



**MITHRIL**  
**RESOURCES LTD**

**EL 28369 – BRUMBY DAM**

**YEAR 1 ANNUAL REPORT**

**For the Period**

**4 July 2011 to 3 July 2012**

**Compiled By**

**Amy Lockheed (Project Geologist)**

MAP REFERENCE: Alice Springs 250K - Sheet SF53/14

Report submitted on: 3 August 2012  
All data provided is of GDA94 Datum, Zone 53.

All enquiries to Amy Lockheed  
Phone: 08 8378 8200  
[alockheed@mithrilresources.com.au](mailto:alockheed@mithrilresources.com.au)

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58 King William Road, Goodwood, South Australia 5034  
Telephone: (61 8) 8378 8200 Fax: (61 8) 8378 8299  
Web: [www.mithrilresources.com.au](http://www.mithrilresources.com.au) Email: [admin@mithrilresources.com.au](mailto:admin@mithrilresources.com.au)  
ABN: 30 099 883 922

## SUMMARY

This report presents work completed during the first year of tenure on the Brumby Dam Tenement (EL 28369), granted to Mithril Resources Ltd (Mithril) on 4 July 2011.

EL 28369 is centred approximately 115 km northeast of Alice Springs. The tenement area has been held by numerous other companies who have explored for gold, base metals, industrial minerals and Uranium.

Mithril first applied for the ground with a view to explore for Nickel sulphide deposits whilst remaining open minded to opportunities provided by other commodities.

Work completed during the reporting period included:

- Historical data compilation
- 15 rock chip samples collected
- VTEM Survey: 59 line kilometres of data was collected

There were a number of VTEM anomalies detected on the EL and these will be followed up in the next reporting period.

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## APPENDICES

- Appendix 1:** Surface sample locations  
Digital file: E28369\_2012\_A\_02\_SurfaceLocations.txt
- Appendix 2:** Surface sample geochemical data  
Digital file: EL28369\_2012\_A\_03\_SurfaceGeochem.txt
- Appendix 3:** Surface sample logging codes data  
Digital file: EL28369\_2012\_A\_04\_LoggingCodes.txt
- Appendix 4:** Airborne VTEM report by Geotech Airborne Pty Ltd  
Digital file: EL28369\_2012\_A\_05\_VTEMReport.pdf
- Appendix 5:** Airborne VTEM data  
Folder file: EL28369\_2012\_A\_06\_VTEMData
- Appendix 6:** File listing information  
Digital file: EL28369\_2011\_A\_07\_FileListing.txt

## 1.0 INTRODUCTION

This report presents work completed on the Brumby Dam Tenement (EL 28369) by Mithril for the first reporting year, ending 3 July 2012.

EL 28369 is located approximately 115 km northeast 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 Ross Highway and station tracks. Station tracks provide for reasonable access to much of the tenement area.

