



**MITHRIL**  
**RESOURCES LTD**

**EL 28335 – ALBARTA BORE**

**Reduction Report**

**For the Period**

**4 July 2011 to 3 July 2014**

**Compiled By**

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MAP REFERENCE: Illogwa Creek 250K - Sheet SF53/15  
Target Commodities: Nickel and Copper

Report submitted on: 16 September 2014  
All data provided is of GDA94 Datum, Zone 53.

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## SUMMARY

This report presents work completed on the surrendered portion of the Albarta Bore Tenement (EL 28335), granted to Mithril Resources Ltd (Mithril) on 4 July 2011.

EL 28335 is centred approximately 140 km east of Alice Springs. The tenement area has been held by numerous other companies who have explored for gold, base metals, industrial minerals and Uranium.

30 blocks have been surrendered. Work conducted over these 30 blocks includes:

- 17 grab samples
- Small area was flown with VTEM
- Small area was flown with Helimagnetics/ radiometrics
- Small area coincides with ground gravity

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Appendix 2: VTEM Survey Data (data supplied with the 2014 Combined Annual Report – GR079/09)

Appendix 3: EL28335\_A\_03\_AirborneMagneticData

Appendix 4: EL28335\_A\_04\_GroundGravityData

## 1.0 INTRODUCTION

EL 28335 is located approximately 140 km east of Alice Springs (Figure 1). The tenement can be accessed from the north via the Plenty Highway and station tracks or the east via the Numery Road and station tracks. Station tracks provide for reasonable access to much of the tenement area.

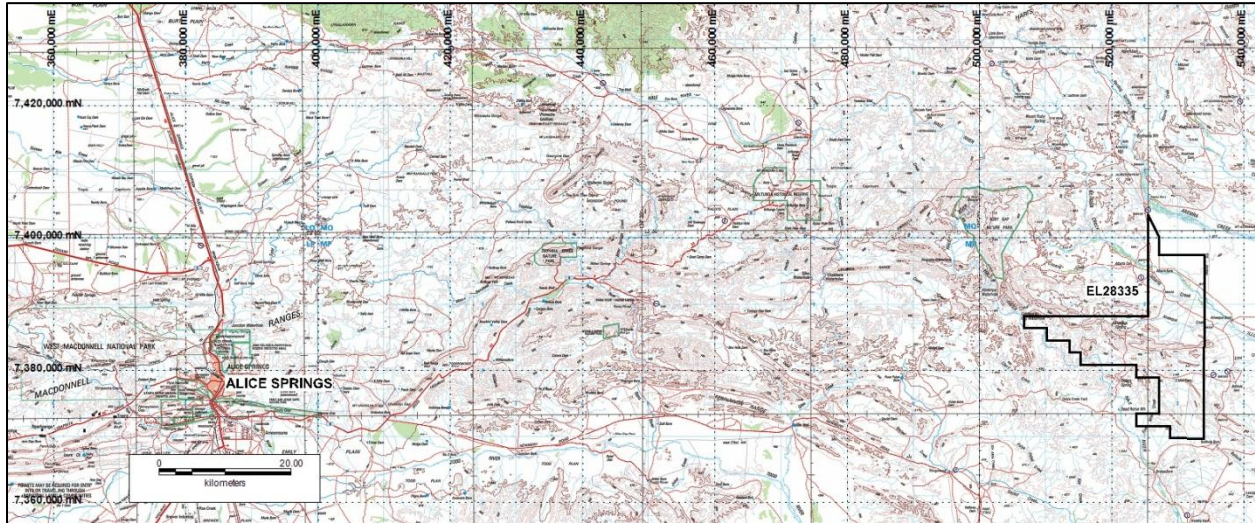


Figure 1: Location of EL 28335 (Albarta Bore).

Mithril initially targeted the area for Ni-Cu-PGE sulphide deposits associated with mafic and ultramafic magmatic rocks. This style of mineralisation has been identified on neighbouring tenements. However, recent exploration on the adjacent licence (EL 26942) has identified significant sulphide hosted Cu-Co mineralisation at the Basil Prospect. Drill intersections at the Basil prospect include 59.1m @ 0.63% Cu and 0.07% Co in LB035DD; and 29.0m @ 0.66% Cu and 0.07% Co in LB027DD.

