Geological Review and Targeting Assessment Thomas Creek (EL04/2024)

Sorell Peninsula, Tasmania

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Executive Summary

This report has been prepared by Robert Reid (Consultant) for Stunalara Pty Ltd (STN) to evaluate the prospectivity and exploration history of their EL4/2024 tenement (224km^2) located on the Sorell Peninsula, approximately 40km south of Strahan in western Tasmania, where the consultant has significant prior experience.

The licence covers the Hibbs Ultramafic Belt and Noddy Creek Volcanics; a southern extension of the Mount Read Volcanics (MRV) which host a number of significant Volcanic Hosted Massive Sulphide (VHMS) deposits. These include Rosebery (51.5Mt @ 12.1% Zn, 3.9% Pb, 0.50% Cu, 130g/t Ag, 1.9g/t Au) and Mt Lyell (311Mt @ 1% Cu and 0.3g/t Au).

The EL4/2024 tenement is highly prospective for a range deposit styles. These include alkalic Porphyry Cu-Au (PCD) and related high sulphidation epithermal mineralisation extending to exhalative Volcanic Hosted Massive Sulphide (VHMS) and hybrids. Potential also exists for Iron Oxide Copper – Gold (IOCG) and related Iron Oxide-Apatite (IOA) and iron sulphide Cu-Au (ISCG) deposits, as well as ultramafic hosted Ni-Co. Principal known prospects are Thomas Creek (Cu-Co-Au) and Henrietta (Ni-Co).

Considerable past exploration effort has focused upon the "smoking" footprint of the highly prospective Thomas Creek (Cu-Co-Au) diorite intrusive complex within a regionally significant "donut"-like strong aeromagnetic anomaly. Past drilling comprising 8 shallow and 4 moderately deep drill holes totalling 2300m returned intersections of up to 56m @ 0.1% Cu, 218ppm Co and 539ppm Ni from 118m in TCDD002. Co potential is further illustrated by 3m @ 0.23% Co, 0.09% Cu and 250ppm Ni from 150m in TCDD001. These drill holes targeted a large ~600 by 400m strong IP chargeability anomaly, which is now interpreted as representing late stage phyllic (sericite – pyrite) alteration, possibly above the potassic Cu bearing core alteration of a porphyry system.

A new initial interpretation for the Thomas Creek Prospect combining recognised geophysical and geochemical footprint characters of alkalic porphyry deposits, along with structural dissection by SW and NW aligned faults, identifies likely porphyry exhumation levels, interpreted to lie at or immediately above porphyry mineralisation level. Relatively shallow targets include an inferred reverse fault juxtaposition of potassic altered magnetite-Cu-Mo-Au mineralisation to surface on the northern rim of the Thomas Creek Prospect and the southern end of line 370300mE characterised by above porphyry geochemistry with sulphidic potassic altered float at surface overlying IP chargeability and a deeper resistive "plug". Deeper targets include a large MobMT modelled resistor, coincident with IP chargeable and resistive possible potassic mineralisation (inferred diorite intrusion) at approximately 600m depth on line 369850mE, beneath the drilled IP chargeability anomaly. The NE MobMT conductor and strong IP Level Effect anomaly possibly represents phyllic and argillic alteration, which may also contain high sulphidation mineralisation as a plume above an inferred deeper porphyry mineralised level.

Evolving understanding suggests genesis of mineralisation on the Sorell Peninsula potentially involved interplay and overprinting of porphyry copper and Iron Oxide Copper Gold (IOCG Co-REE) mineral systems, which recent literature identifies as co-existing in Arc-hosted environments like the MRV. Supporting is recent geochemical evaluation of Thomas Creek mineralisation identifying two distinct (>1000ppm) Cu populations in drill core; one with potential links to high sulphidation epithermal (porphyry related) / Fe-sulphide Cu-Au (ISCG) and the other bearing elevated uranium possibly linking to IOCG Co-REE style deposits. Further review is required to establish these potential IOCG minerals

system links for the Sorell Peninsula area but initial interpretation suggests the region hosts deep seated fault bound magnetite (IOA?) deposits such as Anomaly 129 and 129, whilst gabbro proximal North Butler and Hill99 sulphide veined and chlorite-carbonate altered character fits with upper high sulphidation IOSG levels of the IOCG spectrum and the Pelius Cove prospect possibly represents very high level epithermal related lithocap silica alteration with sporadic high grade Pb-Zn veins.

The Ni-Co-Cu potential of the Hibbs Ultramafic Belt hosted Henrietta Prospect is conjectural with the 1.7km linear extent of strong VTEM anomalies potentially attributed to stratigraphic or fault bound conductive graphite and past explorers considering there was minimal magmatic Ni potential, despite pentlandite (Ni sulphide) being recognised at the nearby Noddy Creek and Young Henry prospects. A more favourable interpretation invoking a possible IOCG model suggests mineralisation could fill dextral fault related extensions. This hypothesis interprets VTEM conductors as dextral fault offset from the Young Henry Ni Prosect, with potential IOCG mineralisation links between Henrieta and drilled Cu bearing veining at Hill99 (eg. 30cm @ 10.55% Cu), located some 3km NNE. This is supported more regionally with some chalcopyrite veining at Thomas Creek thought to be late dextral faulting related.

Stunalara have identified and prioritised further credible regional targets worthy of follow up, with increased but evolving understanding of the mineral system(s) operating in the Sorell Peninsula area likely to lead to better focused exploration. The remote EL4/2024 tenement area has received little exploration effort aside from the minimally drilled prospects. Regional geochemical and geological mapping cover is sparse, particularly within the southern portion of the tenement, leaving ample scope to infill and improve coverage and understanding. Favourably, several regional scale airborne geophysical surveys provide a comprehensive framework to augment further exploration efforts. These surveys include 1994 GeoTEM, 2001 aeromagnetics and radiometrcs, 2004 VTEM and a new innovative generation of magnetotellurics (MobeMT) more recently in 2019. The later provides compelling targets in the Thomas Creek vicinity which remain untested with interpretation indicating the Thomas Creek Prospect gridded area has further mineralisation potential open to the north and east. Additional gridding, mapping, soil sampling and Induced Polarisation (IP) surveys, in part covering the partially tested NE MobMT conductor anomaly, is recommended to address this high prospectivity.

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Introduction

This project review for Stunalara (Operations) Ltd. details the significant exploration efforts undertaken to date on Thomas Creek EL4/2024, located on the Sorell Peninsula ~40km south of Strahan, western Tasmania (). Exploration Licence EL4/2024 is held 100% by Stunalara (Operations) Limited.

EL4/2024 covering 224km^2 was granted on 15/08/2024. The licence shape resulted from an amalgamation of EL's 6 & 7/2013, held by Sherlock Minerals to form the foundation for the Accelerate Resources Limited's successful January 2018 IPO and ASX listing. Accelerate then explored EL6/2013 as part of its Mt Read Project, comprising four adjoining exploration licences: EL4/2024, EL7/2018, EL8/2018 and EL9/2018. Exploration was undertaken for porphyry / intrusive-related copper-cobalt-gold mineralisation at the Thomas Creek Cu-Co-Au Prospect, as well as Nickel-sulphide and platinum-group element mineralisation associated with middle Cambrian mafic and ultramafic rocks of the Hibbs Ultramafic Belt, including the Henrietta and Young Henry Prospects. Stunalara Metals Ltd. (STN) formed a Joint Venture (JV) with Accelerate Resources Ltd. on EL6/2013 during 2020 and operated the tenement until 2023. The tenement was subsequently dropped by Accelerate and successfully re-applied for by STN in 2024.

Application of a multidisciplinary approach to exploration in this relatively little understood area is required for further advancement. The Thomas Creek tenement is remate and thickly vegetated and consequently little explored with scant geological mapping (including by Amoco, Plutonic, MHM Limited, Accelerate Resources Limited, Stunalara (Operations) Limited and Mineral Resources Tasmania more regionally) having been undertaken. Stream sediment sampling is relatively scant, mostly extending along the east and north of Thomas Creek, but associated rock chip sampling and geology reporting is sparse. Past exploration has intensely focused upon the immediate "Thomas Creek" area, and largely ignored the surrounding mineral potential. There is obvious potential to upgrade data sets, likely resulting in large gains in understanding of the area. The region to the south and west of Thomas Creek in particular is largely unknown, due to difficult access and minimal exploration to-date.

All drilling, map and location data provided in this report use the GDA 94 (Zone 55) reference datum.

Location and Access

Access to the project area can be achieved via Macquarie Harbour coastal landing by boat or by helicopter from Strahan (Figure 1). Access within the project areas is achieved on foot via historical exploration tracks (all of which are currently unsuitable for vehicular egress) and cut lines. The area has a high annual rainfall of approximately 1750 millimetres and the natural vegetation is thick.

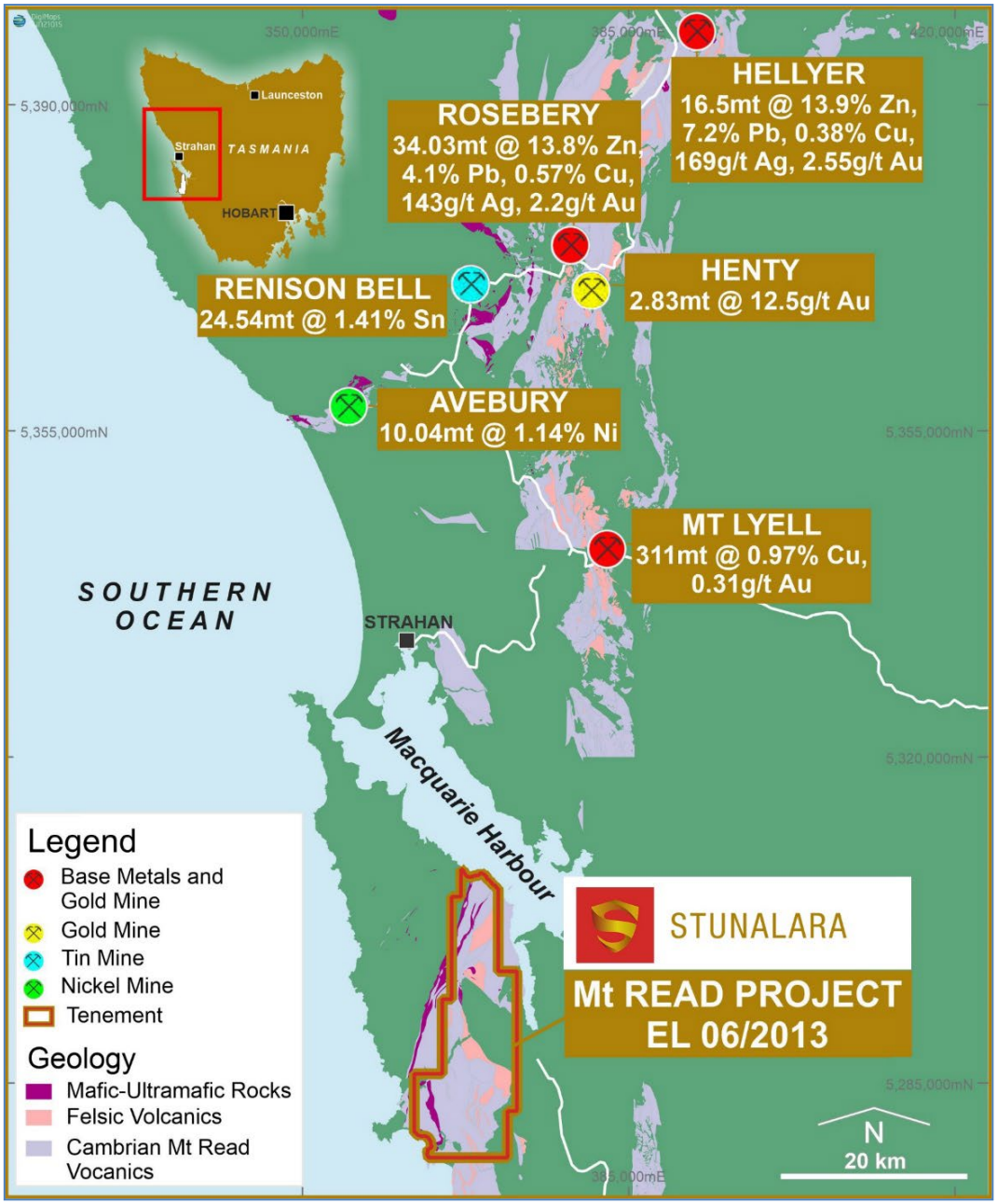

Figure 1: Location of EL4/2024.

Land Tenure

The tenement lies within the Southwest Conservation Area and is part of the Cape Sorell, Strategic Prospectivity Zone, which is protected by the Mining (strategic Prospectivity Zones) Act 1993 – An Act to ensure continuing access for mining purposes to areas of the State having high potential for mineral exploration. The tenements are abutted to the east by the Franklin Gordon Wild Rivers National Park, and to the northeast by the Macquarie Harbour Historical Site.

Geology

The geology of the Sorell Peninsula area (Figure 2) has been described in unpublished company reports of BHP and Amoco/Cyprus, and in White's (1975) PhD thesis. Mapping in the late 1960's by BHP (Hall. Et al. 1969) was largely based on coastal exposures and a few inland traverses, with a large component

relying upon aerial photo interpretation. Subsequent explorers have relied heavily upon BHP's initial mapping, with a re-interpretation provided by Close and Reid (1995). Limited description of the regional geology is given in Corbett and Solomon (1989) with more recent revision in Corbett et al. (2014).

South of the Sorell Peninsula is little known. Regional mapping by the Mines Department at 1:50,000 covers the area to the north of Varna Bay ("Macquarie Harbour" map sheet; McClenaghan and Findlay, 1989) and to the south of High Rocky Point ("Montgomery" map sheet; Brown, 1988). In between the Hibbs 1:50,000 sheet, encompassing the Thomas Creek area, has been partially mapped but remains incomplete due to lack of funding. Reports by Brown et al. (1991) and Brown et al. (1993) supplement this mapping and provide the most extensive discussion and interpretation of the Sorrell Peninsula geology thus far. Brown et al. (1991) recognised two Precambrian rock successions and six Eocambrian-Cambrian volcano-sedimentary associations in the region (Figure 3). Four of the volcanic associations are relevant to the tenement area.

These associations are: -

- Andesite-rhyolite association (Noddy Creek Volcanics / NCV);
- Boninitic association (Timbertops Volcanics);
- Picritic basalt- basalt association (Birch's Inlet-Mainwaring River Volcanics);
- Serpentinised ultramafic rock-gabbro association incorporating sheared blocks of 1. and 2. (Point Hibbs Melange Belt).

These multiple-deformed associations are bounded by a series of NE to NNE-trending faults and the distribution of these associations is interpreted by Brown et al. (1991) to result from thrust sheet stacking. Their structural model of "thin skinned tectonics" probably incorporates a pre-Ordovician thrusting event, reworked by late (Devonian?) thrusting. Thrusts are interpreted as eastward dipping with west/north-west thrust direction. Younger transcurrent faulting further disrupted the Point Hibbs Melange Belt.

The Cambrian andesites and rhyolites of the Noddy Creek Volcanics (NCV) crop out in the southern portion of the Sorell Peninsula and are inferred to extend further south past Point Hibbs (Brown et al., 1991; Close and Reid, 1995). The NCV hosts a series of diorite intrusions, and an extensive intrusive complex of diorites occurs within the southern portion of the NCV, southwest of the Ordovician – aged Timbertops Syncline. Here, the Thomas Creek Cu Prospect is believed to be hosted by a roof pendant within this intrusive complex.

The relationship of the NCV to the Mt Read Volcanics (MRV) has until relatively recently been somewhat enigmatic. The MRV crops out in a N-S trending belt to the east, and extends from Mount Darwin, disappearing beneath a Tertiary Graben to re-emerge further south in the D'Aguillar Range area. Corbett and Solomon (1989) correlated the NCV with the MRV based on similar calc-alkaline composition, and suggested the NCV could be a smaller, separate arc or sub-arc west of the main Mt Read Belt. Subsequent work by Brown et al. (1991) suggested a more direct correlation based on geochemical similarities of the southernmost NCV to volcanics of the Que River-Hellyer area. More recently, Corbett and Calver (2014) have split the Noddy Creek volcanics into 2 key MRV related associations being Cambrian andesitic volcanic and intrusive complexes and the Western

Volcanosedimentary Sequence. Vicary et al. (2015) provides a radiometric date of 500.7 +/- 0.7Ma (equivalent to MRV formational times) for an intrusive andesite at Thomas Creek.

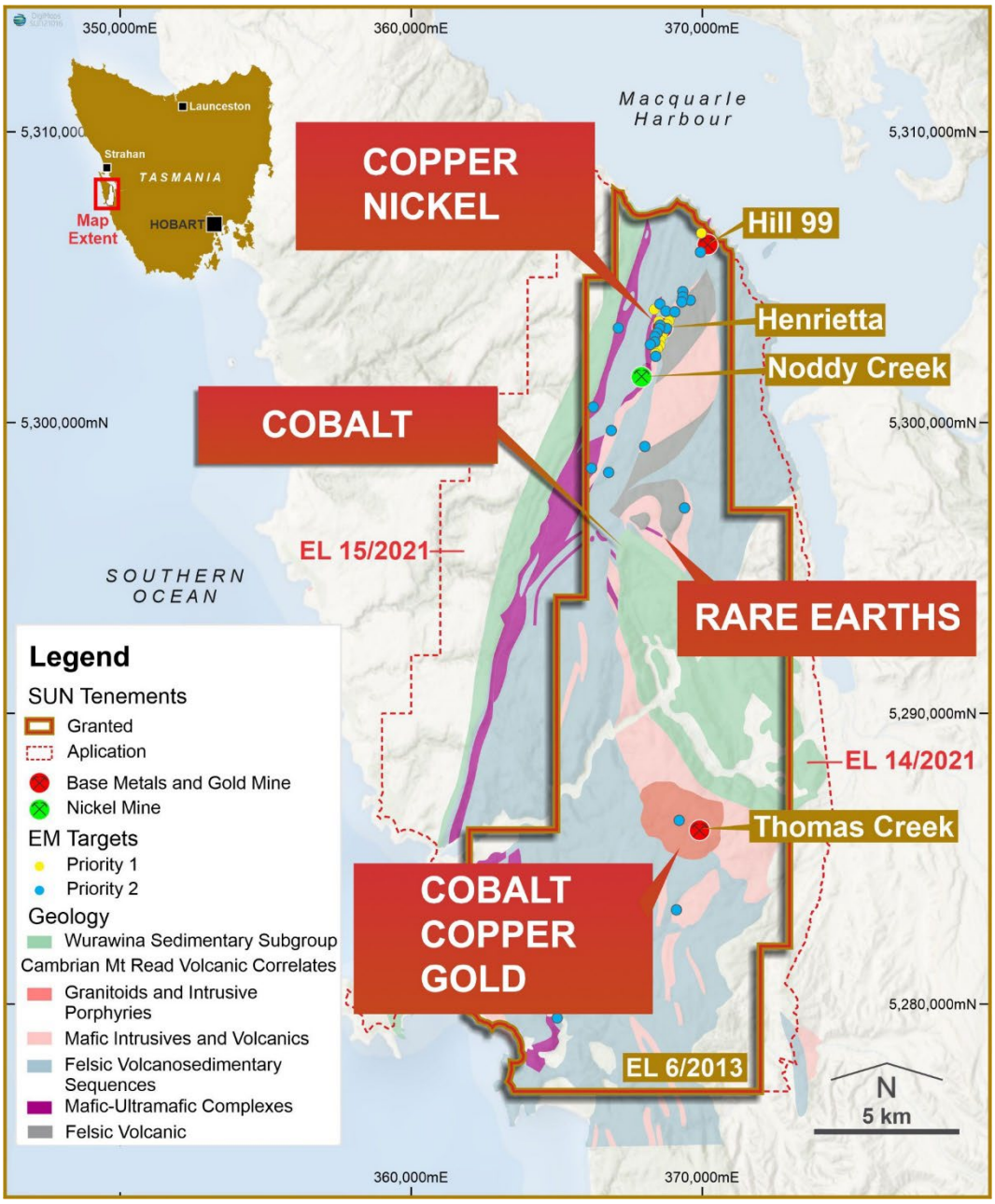

Figure 2: EL4/2024 Cambrian Geology.

Cambrian volcanics are mapped as overlain unconformably by Ordovician-aged upper Owen Sandstone forming the Timbertops Syncline, northeast of Thomas Creek. Here, Calver et al. (2014) report siliceous conglomerate and quartz arenite overlain by grey siltstone, dated as likely oldest within the Gordon Group. The upper heavy mineral banded quartz sandstone maybe a Pioneer / Moina correlate (Corbett in Calver, et al. 2014 & McClenaghan and Findlay, 1993). The Owen Group contact with the NCV is a potentially favourable environment for Western Tharsis / North Lyell style mineralisation.

The Thomas Creek (Cu-Co-Au) Prospect is recognised as a significant occurrence of poorly outcropping low-grade copper, cobalt and gold mineralisation associated with hydrothermal alteration of an andesitic to dioritic intrusive-volcanic complex. Sulphide mineralisation occurs over a large (>1km^2) area and is associated with micromonzodiorite intrusions, brecciation, veining and 'porphyry'-style K-feldspar-silica and magnetite-chlorite alteration. The combination of volcanic and intrusive rock stratigraphic association, geochemical signature, alteration assemblages, sulphide assemblages, and geophysical expression has been used by previous explorers to draw analogies between the Thomas Creek Prospect and alkaline porphyry copper deposits, as well as high sulphidation mineralization, such as at the Mount Lyell Cu-Au deposit (311Mt @ 1% Cu, 0.3g/t Au) of western Tasmania.

