

# MOLYHIL MINING PTY LTD

GR365 Molyhil 2

(EL 28948 "Baikal" & EL31130 "Twins Bore")

Year 4 Annual Group Report

29 Feb 2015 - 28 Feb 2016

**HUCKITTA 1:250K MAP SHEET** 

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#### **SUMMARY**

This is the fourth year annual report for exploration licences EL28948 "Baikal" and EL31130 (EL28949 is now amalgamated with EL30821 to form EL31130) "Twins Bore" but the second year as Group Report GR365 Molyhil 2. The two tenements are prospective for base metals and tungsten and are situated along strike of geological settings which host multiple known tungsten deposits in adjacent tenements. These tenements have not been explored since the early 1980s however with the pending development of the nearby Molyhil mine project; the potential of discovery of economic mineralisation is enhanced. Exploration efforts to date have been limited by available funding to evaluation of existing data including reports, maps, open source geophysical and hyper-spectral data. Target areas have now been identified for follow up fieldwork including mapping and rock chip geochemistry prior to drill testing of selected targets where warranted. No work was completed during the reporting period.

### INTRODUCTION

During the reporting period EL 28949 was amalgamated with EL30821 to form EL31130.

Thor Mining is principally interested in locating satellite tungsten resources for its Molyhil tungsten Molybdenum project 30 km to the west on EL22349. The Bonya Ranges host multiple occurrences of tungsten mineralisation apparently associated with the Kings Legend Amphibolite and the Samarkand Pegmatite hosted within the Palaeoproterozoic Bonya Metamorphics.

While the majority of the tungsten prospective geology is held by Arafura Resources on EL27901, some does extend into the two tenements which are the subject of this Group Report, EL28948 and EL31130, which are situated at the north western and south eastern margins of the fault bound Bonya block.

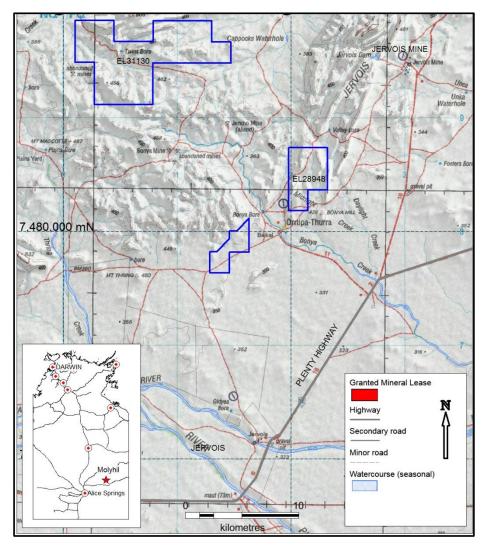


Figure 1: Location & Access EL28948 and EL31130

EL28948 and EL31130 are located on the Huckitta 1:250,000 map sheet (SF53-11) 300km northeast of Alice Springs in the Jervois district. Access is via the Plenty Highway to Jervois Station then Bonya settlement and then via unsealed station tracks (Error! Reference source not found.).

### **Topography and Drainage**

The tenements are located in the Bonya Range. Numerous ephemeral gullies and deeply incised creeks drain the hills. The northern tenement EL31130 drains to the northwest flowing into the Arthur Creek while the southern tenement EL28948 drains south easterly into the Marshall River. There are no permanent rivers or significant water holes in the tenements.

## **TENURE**

# **Exploration Licences**

Exploration licence (EL) 28948 comprising 17 sub-blocks (46.4 sq km) was granted to Thor Mining on 1 February 2012 for a period of six years. The tenement was formerly part of EL26812 held by Arafura Resources and relinquished in March 2011. On February 29, 2016 due to compulsory reduction 8 blocks were relinquished leaving 9 as shown in figures 1, 3 & 4.

Exploration Licence (EL) 28949 comprising 20 sub-blocks (63.4 sq km) was granted to Thor Mining on 1 February 2012 for a period of six years. The tenement was formerly part of EL10215 held by Arafura Resources and relinquished in 2011. A three block voluntary reduction was undertaken 11 May 2015 and the remaining 17 blocks were subsequently amalgamated with the 2 blocks of EL30821 to form EL31130 as shown in figures 1, 3 & 4.

### **Land Tenure**

The tenure lies entirely within the Jervois perpetual pastoral leases (PPL): PPL 962 Jervois Pastoral Company

### **GEOLOGY**

# **Regional Setting**

The tenements sit within the aileron province of the Arunta Region, an area of more than 200,000 km<sup>2</sup> of metamorphic rocks in the southern parts of the NT. The Arunta is subdivided into three distinct geological regions by the NTGS, the Ailerion province which hosts the tenements and the Warumpi and Irindina provinces (Figure 2).

#### **Local Setting**

The published geology for the tenement is provided in Figure 3 taken from the 1:250,000 Huckitta map sheet and described in detail by Freeman (1986). Figure 4 shows a simplified interpretation of the 1:250k geology.

