

# PROTO



RESOURCES & INVESTMENTS LTD

**PARTIAL RELINQUISHMENT REPORT  
EL24357**

**FOR THE YEAR ENDED  
30 March 2008**

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## **TABLE OF CONTENTS**

1	INTRODUCTION	1
2	PROPERTY DESCRIPTION AND TENURE	1
3	ACCESS AND INFRASTRUCTURE	1
4	GEOLOGICAL SETTING	2
5	PREVIOUS EXPLORATION	4
6	EXPLORATION COMPLETED ON EL24357 DURING THE REPORTING PERIOD	7
8	PARTIAL RELINQUISHMENT	7
10	REFERENCES	7

## **LIST OF TABLES**

Table 1	Tenement Details	2
Table 2	Previous Exploration Activities	6

## **LIST OF FIGURES**

Figure 1	Location of Arunta Project area	3
Figure 2	Regional Geology	5
Figure 3	Partial Relinquishment	8

## 1 INTRODUCTION

The Arunta Project is located approximately 250km NNW of Alice Springs in the Northern Territory. The North Arunta Province is dominated by a series of Palaeoproterozoic sedimentary sequences intruded by granite plutons and mafic sills. Quaternary and Tertiary cover conceals large areas of bedrock in the area however the region has seen exploration for a variety of commodities including gold, base metals, iron ore, uranium and diamonds.

A review of open file magnetic and geological data by Proto Resources & Investments Ltd on EL24357 has confirmed the prospectivity of those areas interpreted to contain palaeoproterozoic lithologies. As such, it is recommended that Proto execute a 50% reduction relinquishing those sub-blocks outside of the area of interest.

## 2 PROPERTY DESCRIPTION AND TENURE

EL24357 of 155 sub-blocks was originally granted to Discovery Nickel Limited in March 2005, and subsequently acquired by Proto Resources & Investments Ltd on the 29 October 2006 as part of the Arunta Project.

Table 1. Tenement Details

Licence Number	Sub-blocks	Grant Date	Expiry Date
24357	155	31 Mar-05	31 Mar-11

## 3 ACCESSIBILITY AND INFRASTRUCTURE

The tenement is located approximately 235km NNW of Alice Springs in the Northern Territory and covers portions of the Mt Peake (SF53-05), 1:250,000 map sheet. It lies within the Stirling and/or Anningie Perpetual Pastoral Leases and is subject to Native Title. Access to the area is facilitated by the Central Land Council (CLC) through an Exploration Deed Accessibility and Infrastructure.

The project area can be accessed via the all weather Alice Springs-Darwin highway. Additional roads extend up to 100km west of the highway through the project area and are accessible by four wheel drive vehicles (Figure 1).

#### 4 GEOLOGICAL SETTING

The project area lies within the north-central portion of the Paleoproterozoic Arunta Province. The stratigraphy of the Arunta province comprises relics of 2500 Ma Archaean basement overlain by >1800 Ma Palaeoproterozoic, turbiditic sequences of greywacke, quartz, sandstone, siltstone and shale along with mafic rocks and their high-grade metamorphic equivalents. The Arunta also has minor calc-silicates and meta-felsic volcanic units. During the Barramundi Orogeny, the sedimentary units were intruded by mafic rocks which have been deformed and in places metamorphosed to amphibolite facies. During the closing stages of the Barramundi Orogeny (~1830 Ma) granite plutons intruded rocks of the Arunta Province. The main divisions of these Palaeoproterozoic basement rocks (youngest at top) are:

**Reynolds Range Group** (gneiss, amphibolite, quartzite and calc-silicate)

**Lower Hatches Creek Group** (sandstone)

**Strangeways Range Metamorphics** (mafic and felsic granulite, quartzite, calc-silicate)

**Atnarpa Igneous Complex** (schist, gneiss, amphibolite, quartzite, calc-silicate)

**Killi Killi Formation** (Atnarpa and Lander Rock beds)

These basement rocks are intruded by granite and gneissic granite and gabbro and dolerite. The Arunta Palaeoproterozoic basement rocks are associated with folding, faulting, igneous intrusion and unconformities which may have generated several suitable host sites for uranium and base metal mineralisation. Regional aeromagnetic surveys conducted over the Arunta Province highlight the numerous “rafts” of mafic rocks included within the metamorphic and igneous complex of the Atnarpa Group. These are thought to be remnants of intruded sills or possibly portions of Archaean basement rocks and are ideal sites for the deposition of mineralised fluids released during the prolonged periods of orogenic activity. The Proto project area is host to several such bodies.

