

# Open File Envelope

## No. 11,956

**EL 3413**

**WEETULTA**

### **FOURTH PARTIAL SURRENDER REPORT FOR THE PERIOD 16/9/2005 TO 15/9/2009**

Submitted by  
Red Metal Ltd  
2009

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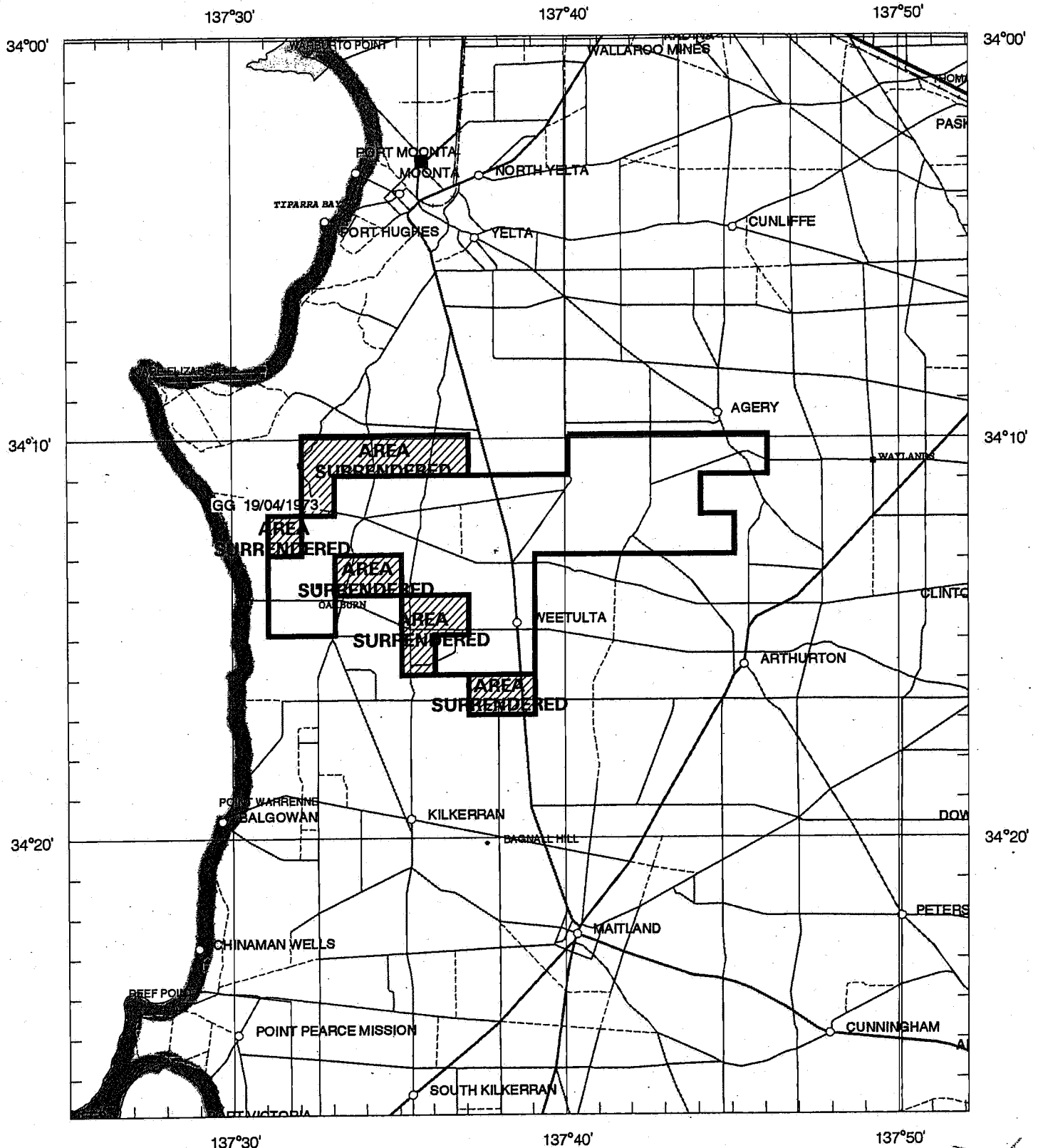
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**Government of South Australia**  
**Primary Industries and Resources SA**

# SCHEDULE A



SCALE 1: 250 000  
 KILOMETRES 5 0 5 10 15 20 25 KILOMETRES  
 LICENCE GRANTED IN : DATUM AGD66



APPLICANT : RED METAL LTD

FILE REF : 892/04

TYPE : MINERAL ONLY

AREA : 122 km<sup>2</sup> (approx.)

