled (**BTDD011, BTDD012,** and **BTDD013**) under the Company's Phase 2 program at the Bottletree Prospect. Bottletree is one of several porphyry Cu-Au-Mo prospects within the Company's 100%-owned Greenvale Project (**Fig. 1**).

Results for holes **BTDD011, BTDD012**, and **BTDD013** are reported together in this announcement because they comprise a coordinated program of exploration drilling designed to better understand the 3D geometry of the copper mineralisation associated with the Discovery Outcrop zone in the northeastern part of the prospect.

BTDD011, BTDD012 and BTDD013 – Summary

CONTINUITY TESTING

The primary purpose of the 2023 holes was to determine the continuity of mineralisation between earlier drill holes in the Discovery Outcrop zone. Specifically, holes **BTDD011 and BTDD013** were drilled perpendicular or SSE (138° and 155°, respectively) to the ENE azimuth of earlier diamond drill holes and the local foliation that hosts most of the Cu-Au-Mo mineralisation. In contrast, hole **BTDD012** was drilled ENE (59°) to assess a 70m gap in drill hole coverage between holes **BTDD004** and **SBTRD006**.

3D modelling of mineralisation, alteration and structural observations from all of the holes drilled to date has enabled the development of a better constrained mineralisation model for the mineralisation associated with the Discovery Outcrop zone (**Fig. 1**).

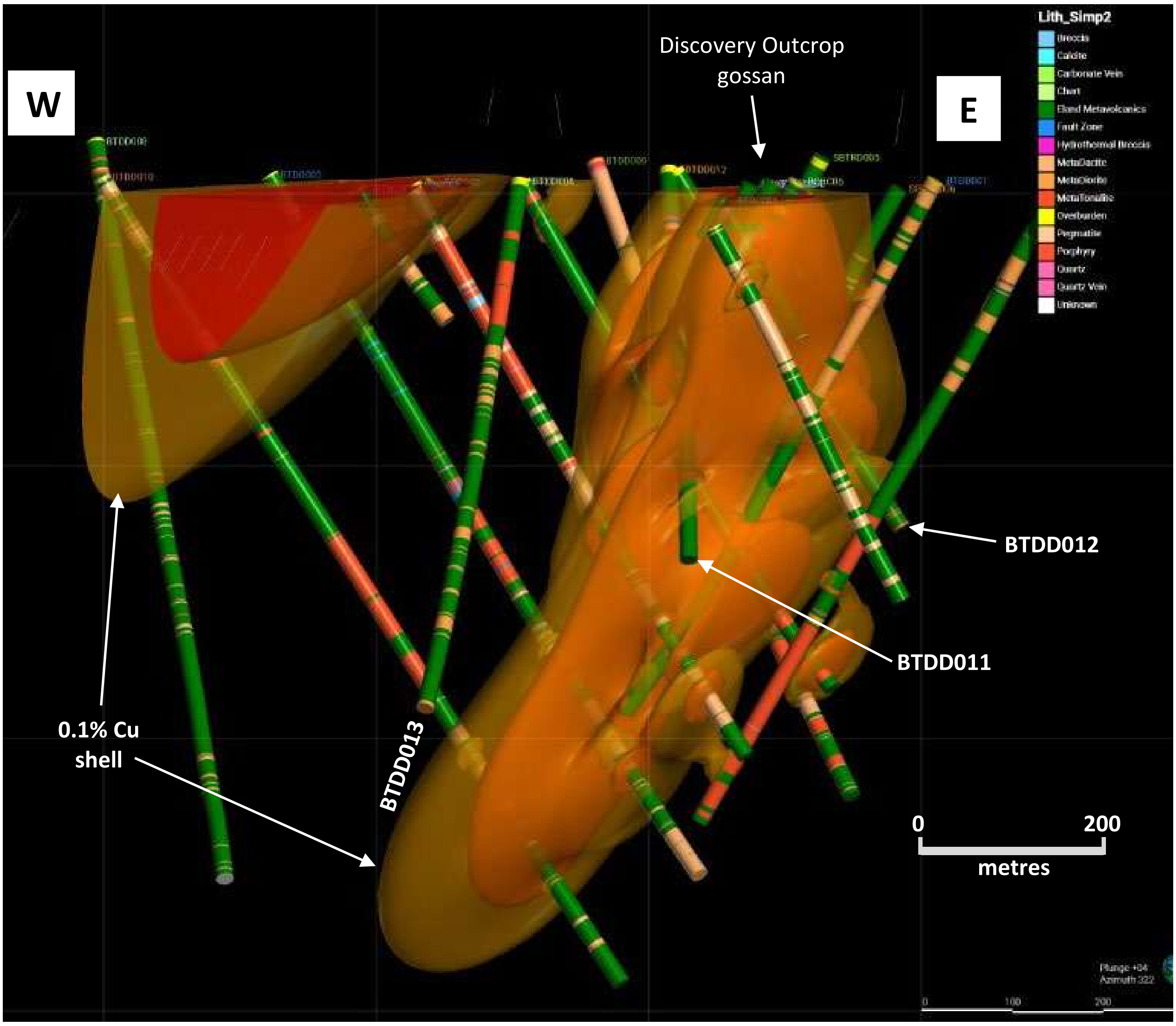


Figure 1. *Cross section view of 3D model of copper mineralisation associated with the "Discovery Outcrop" zone at the Bottletree porphyry Cu-Au prospect showing the 0.1% Cu and higher grade iso-surfaces (shells), 2023 drill hole traces with logged lithology.*

TOWARDS A PORHYRY CORE: BTDD013

Drill hole **BTDD013** intersected a very broad zone of weak Cu mineralisation with weak to moderate biotite and actinolite alteration (calcic-potassic) and late chlorite-epidote ± carbonate alteration several hundred metres to the southwest of all previous drilling. This weakly mineralised zone may represent the outer propylitic alteration halo of the porphyry system associated with the Discovery Outcrop zone or possibly the outer propylitic halo of another porphyry system located to the southwest based on aeromagnetic imagery and Cu and Mo-in soil data (**Fig. 2**).

Information from drill hole **BTDD013** together with the new 3D modelling has aided in the modelling of exploration vectors for the Bottletree porphyry system. The interpreted porphyry system in the southwest will be tested by two deep diamond drill holes as part of a successful Collaborative Exploration Initiative (CEI) critical minerals grant to Superior (see announcement 8 April 2014) (**Fig. 2**).

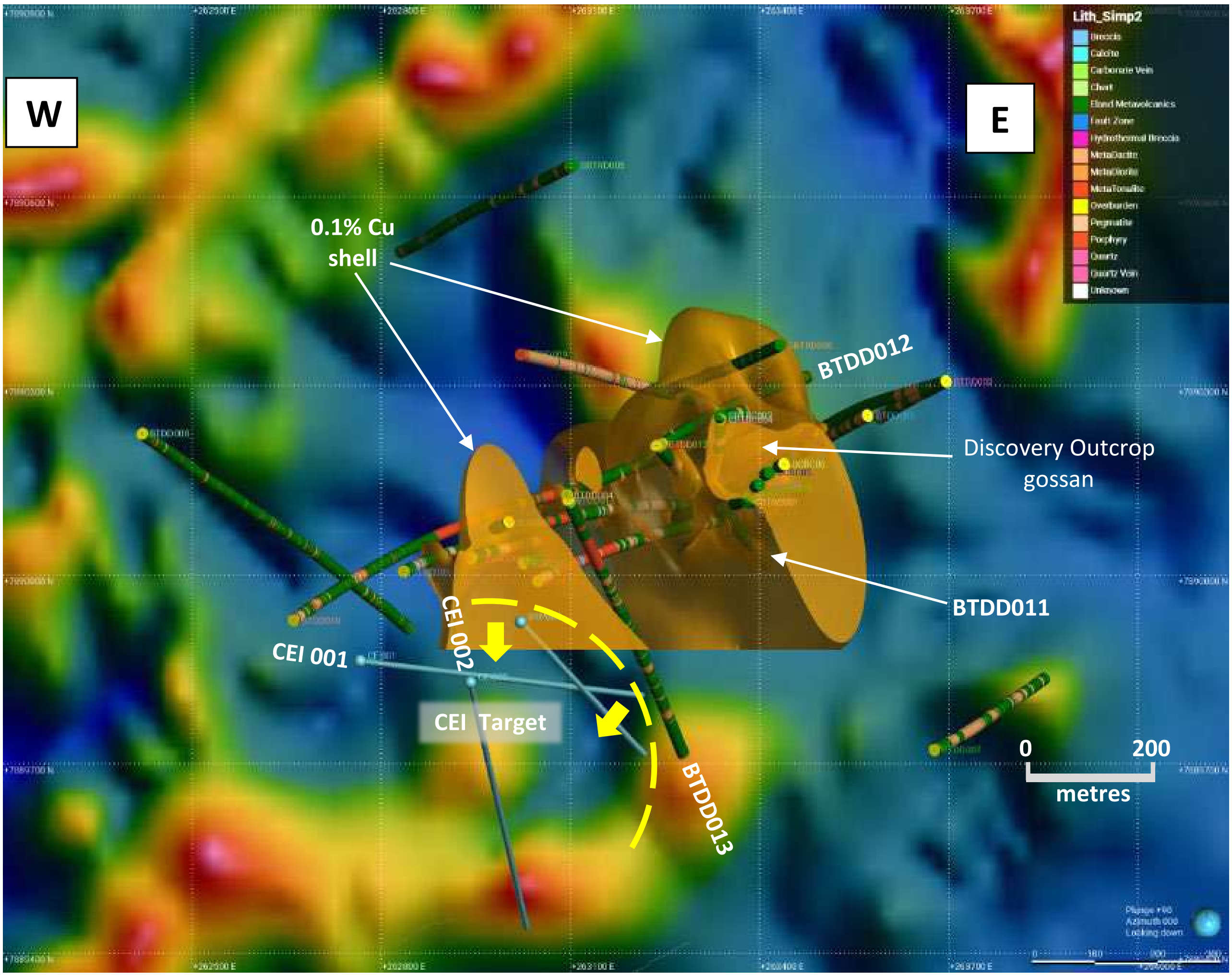


Figure 2. *Plan view of 3D model of copper mineralisation associated with the "Discovery Outcrop" zone at the Bottletree porphyry Cu-Au prospect showing the modelled potential porphyry intrusion target (labelled "CEI Target") and the planned CEI program drill holes (CEI 001 and CEI 002). 0.1% Cu iso-surfaces (shells) and 2023 drill hole traces with logged lithology are also shown.*