Exploration Potential

A variety of alteration and mineralisation styles are recognised in the structurally complex Sorell Peninsular (including EL4/2024) area. Principal among these is alkalic porphyry copper (PCD) style alteration at Thomas Creek, whilst the latter also expresses Iron Oxide Copper Gold (IOCG Co-REE) potential which regionally is interpreted to span a variety of environments from deep to shallow level. Prospect examples with potential (gabbro-related?) IOCG fit are likely deep structure hosted (IOA?) magnetite deposits at Anomaly 128 and 129 with higher level IOCG mineral system alteration and mineralisation possibly expressed in the Butler Creek, West Bailey and the Hill99 to Henrieta prospects area. Whilst shallowest level epithermal style silica lithocap mineralisation may explain Pelius Cove alteration. Volcanic Hosted Massive Sulphide (VHMS) potential is recognised at Thomas Creek and within bimodal volcanism of the Noddy Creek Volcanics (NCV), whilst Ni potential associated with the Hibbs Ultramafic Belt also exists but may be in part IOCG related. The diversity of potential mineralisation styles highlights the need for a multi-systems approach to exploration with strong potential for recognition of hybrid systems. Stunalara have identified a number of credible key targets regionally (Figure 3). Sorell Peninsula exploration targets are further reviewed here considering the high level of current understanding of porphyry and evolving links and comparisons to IOCG mineral systems.

The following addresses exploration potential with a more comprehensive review of exploration on the Sorell Peninsula appended.

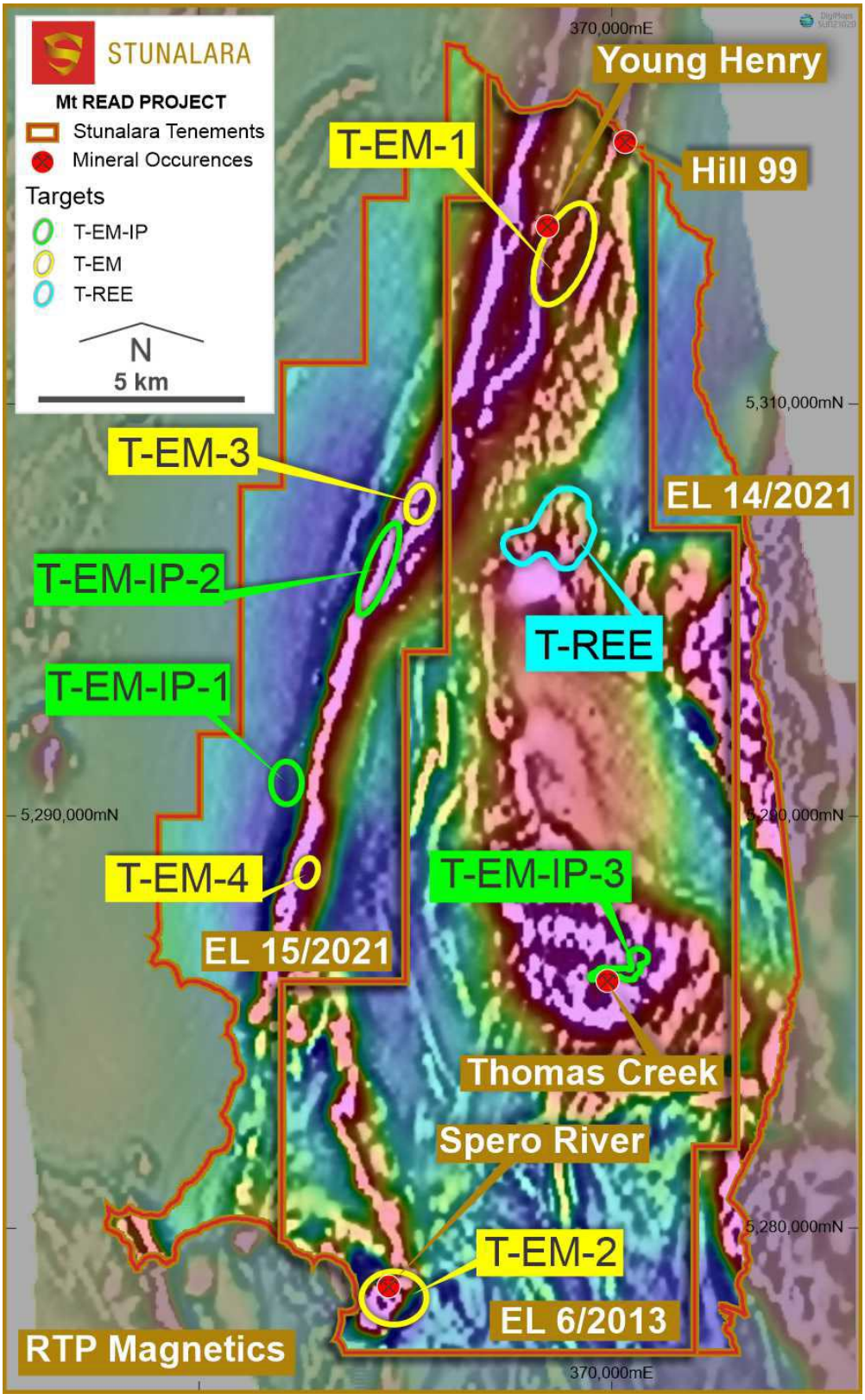

Figure 3: Priority Exploration Targets identified during 2020/21 over Reduced To Pole Aeromagnetics.

Resources and target size.

The licence covers the Noddy Creek Volcanics; a southern extension of the Mount Read Volcanics which host a number of significant Volcanic Hosted Massive Sulphide (VHMS) and hybrid deposits. These include Rosebery (51.5Mt @ 12.1% Zn, 3.9% Pb, 0.50% Cu, 130g/t Ag, 1.9g/t Au) and Mt Lyell (311Mt @ 0.97% Cu and 0.31g/t Au).

Target size comparison can be also made to various east Australian alkali PCD's (Table 1), with known deposit dimensions readily fitting into the altered Thomas Creek Prospect area. For example, Goonumbla porphyry Cu-Au mineralisation is generally associated with relatively small pipe-like medium grained quartz-rich monzonite intrusions with diameters to 100m and up to 900m vertical extent (Muller et al. 1994). Comparatively, the Ridgeway deposit was discovered at ~500m below surface, with the main ore zone of ~200m width and ~500m depth; the Cadia East ore is similarly sized at ~200m underground, whilst Cadia Hill has dimensions of ~500m by 800m. The mineralised zone is ~2 km long, 600 m wide and >1500 m in vertical extent (Harris et al., 2010). At Cadia deep drilling to ~1500m is a principal exploration means.

Deposit	Resource (Mt)	Au(g/t)	Cu(%)
Alkalic porphyry Au–Cu			
Cadia East	2,347	0.44	0.28
Cadia Hill	427	0.43	0.12
Ridgeway	152	0.77	0.39
Cadia Quarry / Extended	53	0.39	0.22
Magnetite Cu–Au skarn			
Big Cadia	37	0.34	0.47

Table 1: Australian examples of Alkalic porphyry resources (after Harris et al. 2010)

IOCG potential extends to the giant Olympic Dam resource of 10 billion tons at 0.78% Cu, 0.25kg/t U308, 0.30g/t Au, 1.0g/t Ag (Corriveau, 2017). More realistic IOCG targets are Ernest Henry (Cloncurry) 167 Mt at 1.1% Cu, 0.5g/t Au (+ Co) and Rover 1 (Tennant Creek) 6.81 Mt at 1.73g/tAu, 1.20% Cu, 0.14% Bi, 0.06% Co (Corriveau, 2017). Whilst, apparently linked combined porphyry and IOCG resources of Candelaria and Ojos des Salado are 501Mt at 0.54% Cu, O.13g/t Au, 2.06g/t Ag (Corriveau, 2018).

At Thomas Creek critical elements Co and Ni are commonly elevated with Cu. Most extensive significant intercepts being TCDD002 with 77m @ 159ppm Co, 767ppm Cu, 392ppm Ni from 97m (including 42m @ 247ppm Co, 1202ppm Cu and 662ppm Ni from 118m), as well as TCDD001 16m @ 631ppm Co, 1128ppm Cu and 138ppm Ni from 150m (including 3m @ 2323ppm Co, 869ppm Cu and 250ppm Ni from 150m).

Regionally, The IOCG, IOA and REE potential has largely been ignored to-date and should be assessed further with ongoing work, particularly in light of recently recognised similar traits and results from South Mt Darwin, located some ~35km to the NNE, where drilling has returned up to 30m @ 2.1% TREO from magnetite mineralisation with the same hole returning 13m @ 1.2% Cu & 0.45g/t Au (CopperCorp, 2025).

Porphyry Copper-Gold (PCD) Comparisons

Previous exploration at Thomas Creek has in part been conducted based on recognized similarities to alkalic-style porphyry copper deposits, with primary comparisons drawn to the Parks and Cadia regions in New South Wales. Thomas Creek mineralisation and alteration was considered by Reid (2001, 2019) to have formed in a comparatively deep-seated root zone environment related to high sulphidation epithermal-like Mt Lyell (Prince Lyell) mineralisation, located ~60km north. This ties in with relatively recent advances in understanding of porphyry Cu deposits (PCD) which recognises potential for proximally related high sulphidation deposits (eg. Far Southeast Lepanto. Calder, et al. 2022). Additionally at Mt Lyell extensive silicification in the form of silica heads (Corbett, 2012) at Mt Lyell (Comstock) is considered to represent shallow epithermal to exhalative (VHMS) alteration. i.e. it appears that a spectrum of possibly overprinting as well as potentially linked deposit styles is possible.

Whilst Thomas Creek has many features in common with eastern Australian alkali PCD systems, not all porphyries are the same. Targeting requires an understanding of the morphology of mineralisation and alteration within porphyry Cu deposit systems. Different exhumation levels need to be considered; each level providing different geochemical and geophysical responses. Features relating to geophysical and geochemical characters and targeting follow.

Accelerate Resources drilling targeted the strongest of the IP chargeability which returned modest although appreciably mineralised intersections to 56m @ 0.1% Cu, 218ppm Co and 539ppm Ni. Review of porphyry models to improve targeting strongly suggests that most Thomas Creek drilling lies largely within IP chargeable phyllic sericite-pyrite alteration with minor outer potassic alteration, modelled as above potential potassic alteration hosted magnetite-Cu-Au porphyry mineralisation (Figure 4). Consistent with this are minor high sulphidation veins scattered at surface with soil analyses reaching 7.55% Cu, 0.33% Co and 3g/t Au. Propylitic alteration is expressed in drill hole TCD0004 and weakly Cu mineralised micromonzodiorite dykes evidently transect all drill holes and alteration types.

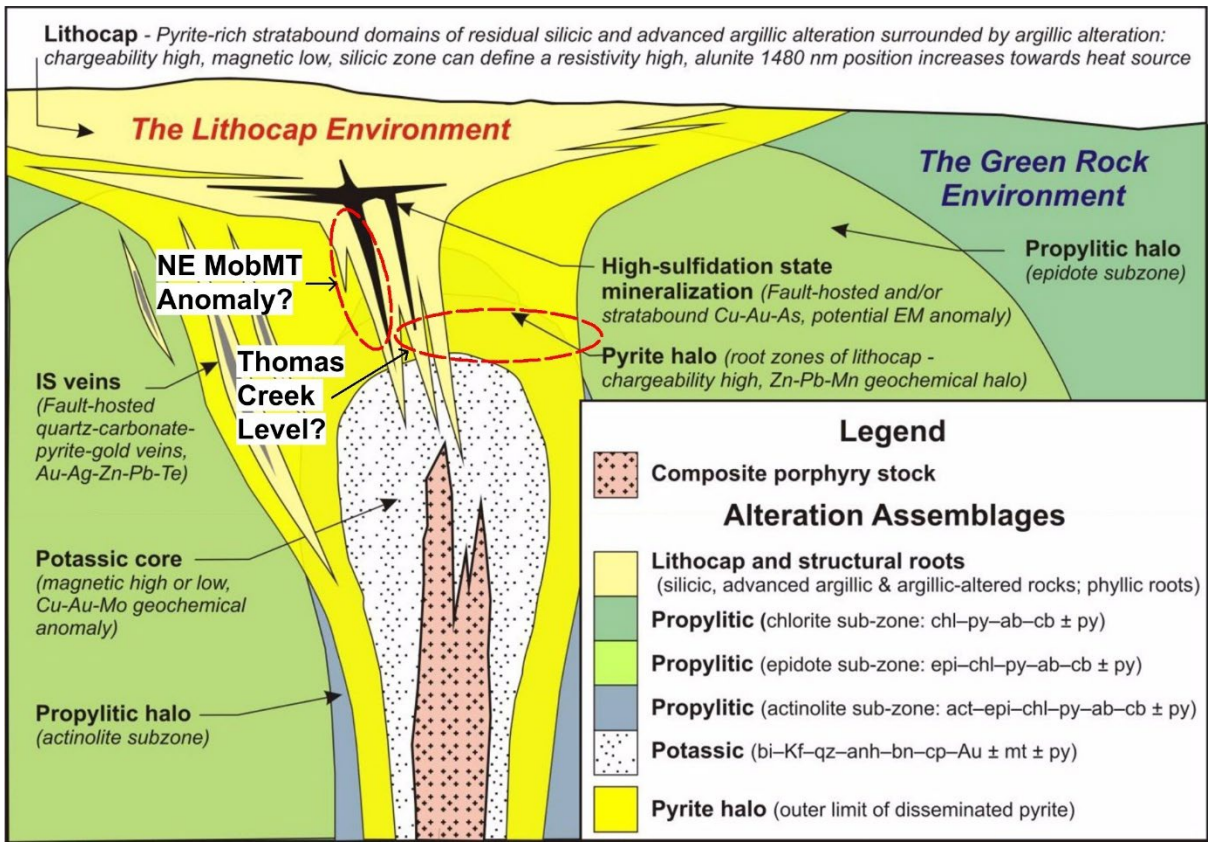

Figure 4: Approximate inferred level of Thomas Creek drilled IP and NE MobMT anomalies compared to modelled alteration patterns for PCD. (after Cooke et al. 2017).

Geophysics

A review of the geophysical characteristics of Porphyry Cu-Au deposits was undertaken, enabling improved targeting through re-assessment and comparison of the various mineralisation and alteration characters evident at Thomas Creek. Principal geophysical exploration criteria and comparison to relevant deposits is discussed below.

Garwin (2019) when reviewing geophysical signatures of porphyry copper deposits found that "deep-sensing magnetotelluric (MT) surveys exhibit a major resistivity low to coincide with some large porphyry deposits,…… whilst induced polarization-resistivity results may indicate a chargeability (IP) halo that typically coincides with >2% pyrite and lower chalcopyrite-pyrite ratios. Elevated but lower chargeability may also occur in porphyry centres that are characterized by abundant copper sulphide minerals…… Further Resistivity is often elevated in the propylitic halo and potassic core. In contrast, resistivity lows are more common in the surrounding and overlying mica-and clay-rich, phyllic and argillic zones. Silica-rich zones of advanced argillic alteration can be highly resistive". These properties for various potential erosion PCD levels are summarised in Figure 5.

Thomas Creek and regional geophysical targeting characters with respect to PCD are evaluated in the following. The Thomas Creek Prospect evidently lies within an alteration-related magnetite depleted core of an intrusive complex, marked by a pronounced aeromagnetic high rim. A theoretical match to PCD expects a magnetic response from potassic ore related alteration at depth, as well as in the transition to high magnetics in the outer propylitic shell, whilst phyllic /sericitic alteration is commonly considered to be late formed and magnetite destructive (/low).

The large IP chargeability anomaly central to Thomas Creek in the context of porphyry copper deposits is inferred to represent sericite-pyrite (phyllic) alteration zoned above potential magnetite-K-Feldspar-chalcopyrite (potassic) altered mineralisation. Whilst propylitic alteration within drill hole TCDD004 conforms to the southeastern magnetic rim. Notably the potassic style Cu-Mo-Au-magnetite in northern magnetics rim surface samples could be interpreted as reverse fault emplaced. These un drill tested occurrences are commonly coincident with elevated IP chargeability and resistivity (see Figure 6 and Appendix).

Favourable comparison of Thomas Creek to Ridgeway (NSW) is apparent. In both examples, diorite lies west of the Cu mineralised zone and chargeable overlying and flanking pyrite alteration. Close (et al., 2001) found "The chargeability anomaly identified over the Ridgeway ore body is due largely to discontinuous halos of pyrite alteration above the economic mineralisation, but a highly chargeable source component associated with the economic mineralisation at Ridgeway is also inferred", whilst the ore at nearby Cadia is both chargeable and relatively conductive. Comparatively, at Thomas Creek drill holes have only minimally tested to depth beneath the IP chargeability zones providing ample scope for deeper drill hole testing. Separation between core Cu-rich chargeability and the surrounding pyritic chargeable anulus are approximately 200 to 400m at Batu Hijau and similarly at Ridgeway (Hoschke, 2011& Close et al, 2001). Comparison to Thomas Creek's IP Section 369850mE (Figure 6) is favourable in this regard, providing a deep chargeable and resistive target beneath existing drilling, which approximately corresponds with the southern edge of the MobMT modelled core resistor.

Regionally, alteration in western Tasmanian high sulphidation epithermal-like deposits (akin to Prince Lyell) is magnetic / magnetite bearing at depth varying to absent at higher levels. Whilst, silica-chert-Cu ore potential, similar to within Mt Lyell's Comstock Chert deposits, is likely to be both resistive and somewhat chargeable.

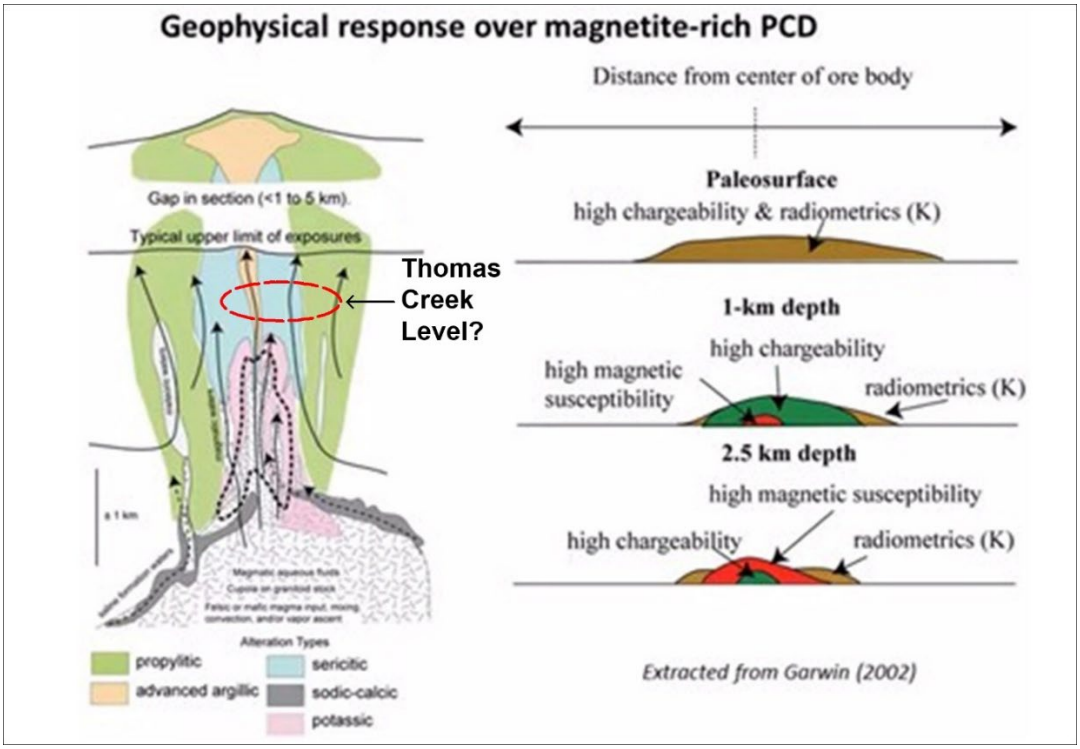

Figure 5: Thomas Creek approximate inferred level of drilled IP anomaly compared to magnetite-rich PCD. after Garwin (2002).