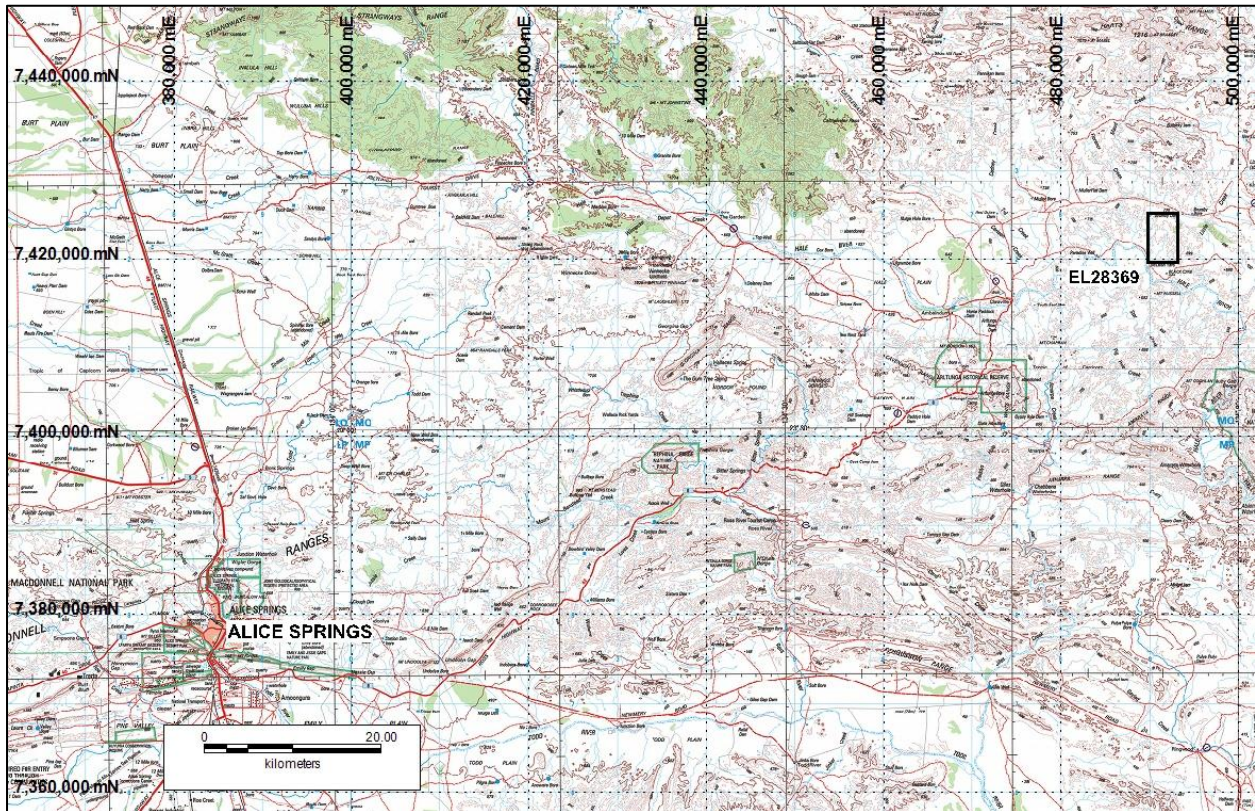


Figure 1: Location of EL 28369 (Brumby Dam).

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 adjacent tenements.

## 2.0 TENURE

Mithril Resources Limited (ACN 099 883 922) was granted exploration license EL 28369 for a six year period due to expire 3 July 2017.

Table 1: EL 28369 (Brumby Dam) tenure.

Project	Tenement Name	Tenement No	Application Date	Grant Blocks	Area (km <sup>2</sup> )	Grant Date	Grant Period
Huckitta	Brumby Dam	28369	19/10/2010	6	19	4/07/2011	6 years



### 3.0 GEOLOGY

#### 3.1 Regional Geology

EL 28369 lies within the Proterozoic Aileron and Irindina Provinces of the Arunta Inlier.

The Aileron Province comprises the Reynolds Range Group, a mix of schist, slate and siltstone, and the Irindina Province, contains migmatic metapelite, metabasite, calc-silicate, marble and quartzite of the Harts Range Group.

#### 3.2 Project Geology

The tenement area is principally located within the Reynolds Range Group, in contact with the Harts Range Group and contains approximately 85% outcrop/subcrop with recent 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
- Uranium mineralisation