2023 PROGRAM OBJECTIVES

A detailed outline of the objectives of the 2023 Bottletree Phase 2 drilling program was reported to the market on 19 October 2023. The three drill holes completed in the 2023 program specifically addressed the following two objectives:

- **Delineate extent of wall rock porphyry mineralisation associated with the Discovery Outcrop**

  Based on 2022 drill holes, the wall rock porphyry zone extends from surface to at least 850m down dip depth, with a thickness of at least 250m. The strike extent of this zone has not yet been determined and remains open along strike and at depth.

Target "gaps" or areas lacking drill coverage in zones of best developed Cu mineralisation in the northeastern part of the prospect area. The three new holes are planned to expand the dimensions of this mineralised zone, with a focus on the shallower intervals.

Drill hole **BTDD012** covered the intervening gap between **SBTRD006** and **BTDD004,** whereas **BTDD011** was drilled perpendicular to the ENE trend of the main Cu-mineralised zone and local foliations to assess cross-strike continuity of mineralisation; and

- **Target a high priority interpreted potassic porphyry core**

  This objective was partially tested by **BTDD013**. This hole was drilled SSE (155°) to a depth of 709 metres and tested the edge of an interpreted potassic porphyry core. Its location was derived primarily from alteration vectoring using drill core and Cu- and Mo-in-soil anomalies.

Drill hole BTDD011

BTDD011 was drilled to a depth of 489.6m at an azimuth of 138° (SE), a direction perpendicular to the series of ENE trending diamond drill holes from previous drill programs (**Fig. 3**). These earlier holes intersected long intervals of moderate to strong Cu-Au-Mo mineralisation in a central zone of mineralisation that begins at the Discovery Outcrop gossan in the east and continues westward for several hundred metres. **BTDD011** confirmed that the 250m wide intervening zone between **BTDD004** in the north and **BTDD006** in the south is continuously mineralised, albeit at typically lower grades than in **BTDD004** and **BTDD006**.

Table 1: BTDD011 intersections at various cutoffs

Hole ID		From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
BTDD011		22	485	463	0.15	0.02	0.4	9
	Incl	55	449	394	0.17	0.02	0.5	10
	Incl	126	390	264	0.20	0.02	0.7	13
	Incl	127	167	40	0.30	0.04	0.7	5
	Incl	221	278	57	0.29	0.04	1.9	28
	Incl	339	390	51	0.28	0.03	0.5	9

INTERSECTION SUMMARY:

- **BTDD011 includes:**
  - **463m @ 0.15% Cu, 0.02g/t Au and 9ppm Mo from 22m**
    - incl. **394m @ 0.17% Cu, 0.02g/t Au and 10ppm Mo from 55m**
    - incl. **264m @ 0.20% Cu, 0.02g/t Au and 13ppm Mo from 126m**
    - incl. **40m @ 0.30% Cu, 0.04g/t Au and 5ppm Mo from 127m**
    - incl. **57m @ 0.29% Cu, 0.04g/t Au and 28ppm Mo from 221m**
    - incl. **51m @ 0.28% Cu, 0.03g/t Au and 9ppm Mo from 339m**

Drill hole **BTDD011** intersected mainly meta-andesite and lesser volcanic rocks intruded by narrow dykes of quartz diorite, diorite, tonalite, dacite and a variety of quartz-feldspar porphyries. The rock sequence at Bottletree is very similar to that hosting the Cockie Creek Prospect 12 km to the north.

Corbett (2023) recognised several penetrative foliations associated with ductile deformation and complex folding at Bottletree. A predominantly NW-striking, steeply W-dipping foliation in the main Cu zone suggested that Cu mineralisation occurred predominantly during late-stage brittle extension and reactivation of the W-dipping foliation. It follows that any holes drilled at approximate NW azimuths may have drilled down zones of concentrated foliations that localised late extensional faulting and Cu mineralisation (e.g., Corbett, 2023). Another strong foliation occurs in an ENE direction and drill holes in that orientation also may have drilled down zones of mineralised EW foliations.

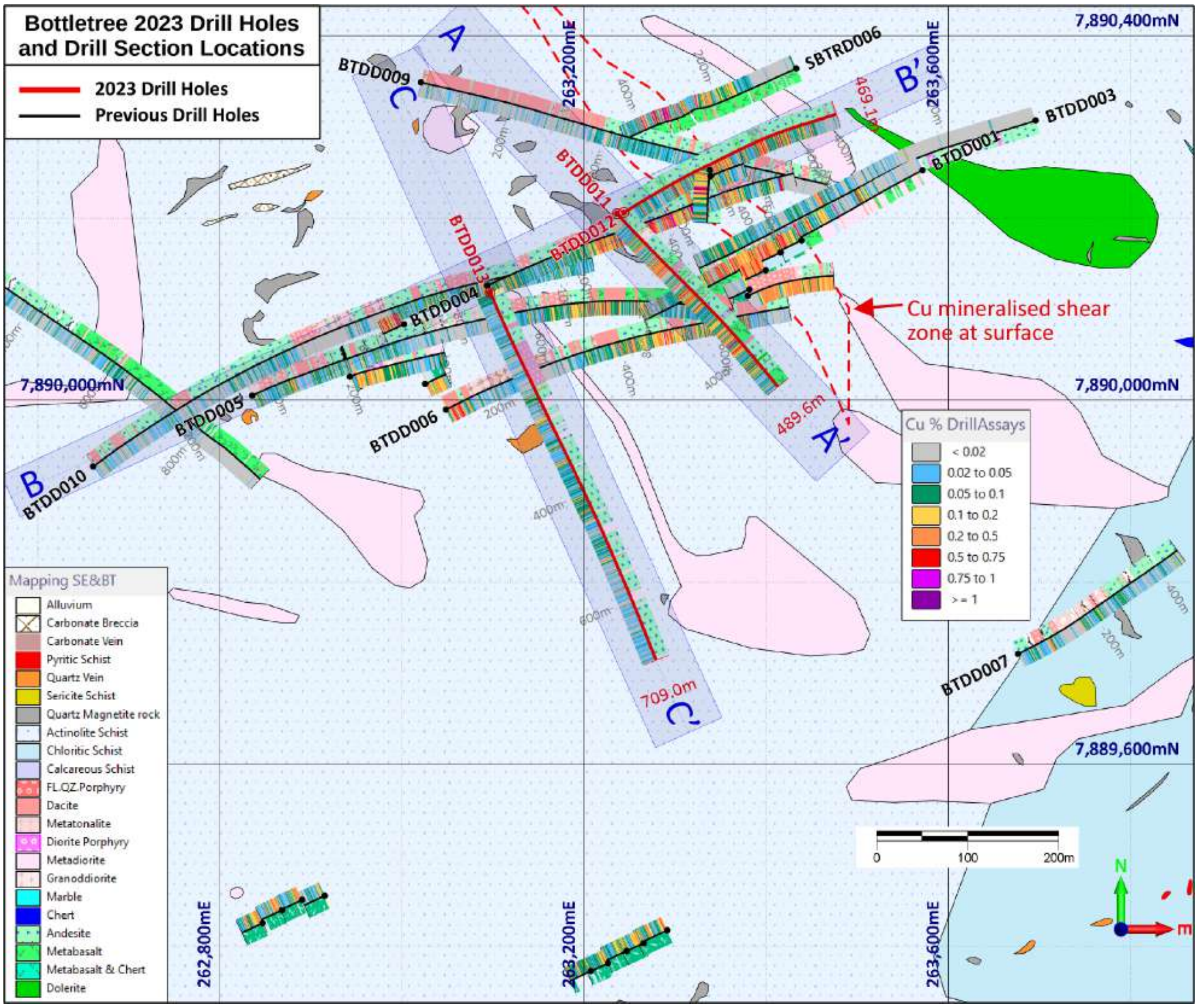


Figure 3. *Plan geological map of the Bottletree Prospect showing 2023 drill holes (in red) from the current program with new assay data (BTDD011, BTDD012, and BTDD013 labelled in red) and lithologies from core logging. Dill holes from the 2022 program shown as black lines with black labels. Drill cross section locations (A-A', B-B' and C-C') are labelled in blue with shaded rectangles showing neighboring drill holes incorporated into the cross sections. Down-hole copper assay values (1m intervals) are represented as grade categories.*

The cross-section of **BTDD011** (**Fig. 4**) reveals several 40 to 57m wide intervals with moderate grades of approximately 0.30% Cu within a much wider interval of 264m @ 0.20% Cu. Core logging reveals that three relatively narrow intervals of moderate Cu grade between 127-167m (40m), 221-278m (57m) and 339-390m (51m) have formed in zones of concentrated EW-striking foliations (**Table 1**). Further analysis of drill core is required to determine if holes drilled at ENE azimuths with moderate to high grade intervals of Cu mineralisation such as **BTDD004**, **BTDD006** and **SBTRD006** have intersected zones of concentrated Cu-mineralised foliations.