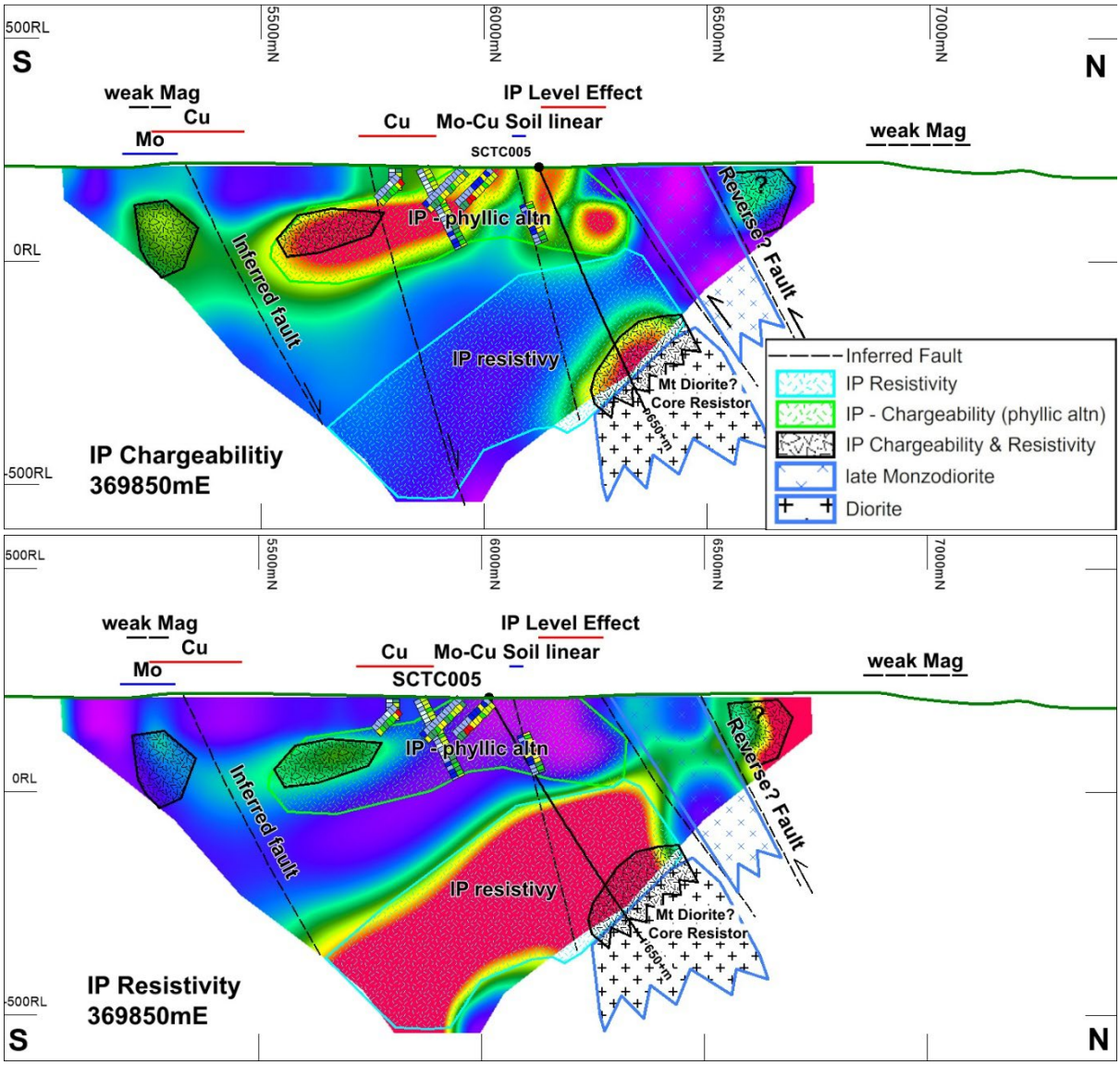

Figure 6: Thomas Creek Prospect 369850E 3D IP pseudo Chargeability (top) and resistivity (bottom) sections showing inferred PCD alteration zones and potential drill hole SCTC005. (10m composite grade indicators are Co in blue to red left side and Cu in green to red shades on the right of drill traces).

At Thomas Creek the 2019 Mobile Magnetotellurics (MobMT) model defines a resistive core centred within the pronounced magnetic rim, with a significant conductive response in the NE and a weaker conductive zone coincident with drilled IP anomalies (Figure 7). Comparison to ZTEM inversion data from the Resolution deposit (Laramide Province SW US) reveals a conductor lying above the 1% Cu ore shell as an alteration plume in the form of a 10 to 15% pyrite halo (Figure 8; Witherley, 2019), suggesting a porphyry target could lie beneath similar conductors at Thomas Creek. Further, the Resolution deposit lies beneath ~1500m of cover and is marked by a distinct magnetic low. In another example Hoschke (2011) describes similar characteristics for the Alumbrera porphyry in Argentina, where low resistivity corresponds to phyllic alteration which is more conductive than the central potassic core.

Notably, an extensive MobeMT resistive zone to the east and NE of Thomas Creek potentially represents a relict silica lithocap. These are known to extend several kilometres from a porphyry focus, as is observed at Far South East Lepanto (Calder et al., 2022).

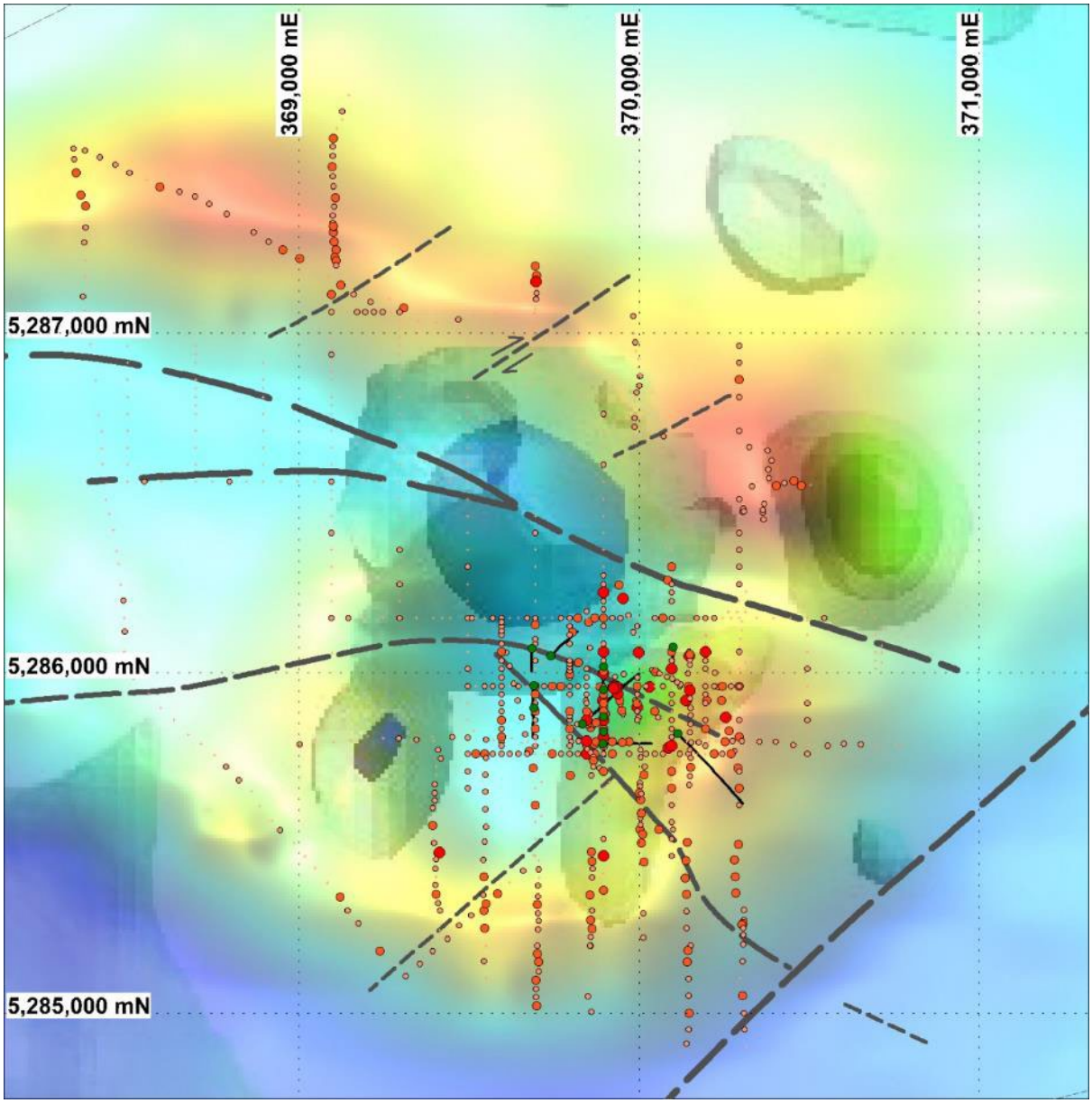

Figure 7: Prospective MobileMT anomalies identified in the Thomas Creek Prospect area (blue = resistivity & green = conductivity), overlain by aeromagnetics grid transparency highlighting anomalous magnetic highs (red), as well as structural interpretation and Copper in soil geochemistry thematic.

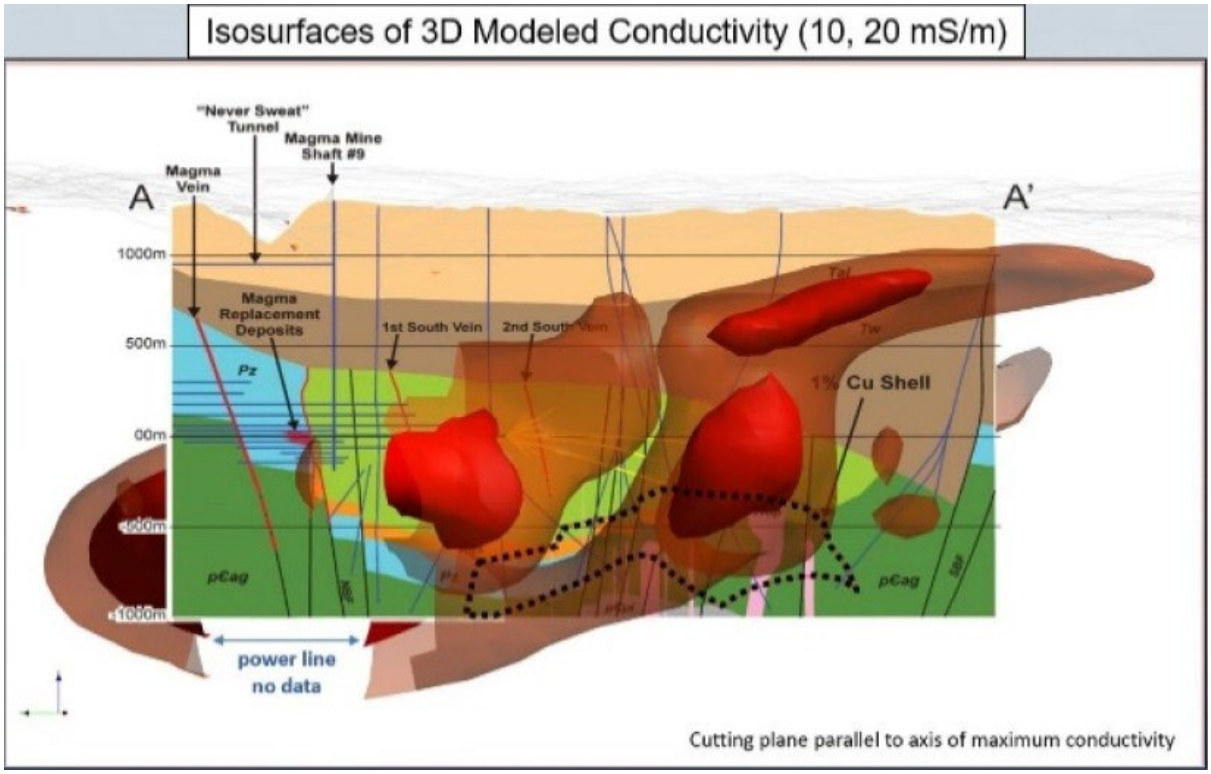

Figure 8: ZTEM inversion data from the Resolution deposit (Laramide Province SW US) after Witherly, 2019.

Geochemistry

Geochemically element distribution in soils at Thomas Creek is complex but many distributions can be explained in terms of alteration and indices incorporating pathfinder elements. Scattered but extensive Cu – Co – Mo mineralisation is evident near surface over the central prospect area with mineralisation and alteration styles suggestive of the upper levels of a porphyry copper-gold system. Whereas, recent geochemical evaluation of Reid (et al., 2019) using a Co, Bi, Cu, Mo, Ni and Se index (IOCG-like elements) has also favourably defined vectors to Mt Lyell / Western Tharsis high sulphidation epithermal style mineralisation, evidently rimming the prospects core (Figure 9).

Mo in soils clearly correlates well with magnetics in the rim of Thomas Creek, however a further strong SW linear trend of elevated Mo transects the relatively non-magnetic centre of Thomas Creek, suggesting strong structural control. This Mo+/-Cu vein trend is interpreted as an early reverse fault (W side up), later hosting mineralisation during normal movement related to dextral reactivation. Similarly, reverse faulting is interpreted as bringing apparently deep level K feldspar and magnetite alteration of the Northern Magnetic rim to higher level. Soil and rock chips here bear elevated Cu and Mo along with V likely related to magnetite, but Co and Ni report low suggesting the outcropping magnetite in the N of the Thomas Creek grid has stronger porphyry affinities than IOCG potential.

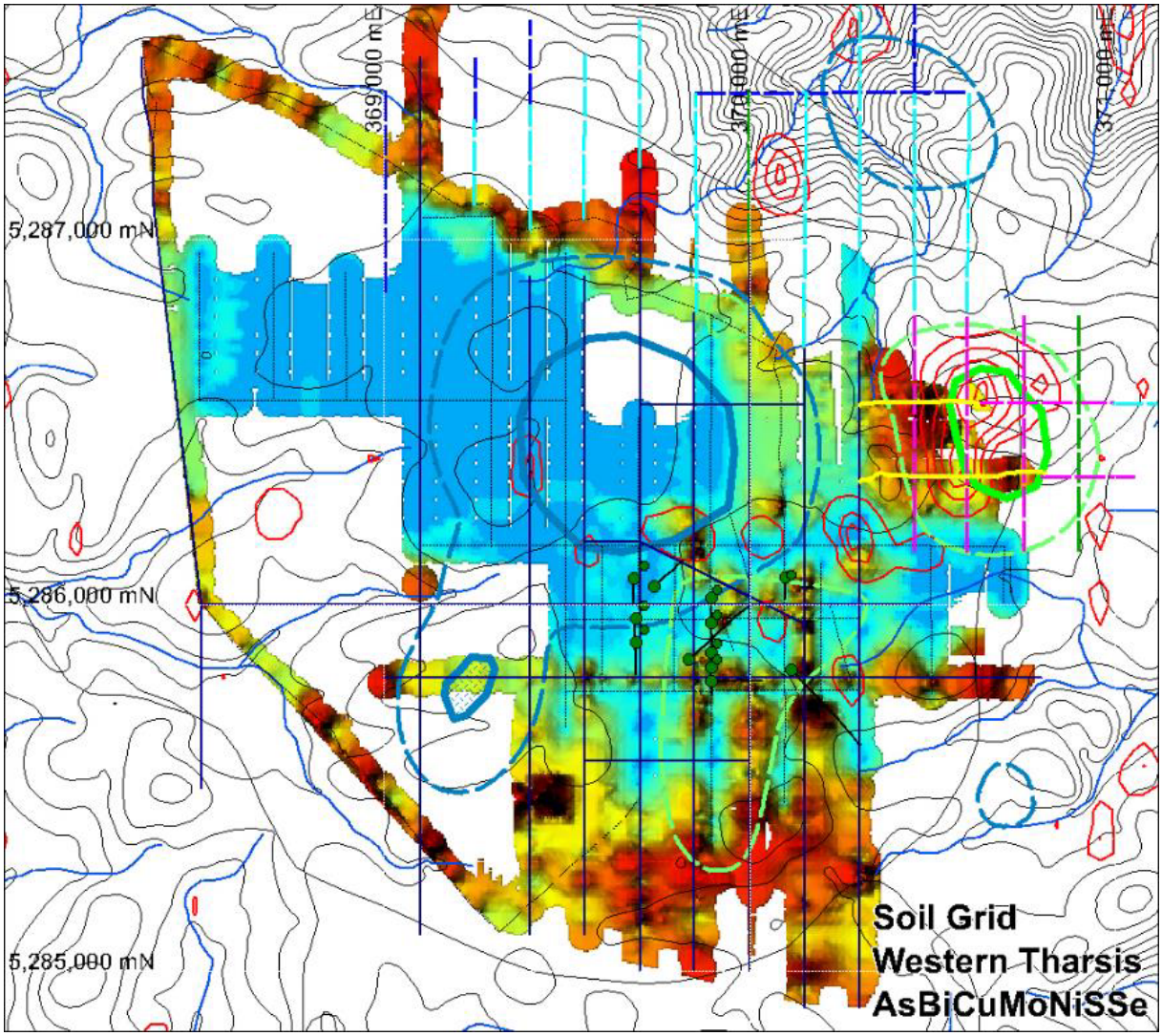

Figure 9: Western Tharsis (As Bi Cu Mo Ni S Se; Mt Lyell) normalised additive index soil grid clipped to 99% to emphasise high values. (see Reid et. Al. 2019). MobMt conductors (green) and resistors (blue), VTEM IPLevel effect (red) and prioritised grid lines.

Geochemical review by Halley (2015) considers that porphyry Cu-Au deposits are now well understood and identifies repeatable related distributions of relatively immobile elements Mo, Bi, Te, As, Sb, Tl, Sn and W as key pathfinders (Figure 10) relative to commonly depleted elements Cu, Au, Ag, Zn and Pb in acid weathering environments. Initial application to Thomas Creek, finds examples of Mo and W in soils with flanking Bi, consistent with reported enriched directly over the top of PCD within the interpreted above porphyry mineralisation level (Figure Figure 10), which encouragingly supports re-interpretation of IP pseudo sections providing a deep (~600m) chargeable and resistive target on line 369850mE (Figure 6).

The Halley (2015, 2016) PCD related geochemical model is relevant in the context of recent examples, however Thomas Creek interpretation must be considered in the context of structural displacements in older (~500Ma) terrains. A complex interplay of late NW and SW striking faults at Thomas Creek likely disrupts the various geochemical patterns. Interpretation suggests that the NE MobMT Anomaly, with strong IP Level Effect (argillic?), possibly lies at above porphyry high level (see comparison to Figure 8) with a deeper porphyry target implied. Whereas outcropping magnetite altered diorite, with

low level associated geochemistry, in the west and southwest of the prospect area could be interpreted as a deeper exhumation level. An initial approximate interpretation of exhumation levels is show in Figure 11, with comparison to Figure 5 & Figure 4.

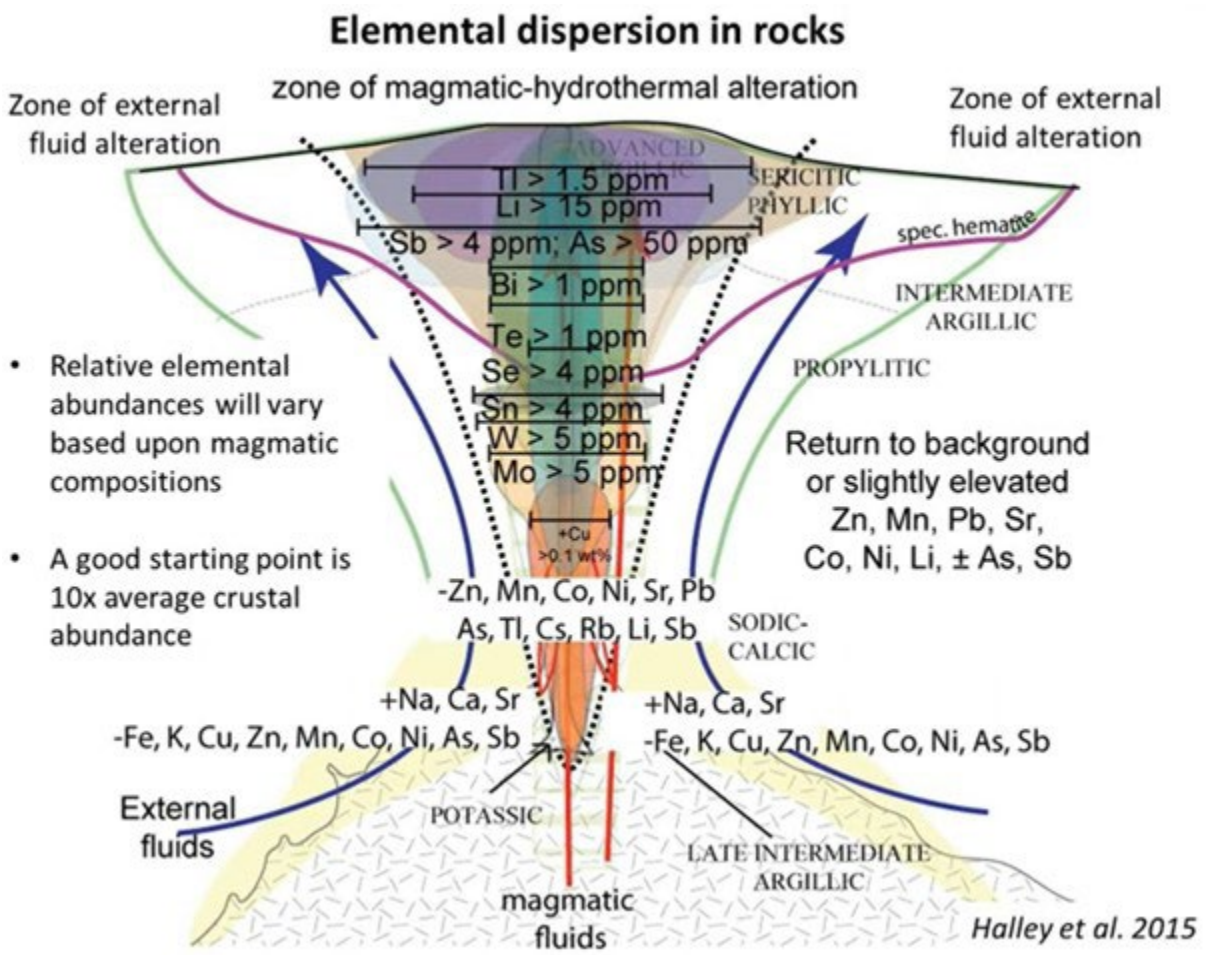

Figure 10: PCD pathfinder element distribution. Note >5ppm Mo level relative to figure above. After Halley et al. (2015).