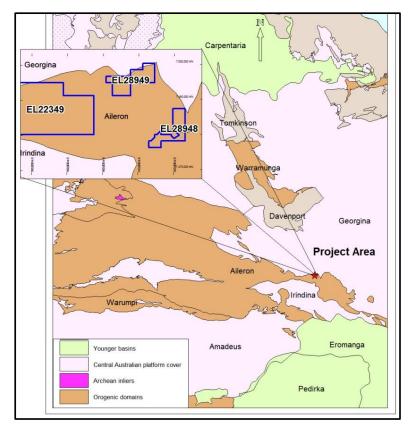


Figure 2: Geological regions of the Northern Territory and project area (NTGS).

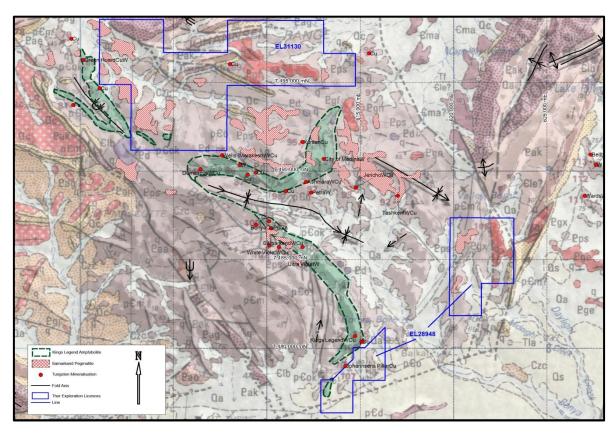


Figure 3: Published geology of the tenement area with highlighted target lithologies

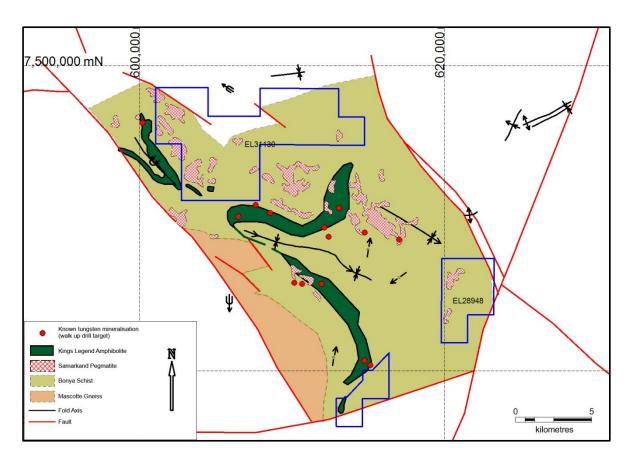


Figure 4: Interpreted geology of the Bonya fault block

From the 1:250 Geology sheet the Bonya Range appears to be a fault bound block predominantly comprising Bonya Schist and Mascotte Gneiss. Trending north west / south east across the block are two fold axes. The southern synformal fold axis is upright and plunges to the south east in the south and in the north it is overturned and plunges to the north west. The Kings Legend Amphibolite, a subunit within the Bonya Schist highlights the limbs of the fold structures.

Samakand Pegmatite is intruded widely about the Bonya block with some apparent concentration along the northern anticlinal fold axis.

The distribution of the known tungsten mineralisation appears to be associated with both the pegmatite and the amphibolite.

### **EXPLORATION ACTIVITY**

The initial work has comprised the consolidation and review of existing public domain data sets to develop targets for subsequent ground based follow up.

As part of a broader program including all of the Thor Mining Aileron tenements, a geophysical consultant was also commissioned to consolidate, review and where appropriate reprocess the existing geophysical data sets.

As a result of the review work two main target areas were identified for ground based follow up. The initial reconnaissance geochemistry survey undertaken in May 2012 was however not successful

in accessing the tenement due to deterioration of access tracks over many years without maintenance.

#### 2015 - 2016 EXPLORATION ACTIVITY

Due to lack of available funding no field work was completed on the tenement during the period.

### PROPOSED EXPLORATION ACTIVITY 2016 - 2017

It is anticipated that funding will become available during the course of this period and that exploration activity will resume. Work is likely to comprise a revision of earlier targeting work followed by ground based reconnaissance including rock chip geochemistry and mapping with drilling to follow up if deemed appropriate.

As numerous walk up drill targets have been identified from historic data, drill testing is likely to start relatively early once funds are available.

#### REFERENCES

Freeman MJ, 1986. HUCKITTA 1:250,000 Geological map series and explanatory notes, SF53-11. Northern Territory Geological Survey.

Freeman MJ, Shaw RD and Warren RG, 1989. *Jervois Range, 1:100,000 geological map sheet, 6152, preliminary edition. Bureau of Mineral Resources, Canberra.* 

Ransom DM, 1978. The Scheelite Prospects of the Jervois Range, Bonya Creek and Molyhill Areas, Northern Territory.