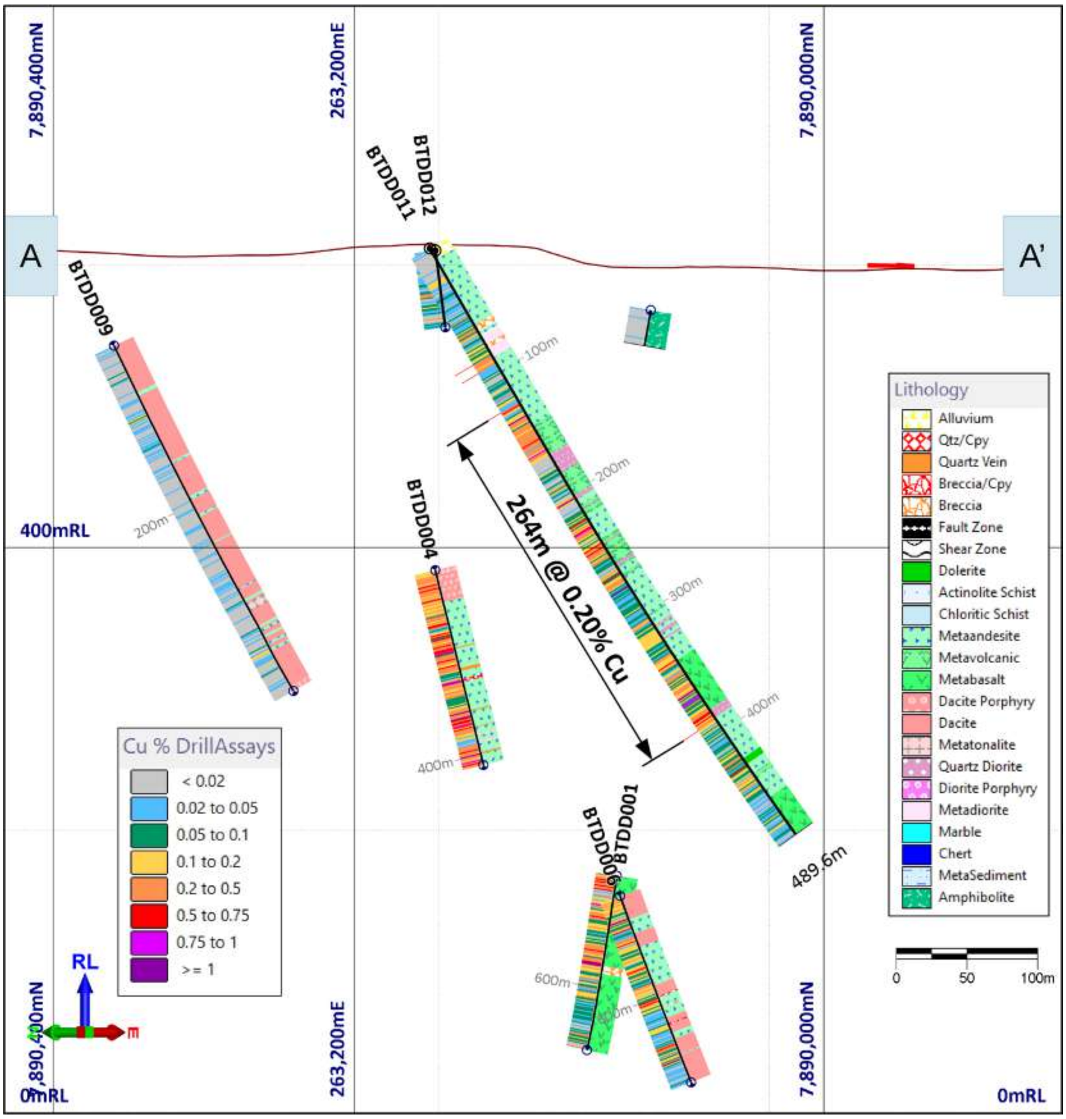


Figure 4. *Cross-section (± 40m) taken along A-A' in Figure 2 looking ENE. BTDD011 shows a broad lower grade interval of 264m @ 0.20% Cu. Other Bottletree drill holes intersecting the main Cu zone include BTDD001, BTDD004 and BTDD006. Down-hole copper assay values (1m intervals) are represented as grade categories.*

Drill hole BTDD012

BTDD012 was drilled to a depth of 469.1m at an azimuth of 059° to the ENE. This direction is similar to other holes drilled into the main Cu zone associated with the Discovery Outcrop gossan in the northeastern part of the prospect. The purpose of **BTDD012** was to assess the continuity and grades of Cu-Au-Mo mineralisation in the gap between **SBTRD006** and **BTDD004 (Fig. 3)**.

Table 2: BTDD012 intersections at various cutoffs

Hole ID		From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
BTDD012		5	438	433	0.13	0.01	0.7	2
	Incl	77	437	360	0.15	0.01	0.6	2
	Incl	108	140	32	0.20	0.03	0.6	2
	Incl	201	367	166	0.19	0.02	1.2	3
	Incl	201	237	36	0.27	0.03	1	1
	Incl	292	325	33	0.30	0.02	2	3
	Incl	302	325	23	0.36	0.03	2.1	3

INTERSECTION SUMMARY:

- **BTDD012 includes:**
    - **433m @ 0.13% Cu, 0.01g/t Au** and **2ppm Mo** from 5m
        - incl. **360m @ 0.15% Cu, 0.01g/t Au** and **2ppm Mo** from 77m
        - incl. **32m @ 0.20% Cu, 0.03g/t Au** and **2ppm Mo** from 108m
        - incl. **166m @ 0.19% Cu, 0.02 g/t Au and 3ppm Mo** from 201m
        - incl. **36m @ 0.27% Cu, 0.03g/t Au** and **1ppm Mo** from 201m
        - incl. **33m @ 0.30% Cu, 0.02g/t Au** and **3ppm Mo** from 292m
        - incl. **23m @ 0.36% Cu, 0.03g/t Au** and **3ppm Mo** from 302m

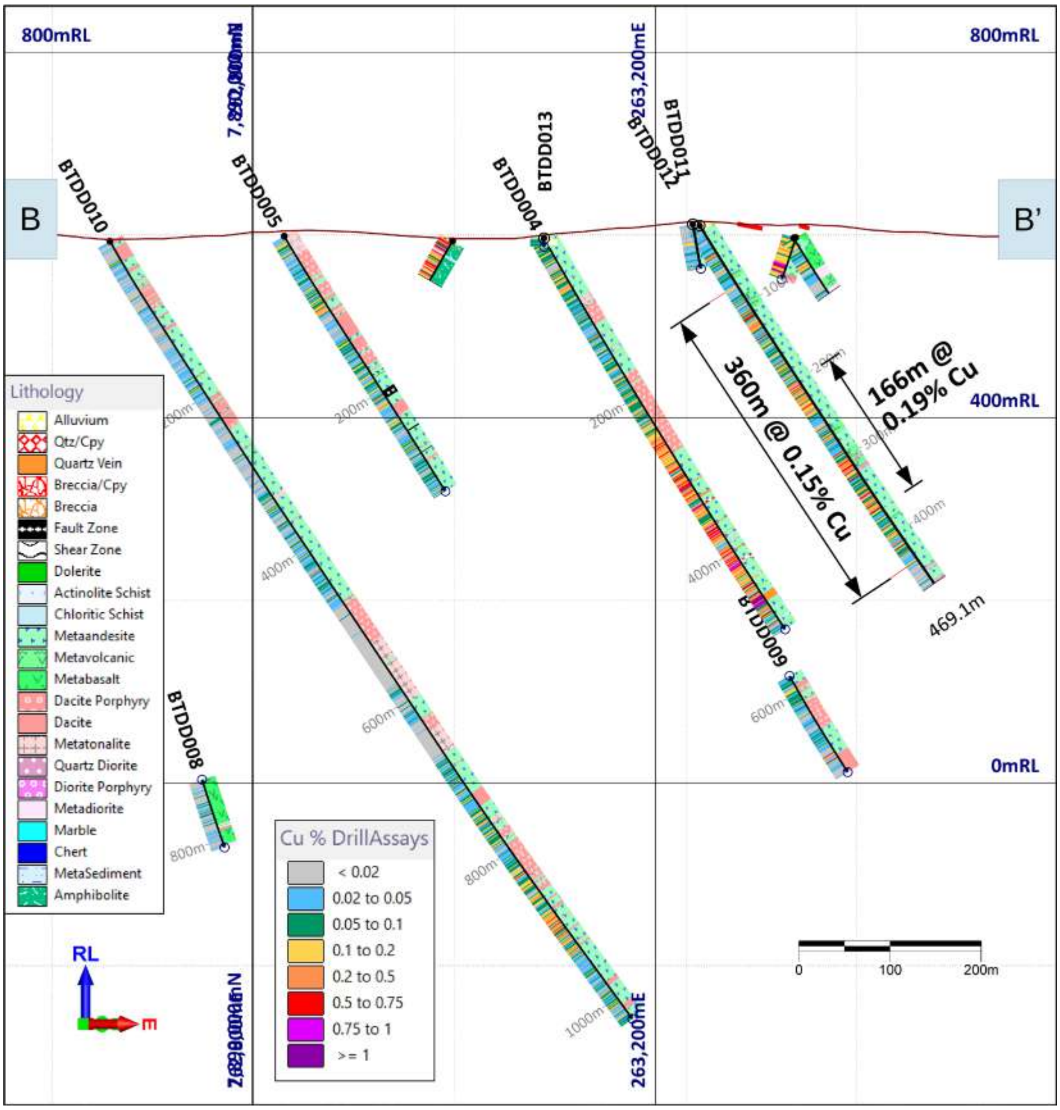


Figure 5. *Cross-section (± 25m) taken along B-B' as shown in Figure 2 looking NW. BTDD012 has a broad lower grade interval of 360m @ 0.15% Cu similar to the broad lower grade interval in BTDD011. Other Bottletree drill holes intersecting the main Cu zone with a similar ENE azimuth include well mineralised BTDD004 and weakly mineralised BTDD010. Down-hole copper assay values (1m intervals) are represented as grade categories.*

BTDD012 intersected the same suite of meta-andesite and lesser intrusive rocks that were present in the other holes drilled into the main copper zone at Bottletree (**Fig. 3**). The hole is dominated by meta-andesite with abundant narrow (1-5m wide) quartz diorite dykes from 301 to 325m. The rocks are moderately altered by brown biotite (potassic) and actinolite (calcic) with abundant quartz-sulphide veins and sulphide disseminations.