At the project level, rocks of the Palaeoproterozoic Lower Hatches Group, Reynolds Range Group, undifferentiated granitoid and gabbro-dolerite association occur. Neoproterozoic to Palaeozoic rocks of the Georgina Basin cover the Palaeoproterozoic rocks in the south to southeast. In places, Quaternary and Tertiary cover sequences of variable depth (range from a few meters to in excess of 100m) conceal the basement rocks.

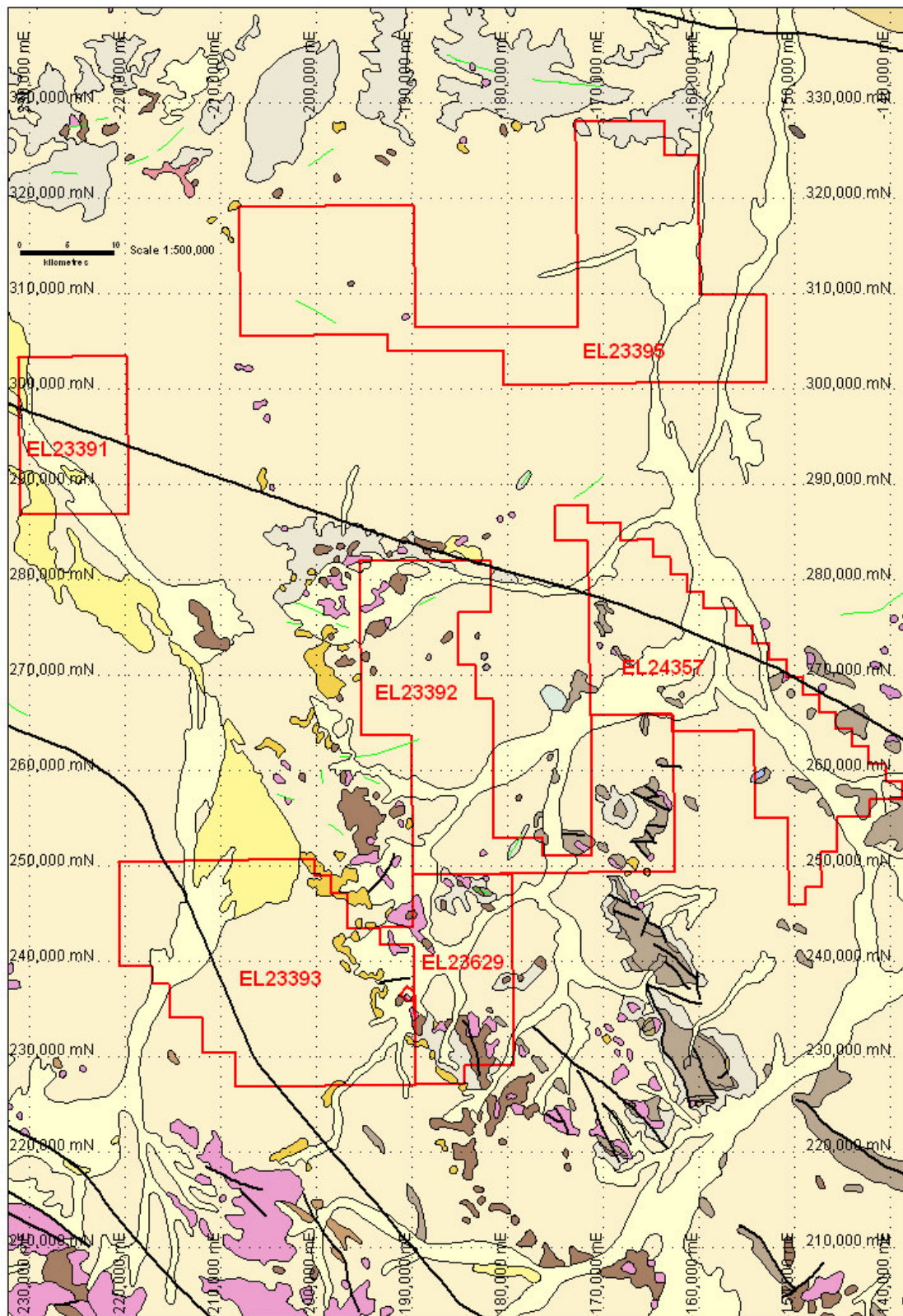


Figure 1 Location Map

## 5 PREVIOUS EXPLORATION

The Arunta Province has been explored for gold, uranium, rare earths and base metals by various companies. The province is considered prospective for a number of base metal mineralisation styles from Proterozoic stratabound Cu-Pb-Zn to skarn-related Cu-Au and Pb-Zn-Cu and acid volcanic Cu-Pb-Zn. The province hosts a number of significant base metals deposits including; Jervois 6.1Mt @ 2.1% Cu, Prospect D 3.2Mt @ 0.6% Cu & 0.2% Ni, Oonagalabi 25Mt @ 0.5% Cu & 1% Zn and Home of Bullion 0.13Mt @ 7.1% Cu, 5% Zn & 2% Pb.

