



**Exploration Permit for Minerals No 14467
'Mount Frosty', Queensland
Partial Relinquishment Report
for the Period Ended 15 March 2015**

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SUMMARY

Object of report

To document the results of exploration on the two (2) sub-blocks relinquished from EPM 14467 Mount Frosty on 15 March 2015.

Location

EPM 14467 Mount Frosty, covers approximately 35 km² and lies midway between Mount Isa and Cloncurry, between latitudes 20° 40' and 20° 50'S and longitudes 140° 0' and 140° 07' E.

Tenure

EPM 14467, comprising thirty-four (34) sub-blocks was granted to Mount Isa Mines Limited on 16 March 2006 for an initial five-year term. A relinquishment of seventeen (17) sub-blocks was made in March 2008, leaving seventeen sub-blocks remaining. An application for renewal of the seventeen sub-blocks for a further one year was made in December 2010, and again in December 2011, an additional three year term over the seventeen sub-blocks was applied for and approved. An application to vary the eight sub-block relinquishment due on 15 March 2014 to six sub-blocks was applied for in December 2013, and approved in April 2014. In 2015, two sub-blocks relinquishment was applied for and approved.

Precis

Exploration conducted over the two sub-blocks concerning this relinquishment is restricted to reconnaissance geological traverse, prospecting and Niton-XRF soil survey.

Conclusions and Recommendations

The XRF soil survey over the tenement identified two soil geochemical anomalies. The anomaly in the north of the tenement has reported discontinuous, weakly elevated copper up to 336ppm in soil overlying meta-mafic and meta-sedimentary rocks of the Corella Formation. The southern anomaly is a 250m X 25m zone of elevated copper ranging from 256ppm to 8660ppm. It corresponds to historic workings located on a shear zone near the contact between granite and dolerite. Field checking of these anomalies has significantly down-graded their size potential, and consequently it is recommended that these sub-blocks be relinquished.

1. INTRODUCTION

This report documents the exploration activities conducted on the two sub-blocks comprising the partial relinquishment of Exploration Permit for Minerals (EPM) 14467 Mount Frosty, on 15 March 2015. EPM 14467 was granted to Mount Isa Mines Limited (MIM) on 16 March 2006. Chinalco Yunnan Copper (CYU) entered into an 'Earn In Agreement' with Mount Isa Mines Limited in 2012. Since then the exploration activity completed by CYU on EPM 14467 has focussed on the discovery of economically viable base metals and rare earth element (REE) deposits.

The Mount Frosty project area lies within the Mary Kathleen Fold Belt of the Eastern Succession of the Mount Isa Inlier, North West Queensland. This exploration permit adjoins the Mary Kathleen uranium mine and comprises an area of strongly elevated stream and rock chip copper-gold-uranium-REE geochemistry and an abundance of faults and shear zones in favourable structural orientations.

Chinalco Yunnan Copper Resources Ltd (CYU) entered into an 'Earn In Agreement' with Mount Isa Mines Limited on 3 February 2012. Under the terms of the agreement, CYU had the right to acquire 51% of the tenement by spending \$1.5M within 3 years and achieved this in 2014. A further 24% ownership of the tenement can be acquired by the expenditure of a further \$3M.

Exploration conducted over the two sub-blocks reported here is restricted to geological traverse, prospecting and Niton-XRF soil survey.

2. LOCATION AND ACCESS

The Exploration Permit lies within the Cloncurry 1:250,000 map sheet (SF 54-2), and the Marraba (6956) and Mary Kathleen (6856) 1:100,000 sheets, between latitudes 20° 40' and 20° 50' S and longitudes 140° 0' and 140° 07' E.

The permit area straddles the Barkly Highway, approximately 60km east of Mount Isa. Access is via a network of station tracks linked to the sealed Barkly Highway or the old Mary Kathleen Mine road. The topography over most of the tenement is steep, while vegetation comprises spinifex and other grasses, with acacias and eucalypts concentrated proximal to drainage channels.

3. TENURE

EPM 14467, comprising thirty-four sub-blocks was granted to Mount Isa Mines Limited on 16 March 2006 for an initial five-year term. A relinquishment of seventeen sub-blocks was made in March 2008, leaving seventeen sub-blocks remaining. An application for renewal of the seventeen sub-blocks for a further one year was made in December 2010, and again in December 2011, an additional three year term over the seventeen sub-blocks was applied for and approved. An application to vary the eight sub-block relinquishment due on 15 March 2014 to six sub-blocks was applied for in December 2013, and approved in April 2014. In 2015, two sub-blocks relinquishment was applied for and approved.