1:250000 MAPSHEETS : MAITLAND

LOCALITY : WEETULTA AREA - Approximately 20 km south of Moonta

DATE GRANTED : 16-Sep-2005

DATE EXPIRED : 15-Sep-2009

EL NO : 3413

**EL 3413 Maitland**  
**PARTIAL SURRENDER REPORT**  
for Period  
**September 16, 2005 to September 15, 2009**

Author: G. McKay

Date: 20 October 2009

## **TENEMENT REPORT INDEX**

|                        |                                                 |
|------------------------|-------------------------------------------------|
| OPERATOR:              | Red Metal Limited                               |
| TENEMENT:              | EL 3413                                         |
| REPORTING PERIOD:      | September 16, 2005 to September 15, 2009        |
| TENEMENT HOLDER:       | Red Metal Limited                               |
| AUTHOR:                | G. McKay                                        |
| LATITUDE (Min _ Max):  | -34°10' to -34°19'                              |
| LONGITUDE (Min _ Max): | 137°29' to 137°46'                              |
| 1:250,000 SHEET:       | Maitland SI53-12                                |
| 1:100,000 SHEET:       | Maitland 6429                                   |
| MINERAL PROVINCE:      | Gawler Craton                                   |
| COMMODITIES:           | Cu Au Pb Zn Ag Co Ni                            |
| KEYWORDS:              | Calcrete geochemical sampling, aircore drilling |

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## **Digital File List**

EL3413\_2009\_01 Partial Surrender Report.pdf  
EL3413\_2009\_02 Aircore Collars.csv  
EL3413\_2009\_03 Aircore Assays.csv  
EL3413\_2009\_04 Aircore Lithology.csv  
EL3413\_2009\_05 Lithology Codes.csv  
EL3413\_2009\_06 Calcrete Data.csv

## **SUMMARY**

EL 3413 is located along the prospective south-eastern margin of the Gawler Craton on the Yorke Peninsula. The district has several historic mines and has been subject to a significant amount of regional exploration.

The project target is a new style of copper-nickel-cobalt-rare earth mineralisation. Historic drilling intersected narrow zones of elevated copper-nickel-cobalt-rare earth mineralisation within sulphide dominant intervals hosted in highly altered metasediment sequences.

This report covers the portion of EL 3413 surrendered on 15 September 2009. Calcrete soil sampling was conducted by Red Metal over a regionally significant low magnetic features. This was followed by aircore drilling traverses over the geochemically anomalous areas.

## **1.0 INTRODUCTION**

EL 3413 is considered to be prospective for Cu-Ni-Co-REE mineralisation. Historical mining and exploration indicates strong exploration potential in the area.

## **2.0 LOCATION and TENEMENT STATUS**

EL 3413 is centred on the Copper Triangle area of the Yorke Peninsula in South Australia (Figure 1).

The licence is located 100km north-west of Adelaide and has excellent infrastructure servicing the large grain growing industry in the district. An extensive network of roads, a regional rail line and the wharf at the port of Wallaroo on Spencer Gulf are all currently servicing the area. The main service town in the area and centre for local government is Kadina with additional retail outlets in the smaller towns of Moonta and Wallaroo.

Exploration License 3413 was granted to Red Metal Limited on 16 September 2005 over 288 sq km. The licence area has been reduced to 162 sq km.

Access permission with relevant landowners is being obtained as required. To date, the majority of landowners have agreed to entry onto their land.