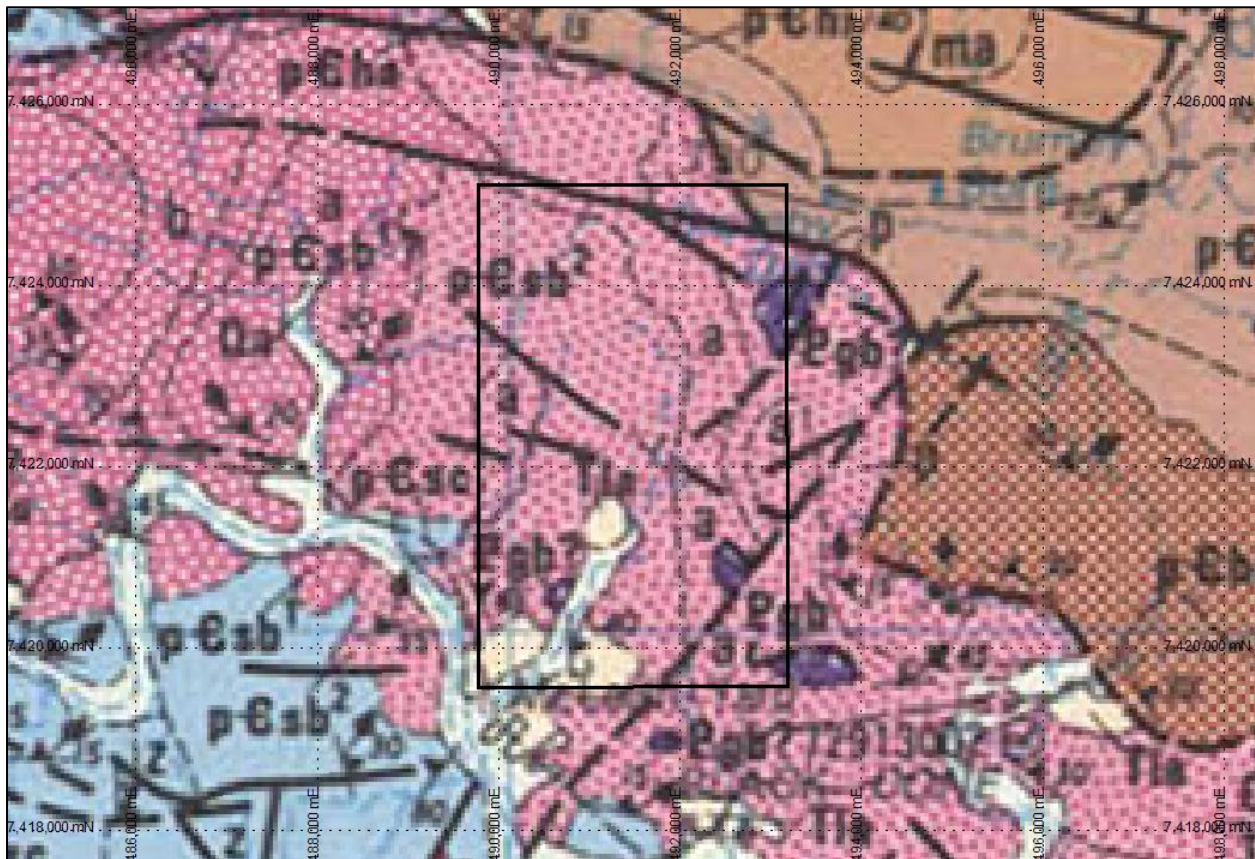


Figure 2: Geology of EL 28369 (from published geology map sheet – Alice Springs 250K).

#### **4.0 HISTORICAL EXPLORATION WORK COMPLETED**

Few companies and individuals have explored in the general area covered by EL 28369.

#### **5.0 WORK COMPLETED DURING THE REPORTING PERIOD**

##### **5.1 Surface Sampling**

During mapping and sampling campaigns conducted in late 2011, 15 surface samples (rock chips) were collected (Figure 3). All location and assay data are included in Appendices 1 and 2.

Samples were analysed using ALS's method ME-ICP61. Where reported, Au, Pt, and Pd were analysed using ALS's method PGM-ICP23.