Further application and evaluation of the PCD pathfinder observations of Halley (2015; (Figure 4 & Figure 11) relative to Thomas Creek soils and drilling is worth pursuing. Interpretation of the evidently complex geochemical patterns with respect to structure is likely to strongly advise future drill targeting, as it appears that different exhumation levels are present. For instance, considering Na depletion footprints apparently defines a NE trending belt in the SE of the grid, whilst also recognising depletion coincident with IP Level Effect anomalies such as the E-W linear trend immediately north of drilling. A relationship between IP Level Effect and clay minerals (i.e. argillic alteration) is likely.

A key deficiency in the Thomas Creek soil database relates to the lengthy time span of sample collection with consequential differences in analytical techniques, detection limits and the range of elements analysed. Consequently, assessment of various geochemical indices and ratios can be made but for some elements spatial distribution is patchy. Early surveys were limited to base metals, evolving through AAS and ICP-AES methods returning somewhat diverse but limited elements. Only the most recent work utilises multielement ICP-MS with low detection limits. The 1990's Plutonic data

involved complete 4 acid digestion, but fewer elements at relatively higher detection limits were analysed, whilst MHM ICP soil data involved aqua-regia digestion, resulting in incomplete digestion evident in gridded incompatibility for some elements. Despite the database deficiencies, select elements can be utilised with base metal as well as Na and K analyses in particular spanning across most of the geochemical surveys undertaken to-date. However, the pathfinders of Halley (2015, 2016) whilst covering many important areas cannot be completely utilised.

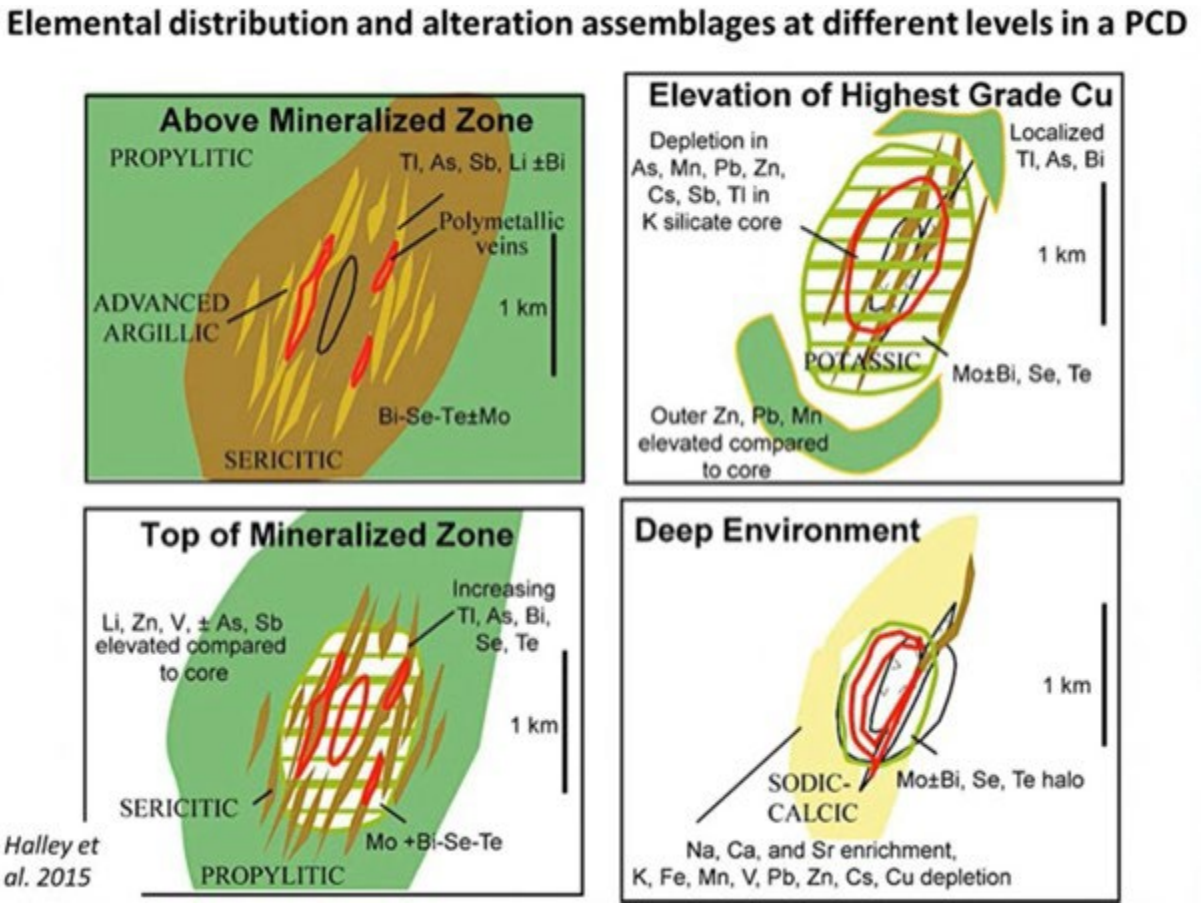

Figure 11: The drilled area at Thomas Creek likely corresponds to the "Above Mineralised Zone" to "Top of Mineralised Zone" when compared to PCD. After Halley et al. (2015).

Interpretation

Likely porphyry exhumation levels are identified via new preliminary interpretation for the Thomas Creek Prospect combining geophysical (IP pseudo sections, magnetics and MobMT), as well as geochemical footprint characters of porphyry deposits and consideration of structural dissection by SW and NW aligned faults (Figure 12).

IP pseudo section interpretation for 2018 survey lines suggests the inferred above porphyry level core of the Thomas Creek Prospect may have been down thrown during extension. Consequently, north and south flanking IOCG / Western Tharsis indicator element anomalies representing relatively deeper level porphyry environments are nearer to surface, whilst the northern magnetic rim may have been further lifted by reverse faulting. The inferred extension may have been coincident with intrusion of a significant volume of un mineralised microdiorite to the north of the Prospect. Flower structures related to strike slip faulting are a possibility. Interpretation of 2018 IP pseudo sections appended provide a basis for future 3D modelling to support drilling assessment.

Compelling new drill targets are evident in appended IP pseudo section interpretations and the exploration recommendations section to follow. Interpretation also suggests mineralisation potential is open to the east and southeast of the Thomas Creek gridded area. Additional gridding, mapping, soil sampling and IP, in part covering the partially tested NE MobMT anomaly, is recommended to address this prospectivity.

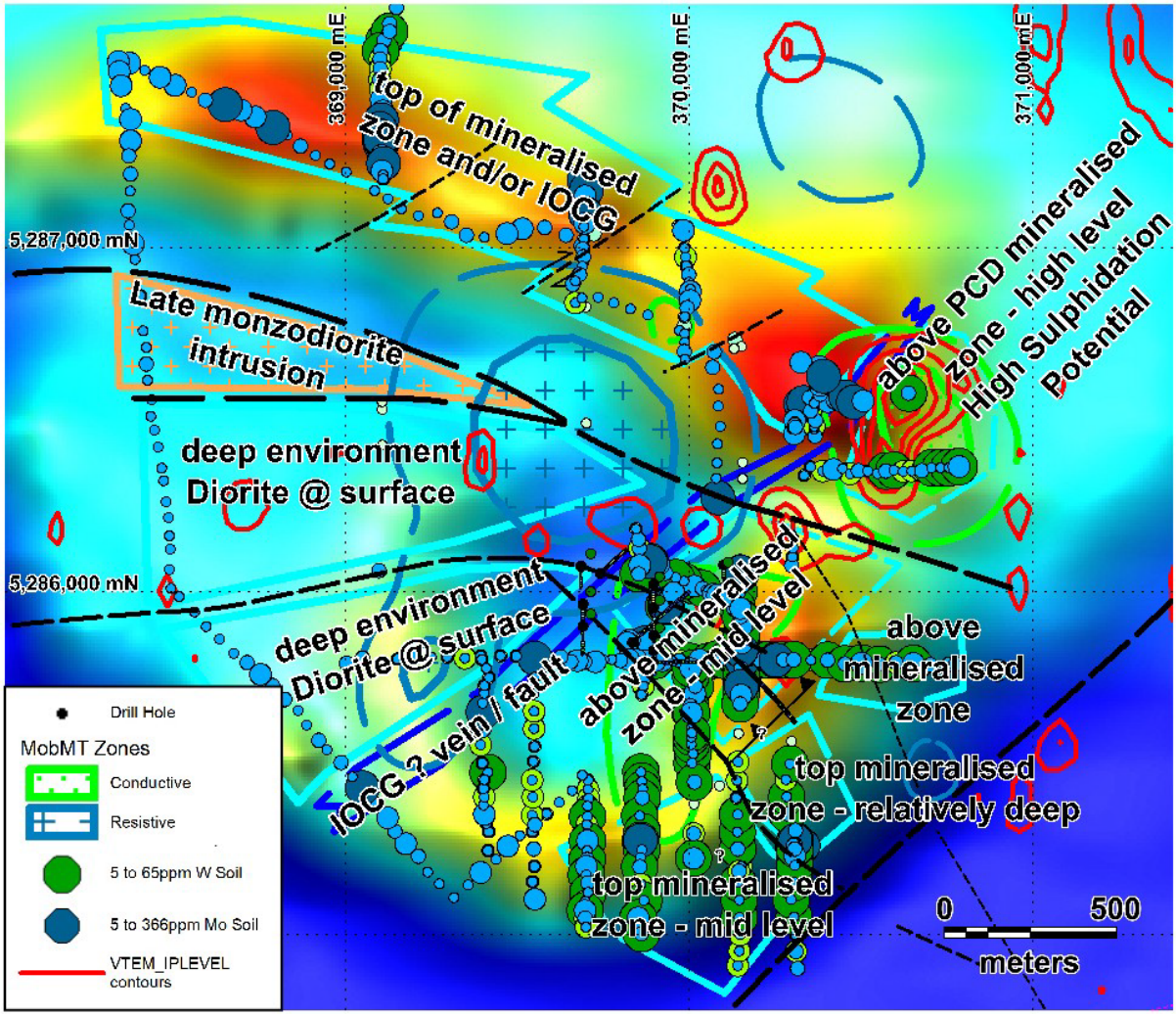

Figure 12: Geochemical pathfinders Mo(>5ppm; large blue = PCD proximal) and W(>5ppm; large green =higher proximal) in soils considered to recognise a directly above PCD environment, structure interpretation and some proposed drill holes overlain on linear stretched TMI aeromagnetics transparency (WTRMP, 2001) and MobMT modelled resistors (blue) and conductors (green). Note the late-stage SW strike linear Mo anomaly.

VHMS

Exploration for VHMS in the Sorell Peninsula area is lower priority given the extent of other mineralisation to investigate. Potential for exhalative VHMS exists within the Noddy Creek Volcanics (NCV), particularly proximal to black shales, basalt and andesitic facies. The NCV were last investigated by Plutonic Operations in 1992 in the actual Noddy Creek area, ground truthing Dighem anomalies. Their gridding and soil sampling with follow up ground VLF-EM failed to locate any encouraging anomalies. Whilst close to this area, BHP had earlier remapped a narrow mafic volcanic unit coincident with the pronounced regional magnetic anomaly enclosed by quartz-feldspar-phyric volcanics.

Importantly, Western Tasmanian Pb-Zn rich VHMS are known to be poorly conductive and as such modest anomalies should not be ignored.

A cursory review of Thomas Creek SWIR data for drill holes TCDD001 to TCDD003 was undertaken (Brand 2018) finding loose vectors to VHMS:-

- TCDD002: most distal
  - least altered, VMS signature (Pb, Zn, Ag & Cd), "dirty" pyrite (ie full of chalcophile elements) and chlorite dominant. Mafics noted in top of hole could be an exhalative horizon.
- TCDD001: outboard of the main mineralisation
  - Altered with "dirty" pyrite, carbonate dominant yet with kick in sulphur at base
- TCD003: mineralised
  - Most altered, mica dominant and clean pyrite

VHMS base metal sulphide potential is expressed as an inferred exhalite horizon comprising massive fine grained banded pyrite between coherent mafics at 519m in TCDD004 is supported by a marked change from phengitic (lower temperature) to muscovitic (higher temperature) down hole in Hylogger data. The inferred exhalite horizon is also marked by ferroan dolomite, within a calcite envelope. This ties well with the inferred position of a down hole EM conductor, located to the east of TCDD003 and north of TCDD004.

Iron Oxide Copper Gold (IOCG) Potential

The genesis of mineralisation at Thomas Creek is a complex topic. Recent interpretation suggests that a combination of porphyry Cu (PCD) and Iron Oxide Copper Gold (IOCG) mineral systems may be responsible for mineralisation at the prospect and extend more regionally throughout the peninsula. The recognition of IOCG affinity partly stems from a cursory geochemical study of Thomas Creek and Young Henry Prospects by Halley (2019), reporting geochemical features were consistent with fractionation of gabbro. Consequently, reconsideration of potential genetic origins for mineralisation at Thomas Creek as an IOCG variant has established similarities to this broad deposit spectrum, with obvious bearing upon how exploration is best targeted. Regionally, the Savage River magnetite (467.8Mt @ 68.3% Fe, 0.04% Ni & 0.35% V; GRR, 2025) and Mt Lyell mines (311Mt @ 0.97% Cu and 0.31g/t Au) are possible examples of Iron Oxide-apatite (IOA) and Fe-sulphide Cu-Au (ISCG) deposit types, respectively.

Potential Thomas Creek IOCG Links

IOCG deposits are a relatively recently recognised deposit style, now reclassified by Skirrow (2022) as a major part of a Cu-Au-Fe (CGI) family representing a highly diverse deposit grouping that includes Cu-Au associated with iron oxides and/or iron sulphides (Table 2). In IOCG systems, Copper and Fe-sulfides and Au either post-dated, or were deposited synchronously with, the Fe-oxides and Fe-silicates. A key hypothesis in the Skirrow (2022) review is that CGI mineral systems in orogenic settings preferentially develop during a switch in tectonic style from early compressional to transpressional regimes; a very similar environment to that at Thomas Creek, with the observed shift to dextral wrench considered as the likely Cu vein timing (Reid et al. 2019). IOCG systems were mostly formed in

Proterozoic times but span up to recent times. Indeed, a second U mineralising event loosely constrained between 0.7 to 0.5Ga is reported for Olympic Dam by Ehrig (et al., 2021).

Many superficially similar aspects of the paragenetic sequences of post-orogenic IOCG, Andean-type arc-hosted IOCG deposits and porphyry Cu-Au deposits are now recognised (Skirrow 2022, Sillitoe, 2003 & Escolme 2020). Two key differences are paucity of Na alteration and more common quartz veining associated with PCD.

Table 2: Classification of IOCG and ISCG deposits in Cu-Au-Fe (CGI) mineral systems (after Skirrow, 2022).

Setting	Timing	Geochemical subtype	Mineralogical-redox subtype	Example deposits
Orogenic	Syn-deform-ational, syn- to late-orogenic	IOCG-Co, ISCG-Co	Reduced to intermediate-redox IOCG & ISCG	Sequeirinho, Eloise
		IOCG-Co-REE	Intermediate-redox to oxidised IOCG	Ernest Henry
Post-orogenic	Post-orogenic, post-subduction	IOCG-REE	Oxidised IOCG	Olympic Dam
Arc-hosted	Pre-orogenic, syn-subduction	IOCG (low Co, REE)	Reduced, intermediate-redox & oxidised IOCG	Candelaria, Mantoverde

IOCG = iron oxide Cu-Au deposits, ISCG = iron sulfide Cu-Au deposits (= low-Fe-oxide Cu-Au deposits)
IOCG-Co deposits are enriched in Co± Ni, Bi, Se, Te, In
IOCG-REE deposits are enriched in REE± U, F, Ba

Initial assessment indicates that numerous alteration and mineralisation features at Thomas Creek fit with models for IOCG deposits. A key hint to potential IOCG links is Halley's (2019) investigation which highlighted likely gabbro-related features of the geochemistry at Thomas Creek. Notably in common with IOCG systems is Potassic as well as Albitic alteration evident at Thomas Creek, these types often being difficult to differentiate. Further, extensive zones of barren feldspar destructive alteration including silicification, sericitie, pyrite within volcanosedimentary sequences may either conceal IOCG or intimate presence nearby (Sillitoe, 2003). This later is comparable to the extensive pyritic-sericitic IP chargeability anomaly, characterised by scattered Cu-Au-Co veining at Thomas Creek.

A key hypothesis for Thomas Creek is that the observed late Cu-Co-Ni veins are at least partly IOCG related, likely forming during a dextral transpressional structure regime. The northern magnetic rim potentially fits as host to early IOA type linear magnetite mineralisation with subsequent flanking IOCG / ISCG style Cu-Au-Mo bearing mineralisation possibly formed within breccias marginal to the magnetic anomalies, as is currently partly field defined.

The regional tectonic setting of the Thomas Creek Prospect is consistent with the Skirrow (2022) classification of Arc-hosted Andean IOCG deposits, whilst some Cu vein mineralisation is considered to relate to late dextral slip faulting (Reid et al. 2019) and as such aspects of the Orogenic syn-deformational IOCG class may apply (see Table 2). Further, the Co and Ni enrichment of the late-stage veining is consistent with partial melting of a subducted ultramafic-gabbroic slab.

Utilising the Co versus La log graph of Skirrow (2022) to define IOCG types, Thomas Creek Prospect drill core analyses for Cu>1000ppm plot as two distinct groups when sized by U (Figure 13). Both high

and low U groups commonly plot with IOCG (low Co, REE with Intermediate and Andean IOCG) as well as porphyry Cu-Au-Mo field overlap. The elevated U group exhibits sample scatter extending to the IOCG-Co-REE field, highlighting REE potential. Whilst low U samples most commonly plotting as IOCG-Co/ISCG-Co are interpreted as representing ISCG / high sulphidation mineralisation which maybe porphyry related given the porphyry field overlap of some low U samples. Thus regardless of suggested similarities to IOCG for Thomas Creek, an earlier arc related PCD system at Thomas Creek remains a likelihood, which is compatible with linkages reported by Sillitoe (2003) and Escolme (2020) in Andean examples. NB: U is mostly <10ppm with a maximum of 101ppm.

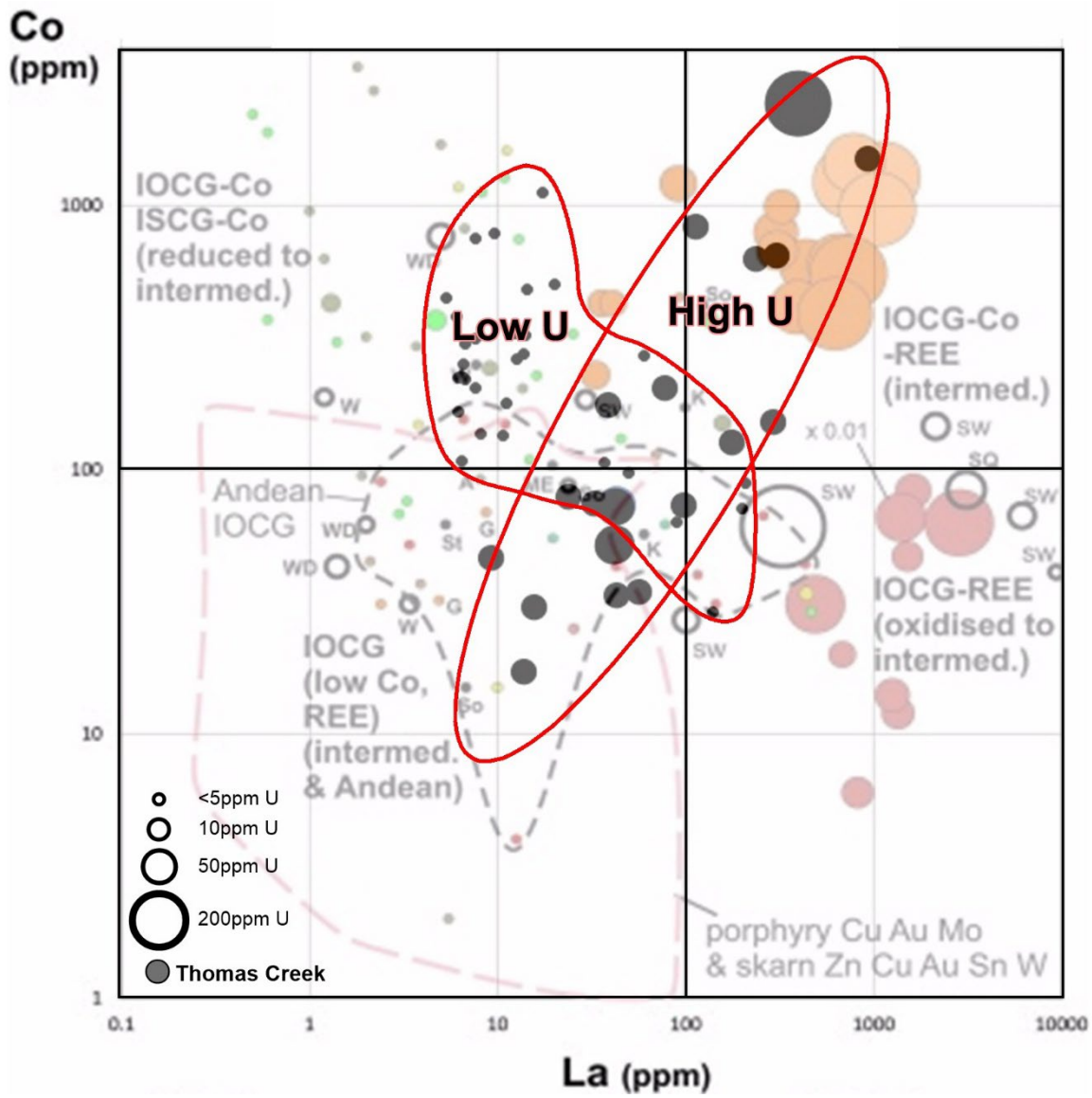

Figure 13: IOCG geochemical discrimination diagram (after Skirrow, 2022) overlain with Thomas Creek drill hole samples bearing Cu>1000ppm and sized by Uranium.