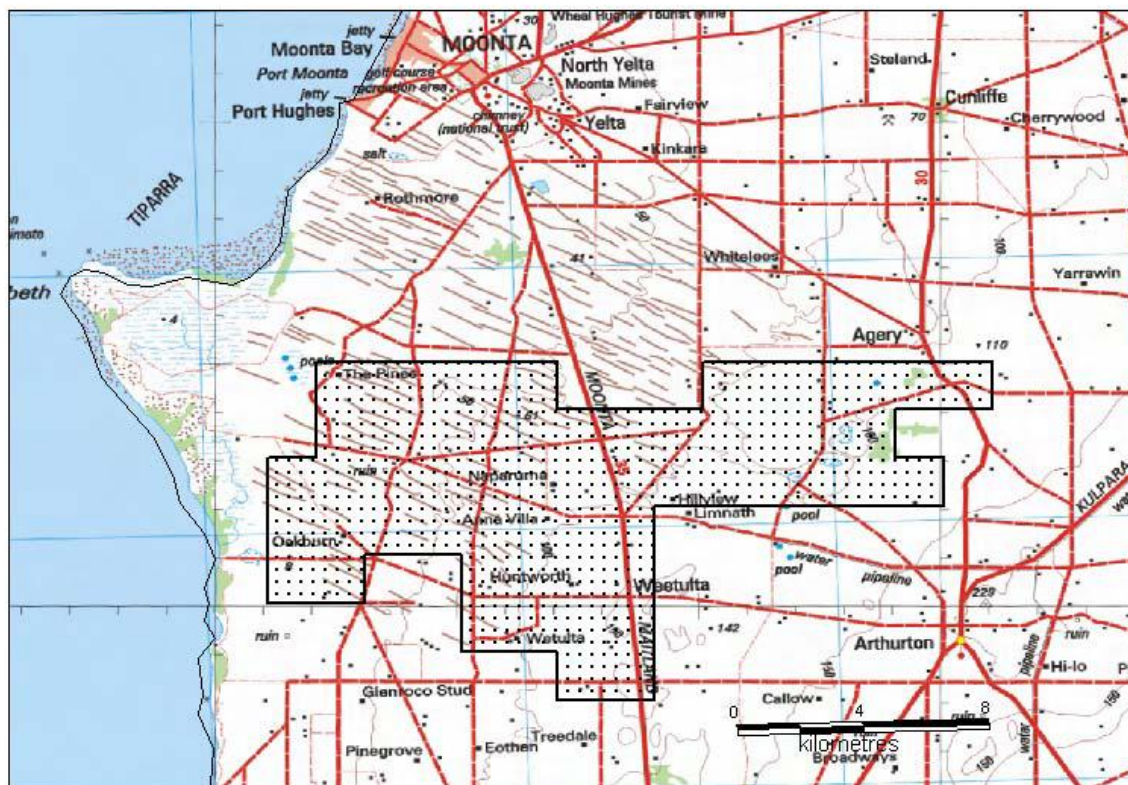


Figure 1: EL 3413 location figure

### 3.0 TENEMENT GEOLOGY

The tenement occurs within the eastern margin of the highly prospective Gawler Craton, which hosts the Olympic Dam Mine and the Prominent Hill discovery. It is just south of the historic Cu-Au mining district of Moonta and Wallaroo. Outcrop of the target Proterozoic basement is rare (<10%). An almost complete cover of regolith cover consisting of residual soil, aeolian dune sands (<5m thick), Tertiary-Quaternary sediments or Cambrian and Adelaiddian sediments ranging from 1-100 metres thick over the tenement.

The geological terrain comprises Palaeoproterozoic volcanosedimentary rocks (1740-1760Ma) intruded by numerous highly prospective 1590Ma Hiltaba Suite Granites. Regionally pervasive alteration includes an early sodic/calcic/magnetite event (magnetite, actinolite, clinopyroxene, scapolite, apatite, epidote, albite, K-feldspar) and a late stage sulphide mineralisation associated with biotite, quartz, feldspar, chlorite, and tourmaline alteration.