The area also hosts a number of sub-economic occurrences of gold, tin, tungsten, tantalum, mica, nickel, chromite and semi-precious stones.

In terms of the exploration within EL24357, Discovery acquired the licence as they interpreted the eastern strike extension of those lithologies containing the mineralised B1 target on EL23392 to be present below the cover (Table 2). In the time since Proto acquired the Arunta Project from Discovery in late 2006 they have reviewed the open file magnetic and geological data to confirm the prospectivity of the central southeastern oriented portion of the licence. No ground work has as yet been completed on the licence.

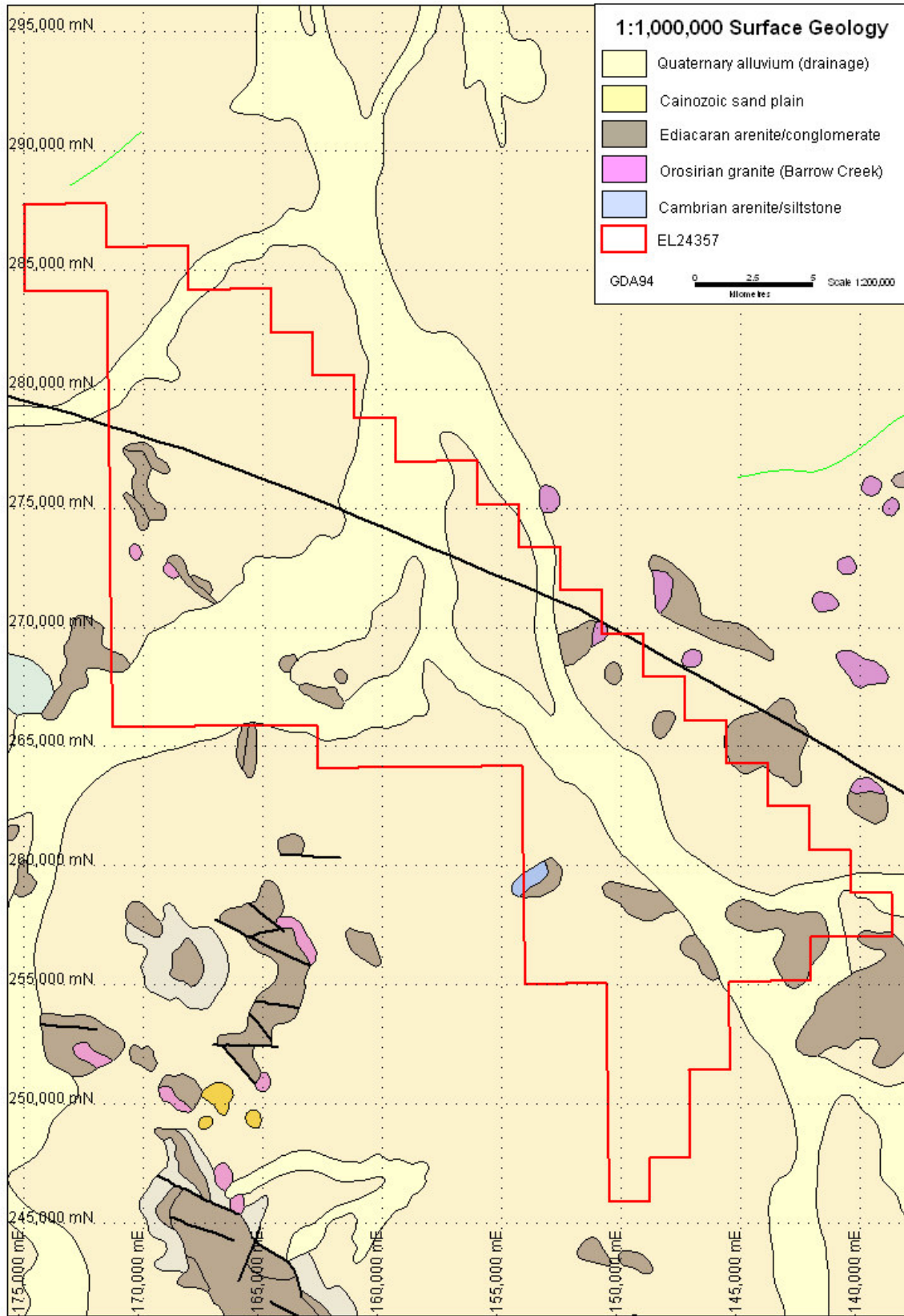


Figure 2. 1:1,000,000 scale Surface Geology of EL24357

Date	Company	Work Completed	Results
Early 1970s	CRA Exploration Pty Ltd	Uranium exploration, mapping, ground scintillometer survey and scout drilling	Uranium values up to 33 ppm uranium intersected in calcrete
1978	Otter Exploration NL Ref CR19790034	Uranium and tin surface sampling at Anningie Tinfield	Geochemistry anomalous for tin and tantalum
1979	CRA Exploration Pty Ltd Ref CR19790196	Uranium exploration mapping, aerial photo interpretation, airborne and ground magnetics, RAB drilling	Radiometric targets identified
1980	CRA Exploration Pty Ltd Ref CR19810022	Drainage sampling at -40 and -80 mesh for molybdenum, arsenic and gold	Maximum values were 5 ppm molybdenum, 10 ppm arsenic and 0.1 ppm gold
1981	Jays Exploration Pty Ltd Ref CR19810186	Mapping and environmental assessment for cassiterite (tin) deposits	Pockets of alluvial cassiterite identified as shedding from the pegmatite source area
1979 - 1983	CRA Exploration Pty Ltd	Airborne magnetics and radiometrics, stream sediment/rock chip samples	Rock chip result ( sample 970125) at 1.1 g/t gold reported
1989	Stockdale Prospecting Limited	Regolith mapping with stream sediment and soil sampling for diamonds	A few diamond indicator spinels, and kimberlitic garnets located