Skirrow (2022) reports that Cu sulfides and Au in IOCG are associated with moderate to strong enrichments of several of the following groups of elements which may attain ore grade in some deposits: Ag, Co, Ni, Bi, Se, Te, In and/or U, LREE, F, Ba, Mo. When compared to the Thomas Creek drill hole dataset most of these elements reached appreciable/significant levels within Co mineralisation

in hole TCDD001: Ag (0.97ppm), Co (3330ppm), Cu (3120ppm), Mo(137ppm), Te (1.13ppm) and U (101.5ppm). Rare earths within this interval reach >500ppm Ce and 1320ppm La, which could act as a qualitative proxy for other REE, which were not analysed. Limited REE analysis by MHM from Thomas Creek returned profiles similar to late Ordovician intrusions hosting porphyry Cu-Au at Goonumbla and Cadia (NSW. Lindsay, 2011). Consideration should be given to follow up REE re-analysis, particularly given the 73m @ 1% TREO drill intercept from magnetite mineralisation with a closely associated 50m @ 0.4% Cu, 0.16g/t Au, 1g/t Ag, 17.7% Fe reported by Westbrook (2024) from magnetite related mineralisation at South Mt Darwin, located approximately 35km NNE.

Ni Sulphide Potential

The Hibbs Ultramafic's comprises an extensively faulted belt of variably serpentinised ultramafic including peridotite of komatiitic composition, with gabbro along the eastern margin. GeoForce (2007) considered there was little potential for magmatic-related Ni within the Hibbs Ultramafic Belt. Regardless, minor occurrences of Pentandite (NiS) were reported by BHP (Langlands, 1971) in drilling and outcrop near Noddy Creek, and some sulphide in drill hole YHDD001 at Accelerate Resources' Young Henry prospect being petrographically identified as pentlandite (Bottrill and Unwin, 2019a). Significant intersections of 38.3m @ 0.23% Ni and 17.7m @ 0.19% Ni were returned from drill hole YHDD001, albeit with Ni likely mostly host in silicates.

The Avebury Ni deposit near Zeehan in Western Tasmania is an example bearing aspects of hydrothermal Ni remobilisation. Prospectivity for such styles is strongly related to proximity to fertile granites. Modelling by Leaman (2003) defines a Devonian granite surface in the Sorell Peninsula area approximately 25km distant northwest of the Hibbs Ultramafic Belt, suggesting that related hydrothermal upgrade from proximal Devonian granites is a relatively remote possibility. Further, metamorphism to greenschist facies is not likely to have upgraded Ni.

An alternate hypothesis considers potential for IOCG related systems to explain the diverse array of prospects within the Sorell Peninsula area. Hydrothermal upgrade of Ni within the Hibbs Ultramafic's has potential given that late-stage Ni-Cu-Co rich sulphide veining of possible IOCG origin is apparent within the Thomas Creek Cambrian aged diorite intrusive complex and similar intrusions are mapped within 1.5km of the Hibbs ultramafic's at Timbertops. Scavenging metals from ultramafic source rock at depth is a real possibility linking to IOCG models, invoking partial melting of a subducted slab of oceanic crust.

Further review is required to establish links with potential IOCG minerals system for the Sorell Peninsula area. Initial interpretation suggests, the peninsula hosts deep seated fault bound magnetite (IOA?) deposits at Anomaly 129 and 129, whilst gabbro proximal North Butler and Hill99 sulphide veined and chlorite-carbonate altered character fits with the upper high sulphidation ISCG levels of the IOCG spectrum (Table 2) and the Pelius Cove prospect possibly represents very high level epithermal related lithocap silica alteration with sporadic high grade Pb-Zn veins also being known.

Noddy Creek

Near Noddy Creek, BHP drilled 9 holes in the 1970's defining an asbestos fibre resource within ultramafic immediately south of the prospect area with Pentlandite (Ni sulphide) reported at several locations within this 1km long zone. BHP's DDH1 targeted an EM anomaly (Langlands, 1971) that later proved coincident with an IP Level Effect anomaly (Reid, 2021), both of which are readily explained by

graphite and sulphide occurrence within the hole. Probable Ni sulphide was reported as pale-yellow-pink sulphide smeared on shear planes and rarely as finely disseminated flecks within 4 drill hole intervals. No analyses were apparently undertaken and follow up is warranted.

At Noddy Creek pyrite, carbonate and quartz veining is reportedly on shear planes suggesting post serpentinization emplacement. Magnetite is commonly mentioned in relation to nine holes drilled targeting asbestos, but no quantitative evaluation is reported and no spinifex textures akin to extrusive komatiite flows are reported.

The presence of sheared gabbro in DHNC7 and within the Hibbs Ultramafic Belt raises the possibility of a potential link to Melba Flats style Ni-Cu-PGE, although the distal to modelled granite location suggests this is a low likelihood scenario.

Henrietta

The Henrietta Prospect comprises an untested elongate untested 1.7km long VTEM conductor considered to have Ni-Cu exploration potential, lying between scattered Ni occurrences of the Noddy Creek area and likely structure related Cu and Pb-Zn vein mineralisation of the Hill99 Prospect. The anomaly is coincident with the faulted contact between ultramafic related gabbro and volcanosedimentary rocks of the Noddy Creek Volcanics (NCV). Field reconnaissance of the Henrietta area targeting the VTEM anomalies returned XRF Ni ranging from 0.1 to 0.6% and Co ranging up to 0.43%. ICP confirmation from the best Henrietta sample returned 1705ppm Ni and 1400ppm Co (Reid, et al. 2015).

Conjecture surrounds the source of Henrietta EM conductors. Unfavourably, MHM(2010) thought the elongate form of the Henrietta VTEM anomalies appeared to be stratigraphy related and favoured VTEM responses at the Young Henry Prospect as a better exploration target. Significant conductive graphite intersected there within drill hole YHDD001 agrees with the stratigraphic assessment for Henrietta as a likely graphite explained electromagnetic response and whilst this observation downgrades the prospectivity, conversely graphite potentially provides a ductile layer likely to preferentially localise faulting and further provide sulphide for hydrothermal scavenging of metals. As such, new interpretation suggests the Henrietta EM target could host Hill99-like structure-related Cu mineralisation emplaced in dilatant gashes, as is observed regionally at the Thomas Creek porphyry prospect where Cu (+/-Ni-Co) sulphide veining is thought to be related to late-stage dextral faulting; a recognised key feature of IOCG mineral systems (Skirrow, 2022). Interestingly, Skirrow (2022) surmises that lack of magnetite development in ISCG ores (IOCG sub type 1; Table 2) could be related to presence of a strong reductant such as graphite. This observation is favourable with respect to the Henrietta Prospect, where graphite is postulated to be abundant.

Supporting a faulted offset between Young Henry and Henrietta prospects is the reported termination of the ultramafic in the vicinity of BHP's 100N grid (Langlands, 1971; the northern end of YH), coincident with a pronounced aeromagnetic dislocation. A significant dextral fault offset is inferred (Figure 14) with extensive northeast aligned quartz veining mapped immediately east of Young Henry likely forming in a related extensional zone.

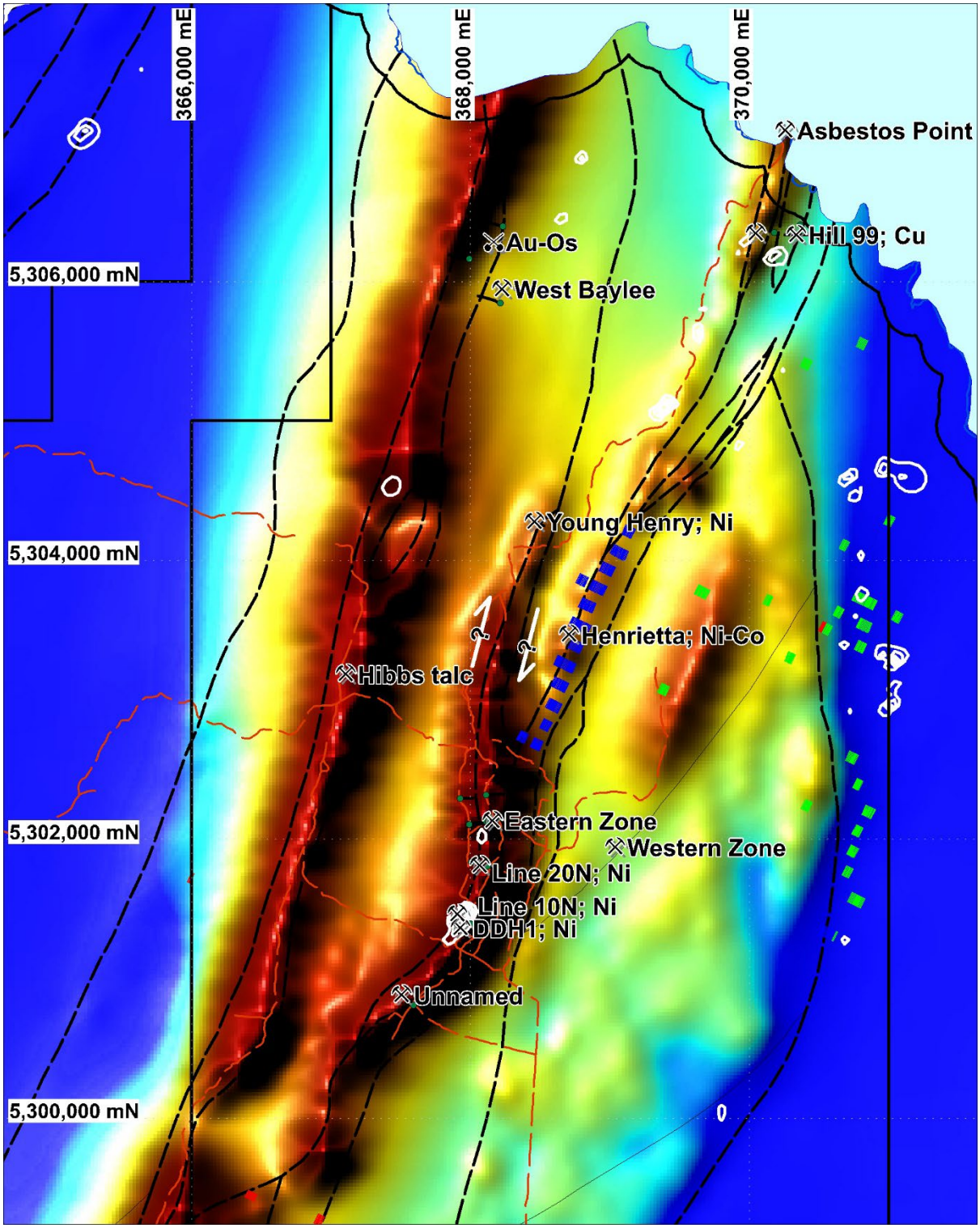

Figure 14: Aeromagnetics for the northern portion of the Hibbs Ultramafic belt, showing inferred dextral offset, IP Level Effect anomalies (white), VTEM Anomalies (blue, green & red) and prospect locations over TMI aeromagnetics (10% bottom cut).

Hill99

The Hill99 prospect is located ~3km along strike northeast from the strong VTEM conductors of the Henrietta area. Drill holes returned localised narrow zones of pyrite-chalcopyrite (eg. 36 cm @1.05% Cu) mineralisation and quartz-carbonate-sphalerite-galena veining (eg. 30 cm @ 0.17% Pb & 0.25% Zn) within chlorite and carbonate-sericite-pyrite alteration (99_4382). Pacific-Nevada's Drill hole

Hill99-1 was mostly within reportedly favourable VHMS stratigraphy being mafics, rhyolitic volcaniclastics, black shale and ending in a polymict volcaniclastic breccia, whilst Hole Hill99-3 commenced in chlorite altered gabbro-diorite. Follow up drilling by MHM was similarly modest, returning up 0.3m @ 10.55% Cu from 177.6m (Lindsay, 2011). A strong structural control on mineralisation is apparent, as with North Butler (11_6278).

Mapped regional faults and sheared graphitic shale drilled immediately up hole of a significant puggy shear zone at Hill99, positively suggests a continuation / along strike correlation to inferred graphitic shale at Henrietta.

Exploration Recommendations

Regional targets defined by Stunalara in 2021 (Reid, 2021) are relevant in terms of exploring IOCG mineral system exploration models as well as porphyry models more specifically at Thomas Creek and Timbertops (T-REE; Figure 3). Planning for regional assessment undertaken in 2021 remains valid with review notes on key prospects detailed below.

Some general recommendations and notes for ongoing exploration are:-

- A comprehensive compilation of Sorell Peninsula regional data should be completed.
- Further evaluate mineralisation and alteration of the Sorell Peninsula area considering IOCG models to better understand mineral system(s).
- Gravity and magnetics modelling would complement regional assessment, particularly given, that a gravity low maybe associated with porphyry stocks at depth. There are currently few gravity points in large part relating to challenging access; however, the Falcon airborne gravity system may provide a viable solution.
- Stream sediment sampling is somewhat erratic and wide spaced with a common focus on volcanic stratigraphy. The Ni potential of the Hibbs Ultramafic Belt is largely not addressed, with the exception of the northern end. There is potential to evaluate the role of magnetite trace element geochemistry from stream sediment grains to discriminate between igneous (Hibbs Ultramafic related) and magmatic-hydrothermal magnetite populations, noting that distinct differences have been identified for the Casino Porphyry Cu-Au-Mo deposit (McCurdie, et al., 2022).

Thomas Creek

Compelling new targets for drill testing at Thomas Creek include the inferred reverse fault juxtaposition of potassic magnetite-Cu-Mo-Au (/IOCG-Co-REE?) mineralisation to surface on the northern rim of the Thomas Creek Prospect (Figure 12) and the southern end of 370300mE characterised by above porphyry geochemistry with sulphidic potassic altered float overlying IP chargeability and a deeper resistive “plug” (Figure 15). Deeper targets include chargeable and resistive potential potassic mineralisation at approximately 600m depth on 369850mE, beneath the large, drilled IP chargeability anomaly interpreted as representing outer phyllic (pyritic) alteration, and the NE MobMT anomaly interpreted as possibly a phyllic and argillic altered plume above porphyry level, which may also contain high sulphidation mineralisation.

Good target delineation has been provided to date with IP, aeromagnetics, radiometrics and MobMT. However, IP surveys need to be extended into peripheral areas, in particular extending north to better

cover the aeromagnetics high, as well as covering the NE MobMT Anomaly, whilst current interpretation suggests eastward extension of the Thomas Creek grid is also warranted. Truncation of IP pseudosection modelling suggests there may have been a processing problem(?) at the northern end of many IP pseudo sections, coincident with aeromagnetic highs. Raw data needs to be re-assessed in this regard. Triangulation to surface is apparently more complete for southern line ends, but both south and northward extension is warranted to better resolve IP features.

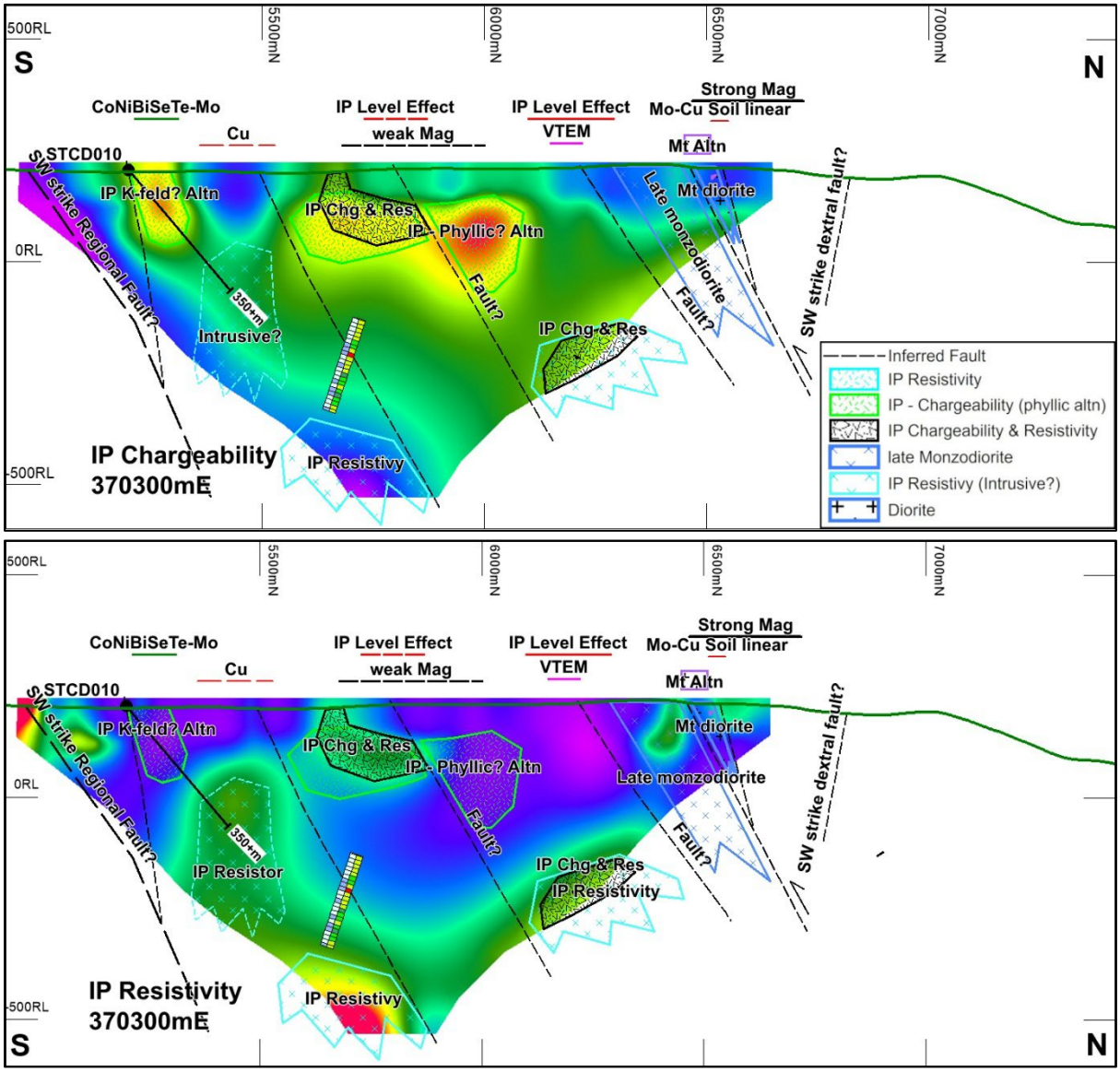

Figure 15: Thomas Creek Prospect 370300mE IP chargeability (top) and Resistivity (bottom) pseudo section with IP Level effect anomaly location at surface.

Further investigation and application of geochemical pathfinders for porphyry Cu deposits is warranted to identify likely levels of PCD exhumation to aid drill targeting. Select grid lines could be re-soil sampled providing compatibility with modern multielement ICPMS analyses, enabling better geochemical discrimination and understanding of the Thomas Creek Prospect. This includes the southern end of line 369100mE, where a combined IP chargeability and resistivity response is near surface above inferred diorite. Additionally geochemical pathfinder patterns indicate that the entire eastern margin of the Thomas Creek Prospect should be further gridded, extending east to 370900mE.

Grid extensions are required in the N, east and south to better elucidate IP chargeability and resistivity anomalies at depth, and to characterise the NE conductive anomaly.

Other potential considerations for future exploration are:-

Analysis of rare earth elements, which has not been undertaken to-date at Thomas Creek but is warranted given the recognised IOCG affinities with similar mineralisation regionally at South Mount Darwin returning 73m @ 1% TREO (Westbrook, 2024). Assessment of Ce and La in existing data could reflect on REE potential.

PCD targeting could be improved with future Thomas Creek drilling investigating AL-OH wavelength of Mica, expecting Phengite at depth with Muscovite and Pyrophyllite at progressively shallower levels.

Additional surveys for improved targeting could include a LIDAR survey to assist structural definition in conjunction with close spaced (<50m) aeromagnetics, perhaps via drone.

Proposed Drill Holes

A number of potential targets are identified from IP Psueodosection interpretation relative to various salient surface features (Figures appended). These attest to the impressive mineral potential of the Thomas Creek Prospect. Resistive and chargeable potential PCD mineralised targets are roughly priorited upon perceived size and intensity. Shallow resource potential exists. Around 2500m to 3000m of drilling could be readily undertaken to assess existing targets (Table 3), however many targets need to be refined with further ground assessment and sampling.

Table 3: Potential Thomas Creek drilling targets totalling 2850m

Hole_ID	Priority	East (MGA94)	North (MGA94)	RL	Azimuth	Dip	Depth	Targetting
STCD005	3	369895	5286020	210	0	-60	800	Upper hole intersects Mo (344ppm)-Cu(1050ppm) inferred steep NW dip soil trend near collar, ~100m along strike from TCDD002 56m @ 0.1% Cu, IP Level effect trend, then MobeMT Core Resistor at depth.
STCD006	2	370430	5286555	230	77	-60	500	NE MobMT conductor coicident with strong IP Level Effect, VTEM conductors and as yet marginally defined anomalous Mo and Cu in surface samples proximal to intense magnetic high.
STCD007	1	369720	5286955	230	0	-60	350	Strong magnetic high with coincident flanking Cu (1400ppm), Mo (36ppm) and Au(0.11ppm) in goethitic magnetite bearing soils. Elevated IP chargeability and resistivity at depth.
STCD008	3	369075	5287120	230	0	-60	500	Strong magnetics, anomalus Mo (29ppm) and Cu(606ppm) in soils. Surface IP, with resistivity extending to depth.
STCD009	4	370010	5286690	230	0	-60	350	targets float pervasive K-Feld-Mt-dss py mineralisation coincident with two WSW aligned spurs, modest Mo soils and chargeability at depth. NB breccia target further N.
STCD010	1	370290	5285200	230	0	-50	350	targets angular float pervasive K-Feld-dss py, pyritic porphyry & grey perv si(m/s). Mo & Cu soils and chargeability with resistor @ depth.