The **BTDD012** cross section (**Fig. 5**) also shows a series of narrow higher grade Cu intervals within a broader interval of lower grade Cu mineralisation similar to the distribution of Cu in **BTDD011**. Specifically, there are several 20-30m wide intervals with moderate grades ranging from 0.27 to 0.36% Cu within a much wider interval of 360m @ 0.15% Cu. Core logging reveals that these narrow intervals of higher Cu between 201-237m (36m) and 292-325m (33m) are in zones of concentrated foliations (**Table 2**). **Figure 5** supports the interpretation of narrow NW-striking zones with steep W-dipping foliations in the main Cu zone, but more information is required to verify these orientations.

Drill hole BTDD013

BTDD013 is located at the western margin of the main zone of Cu mineralisation that includes the Discovery Outcrop gossan approximately 300m to the east. The hole is drilled at an azimuth of 155° (SSE) and is 400m further south than any other hole drilled into the main zone of Cu mineralisation (**Fig. 3**).

Table 3: BTDD013 intersections at various cutoffs

Hole ID			From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
BTDD013			0	34	34	0.05	0.01	0.3	85
			87	105	18	0.05	0	0	9
			194	526	332	0.06	0.01	0.2	31
		Incl	402	433	31	0.10	0.01	0.1	8
		Incl	513	524	11	0.11	0.02	0.2	5

INTERSECTION SUMMARY:

- **BTDD013 includes:**
  - **34m @ 0.05% Cu, 0.01g/t Au and 85 ppm Mo** from 0m
  - **18m @ 0.05% Cu and 9ppm Mo** from 87m
  - **332m @ 0.06% Cu, 0.01g/t Au and 31ppm Mo** from 194m
    - incl. **31m @ 0.10% Cu, 0.01g/t Au** and **8ppm Mo** from 402m
    - incl. **11m @ 0.11% Cu, 0.02g/t Au** and **5ppm Mo** from 513m

BTDD013 has lower Cu grades than both **BTDD011** and **BTDD012,** although it is weakly mineralised over much of its length with a higher grade interval of 31m @ 0.1% Cu (**Table 3**) within a large lower grade interval of 332m @ 0.06% Cu (**Fig. 6**). The drill core displays weak to moderate brown biotite (potassic) and dark green actinolite (calcic) alteration. These alteration types are associated with the Cu-Au mineralisation in the form of quartz-sulphide veins and sulphide disseminations. A weak, late-stage chlorite-epidote ± carbonate alteration event affects much of the core and could be an outer propylitic alteration halo associated with a porphyry system to the southwest. Alternatively, it could be the result of greenschist facies alteration related to a post-mineralisation regional tectono-metamorphic event.

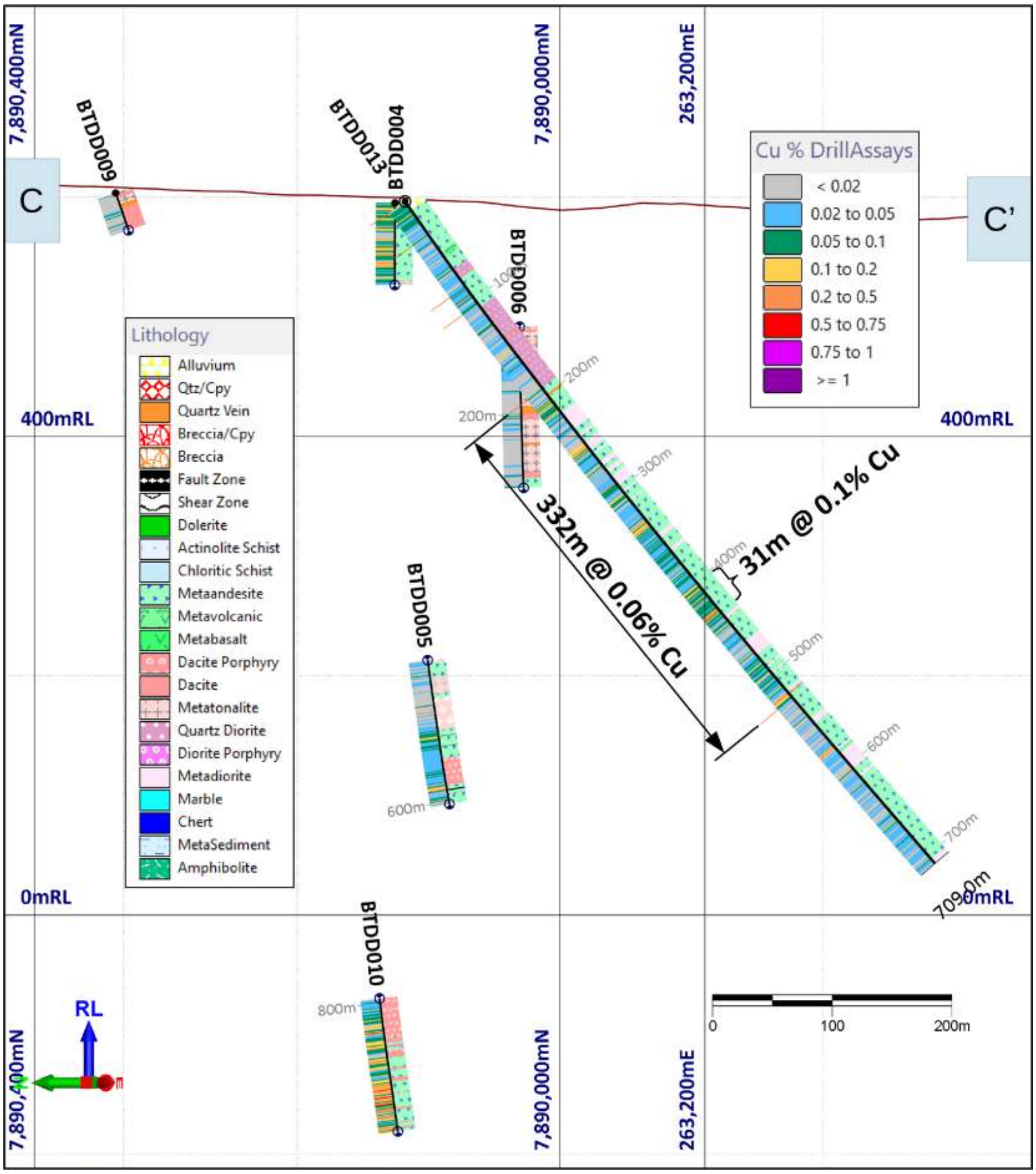


Figure 6. *Cross-section (± 40m) taken along C-C' as shown in Figure 2 looking NE. BTDD013 has a broad lower grade interval of 332m @ 0.06% Cu, which includes a narrow high grade interval of 31m @ 0.1% Cu. Down-hole copper assay values (1m intervals) are represented as grade categories.*

Mineralisation and updated porphyry model for Bottletree

Chalcopyrite mineralisation at Bottletree is predominantly confined within a strong foliation fabric developed within wall rock meta-andesite and related volcanic rocks. Intrusive host-rocks are rare. The mineralisation assemblage comprises chalcopyrite, pyrite, pyrrhotite and minor molybdenite. In addition to its occurrence as fine-grained disseminations in foliations, molybdenite may occur in quartz veins and appears to be preferentially associated with a late-stage sericite-epidote-chlorite alteration event.

The reduced nature of the sulphide mineral assemblage (pyrrhotite-bearing) and associated hydrothermal alteration (absence of primary anhydrite, gypsum, and hematite) in meta-volcanic wall rocks is consistent with Bottletree forming from relatively reduced hydrothermal fluids associated with a reduced I-type arc magma. The Cockie Creek Cu-Au-Mo Prospect has similar mineralisation and alteration features and both it and Bottletree are consistent with classification as Reduced Porphyry Cu-Au (RPCG) systems (see ASX announcement on 31 January 2024). The term "reduced" applies to the oxidation state (or oxygen fugacity) of the causative magmas and associated magmatic-hydrothermal fluids (Rowins, 2000).