1993 - 1994	Poseidon Gold Limited Ref CR19950233	Gold exploration at Ingallan Prospect. Regolith mapping, 83 RAB holes, geochemistry	Maximum values: 6.3 ppm bismuth, 0.2 ppm cadmium, 6.9 ppm molybdenum, 21.77 % iron, 2510 ppm manganese, 290 ppm copper, 38 ppm lead, 200 ppm zinc, 0.2 ppm silver, 12 ppm arsenic and 1 ppb gold
1991 - 1997	WMC Resources Ltd Joint Venture with Aberfoyle Resources Ltd Refs CR19930085, CR19940184, CR19940383, CR19950107	Gold exploration, surface geochemistry, mapping, airborne magnetics and radiometry, ground IP and EM surveys, Auger and RC drilling	Nickel anomalies in soil, up to 5 m at 0.63% nickel and 3 m at 0.42% nickel with 0.52% copper from drilling. Also geochemistry with up to 11.5% iron, 0.45% manganese and 5.9 ppm uranium
1997	Adelaide Resources NL Ref CR19970427 CR19980060 CR19980311 CR19980568	Ground magnetics, RAB drill holes, vacuum drill holes, regolith mapping	Maximum values: 48ppm copper, 16 ppm lead, 97 ppm zinc, 0.2 ppm silver and 0.001 ppm gold
2001	Falconbridge (Australia) Pty Ltd	Detailed geological and airborne GEOTHERM survey over selected areas	22 airborne EM conductors identified
2003	Discovery Nickel Limited	Initial drill testing of two EM anomalies in the B1 Prospect, GEOTEM surveys EL23395 and EL23391. Additional MLEM on B1 prospect EL23392.	Diamond hole ARD-01 intersected two horizons (25 m and 17 m wide) of sulphide-rich graphitic schist. From 206-216m has +1% sulphide and 249-263 m has above 2% sulphide. Assays for nickel up to 136 ppm and copper up to 405ppm occur in these zones. One result of 20.4ppm uranium occurred at 206-207m

**Table 2. Previous Exploration Activities**



## 6 EXPLORATION COMPLETED DURING THE REPORTING PERIOD.

No exploration has been completed during the current reporting period further to the initial desk-top review of the open file data (Figure 3).

## 7 PARTIAL RELINQUISHMENT

Proto has decided to relinquish 78 sub-blocks of EL24357 with the view to focus exploration activities on the area of interest (Figure 3).