Drill Hole Targeting

Determining drilling orientations is complicated. Some facets of known structure to consider when drill targeting at Thomas Creek follow.

Two principal mineralised chalcopyrite bearing vein dips are identified at Thomas Creek. Evaluation of mineralised vein orientations finds chalcopyrite and slightly more scattered pyrite vein orientations are broadly similar, with dominant WSW to SW strike, whilst chalcopyrite veins also commonly strike NW; this being prevalent in TCDD002. Most micromonzodiorite (+/- Cu) intrusions (No=3) dip approximately -70 to NW (SW strike; Reid et al. 2019); an orientation similar to that of NW dipping chalcopyrite mineralised veining.

The WNW trend of aeromagnetics (early IOA?), IP chargeability and geochemistry (later IOCG?) on the Thomas Creek northern margins possibly dips SW, towards the inferred prospect intrusive core. However, several inferred dextral faults offset the WNW magnetic trend and a pronounced possibly alteration related spur, coincident with a Cu-Mo-Au in soil anomaly, runs NW parallel to the inferred faulting. On this basis structure and mineralisation here would likely be best targeted by N to NNE azimuth drilling.

The NE anomaly differs being at an inferred structural intersection and is possibly best drilled to the E to ENE, aiming to cross both SW and NW dipping Cu mineralised vein orientations and potentially targeting a moderately WNW plunging intersection lineation for veining. Figure 16 illustrates this recommendation.

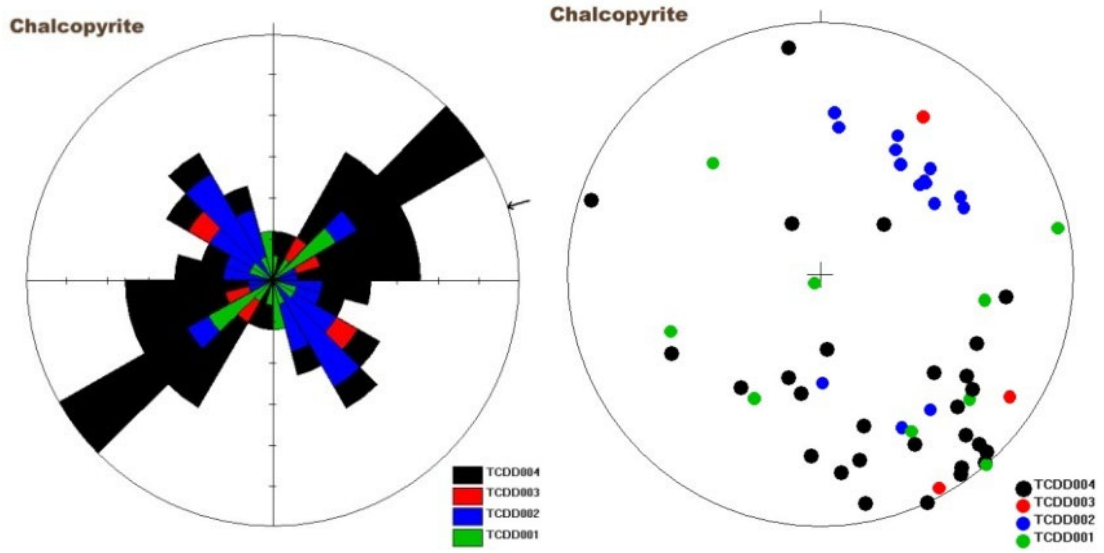

Figure 16: Chalcopyrite mineralised veins in orientated drill core showing prevalent ENE to NE strike with moderate to steep NW dip and NW strike with moderate SW dip (After Reid et al. 2019).

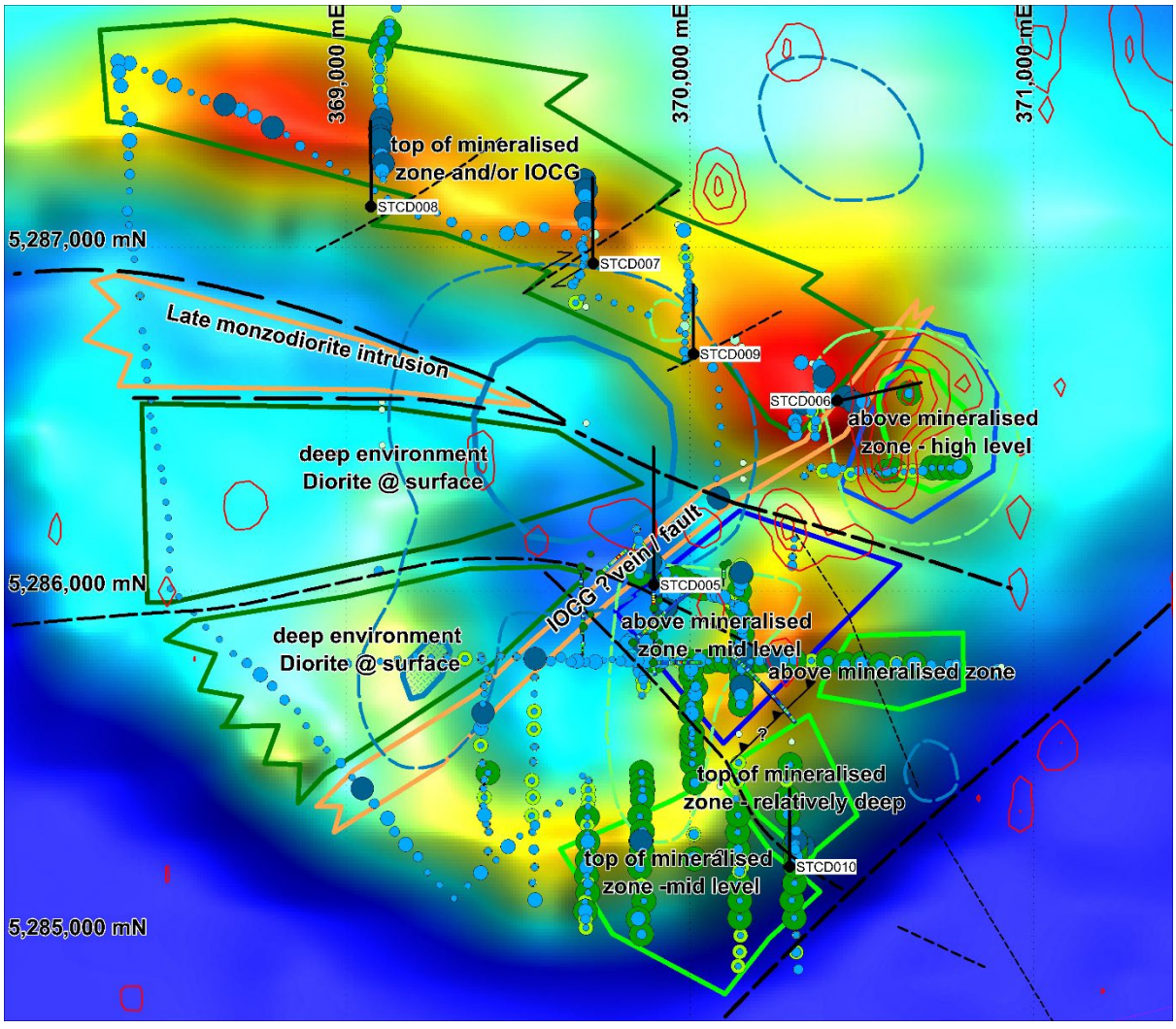

Figure 1717: Potential Thomas Creek drill collars.

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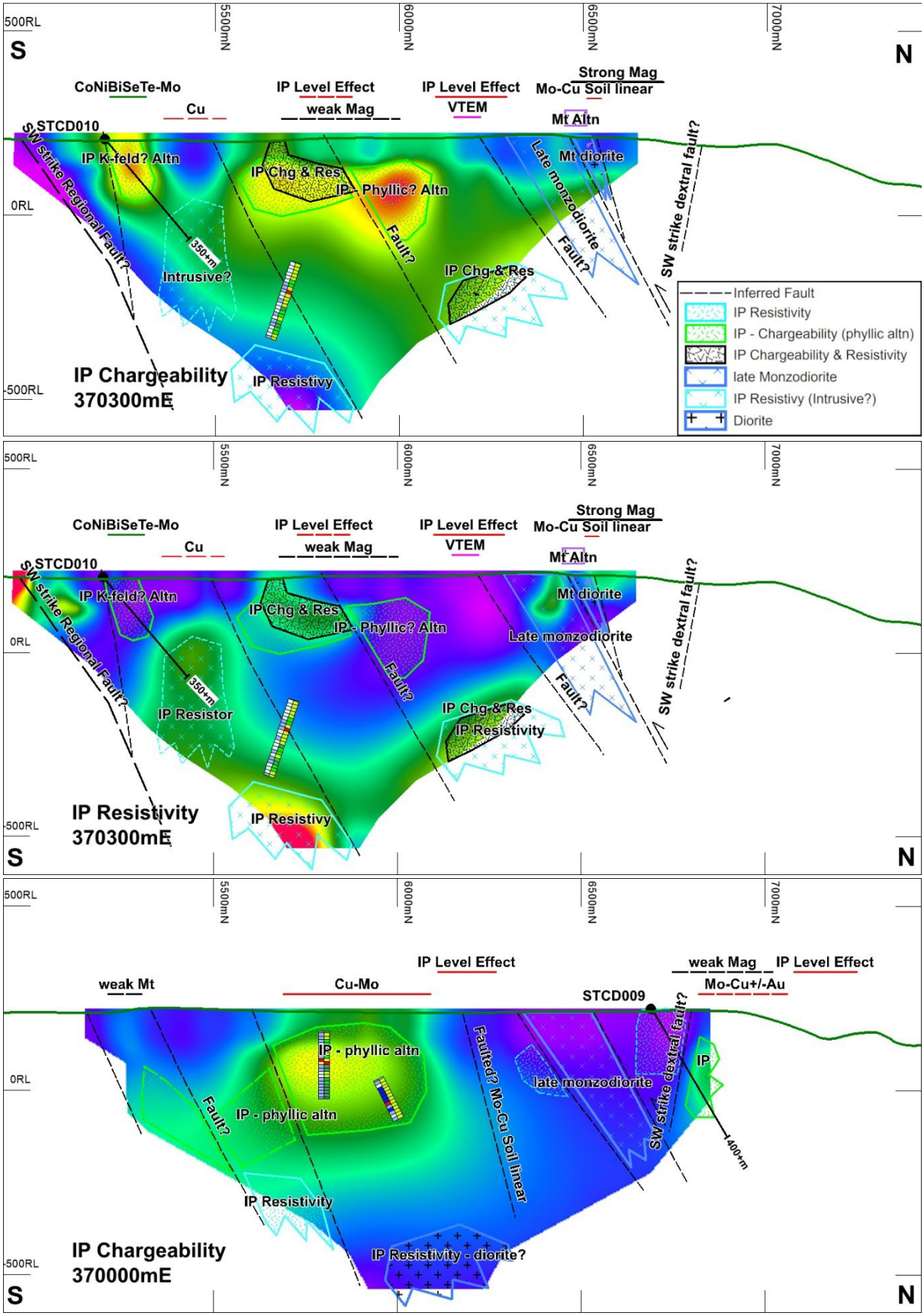
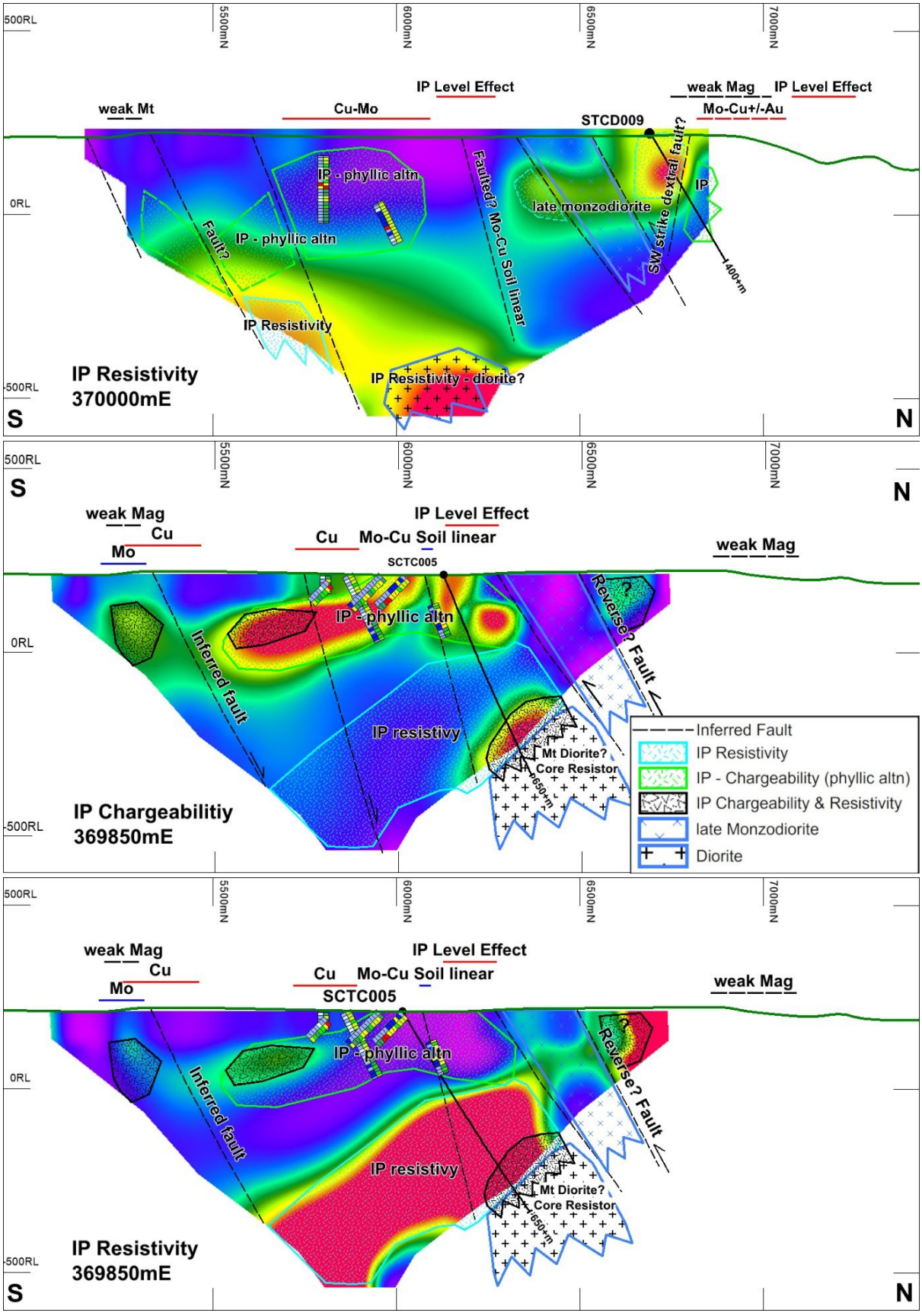
Appendix

Appendix 1 - IP pseudo section figures

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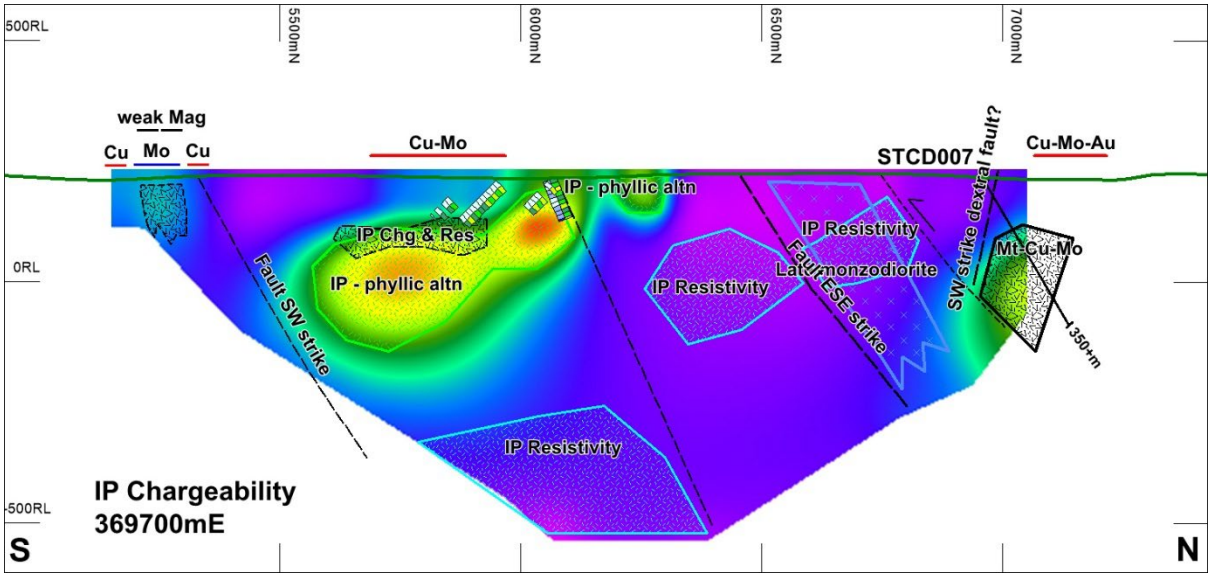
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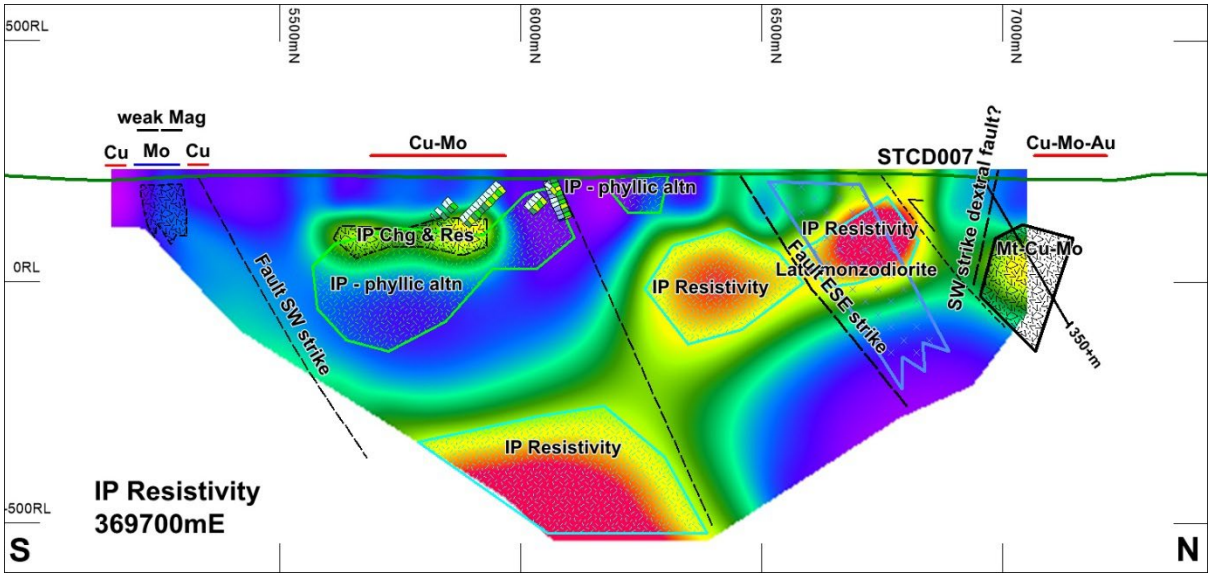
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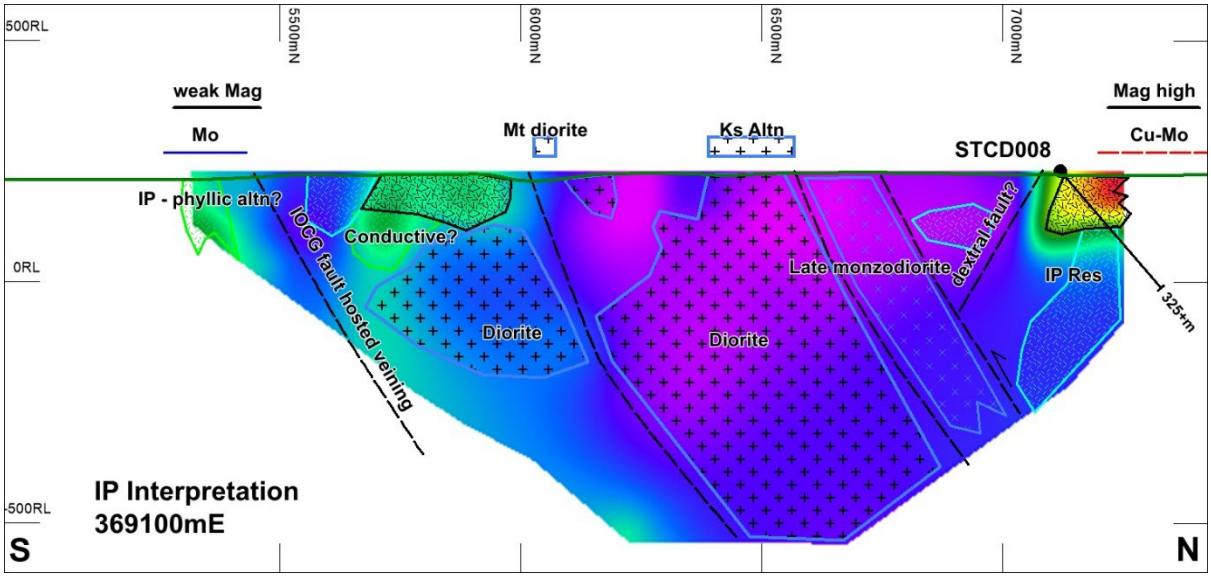
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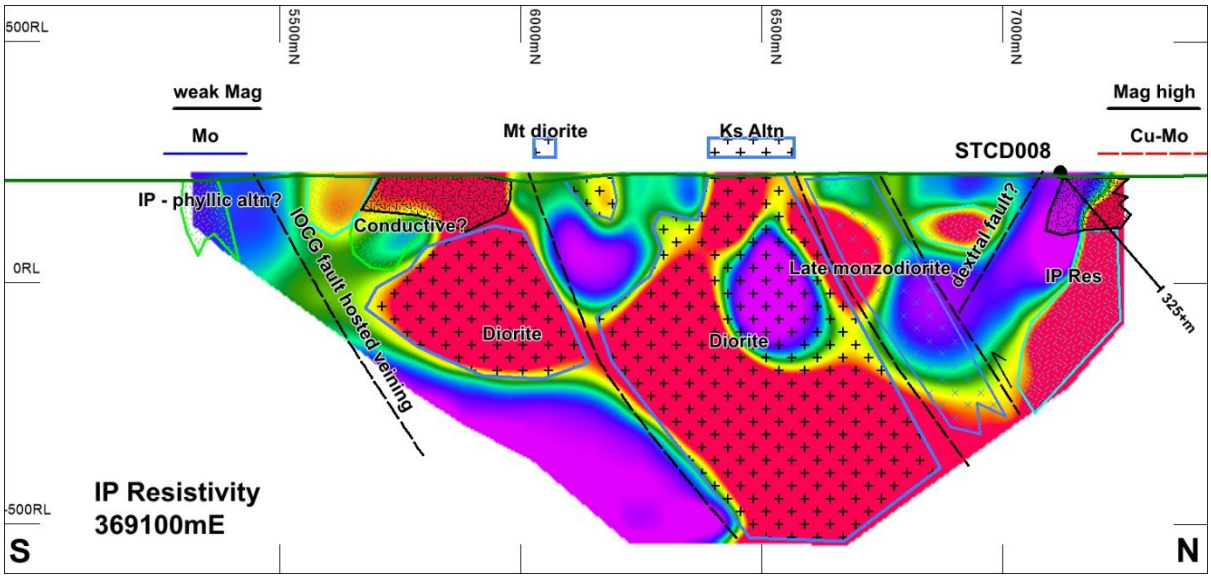
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Appendix 2 - Previous Work and Exploration History

The lack of road access, absence of any permanent settlements, as well as the difficult and scrubby nature of much of the country, have all served to inhibit exploration of the Sorell Peninsula area. Knowledge and understanding of the geology has mostly come in the last four decades from several regional mineral exploration programs by large companies and by regional mapping surveys by Mineral Resources Tasmania through the 1990's.