### 4.0 HISTORICAL EXPLORATION

A range of companies including WMC/ NBH/BHS, BHP, CRA and MIM have carried out exploration in the area. Programs by all companies to date include:

- Airborne magnetics on 200m line spacing and in excess of 1500 line kms of ground magnetics
- Extensive (641 line kms) IP coverage
- Ground EM and trial airborne EM over selected areas

- Regional and infill gravity
- Regional and infill soil geochemistry, total 1486 samples
- Auger drilling, 1340 holes for 16080m
- RAB drilling, 302 holes for 6804m
- RC drilling, 11 holes for 1294m
- Diamond drilling, 25 holes for 5532m

Although no economic base or precious metal intersections have been made to date, several holes have returned anomalous results. In addition to the typical Moonta metal signatures of copper and gold, elevated nickel, cobalt and rare earth metal assays are common. Target emphasis by previous explorers has been on areas of strongest magnetic and gravity response.

## **5.0 CURRENT EXPLORATION PROGRAM**

In the first year of tenure, Red Metal Limited completed a calcrete soil geochemical sampling program over a magnetic features.

In 2007, aircore drilling traverses were completed over the areas of interest by Budd Drilling contractors. The aircore drill program tested the magnetic structures with high Ce and Co calcrete geochemistry.

## **6.0 CONCLUSIONS**

Cu-Ni-Co-REE geochemical anomalism is widespread within EL 3413, however the focussing mechanisms for economic mineralisation are not discernable from the work conducted to date.

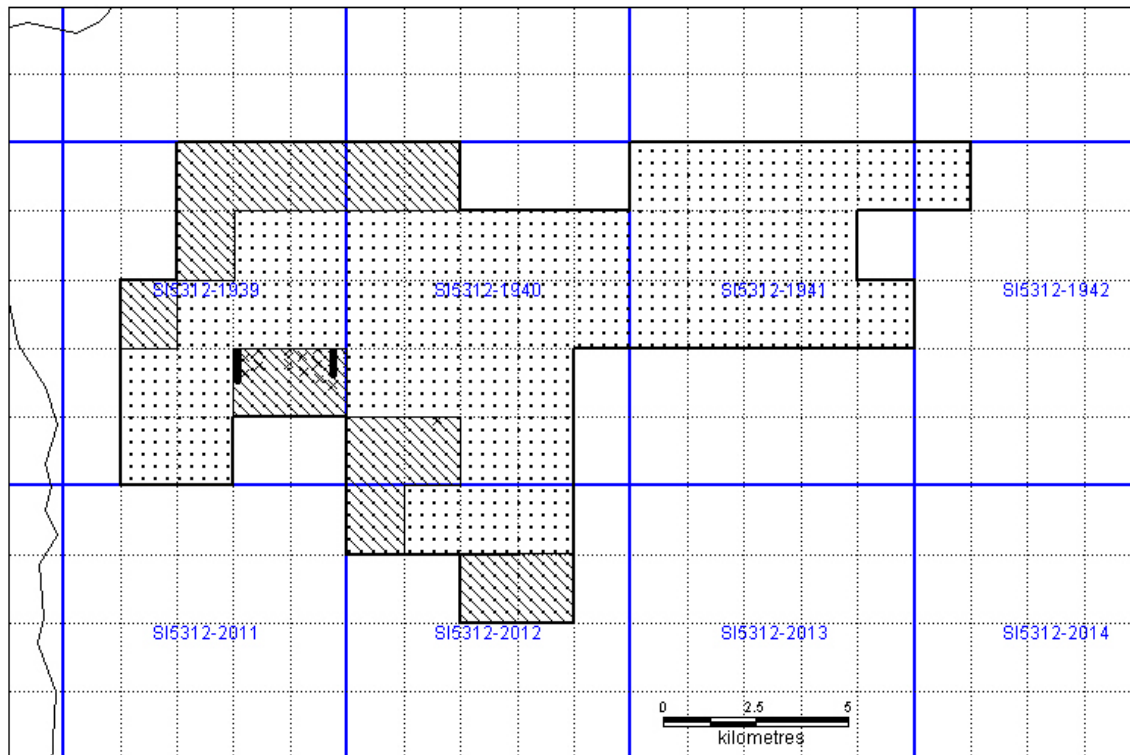


Figure 2: EL 3413 surrendered blocks hatched (15/9/2009) with RAB hole locations (2007 drilling) and calcrete sampling.