These mineralogical differences with the more oxidizing porphyry systems with abundant hydrothermal magnetite will affect the strategy used for exploration targeting. Specifically, there are differences with the magnetic properties of the mineralization (i.e., only minor hydrothermal magnetite but abundant magnetic pyrrhotite), and displaced and expanded geochemical anomalies in soils due to the likelihood of enhanced vapour-phase transport of Cu and potentially Au from the magmatic source (Rowins, 2000).

ALTERATION

The earliest stage of hydrothermal alteration identified in drill holes **BTDD011**, **BTDD012** and **BTDD013** is moderate to intense **potassic** alteration. This early potassic alteration is common to drill holes in the previous 2022 and 2021 drilling programs. It is widespread and defined by flakes of fine-grained biotite in wall rock lithologies and intrusions. Potassic alteration is associated with Cu-Au (Mo) mineralisation and is dominated by a sulphide mineral assemblage consisting of pyrite, chalcopyrite, pyrrhotite and lesser molybdenite.

Biotite flakes and sulphide minerals are aligned within a strong foliation fabric that imparts a pale brown colour to the rock. This early stage potassic alteration is overprinted by widespread and intense **calcic** alteration, which is defined by dark green actinolite. Pyrite, chalcopyrite, pyrrhotite and lesser molybdenite also accompany **calcic** alteration (**Fig. 7**).

Figure 7. *Core from BTDD011 (225.5m). Example of the two major types of hydrothermal alteration at Bottletree. Core sample consists of a moderately foliated meta-andesite with strong brown biotite (potassic) and later dark green actinolite (calcic) stages of alteration. Brassy yellow chalcopyrite is preferentially associated with biotite in this zone of "calcic-potassic" alteration. Alteration is preferentially focussed along pre-existing foliations.*

A third stage of hydrothermal alteration consists of green chlorite-epidote ± carbonate replaces hydrothermal biotite and actinolite. This late chlorite-epidote replacement is a weak to moderate retrograde event and could be lower temperature outer propylitic alteration associated with a porphyry system. Alternatively, it may have formed during a post-mineralisation greenschist facies regional metamorphic event.

Another late stage of hydrothermal alteration is defined by pale greyish green sericite ± epidote ± quartz selvages surrounding some sulphide veinlets and quartz-sulphide veins (**Fig. 8**). As noted below, sericite selvages are common around narrow sulphide veins/veinlets termed **"D" veins** in porphyry Cu-Au-Mo deposits.

Figure 8. *Core from BTDD011 (354.3m). Sheared and fragmented 4 cm wide quartz vein consisting of 1-30 mm long fragments of quartz in an anastomosing matrix of sulphide minerals surrounded by a narrow greyish green sericite-quartz selvage. Host rock andesite/basalt has experienced weak actinolite (calcic) alteration. The late calcite-filled hairline fractures and 1-3 mm wide white calcite veinlets are post-mineralisation.*

PORPHYRY SYSTEM VEINS

The observed alteration types are directly associated with several varieties of quartz, pyrite, chalcopyrite, pyrrhotite and molybdenite veins that range from millimetres to tens of centimetres in width. Most veins are deformed and recrystallised, although coarse internal banding and vein infill textures are partially preserved in places. Porphyry deposits are characterised by various styles of veins and the new 2023 drill holes at Bottletree have veins that share similarities with typical porphyry veins. Specifically, "wormy" buck white quartz veins with diffuse and irregular vein margins resemble porphyry-style "**A veins**". The late sulphide veins/veinlets surrounded by narrow sericite-quartz selvages strongly resemble porphyry-style "**D veins**". However, most veins in **BTDD011**, **BTDD012** and **BTDD013** are too deformed and recrystallised for definitive vein-type classifications (e.g., **Figs. 8, 9, 10, 11,** and **12**).

Figure 9. *Core from BTDD011 (277.4m) with a 20 cm wide quartz-chalcopyrite-pyrrhotite-molybdenite vein in strongly foliated and altered meta-andesite. The milky white quartz has been fractured and recrystallised with late sulphides infilling fractures. The vein is surrounded by an intense quartz-sericite alteration selvage consisting of greyish white quartz and pale greenish grey sericite.*

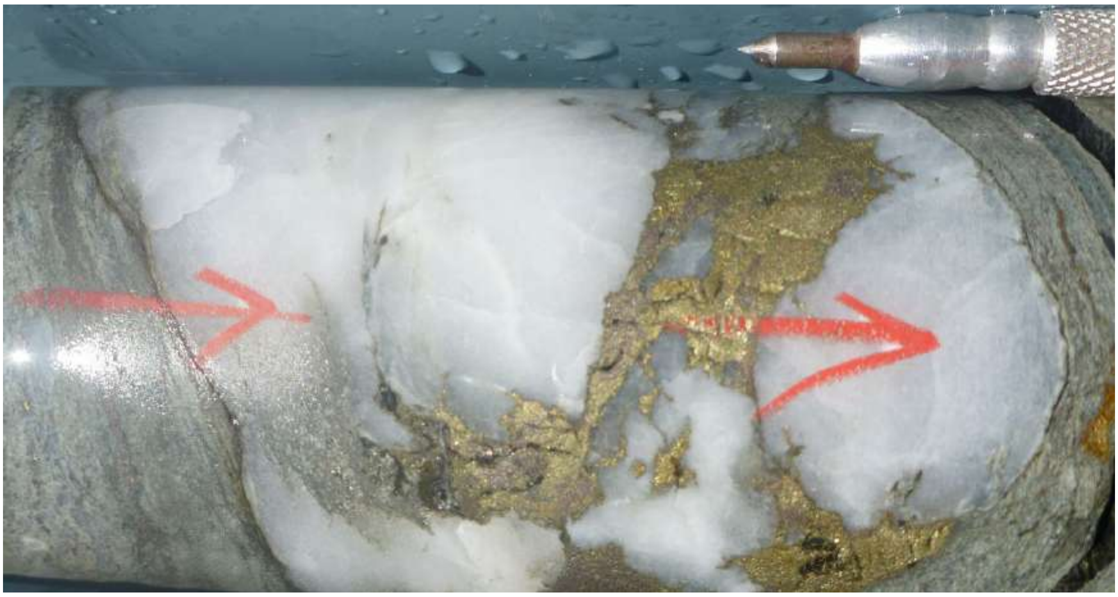


Figure 10. *Core from BTDD012 (422.2m) with a 10 cm wide quartz-chalcopyrite-pyrrhotite-pyrite vein in strongly foliated and altered meta-andesite. The milky white quartz has been fractured and recrystallised with late sulphides infilling the fractures. The vein is surrounded by an intense quartz-sericite alteration selvage consisting of greyish white quartz and pale green sericite.*

Figure 11. *Core from BTDD012 (437.0 – 437.5m) with a 50 cm wide quartz-chalcopyrite-pyrrhotite-pyrite vein in strongly foliated and altered meta-andesite. The milky white quartz has been fractured and recrystallised with late sulphides infilling the fractures together with flakes of sericite. An intense quartz-sericite alteration selvage in andesite surrounds the vein.*

Figure 12. *Core from BTDD012 (465.2 m). A sheared and fragmented 3 cm wide quartz vein consisting of 1-30 mm long fragments of grey quartz in an anastomosing matrix of sulphide minerals. Host rock is a strongly silicified and foliated quartz diorite.*

Collaborative Exploration Incentive (CEI) Drill Program Update

- Two deep diamond drillholes (**CEI 001** and **CEI 002**) are planned to test several critical elements of the updated porphyry model proposed for the Bottletree Prospect.
- The target area has been determined as having high potential for the presence of a large, buried, Cu-Au mineralised porphyry intrusion (also commonly referred to as a "porphyry core").
- Modelling of extensive geological information yielded from the 2021 to 2023 drilling campaigns shows that the target area is associated with a large circular magnetic low anomaly (**Figs. 2 and 13**) that is coincident with highly significant Cu, Mo and Au soil geochemistry anomalies and a broad gravity anomaly.
- The identification of hydrothermal alteration patterns has been an important outcome from the Bottletree drill holes. In particular, strong potassic and calcic alteration zones that are common in the deep, high temperature cores of some porphyry systems, dominate in some of the Bottletree holes. This supports the interpretation that a buried porphyry system lies within the target area.
- The target intrusion is inferred to be a large, multiphase, non-magnetic, reduced I-type granite interpreted to be the source of the extensive Cu-Au-Mo mineralisation at Bottletree.

Further details of the CEI-funded diamond drill holes are provided in the ASX announcement on 8 April 2024.