The location of the tenement and relinquishment is shown in Figure 2 and Figure 3, with the sub-blocks detailed below (Table 1 and Table 2).

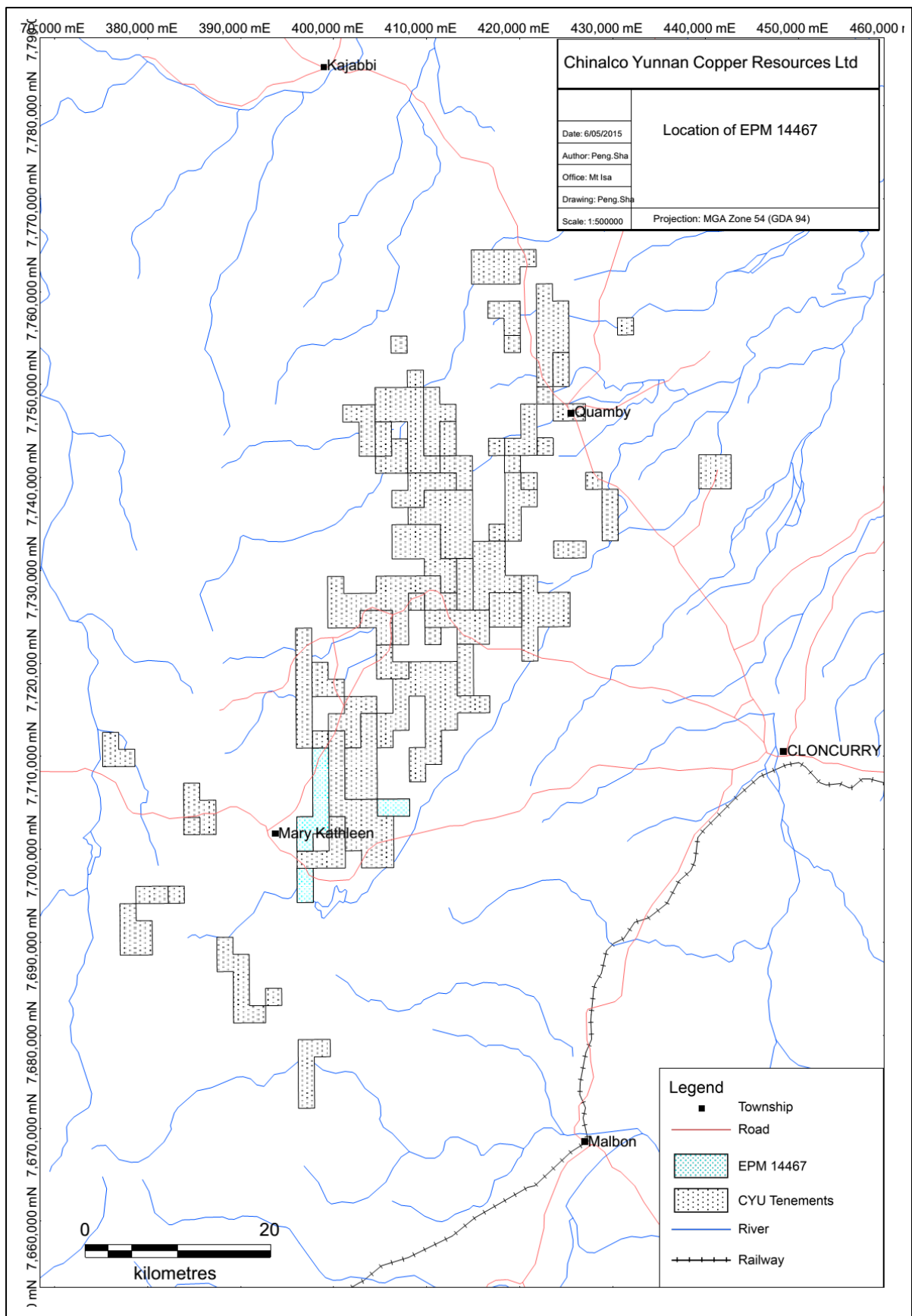


Figure 1: Location of EPM 14467

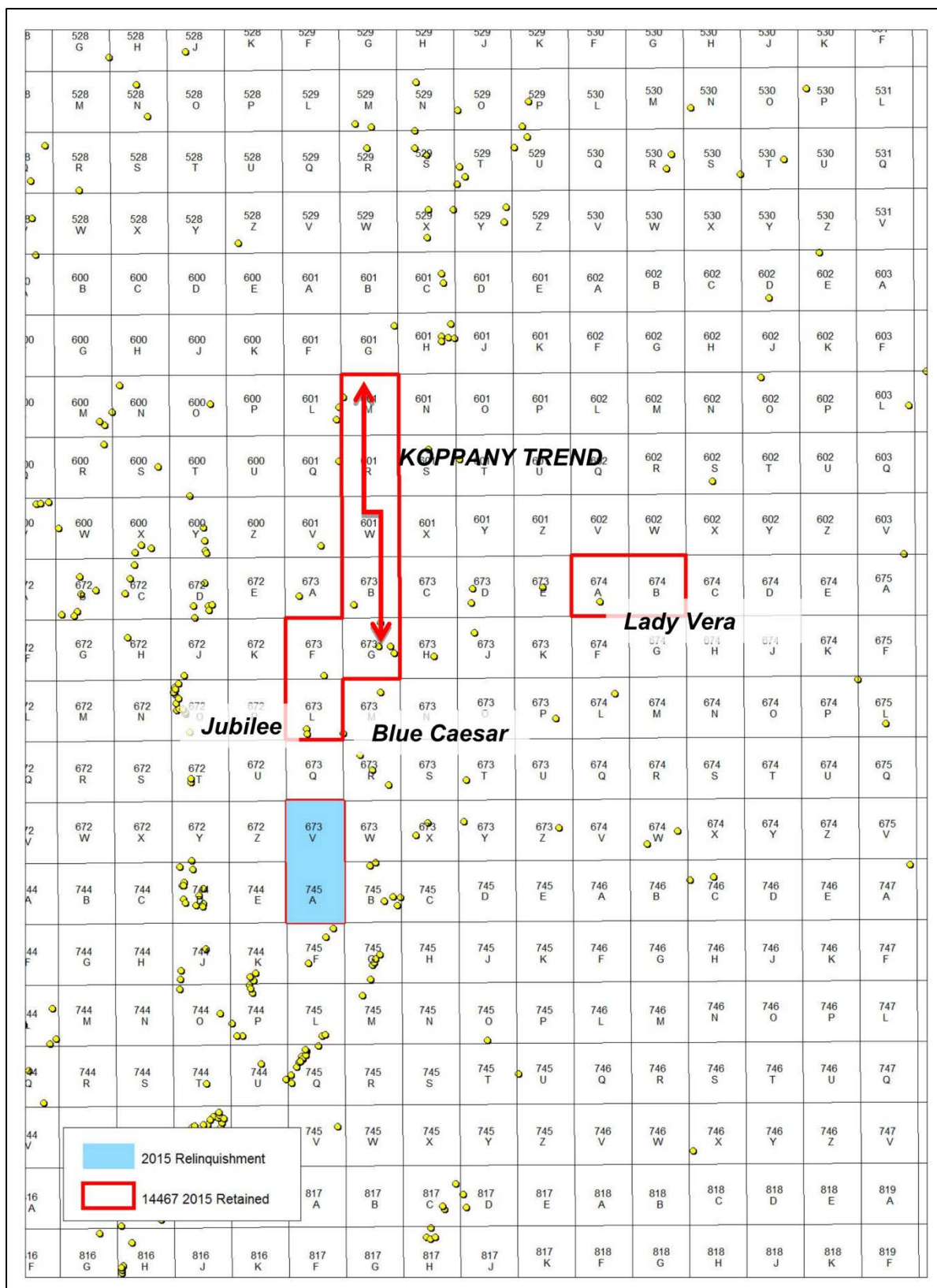


Figure 2: Relinquishment variation EPM 14467

BIM	Block	Sub-blocks
CLON	601	m, r, w
CLON	673	b, f, g, l
CLON	674	a, b
Total Sub-blocks		9

Table 1: Retention of nine sub-blocks of EPM 14467 (1:250,000 map sheets)

BIM	Block	Sub-blocks
CLON	673	v
CLON	745	a
Total Sub-blocks		2

Table 2: Relinquishment of two sub-blocks of EPM 14467 (1:250,000 map sheets)