Sporadic small-scale mining/prospecting was carried out around the beginning of the 20th century for asbestos at Asbestos Point, copper at Birthday Bay (where a few tonnes of chalcopyrite, bornite and copper carbonates were produced from near-shore workings and alluvial osmiridium, gold, and chrome along the Spero River south of Point Hibbs and on creeks along the Macquarie Harbour coast near Gravelly Beach.

1956–1962 Lyell-EZ Explorations (LEE)

A large helicopter-based exploration program was undertaken by Lyell-EZ Exploration (LEE) over an area stretching from Queenstown to Port Davey from 1956 to 1962. This ambitious program greatly expanded knowledge of the geology of Southwest Tasmania, which was largely unknown country at that time, but did not result in any commercial mineral discoveries. Airborne magnetics (the first over the southwest), EM and scintillometer surveys were flown over much of the area in 1958, and a variety of ground geophysical methods were used. The ultramafic belt between Point Hibbs and Macquarie Harbour was discovered (Hibbs Ultramafic Belt).

1964–1972 BHP Exploration

A second major helicopter-based exploration program, covering most of Southwest Tasmania (9,600 km^2), was conducted by BHP between 1964 and 1972. The project resembled a geological survey in many ways, undertaking considerable regional mapping (Hall, et al. 1969). BHP based their exploration on follow-up of the LEE aeromagnetics and EM surveys, with stream sediment geochemistry as their other main regional technique, however Au and Sn were not assayed.

BHP spent considerable resources cutting tracks and costeans along the northern part of the Hibbs Ultramafic Belt, concentrating on the nickel and chrysotile asbestos potential. Rock chip sampling from costeans across the ultramafic contact returned up to 0.8% Cu and 0.15% Ni. In addition, disseminated pentlandite was located within an approximately 12m wide costean zone of weakly sheared olive-green serpentinite. One 95m drill hole tested a ground EM anomaly with no anomalous nickel intersected; the anomaly being explained by a 3.4m graphitic siltstone below the ultramafic contact (Langlands, 1971). Further EM traverses were recommended but no further nickel exploration was undertaken. Significant asbestos was discovered in the northern part of the ultramafics and became the focus of further exploration, culminating in delineation of 8.5Mt @ 2.3% asbestos.

In 1971/72 BHP followed up an aeromagnetic anomaly southwest of Birch's Inlet with ground magnetics, soil sampling and rock chip sampling (Thomas Creek Prospect). Several samples bearing visible sulphide yielded up to 1000 ppm Cu, 1000 ppm Pb, 100 ppm Zn and up to 100 ppm Ag but no follow up was undertaken.

1992-1998 Plutonic Operations limited

Plutonic Operations Ltd were granted two licenses EL4/1992 and EL7/1992 which covered much of the current EL4/2024. Ground truthing of Dighem anomalies was undertaken in 1992 over the actual

Noddy Creek area. Their gridding and soil sampling with follow up ground VLF-EM failed to locate any encouraging anomalies.

In 1993-94 Plutonic planned to carry out a 200m line space airborne GEOTEM survey over the Noddy Creek Volcanics. However, contractor delays meant this was not carried out until March 1996. The survey identified approximately 20 targets that warranted follow up.

During 1994-95 a large program of gridding, soil sampling and petrology over the Thomas Creek Prospect confirmed Amoco's results and outlined a significant zone of alteration with porphyry Cu-Au system characteristics. The main copper soil anomaly was extended to approximately 1000m x 700m. Many copper soil values over 1000ppm were returned, including 2 exceptional samples of 2.4% Cu with 1.04 g/t Au and 7.5 % Cu with 2.96 g/t Au from strong pyrite-chlorite-chalcopyrite mineralisation. Panned concentrate from drainage areas fringing the eastern side of Thomas Creek plateau returned some visible gold with assays up to 3g/t.

In 1995 a gradient array IP survey covered 7-line km with three dipole-dipole lines amounting to 1.25km within the detailed grid. These surveys were designed to outline the extent and relative intensity of disseminated or stockwork vein-controlled sulphide mineralisation in the Thomas Creek prospect area. The IP surveys successfully defined one major and three minor discrete chargeability zones. Zone A was a broad (600m x 400m) multi peaked, moderate to strong (3 times background) chargeability anomaly coincident with disseminated pyrite and copper anomalism.

In 1996 a light "Gopher" rig was used to test areas of high Cu soil geochemistry and corresponding IP chargeability. The program comprised 8 diamond holes for 806.6m, angled 45degrees to the south with maximum 127m hole depth. The narrow BQ core diameter evidently contributed to significant core loss within highly weathered rock and clay. However more consolidated core sections showed intense K-feldspar–silicification, pyrite, chlorite, actinolite, magnetite, hematite, pyrite, chalcopyrite, tourmaline, smectite and epidote alteration. The drilling revealed widespread copper anomalism including 58m @ 0.08% Cu from 40m in TCD2 and 15m @ 0.17% Cu from 32m in TCD5. Plutonic were disappointed with the copper grades, given the high tenor of the soil geochemistry however they did recognise that Thomas Creek was a large probable porphyry style mineralised system, requiring expanded exploration and deeper drilling. Failure to attract a joint venture partner and other core business pressures in the late 90's led to relinquishment.

1983-88 Amoco Minerals Australia Company

(Later Cyprus Gold Australia Corp., in joint venture with Placer Development Ltd and Poseidon Minerals Ltd.; Kary, 1985)

An airborne aeromagnetic and radiometric survey over the Sorell Peninsula at 150m line spacing was initially undertaken to assist geological mapping, with principal focus being tin replacement deposits (i.e. Renison Style). In 1983-84 Amoco assessed various aeromagnetic anomalies via reconnaissance mapping and sampling of the Noddy Creek Volcanics around Timbertops, extending north to Briggs Creek and south to Thomas Creek. The main exploration target was polymetallic volcanogenic massive sulphides similar the Rosebery and Que River/Hellyer deposits, located approximately 70 kilometres to the north.

A DigHEM survey was flown over the northern portion of the Hibbs Belt and Noddy Creek Volcanics in 1986, identifying seven targets that were never followed up, as higher tenor anomalies were prioritised to the south at Elliot Bay.

Weak base metal veining was reported adjacent to diorite at Timbertops, and more significantly peak values of 0.2% Cu, 0.1% Ba and 0.97 g/t Au associated with diorites and intermediate volcanics was recognised in the Warrens to Thomas Creek area, southwest of the anomalous Cu-Pb volcanics reported by BHP.

Follow-up gridded soil surveys at Thomas Creek in 1984 outlined a >250ppm Copper anomalous zone of approximately 300m by 400m. Amoco has a polymetallic VHMS focus and consequently the absence of significant associated Pb-Zn downgraded the prospect and no further exploration was conducted.

1998-2001 Pacific-Nevada Mining Pty Ltd

The Hill 99 Prospect, located near the southern shores of Macquarie Harbour (Figure 2) was identified by Pacific-Nevada Mining Pty Ltd in 1999 after a reconnaissance sampling programme located historically known outcropping massive pyrite-quartz mineralisation. A subsequent soil sample campaign identified a copper-zinc anomalous (150-511ppm Cu and 150-684ppm Zn) zone extending inland along strike from the coastal pyrite-quartz mineralisation. The zone trends north-east and is broadly coincident with a topographic high. Sampling of gossanous float material along the grid lines returned sporadic anomalous gold up to 50ppb with 92ppb Au also returned from a chlorite altered lithicwacke sample. A single panned concentrate stream sample returned 5.1 g/t Au.

A subsequent gradient array IP survey carried out over the Hill 99 grid identified a linear, moderate conductivity high coincident with the copper-zinc anomalous soil zone. A bullseye conductivity anomaly was also identified. A fixed loop ground EM survey failed to identify any conductive bodies of probable economic importance; however, it did show a strong unconstrained conductor off the western edge of the survey coincident with a prominent magnetic feature. The thick vegetation precluded the survey being extended further west at that time and this target remains untested.

Pacific-Nevada drilled three diamond drill holes totalling 669m. The first two drill holes H99-01 & 02 targeted the Cu-Zn soil anomalies/alteration and mapped gossanous float and intersected a highly altered chlorite-carbonate-fuchsite volcanic rock of mafic to felsic origin with minor Cu, Zn and Au (best result 0.3m @ 0.59% Cu). H99-03 tested the coincident high phase and resistivity low anomaly modelled at 150m depth. Localised narrow zones of pyrite-chalcopyrite (i.e. 36 cm @1.05% Cu) mineralisation and quartz-carbonate-sphalerite-galena veining (i.e. 30 cm @ 0.17% Pb & 0.25% Zn) with intense fuchsite alteration were intersected before drilling was stopped due to hole instability approximately 30m above the IP target (Morritt, 1999).

An extensive stream sediment sampling program resulted in identification of anomalous gold results in the West Baylee area, where follow up gridding, soil sampling, ground magnetics and IP surveys were followed up with 3 drill holes totalling 824m. Results were disappointing and attributed to a sheared black shale sequence bearing weak pyrite and mildly elevated base metals (Newnham, 2000). Structural interpretation suggests the drill hole orientation may have been inappropriate for targeting NE aligned gold in soil.

2004 Discovery Nickel

Discovery Nickel undertook a cursory field campaign, collecting rock chip samples. Their results and a Consultant analyses of the geochemical data concluded that the Hibbs ultramafic's was not prospective for magmatic nickel-sulphide deposits, however hydrothermal related nickel sulphide of "Avebury Style" was possible. A change of company focus resulted in no further work being undertaken (Johnstone, 2007).

2007 – 2012 MHM Metals

In 2010, MHM conducted detailed 100m line-spaced helicopter-borne VTEM surveys over four areas (Figure 17). The survey regions included the Hibbs Ultramafic belt, a northern section covering a portion of the Noddy Creek volcanics which included recognized VHMS mineralization at Hill 99 Prospect and the Thomas Creek Prospect area. The surveys identified many intermediate to strong conductors, the best within mapped gabbro proximal to a faulted contact with Cambrian volcano-sedimentary sequences, in an area along strike south of Hill99 and immediately north of BHP's asbestos work at Noddy Creek (now known as Henrietta). Limited prior sampling in this area identified Zn anomalous stream sediment samples.

The most promising North Butler area VTEM targets were soil sampled with MHM concluding that mineralisation and alteration in the area was most likely structure controlled (Lindsay, 2012; 12_6523). Other EM conductors near Hill99 and in remote areas including some sites identified near Thomas Creek were not followed up.

Some VTEM conductors associated with the ultramafic rocks in the Noddy Creek (Henrietta) area were followed up with a limited spot soil sampling campaign, with best results including 0.3g/t Au, 0.32g/t Au and 0.11 to 0.2% Ni mostly from the Young Henry Prospect area. Gold occurrences were attributed to pisolitic laterite with nickel from mapped peridotite and serpentinites (Lindsay, 2011). Soil sample data was not included in the report.

At Hill 99 prospect MHM Metals drilled two further holes totalling 368m to follow up previous encouragement from Pacific Nevada's Drilling. Drill hole H99-04 tested strike persistency of mineralised intercepts from H99-01 and 2 and hole H99-05 tested the bulls eye IP anomaly identified by Pacific Nevada work. Geochemical results from hole H99-04 showed anomalous gold with peak values of 0.105, 0.182 and 0.105ppm Au associated with fuchsite-quartz-sericite alteration of andesites and basalts from 155 to 172m. Copper from a 30cm massive quartz-chalcopyrite vein intersected at 177.6m returned a grade of 10.55% Cu and 0.244% Zn. Independent geochemical assessment suggested the sequence is comparable to suite 1 of Crawford's (1992) Mount Read Volcanics geochemical classification. Further the carbonate-sericite-pyrite alteration was considered to have similarities to Henty Au and footwall zones at the Rosebery VHMS deposit.

At Thomas Creek MHM noted the circular magnetic high edging the intermediate intrusive body and undertook soil sampling around this feature at 50m spacing. This work extended the copper anomalous areas further south at Thomas Creek but also identified a new region of high copper anomalism (up to 500 ppm Cu) about 1.5 km northwest of the original prospect. This new site is unconstrained and occurs along the magnetic rim.

Limited REE analysis returned profiles similar to late Ordovician intrusions hosting porphyry Cu-Au at Goonumbla and Cadia (NSW. Lindsay, 2011).

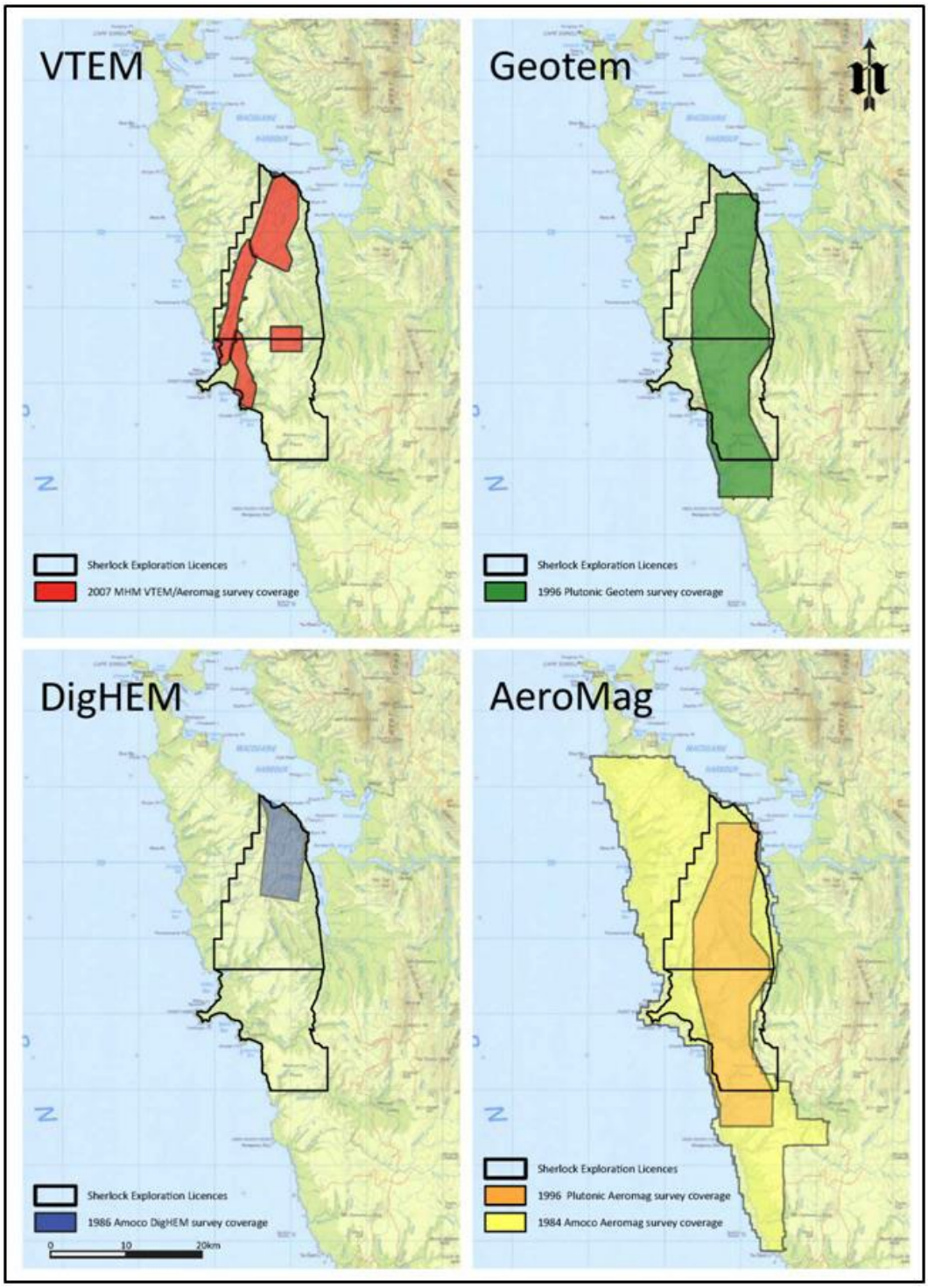

Figure 18: Summary Airborne geophysics surveys relative to Sherlocks EL's 6&7/2013.

2013 – 2017 Sherlock

In 2014, Sherlock Minerals conducted dipole-dipole induced polarisation (IP) surveys for a total of 7.3-line kilometres at the Thomas Creek Project. The IP surveys revealed the presence of a chargeability anomaly approximately 300 m wide and 500 m long at 100 to 200m depth, that did not appear to have been tested by Plutonic's historical shallow exploration drill holes.

Sherlock redefined surface high-grade copper and gold mineralisation at Thomas Creek during 2015, following up historic high-copper values in soils. The mineralisation sampled comprised a massive

pyrite zone approximately 5 metres wide containing abundant copper sulphides hosted within highly weathered saprolitic bedrock, beneath peaty soil cover. Geochemical analyses of the mineralised saprock zone returned values ranging between 0.8% to 3.8% copper, 0.7 g/t to 1.3 g/t gold, and 0.1% to 0.78% cobalt. The mineralisation occurs above the chargeability IP anomaly identified in 2014.

Field reconnaissance of the Henrietta area targeting the VTEM anomalies returned XRF Ni ranging from 0.1 to 0.6% and Co ranging up to 0.43%. ICP confirmation from the best Henrietta sample returned 1705ppm Ni and 1400ppm Co (15_7303).

2017 – 2020 Accelerate Resources Ltd.

Accelerate Resources Ltd. undertook extensive exploration efforts on EL6/2013 targeting intrusion and vein related Cu-Co mineralisation at Thomas Creek, as well as Nickel-sulphide and platinum-group element mineralisation at the Young Henry Prospect.

During 2018, 212 field surface samples were collected from the Thomas Creek, Henrietta and Young Henry Prospect areas, comprising a total of 173 soil samples, 22 rock chips and 10 bulk stream sediment samples for -80# analysis. Soil sampling at Young Henry (No. 49) selectively covered the ultramafic rocks and surrounds, centred upon a targeted airborne EM anomaly. At Thomas Creek, the soil sampling (No. 124) selectively covered previous un-sampled Sherlock 2014 IP grids and new Accelerate 2018 IP grids.

A ground IP survey at Thomas Creek was undertaken, extending the 2014 Sherlock IP survey. A total of 10.8 line kilometres was surveyed on five 150m spaced north-south and one east west oriented lines. The IP Survey was 2D dipole-dipole design with 75m dipole length using 1-14 separation. 3D IP modelling combining the 2014 Sherlock and 2018 Accelerate IP defined a large ~600 by 400m chargeable anomaly located along the eastern margin of an ovoid aeromagnetic body, below surface copper-cobalt soil anomalism (Figure 18 & Figure 19).