Furthermore, EL28335 forms part of the broader Illogwa Project whereby Iron-Oxide-Copper-Gold (IOCG) style mineralisation has been mapped over 40km in strike, covering both EL28335 and the adjoining EL25643 tenement. The area surrendered, covers the Amadeus Basin Stratigraphy and is not considered prospective for IOCG style mineralisation.

Mithril Resources Ltd reduced the existing EL28335 by 30 blocks (Figure 2). This report covers the reduced portion of EL28335.

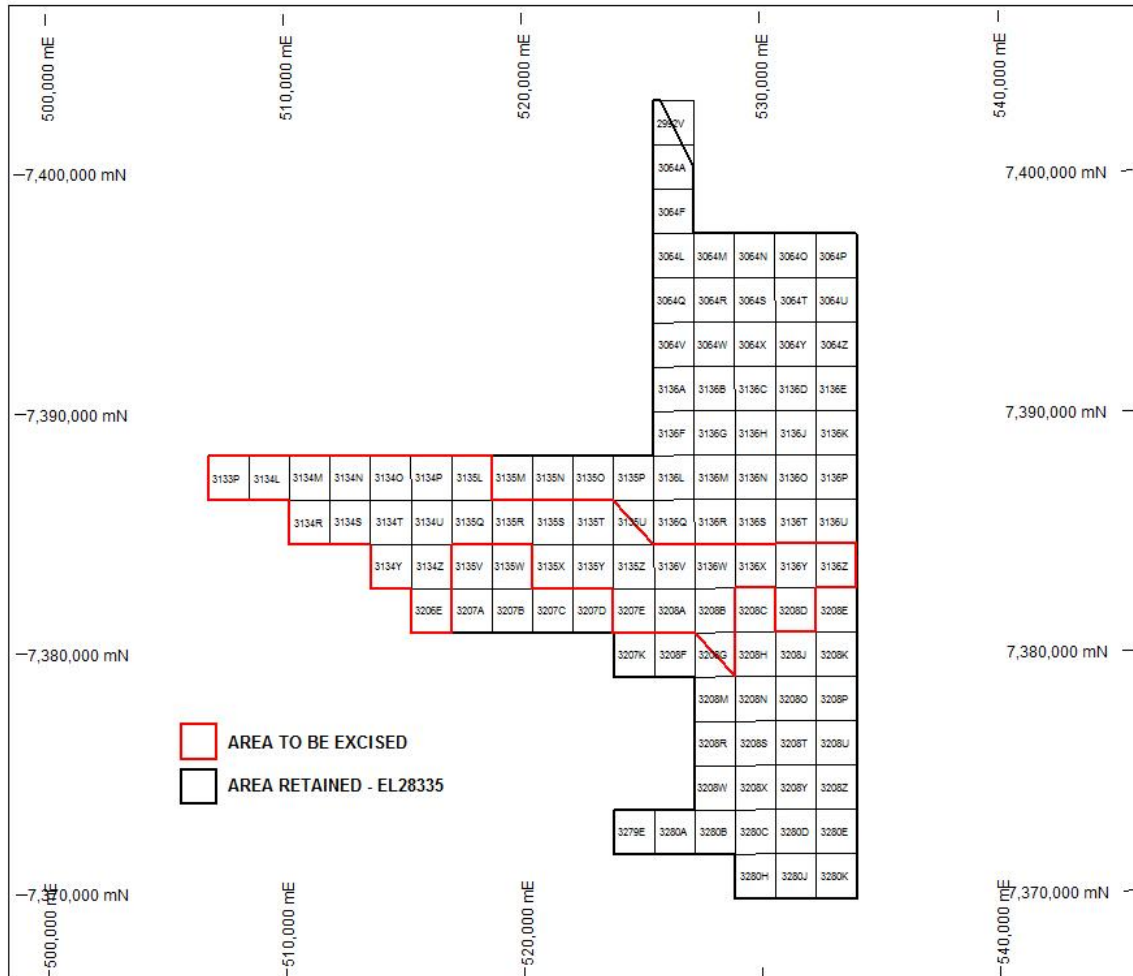


Figure 2: Reduction of EL 28335 (Albarta Bore)

## 2.0 TENURE

Mithril Resources Limited (ACN 099 883 922) was granted exploration license EL 28335 for a six year period due to expire 3 July 2017. Mithril reduced the tenement area from 338km<sup>2</sup> to 231km<sup>2</sup> in 2014.