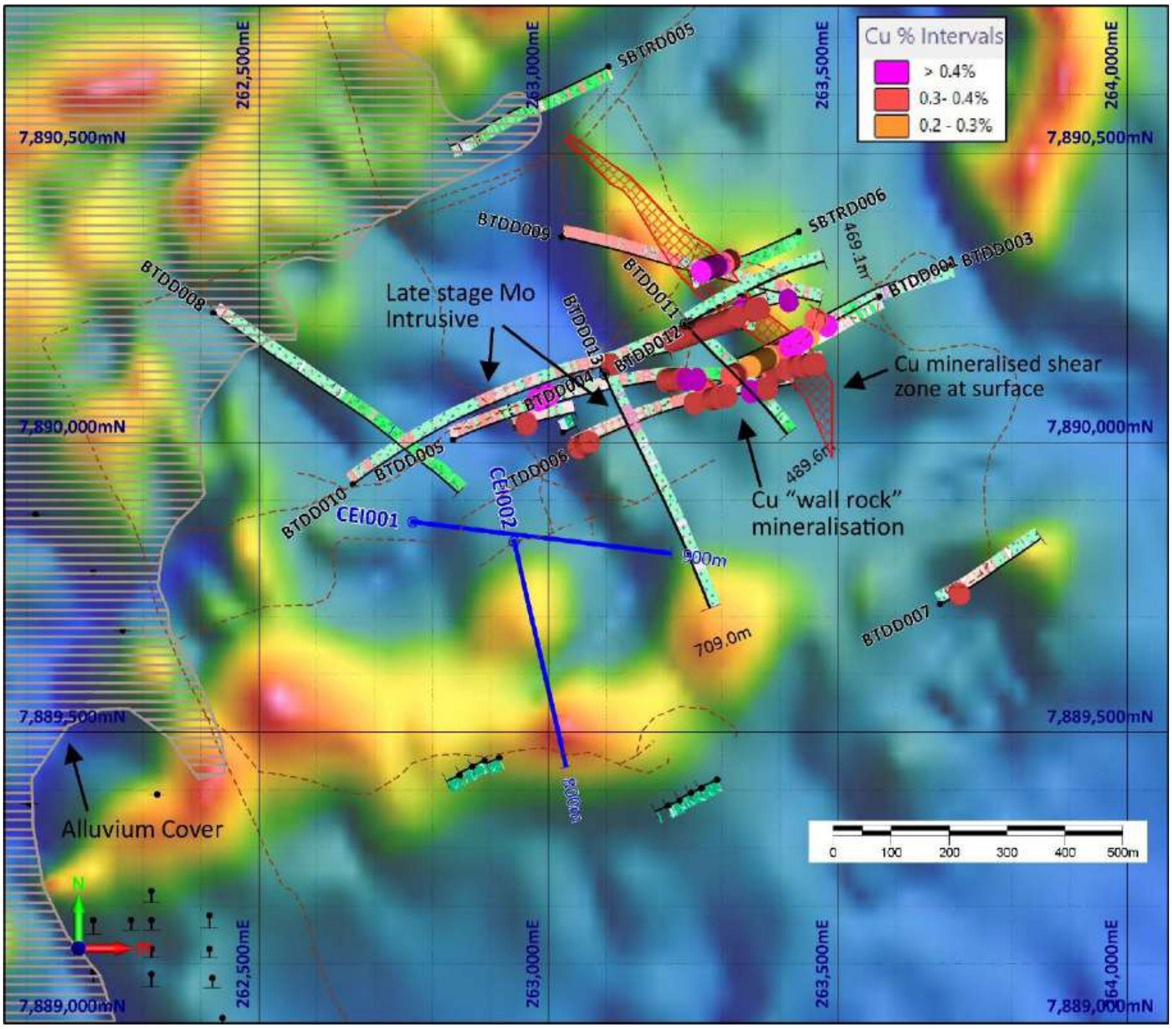


Figure 13. *Plan of proposed CEI diamond drill holes CEI001 and CEI002 (blue lines) over a TDr Vi NSSF processed aerial magnetic image. Drill holes target the centre of a broad circular magnetic low to the southwest of all previous drill holes. It is interpreted to represent the top of a large non-magnetic ilmenite-bearing, reduced I-type granite that could be the source of Cu-Au-Mo mineralisation at Bottletree. Drillhole CEI002 also targets the western extension of an E-W-trending copper gossan in the southern part of the prospect at depth. The several modest magnetic highs ("red pimples") could represent magnetic pyrrhotite-pyrite-chalcopyrite mineralisation surrounding the main porphyry system forming the broad circular magnetic low to the immediate north. The coloured circles along the drill hole traces represent composite Cu % intervals (15 m) from assay data. Colouring along the right-hand side of the existing drill hole traces represents lithology (rock type).*

Synopsis to date

- Drill hole BTDD011 confirmed that the 250m wide intervening zone between BTDD004 in the north and BTDD006 in the south is continuously mineralised, albeit at typically lower grades than in BTDD004 and BTDD006.
- Drill Holes BTDD011 and BTDD013 are oriented perpendicular to the ENE trend of the main zone of Cu mineralisation and the ENE orientation of other holes drilled into the zone. Inspection of drill sections reveals that narrower zones of higher grade Cu-Au mineralisation occur in strongly foliated intervals within broader zones of lower grade mineralisation. Predicting the extensions of these strongly foliated and mineralised intervals could be a useful exploration vector in further developing the dimensions of the main Cu zone at Bottletree.

- Despite syn- and post-mineralisation deformation, some quartz-sulphide veins retain textural features consistent with formation in a porphyry environment. These include wormy quartz veins with diffuse vein margins that are similar to porphyry “A veins”, and abundant narrow sulphide veins and veinlets that are analogous to late stage “D veins” in porphyry deposits.
- The reduced nature of the sulphide mineral assemblage (pyrrhotite-bearing) and associated hydrothermal alteration (absence of primary anhydrite, gypsum, and hematite) in the meta-volcanic and intrusive wall rocks are consistent with Bottletree forming from relatively reduced hydrothermal fluids. The Cockie Creek Cu-Au-Mo prospect has similar features.
- The 2024 drill program at Bottletree consists of two deep CEI-funded diamond drill holes that will target a large untested area located approximately 400 metres to the southwest of all prior drilling conducted between 2021 to 2023. The new target is characterised by a large magnetic low, a large, multiphase, non-magnetic, ilmenite-bearing, reduced I-type granite interpreted as a possible source of the extensive Cu-Au-Mo mineralisation at the Bottletree prospect.

Background on Exploration Activities

The Bottletree Prospect was the first porphyry Cu-Au-Mo mineralisation system confirmed by Superior in the newly identified island arc porphyry belt at Greenvale and is one of several porphyry Cu-Au-Mo prospects within the Company’s 100%-owned Greenvale Project (**Fig. 14**).

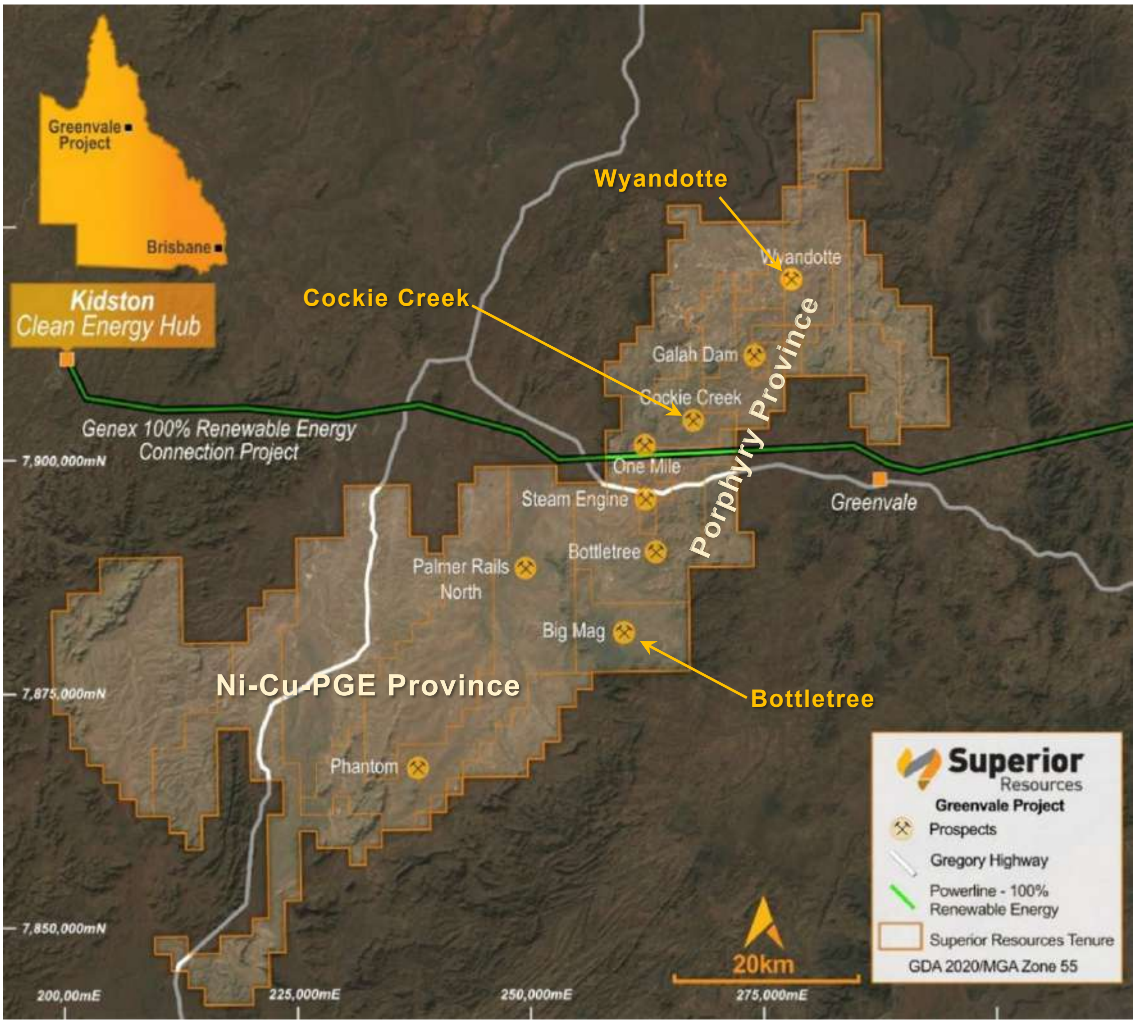


Figure 14. *Map showing the locations of the Greenvale Project tenements and select prospects. The Gregory Highway, Kidston Clean Energy Hub and associated power infrastructure corridor are also indicated.*

Exploration activities at the Bottletree Prospect by Superior are discussed in announcements on 12 April 2023 and 19 October 2023. Corbett (2023) also produced a detailed technical report on the exploration potential of the Bottletree Prospect with a focus on possible patterns of hydrothermal alteration and metal zonation around a fertile porphyry intrusion.