4. REGIONAL GEOLOGY

The project area occurs within the Mary Kathleen Fold Belt of the Eastern Succession of the Mid Proterozoic Mount Isa Inlier. The area comprises a complex mix of metavolcanic, meta-sedimentary and meta-intrusive rocks. Most metavolcanic and meta-sedimentary rocks belong either to the Argylla Formation, Ballara Quartzite, Corella Formation or Mount Albert Group. The 1750-1730Ma Wonga Extension is responsible for the emplacement of large volumes of porphyritic granitoids and extensional shear zones. The Wonga-aged granitoids are related to extensive skarn alteration of calc-silicates and marbles within the Mary Kathleen Fold Belt that pre-dates regional Isan metamorphism and deformation by at least 100Ma. Regional metamorphism of the Isan Orogeny in the Mary Kathleen Belt is dominated by amphibolite facies metamorphism and the steep, N-S trending folds and foliations of the D2 event. Regional Alteration associated with the Isan Orogeny comprises widespread albite-actinolite-magnetite Na-Ca alteration, and locally developed K-feldspar-magnetite-hematite “red-rock” alteration.

Documented copper occurrences are scattered throughout the entire area, but are most strongly focused along the eastern edge and southern closure of the Rosebud Syncline. Mineralisation is generally structurally controlled, with most occurrences localised within shears or faults adjacent to regional-scale faults. Additionally, there is a subordinate stratigraphic control on mineralisation, with a significant proportion of documented mineral occurrences located on contacts between the Argylla Formation, Ballara Quartzite and Corella Formation.

5. PREVIOUS EXPLORATION

After the discovery of Mary Kathleen in the 1950's, exploration in the area up until the end of the 1970's, was dominated by the search for uranium to provide additional feed for the Mary Kathleen operations. Exploration for copper in the Rosebud area has a long history; however, to date only relatively small resources have been defined. The largest known copper resources within the area are Blockade (350Kt @ 1.5% copper), Mount Colin (750Kt @ 3.5% copper) and Wee MacGregor (1.9Mt @ 2.6% copper), all of which have a large copper oxide component. A considerable number of other prospects have been drilled, some of which contain significant mineralised intersections (e.g. Pinnacle Prospect with several intersections in the order of 95m @ 0.4% copper and 0.09g/t gold), however most comprise low-level or narrow copper±gold mineralisation typically localised within shears or veins.

A list of previous exploration and reports is presented in Table 2. Some of the more recent exploration is briefly discussed here.

- Uranium exploration by Rio Tinto / Mary Kathleen Uranium from 1955 to 1982 and by Western Nuclear in the 1970's. Of most relevance to current copper exploration was a detailed stream sediment survey with samples assayed for uranium and copper, several shallow percussion holes drilled at Koppany for uranium, and a number of quality geological maps of the tenement area;
- Uranium and copper exploration completed by Minefields Exploration, LG Szabo and Partners, PIMEX and Marveldeen and MIM between 1970 and 1992. Much of this work was completed at Koppany; it included ground geophysics, geochemical sampling and the drilling of five percussion holes and one diamond hole;
- MIM during this time also explored the area of the eastern sub-blocks of EPM 14467. This included the drilling of five reverse circulation (RC) and three diamond holes at the Lady Vera occurrence;
- Predominantly gold exploration was completed by Delta Gold in 1994 and 1995 including at the Koppany Prospect and Chester – some distance southwest of Koppany. This included rock and soil sampling and the drilling of four RC holes at Chester.

EPM NO. & NAME	COMPANY REPORT NO	DATE	COMPANY	EXPLORATION TARGET	ACTIVITIES
?	00423	1955	Rio Tinto	Uranium	Geological mapping of the current EPM 14467 area, detailed mapping of the Mary Kathleen pit immediately west
?	00433	1958	Rio Tinto	Uranium	Geological mapping and a structural reinterpretation of the Mary Kathleen orebody and extending into EPM14467 area.
?	00434	1958	Rio Tinto	Uranium	Geological mapping of the current EPM14467 area, airborne magnetics
A-P 585	3651, 3652, 3653	1969 – 197?	Western Nuclear	Uranium and base metals	Stream sediment sampling, 1 DDH at Lady Vera?
A-P 700M	3776	1970	Minefields Exploration	Uranium and base metal	Geological mapping, airborne magnetics and radiometrics
A-P 700M	3896	1972	Minefields Exploration	Uranium and base metal	IP, detailed geological mapping and drilling of 5 RC holes at Koppany with intersections generally 0.1 – 0.3% Cu