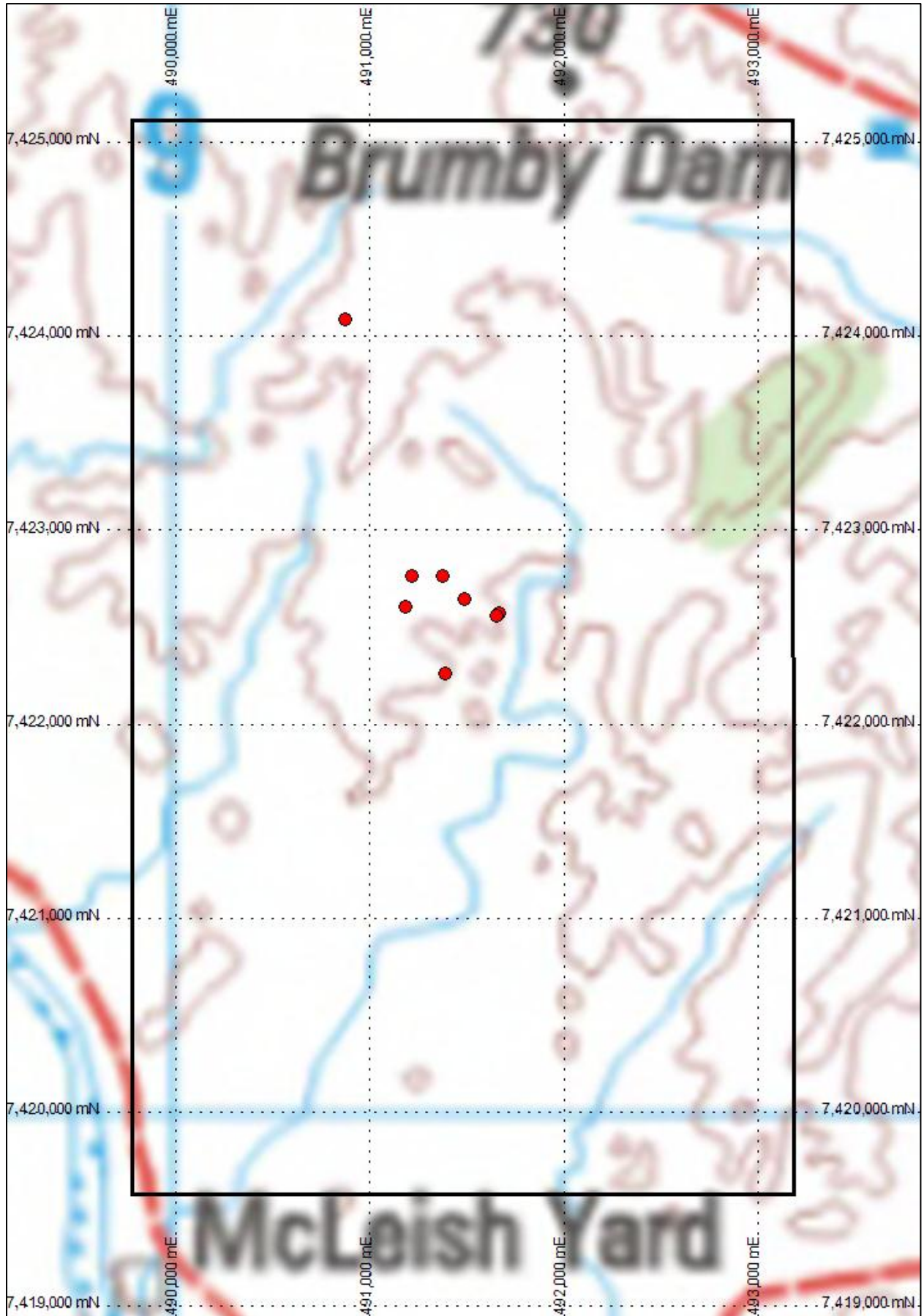


Figure 3: Surface sample locations.

## **5.2 Geophysics - VTEM**

An airborne electromagnetic (VTEM) survey was undertaken during the reporting period. The survey was conducted from 5 to 22 May 2011.

Approximately 59 line-kilometres of data were acquired from flight lines spaced 200 m (Figure 4).

The survey identified a significant conductive body, striking north-south (Figure 5). A report and data from the VTEM survey are included in Appendices 4 and 5.