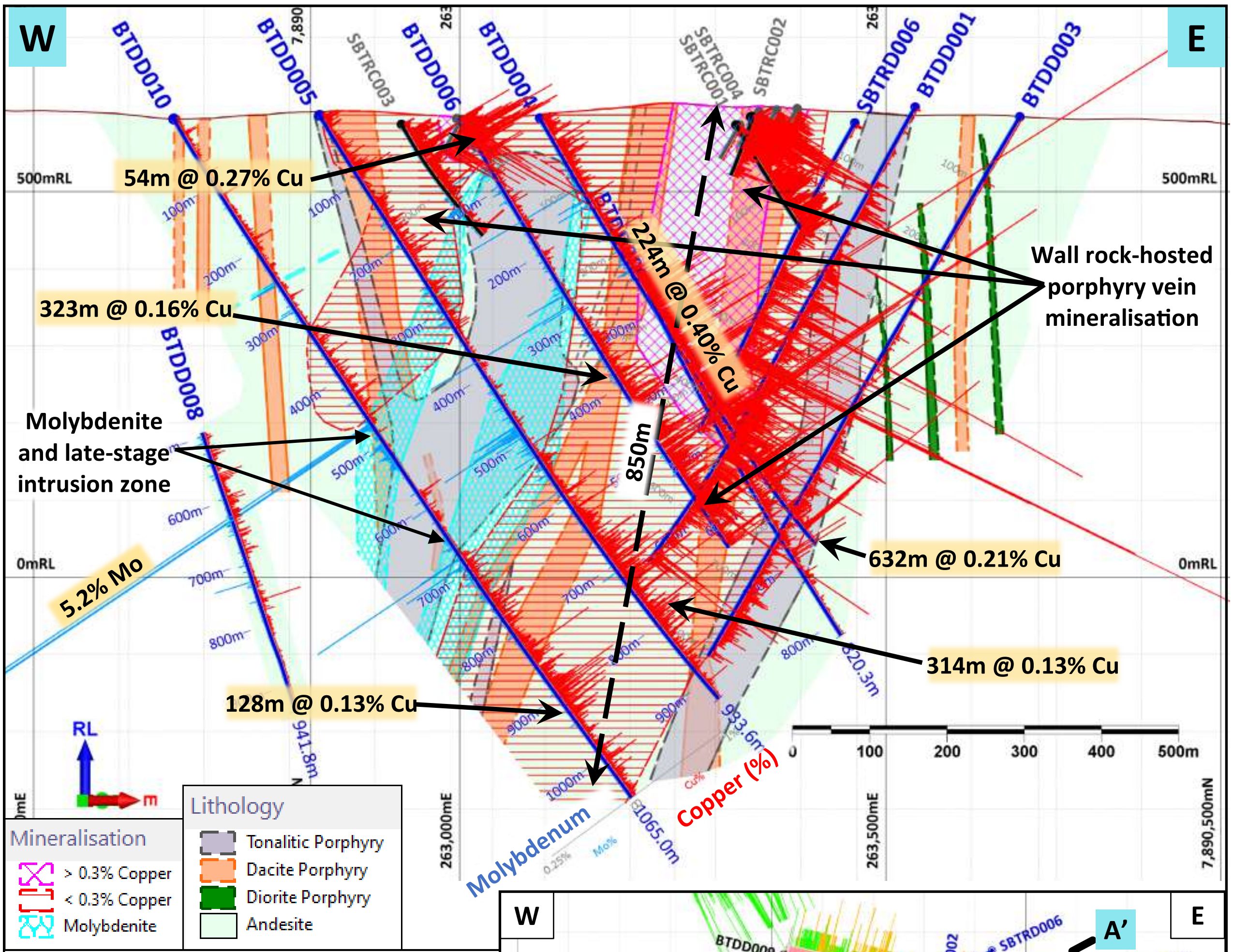
Exploration at the Bottletree Prospect is at an early stage with only six holes, including **BTDD011** and **BTDD012** from the current program, drilled into the main zone of porphyry-style Cu-Au-Mo mineralisation. This mineralisation extends from surface to depths greater than 850m in **BTDD010**, although the causative porphyry intrusion(s) has not been identified. Extensive wall rock-hosted mineralisation within a large porphyry-style alteration shell has been intersected (**Fig. 15**):

- **BTDD004: 632m @ 0.21% Cu**, incl. **224m @ 0.40% Cu** (refer ASX announcement dated 2 June 2022);
- **BTDD005: 314m @ 0.13% Cu** (refer ASX announcement dated 12 April 2023);
- **BTDD010: 73m @ 1,229.5ppm Mo**, incl. **14m @ 6,000ppm Mo** and **6m @ 13,900ppm Mo**; and
- **SBTRD006: 292m @ 0.22% Cu** (refer ASX announcement dated 25 October 2018).

Mineralisation is characterised by fine-grained sulphide disseminations and quartz-pyrite-chalcopyrite-pyrrhotite ± molybdenite veins/veinlets in strongly deformed and metamorphosed volcanic and intrusive rocks. Consequently, the Bottletree Prospect is described as a “wall rock” porphyry with *out-of-porphyry* features (i.e., hydrothermal alteration and veins) developed in the wall rock used as vectors towards buried porphyry Cu mineralisation. Economic wall rock porphyry Cu-Au systems are common and include the deposits at Cadia and Northparkes in the Ordovician Macquarie Arc of New South Wales.

The deformed volcanic rocks at Bottletree are mainly mapped as actinolite schists and logged in drill core as meta-andesites, whereas the intrusive rocks are mapped as meta-diorites and logged as meta-tonalites, quartz diorites, dacites and various quartz-feldspar porphyries. Rocks are normally strongly foliated and both veins and disseminated sulphides are typically aligned within planes of foliation.

Although deformed and partially recrystallised, some veins have preserved infill textures suggestive of early-stage “A” veins and late-stage “D” veins (Corbett, 2023) typical of porphyry deposits. These veins share similarities with those at the Cockie Creek Cu-Au Prospect (see ASX announcement on 31 January 2024). Various stages of hydrothermal alteration and related Cu-Au-Mo mineralisation are recognised, however, the strong deformation and relatively reduced nature of the hydrothermal fluid system (i.e., abundant hypogene pyrrhotite and absence of primary anhydrite and hematite), challenge the use of concentrically zoned alteration and metal models.



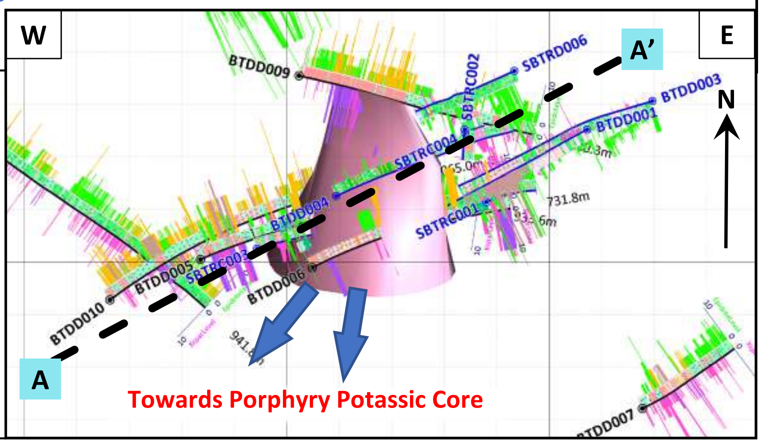


Figure 15. *Cross section A-A' (top) showing geology, Wallrock Porphyry Zone and averaged Cu and Mo grades. Hydrothermal fluid flow, porphyry core and Wallrock Porphyry Zone potentially sourced from off the section line towards the SSW. I.e.* ***Holes BTDD005 and 010 are likely to have intersected the margin of a zone of higher grade mineralisation within the wall rocks.***