## 8 REFERENCES

**A Johnstone & A Hood, 2006.** Annual Report, Exploration License 23391, Arunta Region, Northern Territory, for the year ended 28th August 2006, Proto Resources & Investments Limited.

**Northern Territory Geological Survey, 2002.** The Arunta Province: open file exploration licence drill hole and geochemical data. Northern Territory Geological Survey, Record 2002

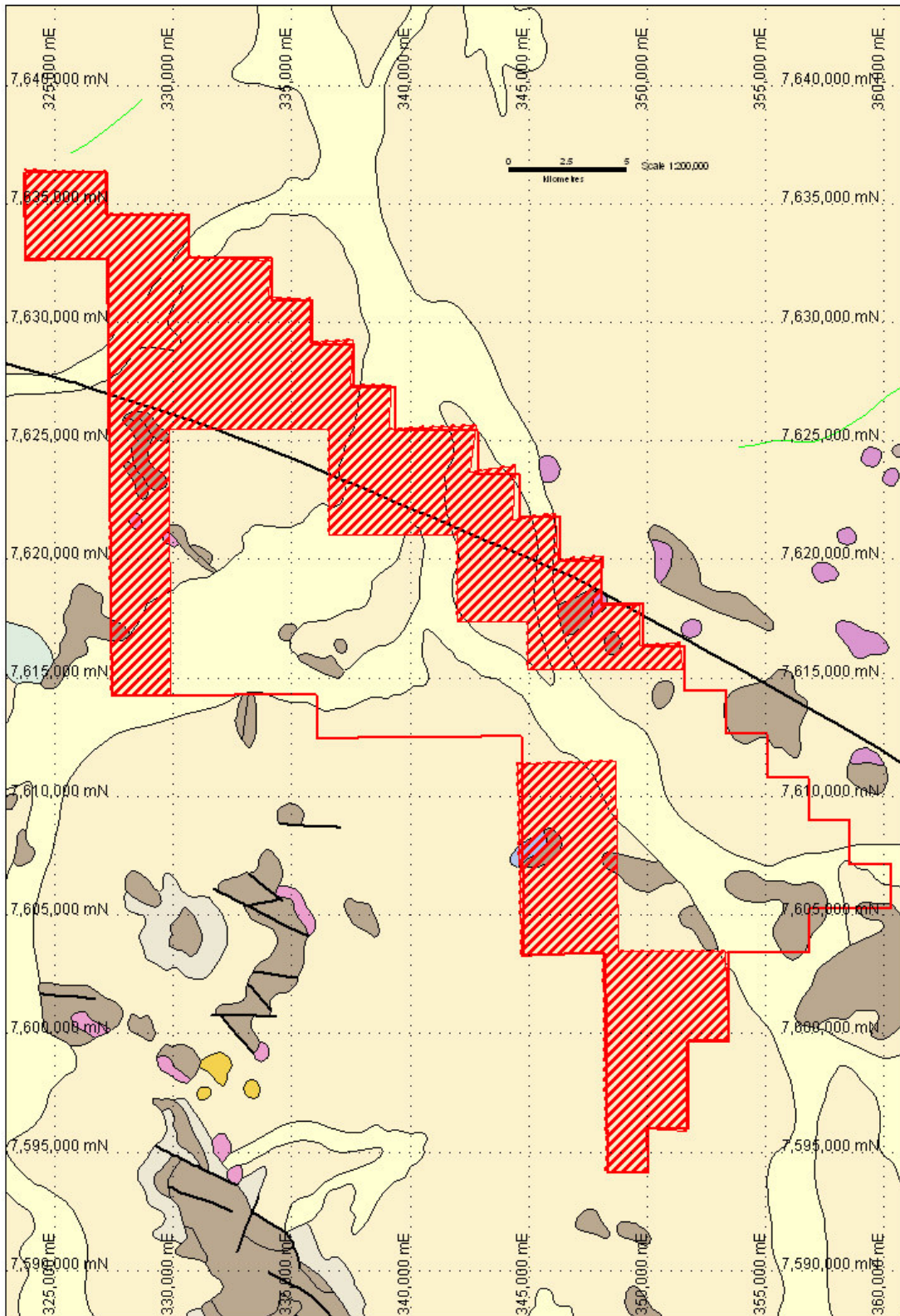


Figure 3. Partial Relinquishment of 78 sub-blocks from EL24357 (GDA94 1:200,000).