KRUCIBLE METALS LTD
Mineral Discovery Company
ABN 12 118 788 846

EPM 17613 LUKES PLOT

Partial Relinquishment Report 2012

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SUMMARY

EPM17613 'Luke's Plot' is located within the Cloncurry Shire in Northwest Queensland approximately 150km southeast of Mount Isa and 20km southwest of the Selwyn mine.

Krucible Metals Ltd (Krucible) is a mineral discovery company and therefore is not exploring for a single commodity but rather a number of deposit styles and mineral assemblages. The Luke's Plot EPM is highly prospective for Selwyn style IOCG deposits within Proterozoic units undercover as it lies on the southern extension of the magnetic trend from this large deposit. The Lucky Luke (IOCG) Deposit (Inova Resources) lies within 10km of Krucible's EPM along this trend. Cover rocks consist of upper to middle Cambrian units including the prospective Beetle Creek Formation which is host to large Phosphate deposits such as Phosphate Hill 30km to the west. Furthermore, discoveries by Krucible of secondary Rare Earth deposits within Cambrian age sediments associated with disconformities also 30km to the west (Korella Deposit) further enhances the prospectivity of the Luke's Plot EPM.

Previous work by Krucible has involved geophysical interpretations based on images from the Queensland Government. This has lead to definition of a number of target areas which will be systematically explored by Krucible. This work led to a review of the tenement and a relinquishment of non-prospective areas.

The relinquished sub-blocks have not been subject to any on site field exploration and only desktop studies and interpretations have been completed. This exploration indicated a lack of geophysical anomalies and geological targets. Hence an application to surrender 10 sub-blocks from the EPM was made on the 12th September 2012.

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THIS REPORT HAS BEEN WRITTEN AND SUBMITTED IN ACCORDANCE WITH THE QUEENSLAND GOVERNMENT DEPARTMENT OF MINES AND ENERGY REGULATIONS AS AT 1ST JANUARY 2009.

1. INTRODUCTION

EPM17613 Luke's Plot is located within the Cloncurry Shire in NW Queensland approximately 150km southeast of Mount Isa (Figure 1). Krucible applied for the ground with the purpose of exploring for copper/gold mineralisation similar to Selwyn style copper/gold mineralisation and Lucky Luke copper/gold which is 6km to the northeast of the EPM. Phosphate/Rare Earth Element (REE) enrichment is also a target. Krucible has previously located a large low grade phosphate enrichment zone (Mistake Bore) 10km to the north of Luke's Plot. This was drilled based on results from drilling by Newmont Pty in 1975.

The EPM falls on the Duchess (SF54-6) Government 1:250,000 sheet. The Selwyn–Chatsworth road runs though the EPM with a number of station tracks leading off through the EPM from this road. The area is densely vegetated in places by turpentine/wattle shrub varieties making some places harder to access. Topography varies but generally consists of low lying outcrop and scree as well as some black soil country. A number of watercourses flow through the EPM including the Mort River making the area hard to access in wet conditions.

The surface geology of the EPM consists of recent silcrete, calcrete, alluvium and coalluvium. Cambrian sediments outcrop as grey limestone, shale and siltstone. Proterozoic basement is interpreted to be shallow (less than 150m) and no previous drilling in the EPM has drilled this deep. A strong northeast magnetic trend through the eastern section of the EPM is the major focus for initial basemetal exploration.

1.1 Tenure Information

The EPM17613 was granted 100% to Krucible Metals Ltd on the 20th of October 2010 for a 5 year term to explore for all minerals other than coal. The tenement comprises 36 Sub-blocks and this land does not include any protected areas as defined under the Mineral Resources Act (1989). On the 13th September 2012 Krucible applied to surrender 10 sub-blocks from this EPM. These sub-blocks are listed in Table 1 and shown on Figure 2.

TABLE 1 List of Blocks and Sub-Blocks

BIM	Block	Sub-Block									
CLON	1540		F		L		Q		V		
CLON	1611			K		P		U		Z	
CLON	1612	A	F								
	Total:	10 Sub-blocks									

2. REGIONAL SETTING

Alluvium and co-alluvium make up the Quaternary Gilbert River Formation and covers most of the EPM. Small outcrops of silcrete and calcrete are also seen outcropping in the EPM.

Cambrian

Rocks of the upper and middle Cambrian units of the Georgina Basin outcrop through this EPM as grey limestone's, siltstone's and shale's. The Georgina sub-basin is a small fault bound Proterozoic rift zone in which a thick sequence of sediments has been deposited. This basin is prospective for phosphate and secondary rare earth enrichment. Rocks in this EPM are grouped together under the Narpa Group on the government geological mapping (Figure 3). This consists of:

- Chatsworth Limestone – Upper Cambrian age, grey fine grained limestone's varying in silicious content.