EPM NO. & NAME	COMPANY REPORT NO	DATE	COMPANY	EXPLORATION TARGET	ACTIVITIES
A-P 1307M	5389	1975	LG Szabo & Partners	Base metal and Uranium	At Koppany - mapping, soil sampling, rock sampling, ground geophysics (magnetic, radiometric and IP), drilling of one 31m diamond hole.
A-P 1678M	6372	1978	Mary Kathleen Uranium	Uranium and Copper	1:10,000 geological mapping, ground scintillometer surveys, rock sampling, very detailed stream sediment sampling for U and Cu – covers the Koppany prospects.
A-P 1678M	7100	1979	Mary Kathleen Uranium	Uranium	Three radiometric anomalies within EPM 14467 drilled, including Koppany (East Two Wells anomaly). No significant U assays, Cu not analysed for.
A-P 2323M	10678	1982	MKU	Uranium	Airborne radiometrics, geological mapping of EPM 14467 area.
A-P 4304M	16798	1987	PIMEX	Copper	Rock sampling and SP at Koppany
A-P 4304M	18607	1987	Uranerz	Uranium	Geological mapping and rock sampling (JV with PIMEX)
EPM 4594	17053, 19945, 21655	1987 – 1990	MIM	Copper and Gold	Soil sampling, mapping, costeaning, ground magnetics, RC and diamond drilling
EPM 4304M	24042	1992	Marveldeen	Copper	Drilling of a 248m diamond hole at Koppany.
EPM 9628M	26692	1994 - 1995	Delta Gold	Gold – Copper	Stream sediment sampling, rock sampling at Koppany, soil and rock sampling at Chester (SW of Koppany)
EPM 9628M	27525	1995	Delta Gold	Gold-Copper	Rock and soil sampling, drilling of 4 RC holes at Chester.