Table 1: EL 28335 (Albarta Bore) tenure.

Project	Tenement Name	Tenement No	Application Date	Grant Blocks	Area (km <sup>2</sup> )	Grant Date	Grant Period
Illogwa	Albarta Bore	28335	12/10/2010	108	338	4/07/2011	6 years

### 3.0 GEOLOGY

#### 3.1 Regional Geology

EL 28335 lies within the Proterozoic Aileron Province and Amadeus Basin of the Arunta Inlier.

Heavitree Quartzite, Bitter Springs Formation and the Atneeqa Granitic Complex make up the majority of the hills and ranges seen over the tenement area.

#### 3.2 Project Geology

The tenement area contains approximately 50% outcrop/subcrop and 50% Cainozoic cover from colluvial sand and gravel (Figure 2).

The area has been subjected to intense deformation and metamorphism and is considered prospective for;

- Ni-Cu-PGE mineralisation in layered mafic and ultramafic intrusions
- “Basil type” Cu-Co semi-massive sulphides
- Vein-style REE-Th mineralisation
- IOCG style mineralisation

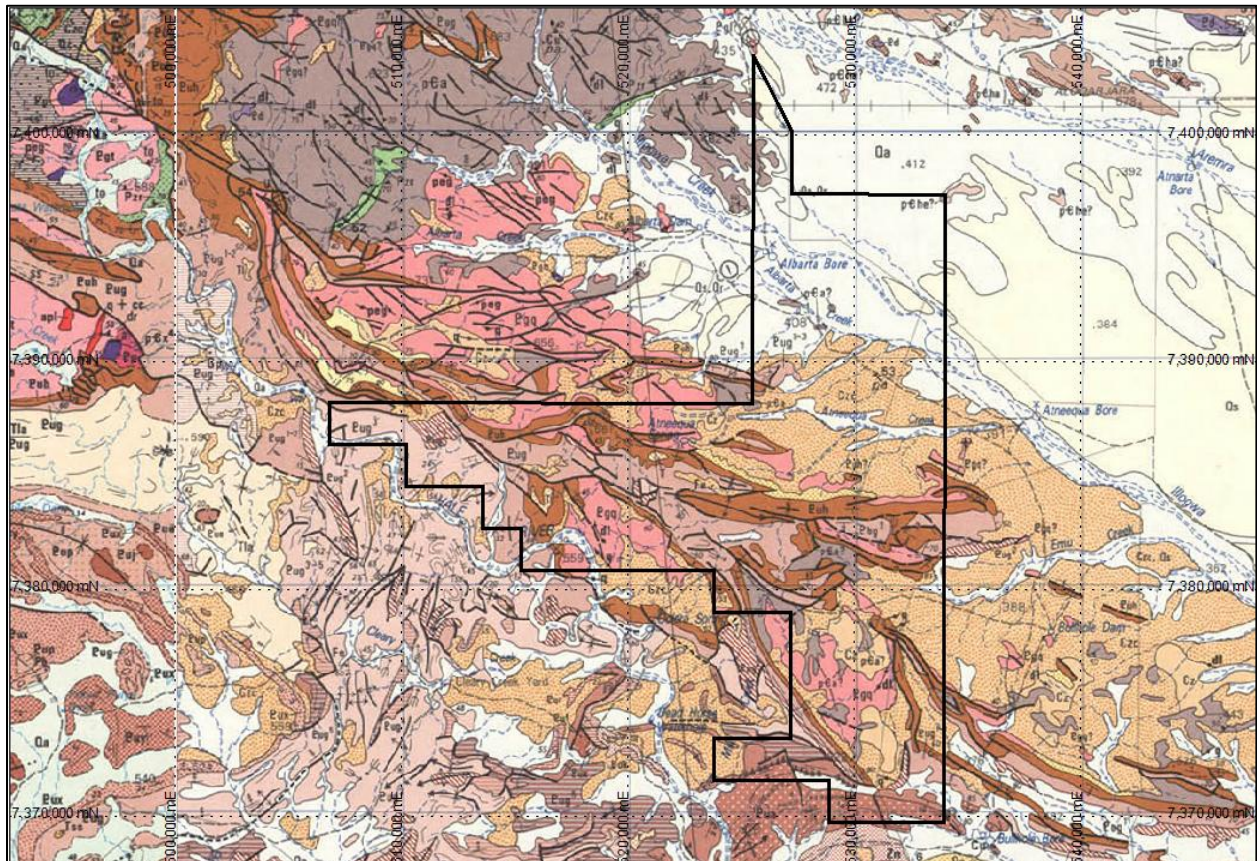


Figure 2: Geology of EL 28335 (from published geology map sheet – Quartz 100K).

#### 4.0 HISTORICAL EXPLORATION WORK COMPLETED

Numerous companies and individuals have explored in the general area covered by EL 28335.

A detailed synthesis of previous exploration work was submitted in the 2013 annual report.

#### 4.1 Mithril work completed over surrendered ground

- 18 grab samples taken (Appendix 1)
  - 6 samples defined a Mn rich unit associated with the Bitter Springs Formation over a discontinuous strike length of 1.5km (Figure 3). Sample 71769 returned: 50% Fe and 7.5% Mn. No further work was conducted.
  - 9 grab samples were taken of a weathered, ferruginous unclassified mafic unit in the Amadeus Basin Stratigraphy, targeted for magmatic Ni-Cu Sulphides (Figure 3). Sample 67600 returned: 522ppm, 148ppm Ni and 1.2ppm Ag. No PGE anomalism was noted and the intrusion is considered non-fertile.
- Small portion of an airborne EM survey (VTEM) overlaps with the relinquished area (Figures 3 and 4)). No EM conductors were detected. Refer to Appendix 2 for raw data.
- A detailed helimagnetic survey covered the relinquished area (Figure 4). This area did not coincide with basement lithologies and hence did not image basement structures. Refer to Appendix 3 for the raw data.
- Small portion of ground gravity covered the relinquished area (~25 stations) and as such, no meaningful interpretation is included. Refer to Appendix 4 for the raw data.