Diamond drilling at Thomas Creek during 2018 comprised three holes TCDD001 to TCDD003 for 831.7m, targeting strong chargeability highs and resistivity lows within the large 3D inversion modelled IP chargeability anomaly. The drilling intersected a fertile mineralised system bearing abundant disseminated and veined sulphides and several felsic-intermediate (micromonzodiorite) intrusions, with associated anomalous copper-cobalt grades. Best results included: 3m @ 2323ppm Co and 0.09% Cu in TCDD001; 46m @ 0.11% Cu in TCDD002; 22m @ 193ppm Co and 0.01% Cu in TCDD003. All three holes intersected pervasive silica (+/– sericite) – pyrite alteration with overprinting magnetite-K-Feldspar-actinolite-chlorite-pyrite-chalcopyrite veining. Zones of weak to moderate pervasive K-Feldspar-silicate alteration were also seen.

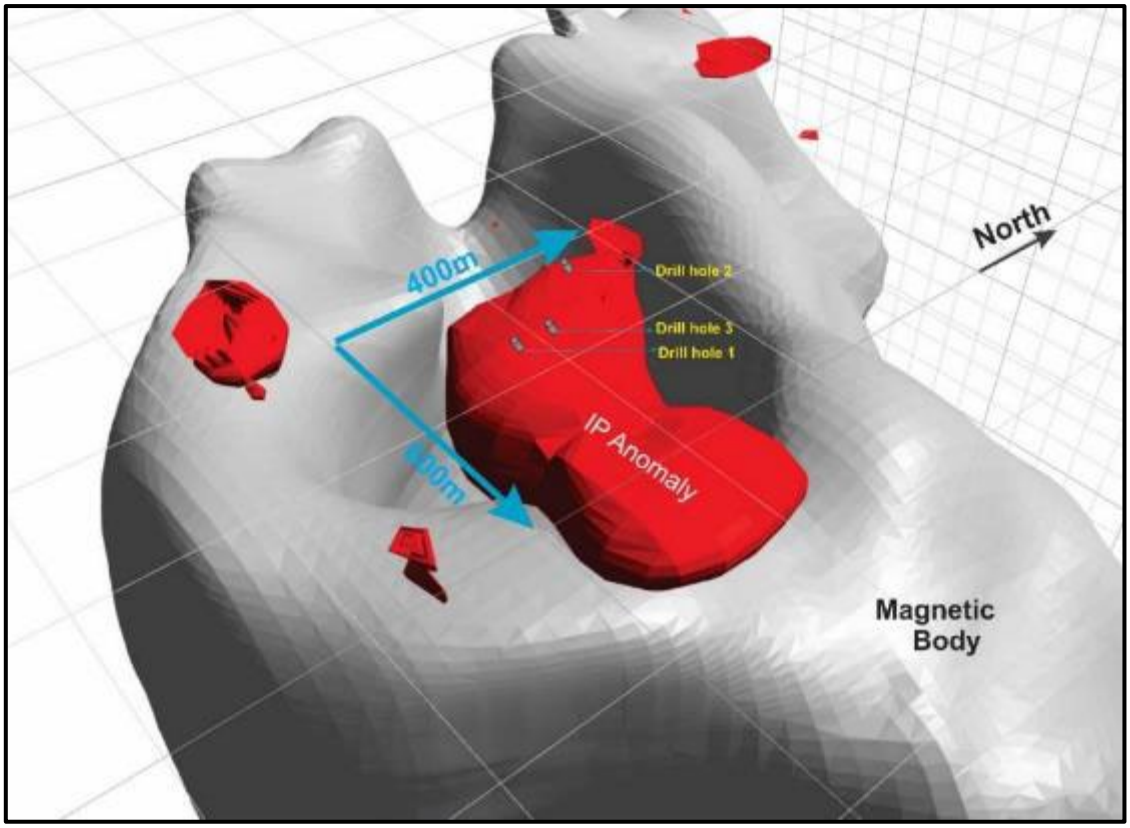

Figure 19: Thomas Creek - 3D Chargeable IP Anomalies with Drill Holes.

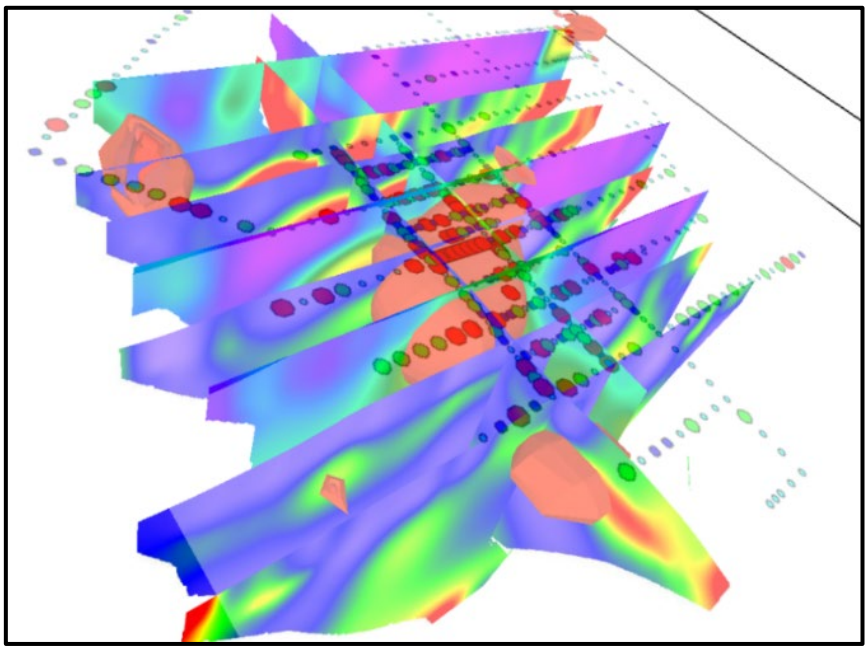

Figure 20: Thomas Creek, 3D IP modelling defines large chargeable body beneath Cu in soil anomalism (View to NW).

Downhole EM (DHEM) surveying of the three diamond holes facilitated by a further 1.5km of gridding for loops, indicated a number of in-hole and nearby conductors related to observed semi-massive sulphide mineralisation intersected by the drilling. The DHEM of hole TCDD003 identified a broad, distant and unconstrained off-hole conductor to the southeast and located ~150m east of TCDD001. This conductor was interpreted to lie within the shallower eastern parts of the IP chargeability anomaly, overlying the magnetic rim of the Thomas Creek intrusive complex.

SWIR data was collected for TCDD001 to 3, with a preliminary consultant's report identifying strongest vectors to VHMS style alteration in TCDD003.

Exploration at the Young Henry Prospect targeted an Airborne EM conductor, potentially associated with Nickel-sulphide and platinum-group element mineralisation host within middle Cambrian mafic and ultramafic rocks of the Hibbs Ultramafic Belt. Mineralisation potential was clearly demonstrated with grid (3.6km) based sampling returning Ni, Co, Cu and Zn anomalous soils and gossan located up plunge from a modelled ground FLEM conductor. Drill targeting (YHDD001, 156m EOH) returned two significant intersections of 38.3m @ 0.23% Ni and 17.7m @ 0.19% Ni. Two zones with magmatic Nickel sulphide potential were identified at the base of both serpentinised ultramafics intersected. Petrological examination confirmed the presence of pentlandite (Bottrill and Unwin., 2019b).

Exploration work during the tenure year to 1 October 2020 continued to target the Thomas Creek Prospect, completing an ongoing field program. A final drill hole was undertaken, TCDD004 (EOH 657m; Table 4 & Figure 21), targeting a magnetic anomaly and soil Cu high as well as chargeability and a resistivity contrast at depth. TCDD004 was partly co-funded by the Tasmanian Government through MRT's Exploration Drilling Grant Initiative (EDGI) program. The hole intersected a sequence of altered andesitic lavas and volcanic breccias, cross-cut by several K-feldspar altered monzodiorites, with zones of magnetite-chalcopyrite-pyrite-K-feldspar veining intersected in the upper 300m of the hole. Several zones of anomalous Cu and gold were intersected, including 4m at 0.19% Cu from 292m, 2m at 1.65g/t Au from 424m, 2m at 0.41% Cu from 458m and 4.3m at 0.11% Cu from 605.7m.

A particularly significant result was identification of a potential Cambrian seafloor exhalative VHMS-like horizon at 519m. This narrow 30cm interval featured chemical precipitate like textures within locally massive to semi-massive pyrite, beneath pervasively silicified and sericitised banding up hole.

Table 4: Drill hole collar details for Accelerate Drilling to 2019.

Hole ID	East MGA94	North MGA94	RL	Azimuth	Dip	Depth	Date Commenced	Date Completed
TCDD001	369894	5285793	219	90	-60	272.9	6/04/2018	19/04/2018
TCDD002	369740	5286051	214	45	-60	200.9	27/04/2018	18/05/2018
TCDD003	369834	5285851	214	45	-55	359.7	29/05/2018	1/07/2018
TCDD004	370114	5285822	215	135	-65	657	3/10/2018	16/12/2018
YHDD001	368465	5304278	171	115	-65	156.1	24/08/2018	3/09/2018

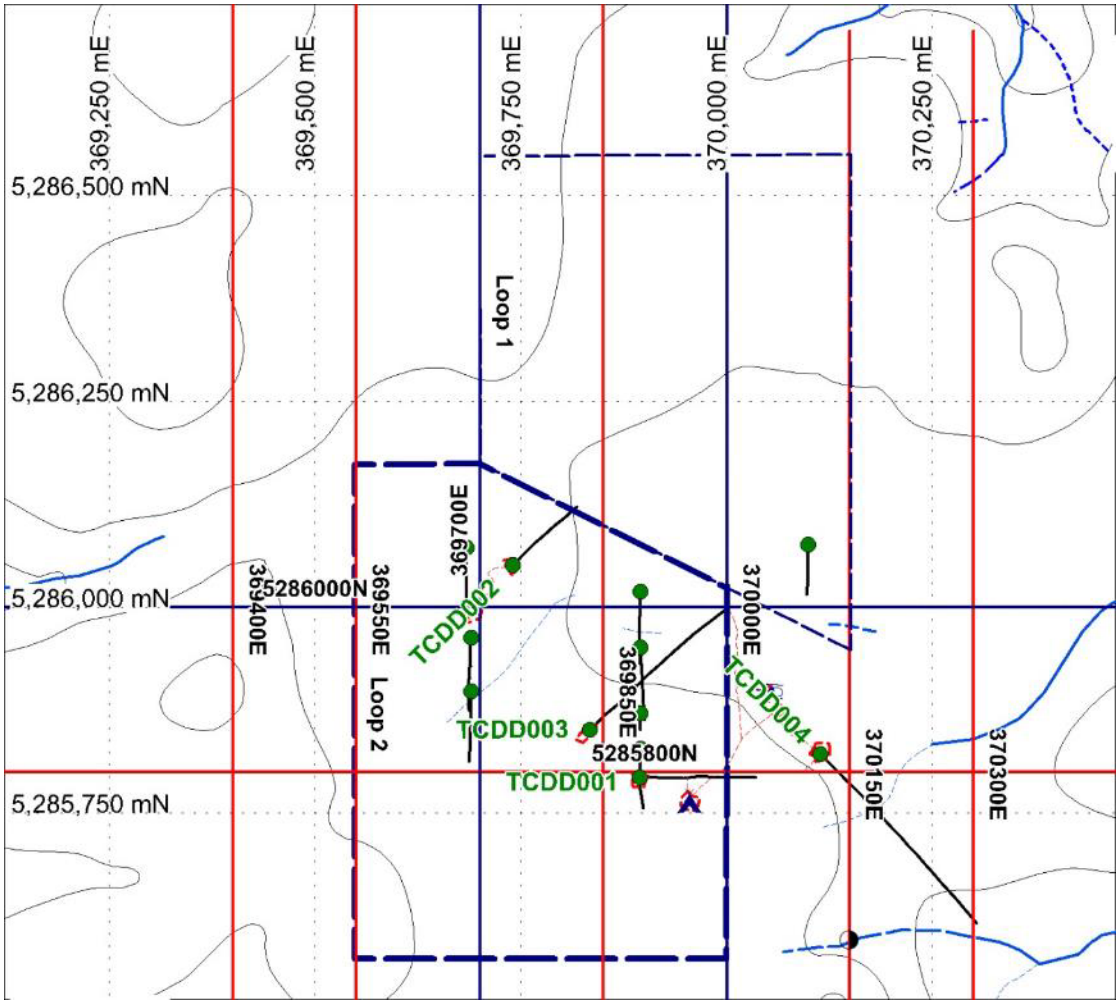

Figure 21: Thomas Creek Prospect drill collars, IP grids and DHEM Loops.

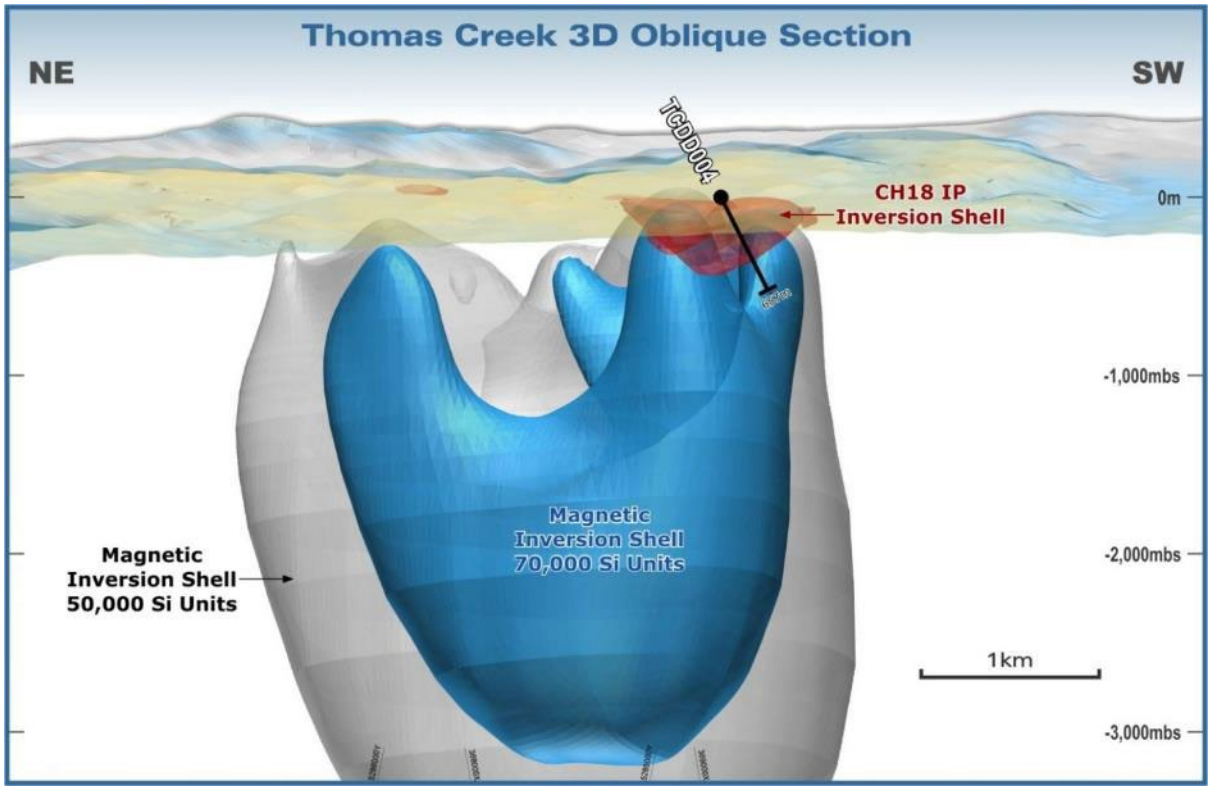

Figure 22. IP chargeability and magnetic inversion shells targeted by TCDD004.

Data interpretation generated further significant insights into the geology and mineralisation at Thomas Creek. Orientated drill hole data identified two principal NW and SW dipping chalcopyrite bearing vein orientations, as well as a significant thrust fault. Analysis of geochemical correlation trends in both soil and drill hole data resulted in definition of two key element associations for intrusion related K-feldspar-silicate alteration (K, Ba, Tl & Rb) and vein (Cu, Co, P, Ni, W, Re) related styles. Comparison to Mt Lyell and other VHMS was undertaken in part through developing geochemical vectoring indices. A number of highly prospective Cu-Co targets were identified, including in the south of the Thomas Creek Grid, as well as open potential in the north and northeast.

Field work identified a new Cu-Au prospective zone on Thomas Creek's northern magnetic rim with an elevated (~0.1ppm) Au zone coincident with Cu (400 to 1400ppm) in soils and peak rock chip analyses of >10,000ppm P, >15% Fe, 470ppm Cu and 134ppm Zn. Elevated copper samples were returned from andesite breccia.

Consultant Scott Halley (2019) undertook a cursory examination of key geochemical lithologies and associations, which collectively examined Thomas Creek and Young Henry drill hole data. Relatively felsic intrusions (chalcopyrite bearing micromonzodiorite) and pyroxenite groups were found to be compositionally very different to any other Sorell Peninsula rock types examined. The pyroxene cumulates group clearly plot as komatiite on a Jensen Cation Plot and were clearly identified as ultramafics from Sc:Cr plots. Halley (2019) further notes "The pyroxenite has an unusually low V/Sc ratio…..a common characteristic in gabbro-hosted Ni-sulfide systems". Although plotting Ni versus Cr suggested most Ni from pyroxenite samples was present in silicates. A magnetite-rich geochemical grouping with very high V as well as high P and Fe was identified which Halley (2019) notes is not unusual for fractionating gabbro bodies, lending support to IOCG biased mineralization modeling.

A 430 line kilometre Mobile Magnetotellurics (MobileMT) airborne survey aiming to map resistivity contrasts to ~1,000m was completed. This system is the latest innovation in airborne electromagnetics and the most advanced generation of airborne Audio-Frequency Magnetic Electromagnetic (AFMAG) technologies. The survey focused on the Thomas Creek area but extended north encompassing Timbertops and south to Mt Lowran at the southern end of the Hibbs Ultramafic belt. A conductive anomaly in an unexplored area northeast of the Thomas Creek Copper-Gold-Cobalt prospect was identified, as well as a lower tenor conductive zone spatially correlating with the initial Thomas Creek IP Chargeability and geochemical target area. The survey also revealed the presence of an untested resistive plug extending to depth beneath the centre of the Thomas Creek Intrusive Complex.

2020 – 2023 Stunalara (Operations) Ltd.

Field work during the 2020 to 2023 Stunalara Metals Ltd. and Accelerate Resources Ltd JV period was curtailed by COVID-related concerns. Regardless, desktop work conducted assessing exploration potential and planning of field work met the expenditure requirements.

Assessment of new Vector Geosciences geophysical data and products in conjunction with existing GIS data was undertaken by a team of consultants; Mapitt Geo Solutions, Digimaps and consultant Robert Reid. A total of 8 priority regional prospects (Figure 3) were identified targeting Ni-Cu-Co sulphides related to the Hibbs Ultramafic Belt, as well as Cambrian volcanic-hosted Cu-Au-Co potential in the Thomas Creek vicinity. An additional Timbertops target with rare-earth element (REE) potential was also identified and remains untested. Significant outcomes of the Versatile Time Domain EM (VTEM) re-processing clearly depict the IP body in the centre of the Thomas Creek intrusion, as well as highlighting the untested north-eastern MobMT anomaly (Figure 7). Rank 1 VTEM anomalies similarly confirmed in the Ni-Cu-Co prospective Henrietta area.

Field exploration work undertaken during the year to 1 October 2022 commenced testing of the coincident MobMT conductor and IPLEVEL Effect anomaly in the northeast of the Thomas Creek Prospect. Limited track cutting with associated soil and rock sampling (No. 22) located anomalous Cu in soils to 527ppm. Initial re-interpretation of the Thomas Creek soil geochemistry data provided ample support for extension of gridding into prospective magnetic rim areas of the Thomas Creek Prospects north and northeast.

Reinterpretation of geochemical data via derived indices by Reid (2022) suggests that the drilled area of the Thomas Creek Prospect possibly represents “smoke” peripheral to a more significant mineralised system. Reid (2022) noted that many mineralisation-related index anomalies defined from soil and drill core analyses of the Thomas Creek core geochemical anomaly were relatively point source, possibly in large part reflecting structure related fracture fill veining. Whereas, more coherent mineralisation Western Tharsis / Mt Lyell (Figure 9) and similar IOCG indice anomalies are apparently peripheral, coincident with the aeromagnetic anomaly riming the Thomas Creek Prospect (Figure 12), highlighting the prospective potential of the little tested NE and northern rim of the TC intrusive complex.

The Thomas Creek and Henrietta Camps were demobilised and drill hole collars were rehabilitated following the cessation of the exploration joint venture on EL6/2013 between Accelerate Resources Ltd and Stunalara (Operations) Ltd, terminated late in 2022.

EXECUTIVE SUMMARY

This Project Review has been prepared by consultant Robert Reid at the request of Stunalara Pty Limited (STN). STN owns a 100% controlling interests in the EL4/2024 tenement within it's Mt Read Project, Tasmania.

Based on prevailing market sentiment and commodity prices, exploration and/or development for Cu, Au, Ni and Co (+base metals) is warranted and the tenement is considered sufficiently prospective to justify the exploration expenditure and work programs outlined in the Prospectus.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Robert Reid, a Competent Person who is a member of the Australian Institute of Geoscientists (No. 6261). Mr. Reid is employed as an independent consultant to the Company. Mr. Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.