Table 3: Summary of the exploration history of EPM 14467

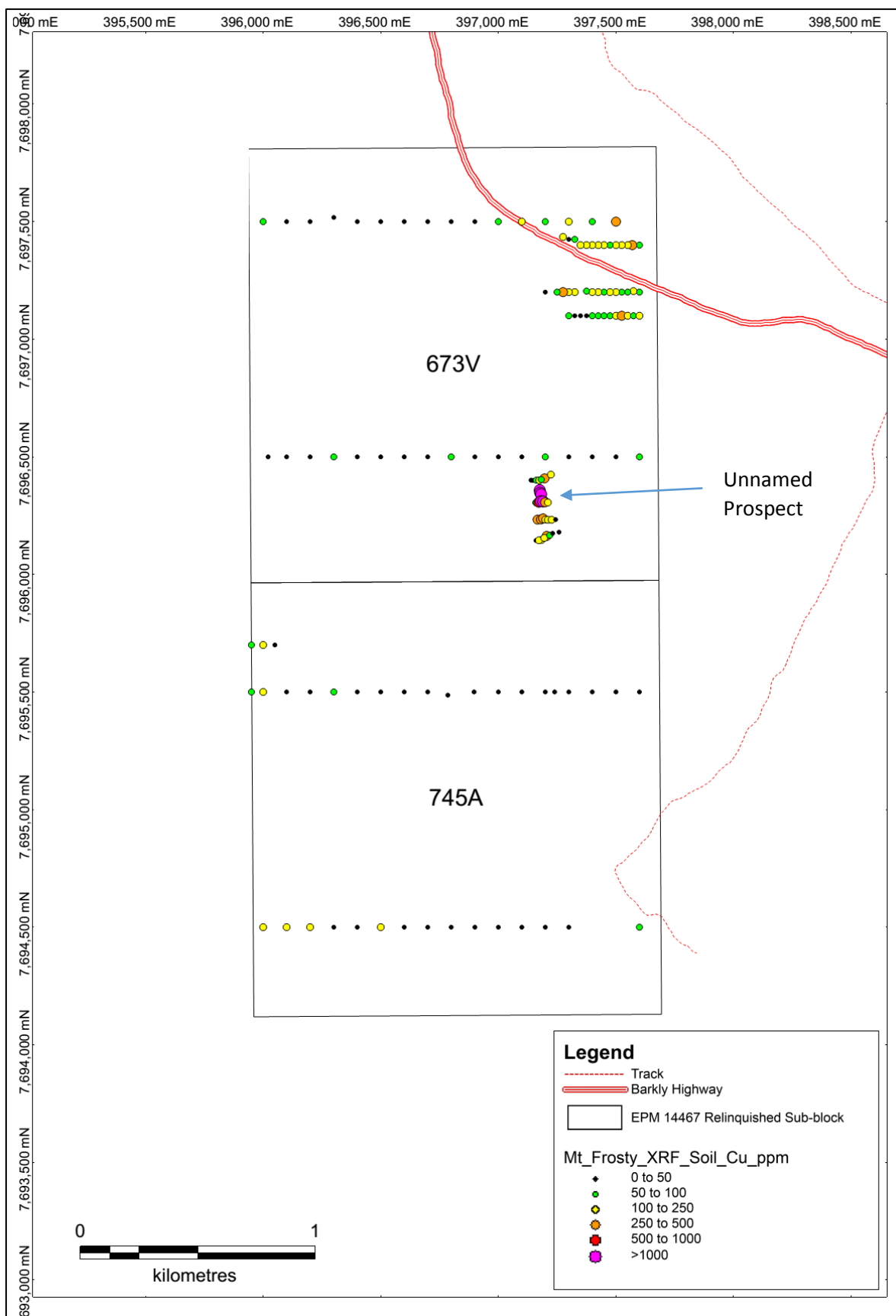


Figure 3: Mt Frosty EPM 14467 – XRF soil sample locations with copper geochemistry on two relinquished sub-blocks 673V and 745A (GDA 94_Zone 54)

6. WORK COMPLETED DURING THE TERM OF TENURE

6.1 Introduction

Exploration completed over the two sub-blocks subject to the current relinquishment was restricted to reconnaissance geological traverses, prospecting, and Niton-XRF soil and rock chip survey.

6.2 Niton-XRF Soil and Rock Chip Geochemical Survey

Soil sampling at 100m stations on lines 1km apart and a small amount of detailed soil sampling was also completed across the southern sub-blocks of EPM 14467 by MIM in 2010 (Figure 3, Appendix 1 & 2). Parts of these lines cross the two relinquished sub-blocks where 144 samples were taken. The survey used direct on-site XRF assaying of the soil with a Niton XLT3 Gold instrument. Twenty-six to thirty-three elements were assayed and included Mo, Zr, Sr, U, Rb, Th, Pb, Se, As, Hg, Au, An, W, Cu, Ni, Co, Fe, Mn, Cr, V, Ti, Sc, Ca, K, S, Ba, Cs, Te, Sb, Sn, Cd, Ag, and Pd. As the instrumental limit of low detection is about 10ppm, many samples were below detection and reported a 0 value. Three rock chip samples were also tested during the soil survey by the same method.

The objective of these soil sampling surveys were to identify copper anomalous stratigraphy. Generally, the covered soil of granitic units have lower copper. In contrast, mafic or schist units reported higher copper.

Detailed sampling was conducted across meta-sediments and meta-volcanics in the northeast corner of sub-block 673-V (Figure 3). Three short lines with 25m stations sampling were completed to follow up previously identified soil anomalies. The best assay from soil reported 313ppm copper from a quartzite unit. Two rock chip samples tested a 5cm malachite nodule and ironstone float with quartz, and the malachite sample assayed 5% copper. However, the soil assay from 10m east and west of the malachite occurrence only reported weak copper anomalies (185ppm and 136ppm). The soil assays indicate that the copper occurrence is minor.

In addition another detailed sampling program was completed on the Undaunted copper prospect. The mineralization at Undaunted is controlled by a small shear zone near the contact between granite and dolerite (east side of the prospect). Gossan and malachite are hosted in irregular <15cm wide vuggy quartz fracture veins and pegmatitic texture quartz-feldspar veins. The assay results define a 250m X 25m soil anomaly assaying over 250ppm copper. The best assay result from soil near the malachite outcrop was 0.86% copper. However, the lack of strike extent and width of surface mineralisation and copper-in-soil anomalism limit the size potential of this prospect.

7. CONCLUSIONS AND RECOMMENDATIONS

Exploration conducted over the sub-blocks of EPM 14467 subject to this relinquishment indicate that results from the Niton-XRF soil sampling program were generally subdued, particularly over granites in the southern part of the survey area. No significant alteration associated with metals was seen and those mineralised structures that did have good copper grades were typically narrow and limited in strike extent. The general lack of significant copper anomalism in Niton-XRF soil sampling results indicates a low chance of generating substantial drill targets. Geophysical data reviewing and prospecting were also undertaken to evaluate the copper anomalous areas. The general impression is that the structures are narrow with limited tonnage potential. Magnetic anomalism is generally related with mafic units.

No other targets of exploration significance were identified over the two relinquished sub-blocks.