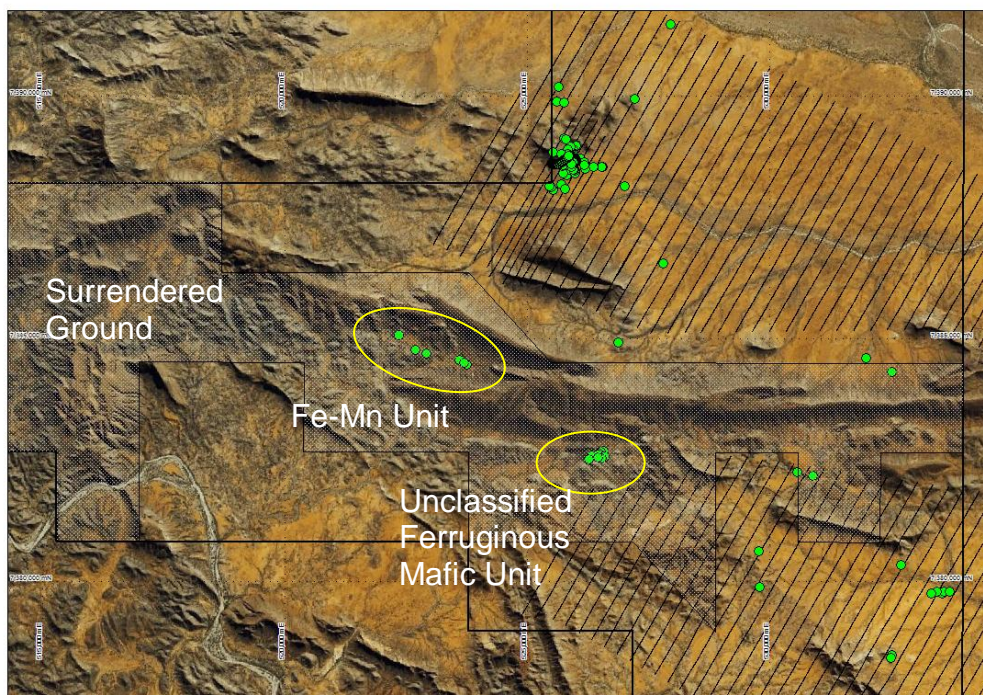


Figure 3: Location of grab samples (green) and VTEM flight lines (black) with respect to surrendered ground (shaded)

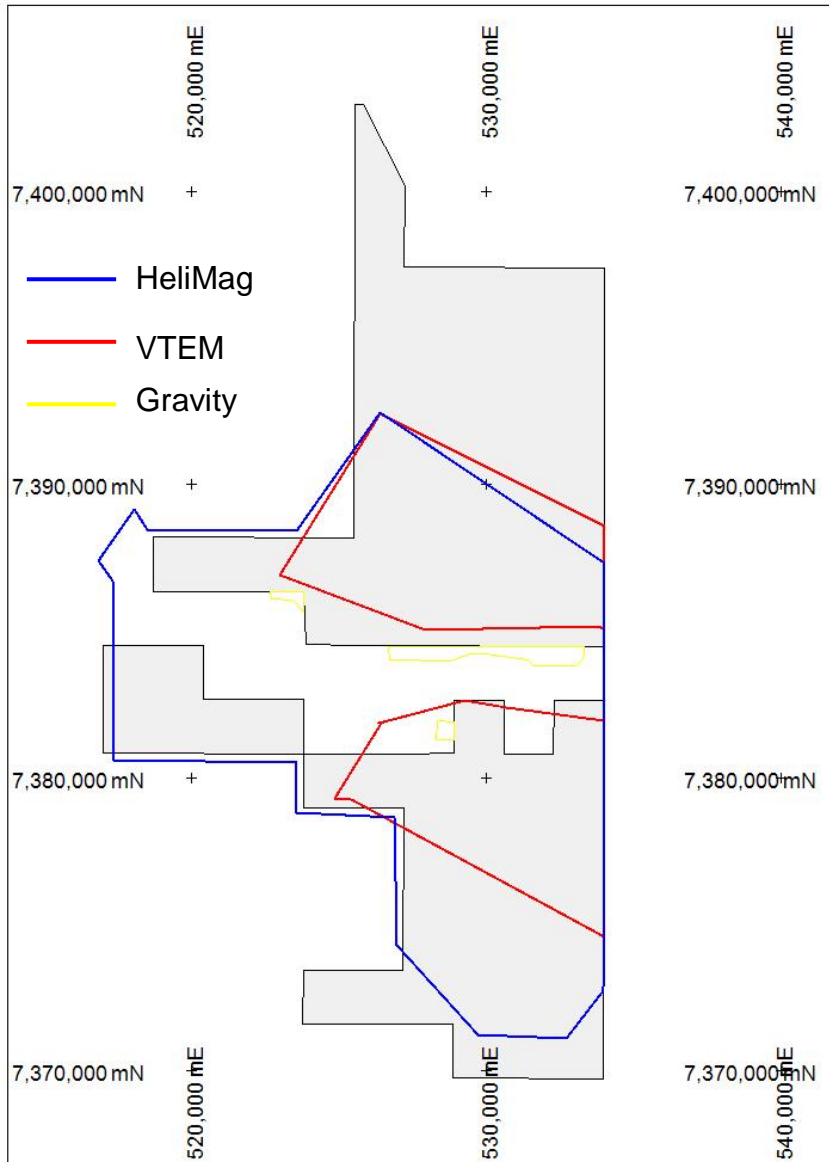


Figure 4: Location of EM surveys with respect to EL28335 tenure (shaded grey) as it currently stands



## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The surrendered portion of the tenement overlaps with the Amadeus Basin Stratigraphy and is not considered prospective for IOCG style mineralisation. The Fe-Mn rich unit shown in Figure 3 is of interest and requires follow up.

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