- Inca Formation – Upper to Middle Cambrian age. Consists of fine grained white chalky shales and siltstones.
- Beetle Creek Formation – Middle Cambrian age, consists of brown, grey siltstones with chert bands and it is brecciated (collapse breccia?) in places.

Proterozoic

This EPM lies just south of the Proterozoic outcrop boundary of the Eastern Succession which is part of the Mount Isa Inlier. Depth to basement is interpreted to be 50-150m increasing in depth to the west. The general trend of the interpreted geological units is north-south with tectonic contacts. Interpreted geological units are from the Geological Survey of Queensland, 2011 and include:

- Kuridala Group

The group is interpreted as a turbidite succession deposited on a continental slope. It is tightly folded in places and has a metamorphic grade of lower amphibolites facies, consisting of mostly micaeous schists and amphibolite rocks. The group has a relatively low magnetic signature and has been intruded by granitic and mafic rocks of the Williams Supersuite.

- Double Crossing Metamorphics

Consists of micaeous and felsic gneisses and schists, with higher metamorphic grades than the surrounding units (up to migmatitic gneiss facies). Forms anticlinal structures and appears to have a fault contact relationship with all surrounding units.

- Bulonga Volcanics

This unit has a high magnetic signature and comprises felsic volcanic units metamorphosed to varying degrees ranging from greenschist to amphibolite facies. The unit trends north-south through the area and is an interpreted antiformal structure with a steep western limb.

2.1 Mineralisation

Basemetals

The Selwyn IOCG deposit has been periodically mined over the last 50 years, copper/gold mineralisation extends from surface with no lower cut off.

High-grade copper/gold mineralisation at Selwyn/Starra is hosted within a series of magnetite/hematite/quartz "ironstones". These ironstones form narrow lenses that appear to have replaced calcareous beds within the banded calc-silicates of the host Staveley Formation in the eastern succession of the Mount Isa Inlier. These ironstones have been incorporated into a major regional shear zone (the 'Starra Shear') that has been strongly chlorite/magnetite altered. Chalcopyrite/bornite mineralisation is associated with late-stage hematite alteration of these ironstone bodies and the host shear zone.

A wide zone of chalcopyrite/pyrite mineralisation exists in the Starra Shear, however the highest grades are found in the ironstones. Previous mining concentrated on mining the high grade ironstones and in particular the gold rich sections. The highest grade ironstones are usually the eastern most units in the ironstone package. High gold grades are typically confined to within the ironstones, with the highest gold grades located on the margins of the ironstone bodies, while copper mineralisation may extend into the surrounding shear zone for some distance past the high grade gold.

A number of small copper/gold deposits have been discovered along the Starra shear zone both to the north and south of the central Selwyn Zone.

Phosphate / Rare Earths

Newmont Pty drilled a number of wide spaced holes (4km X 1km) in the 1970's for phosphate recording up to 12.35% P2O5 from shallow drilling, outside the area being relinquished. Recent exploration by Krucible within the Georgina Basin has returned ore grade Heavy Rare Earth Elements on the western side of this sub-basin. Potential exists for this same enrichment associated with unconformities and structures on the eastern limb.

3. PREVIOUS WORK

Limited previous work has been carried out on this EPM and no previous field work has been completed on the areas being relinquished.

Limestone

Golden Breed Pty (Gillies 2007) picked up the west part of this EPM in 2005 to explore for limestone deposits, they outlined a number of targets but never completed any field work on the areas.

4. KRUCIBLES WORK PROGRAMS AND RESULTS

Work completed on the relinquished area has included desktop research of previous exploration and geological and geophysical interpretations. Krucible defined a number of targets from this work however none of these were in the relinquished areas.

Research indicated there had been little previous exploration in this area although a number of companies had held the ground. One company had identified a number of targets for limestone however, no field work was completed.

Geophysical and geological interpretations showed the area is covered by Ordovician limestone outcrops and more recent alluvial sediments which are not prospective for mineralisation. Depth to basement in these areas is interpreted to exceed 500m and this is considered to be outside Krucible's economic parameters.

The geophysical images showed nothing of importance in this area. The gravity image is subdued and the magnetics show anomalies however due to the interpreted depth to basement and the low priority of these anomalies they are not considered worthy of future exploration.

Krucible did not complete any field exploration on this area and has therefore not collected any field samples.

5. CONCLUSIONS AND RECOMMENDATIONS

Krucible has applied to relinquish 10 sub-blocks from the Lukes Plot EPM due to a study of geological and geophysical data. This indicated there were anomalies within the aerial magnetics image.

However the interpreted depth to basement combined with no features of interest located during desktop research led to no targets being identified for future exploration. Krucible has hence relinquished 10 sub-blocks in non-prospective areas.

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