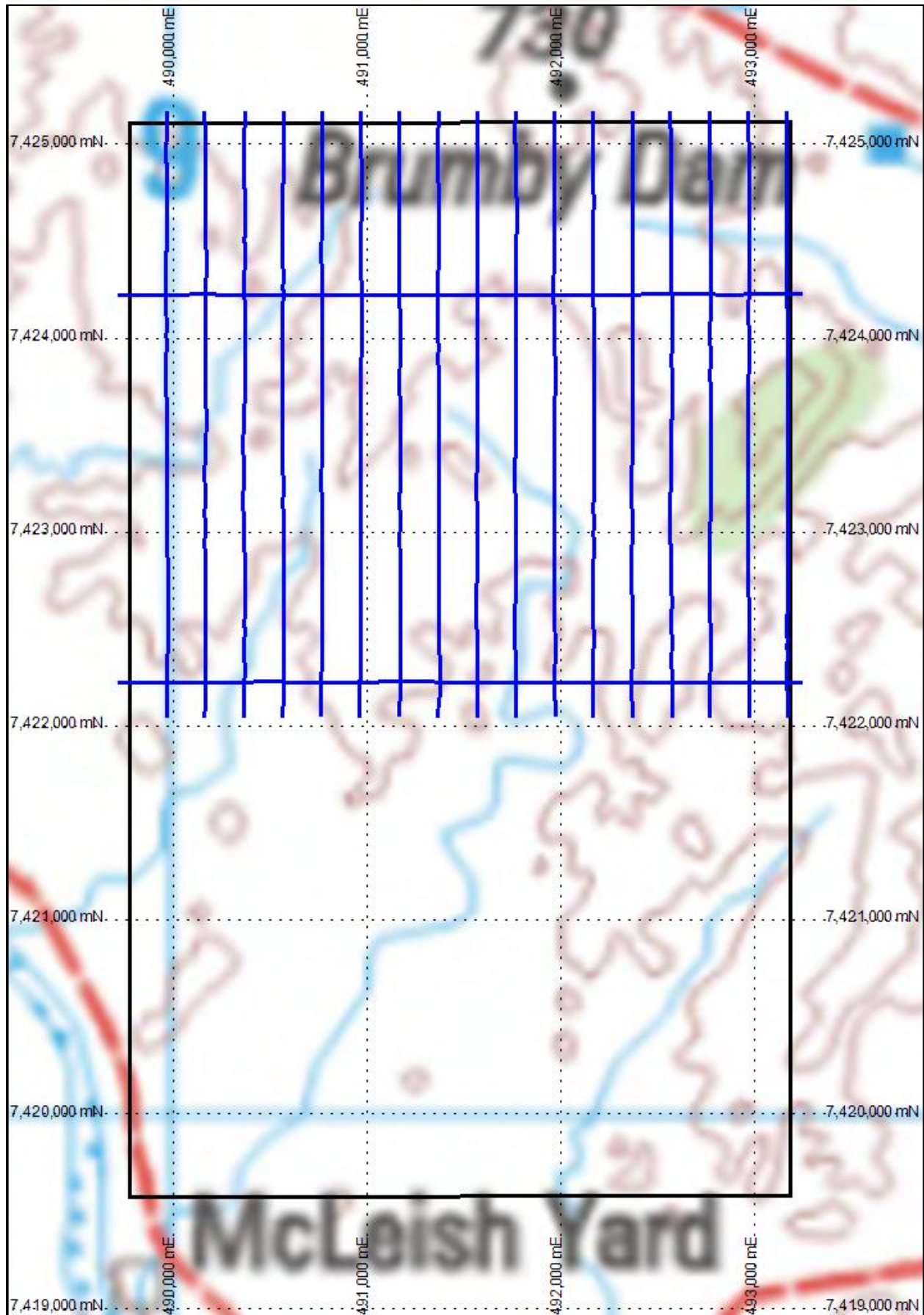


Figure 4: VTEM survey flight lines

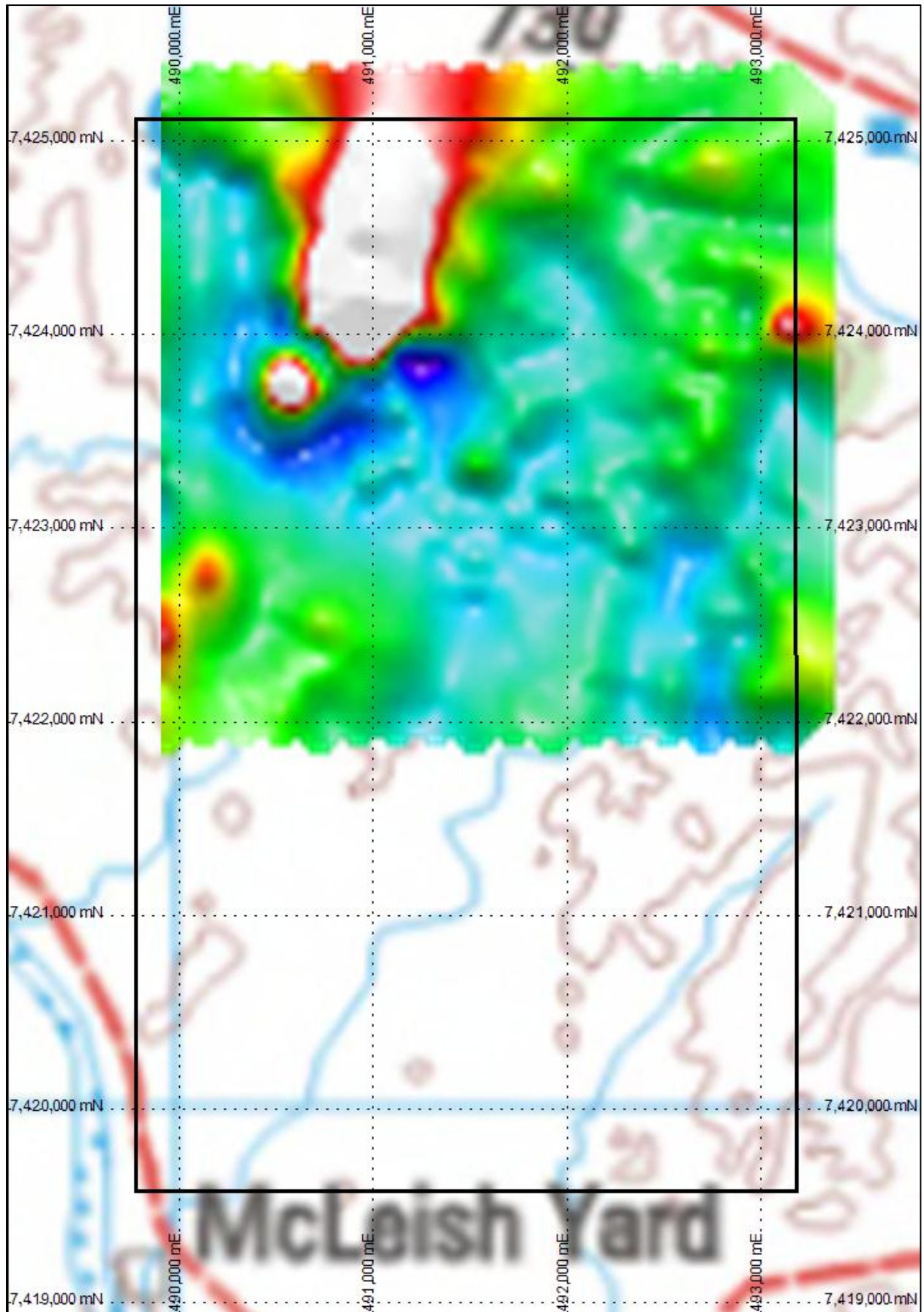


Figure 5: VTEM image.

## **6.0 CONCLUSIONS AND PLANNED WORK 2012-13**

Work completed during the reporting period has identified a number of VTEM anomalies requiring ground follow-up. These will be the focus of further work during the next reporting year.