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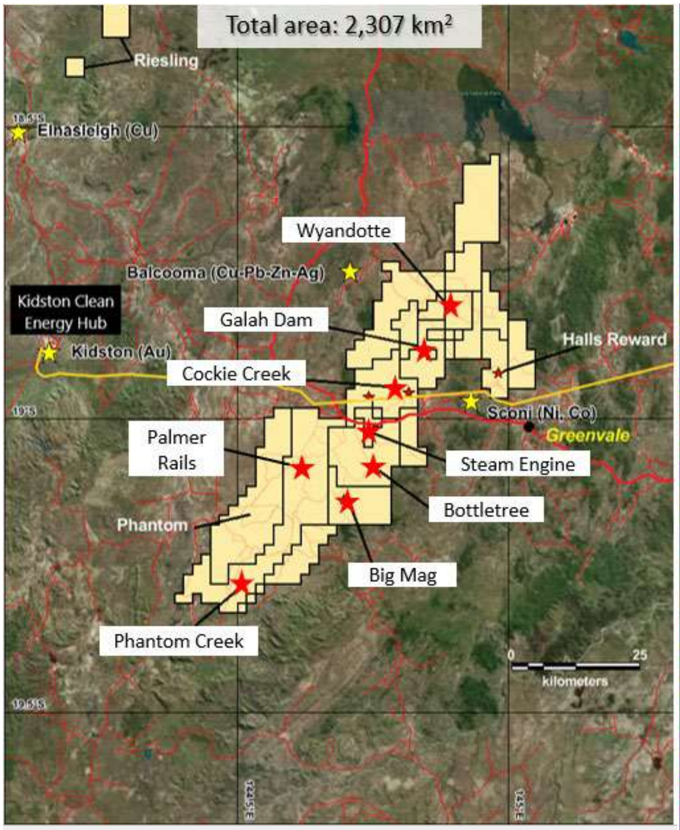
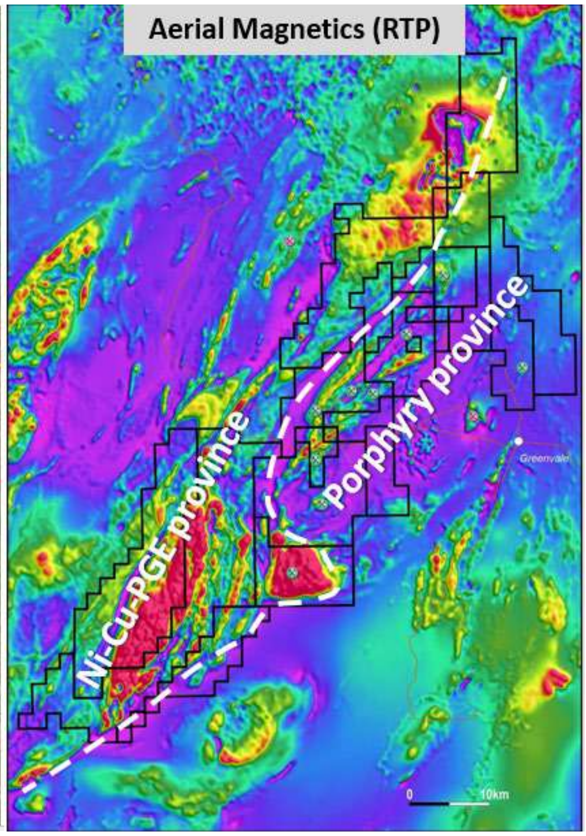
Greenvale – Juxtaposed porphyry and magmatic Ni-Cu-PGE sulphide provinces

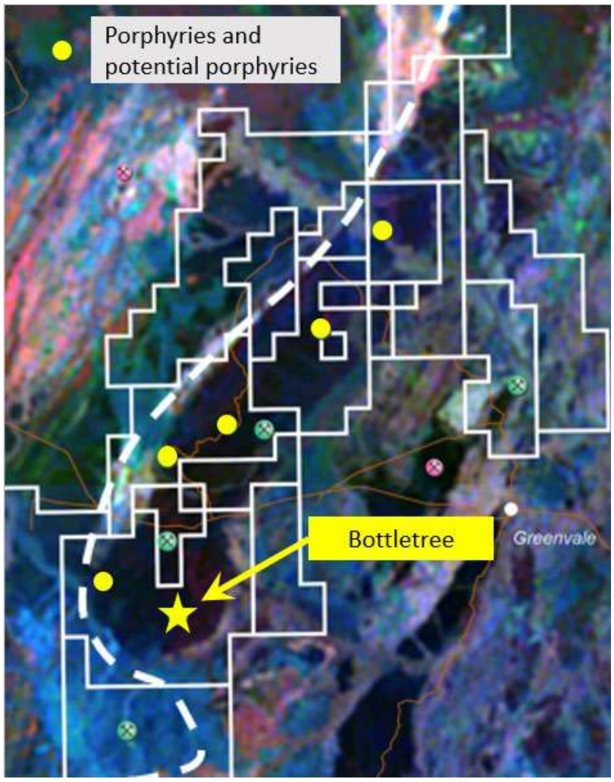




Superior has long recognised the copper potential within the Lucky Creek Corridor. However, recent exploration drilling at Bottletree, coupled with regional geological investigations over several years has enabled the characterisation of the Lucky Creek Corridor as a fossil island arc porphyry province, hosting numerous porphyry and potential porphyry systems recurring along a 50 km zone.

Superior is taking the lead with Tier-1 potential copper-gold porphyry exploration in this part of Australia.

Juxtaposed against the Greenvale Porphyry Province is a second province formed by a completely different geological genesis model. Originally formed at a much deeper crustal level, the Greenvale Magmatic Nickel-Copper-PGE Sulphide Province has been technically proven in terms of the presence of such mineralising systems. However, the province remains practically unexplored.
Superior enjoys a first mover advantage over the entire province, which presents as one of the best sulphide Ni-Cu-PGE propositions in Australia.



About Superior

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large copper, nickel-copper-cobalt-PGE, lead-zinc-silver and gold 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: *With the exception of information relating to Figures 1, 2 and 15 in this report, the information in this report as it relates to exploration results and geology was compiled by Dr Stephen Rowins, an employee of Superior Resources Limited. Dr Rowins 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'. Dr Rowins consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*

Information relating to Figures 1, 2 and 15 of this report as it relates to exploration results and geology has been confirmed by Mr Peter Hwang, Managing Director of Superior Resources Limited. My 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.

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.*

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.*

Disclaimer: *Superior and its related bodies corporate, any of their directors, officers, employees, agents or contractors do not make any representation or warranty (either express or implied) as to the accuracy, correctness, completeness, adequacy, reliability or likelihood of fulfilment of any forward-looking statement, or any events or results expressed or implied in any forward-looking statement, except to the extent required by law. Superior and its related bodies corporate and each of their respective directors, officers, employees, agents and contractors disclaims, to the maximum extent permitted by law, all liability and responsibility for any direct or indirect loss or damage which may be suffered by any person (including because of fault or negligence or otherwise) through use or reliance on anything contained in or omitted from this presentation. Other than as required by law and the ASX Listing Rules, Superior disclaims any duty to update forward looking statements to reflect new developments.*

Approved for release by the Board of Directors

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APPENDIX 1

REPORTED DRILL HOLE COLLAR DETAILS

Hole ID	Easting (m)	Northing (m)	RL (m)	Depth (m)	Dip°	Azimuth°
BTDD011	263236.3	7890204.5	611.8	489.6	-60	138
BTDD012	263243.9	7890206.1	610.2	469.1	-58	59
BTDD013	263096.9	7890117.8	596.4	709	-55	155

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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.*	• Drilling from surface comprised HQ diameter diamond core drilling to end of hole. Some holes have PQ diameter pre-collars. • Diamond core samples were obtained by splitting core in half using a core saw. This was done in Townsville by the Terra Search contractor. • The drill bit sizes used in the drilling are considered appropriate to indicate the degree and extent of mineralisation. • 1m representative samples were assayed for base metals, gold, silver and other elements at SGS laboratories in Townsville. • Assaying for gold was via fire assay of a 50-gram charge. • Sample preparation at SGS 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 diamond drilling techniques. • Drilling was conducted by AED (Associated Exploration Drillers) using a McCullochs DR950 drill rig. • All holes were surveyed using a Reflex downhole instrument to obtain accurate down-hole directional data.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Sample recovery was performed and monitored by Pinata Resources geological support contractor and Superior's representatives.

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.*	• The volume of sample collected for assay is considered to be representative of each 1m interval. • 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 Pinata Resources 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. • 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 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.*	• The sample collection methodology is considered appropriate for diamond drilling and was conducted in accordance with standard industry practice. • 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

Criteria	JORC Code explanation	Commentary
		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, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• All samples 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 GO FAA50V10 using a 50 gram sample. • Multi-element analyses were conducted using a four acid digestion followed by an ICP-OES/MS finish for the following additional 32 elements: Ag, Al, As, Ba, Ca, Ce, Co, Cr, Cu, Fe, Li, K, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Th, Ti, U, V, W, Zn and Zr • Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratory for QA/QC. • Additionally, SGS 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 Pinata Resources 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.

Criteria	JORC Code explanation	Commentary
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 relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The majority of holes have been designed to drill normal to interpreted mineralisation trends. However, there has been insufficient drilling and geological interpretation to determine if there is a bias to sampling as a result of drilling oblique to or down dip on mineralised structures. • Two of the holes during the 2023 were drilled at significant angle from the previously defined mineralisation zone to allow for further understanding of the porphyry system being investigated. This aims to help use vectoring to locate the porphyry source relative to the drilled “wall rock” zone. • No orientation sample bias has been identified at this stage.
Sample security	• *The measures taken to ensure sample security.*	• Samples are delivered directly to the SGS assay laboratory in Townsville by Terra Search or Superior’s employees. • Sample security measures within the 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 for the Bottletree Prospect lie within Exploration Permit for Minerals 25659, which 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.*	• 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. • 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 drill holes, the mineralisation at the Bottletree Prospect is considered to be porphyry-related. More geological, geochemical and drill data is required to fully understand the mineralisation system.

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

Criteria	JORC Code explanation	Commentary
	○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *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 reported as a length weighted average of all assays. • 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.
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.*	• Significant intersections have been included within the report.
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*	• 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. • As well as drilling, a gravity survey was also carried in 2023. This data is currently being

Criteria	JORC Code explanation	Commentary
	results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	reviewed and reprocessed by an expert in gravity interpretation and is expected to help provide further information about the porphyry system at Bottletree.
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.*	Specific upcoming activities include: • Plan and execute drilling programs based on the porphyry pathfinder vectors identified from previous exploration work at Bottletree. This will include two CEI grant holes that will target potential porphyry intrusions; • Further delineation of areas of near-surface copper and gold mineralisation; • Conduct a MIMDAS IP extension survey over the Bottletree Prospect area; • Conduct an Ultrafine soil geochemistry extension survey over shallow recent cover areas within the prospect area; 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.