EL 25702

MT HARDY

PARTIAL RELINQUISHMENT REPORT

6 September 2007 – 5 September 2010

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Distribution:
- DoR – digital
- Native Title Unit - Central Land Council - digital
- Deep Yellow Ltd
1.0 SUMMARY

Exploration Licence 25702, Mt Hardy, forms part of the Mt Doreen Project, which lies within the Eastern Tanami region and is situated approximately 320 km northwest of Alice Springs. Exploration Licence 25702 was granted to Deep Yellow Limited (DYL) on 6 September 2007.

The exploration programme sought to identify near-surface calcrete or sand hosted uranium, with secondary targets comprising tabular lignitic or redox traps within deeper basinal sediments.

Exploration Licence 25702 was reduced from 29 to 15 blocks with effect from 6 September 2010. This report covers exploration of the relinquished portion of EL25702 during the period from 6 September 2007 to 5 September 2010.

Exploration carried out within the relinquished region of the exploration licence during the reporting period included reconnaissance field trips and an air core drilling programme.
2.0 INTRODUCTION

Exploration Licence 25702 forms part of DYL’s Mt Doreen Project. The Mt Doreen Project is located approximately 320 kilometres northwest of Alice Springs (Figure 1). The project area is situated on the Mount Theo (SF52-08) and Mount Doreen (SF52-12) 1:250 000 map sheets. Access from Alice Springs is via the Tanami Highway, and then a network of station tracks and fence lines provide good access within the tenement.

The Mount Doreen region contains moderate relief comprising extensive high ranges of quartzite belonging to basal units of the Ngalia Basin, high rounded granite hills rising up to 250 metres above the surrounding terrain and low rounded ranges of schist and granite tors. Extensive low-lying areas surrounding the ranges comprise of sheet wash sand, clay and gravel, aeolian sand, wind incised fluvial gravel and sand, and minor calcrete and playa clay and silt.

3.0 TENURE

Exploration Licence 25702 was granted to DYL on 6 September 2007 over an area of 58 blocks. EL25702 was reduced to 29 blocks at the end of the second year of term and further reduced to 15 blocks at the end of the third year of term, 5 September 2010 (Figure 2).

The tenement lies wholly within the Mount Doreen Pastoral Lease. DYL negotiated an Exploration Agreement with the Central Land Council (CLC) to facilitate access to the Mt Doreen project tenements. DYL and the CLC, on behalf of the traditional Aboriginal owners, signed the Exploration Agreement on 13 August 2008.
Figure 1. Tenement Location Plan
Figure 2. Relinquished and Retained Tenement Area
4.0 GEOLOGY

The Mt Doreen project lies within the Aileron Province of the northern Arunta region. The oldest rocks in the Mount Doreen area are metamorphosed Palaeoproterozoic siliciclastic sediments of the c. 1840 Ma Lander Group. These sediments were multiply deformed and variably metamorphosed during the c. 1840 Ma Stafford Event and numerous subsequent events.

The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts significant gold mineralisation at The Granites, Dead Bullock Soak and Coyote. The Lander Rock Formation comprises the oldest known basement and is really the most extensive basement unit. Along the southern margin of the project area lie outcropping uraniferous granitoids, feeding the north-flowing surface drainage.

The Ngalia Basin basal uraniferous sandstones also shed into the north-flowing drainage. The project area has potential to be a significant Tertiary/Quaternary depocentre as evidenced by the delta discharge complex at the termination of the present day Yaloogarrie Creek; just east of the project area.

5.0 REGOLITH AND GEOMORPHOLOGY

The Mount Doreen area has 10-20% basement exposure with large rounded hills and tors of granite and ranges and low ridges of metasediments. Strike extensive quartzite and quartz vein ridges are common. Areas of colluvium immediately surrounding exposed bedrock are amenable to surface geochemical methods. Even further from exposed bedrock are extensive Aeolian and sheetwash sandplains and minor lacustrine clay-calcrete-silcrete deposits which often form inverted topography. Well-developed surficial alluvial deposits are common. In many areas, a sand veneer covers these lacustrine deposits, with palaeochannels recorded up to 50m deep.

6.0 HISTORIC EXPLORATION

Prior to 2008, the following exploration was carried out in the Mount Doreen area:

- Michael Terry discovered quartz reefs containing arsenopyrite with minor gold for the Emu Mining Company in 1932,
- Bureau of Mineral Resources (BMR) conducted aeromagnetic, radiometric and gravity surveys in the 1960s,
- Northern Territory Geological Survey (NTGS) assessed the economic feasibility of the Mount Hardy and Clarke copper deposits from 1968 to 1972,
- BMR completed airborne magnetic and radiometric surveys in 1993,
- NTGS and BMR completed 2nd edition mapping of Mount Doreen sheet in the 1990s,
- Bruce and Mules explored the Silver King area for gold and base metals from 1988-1991
- MIM/Roebuck Resources joint venture targeted magnetic highs in the early 1990s and explored the Silver King deposit,
- Yuendumu Mining Company/Posgold explored the western parts of the Mount Doreen area from 1992 to 1996, particularly Terry’s Find; other targets were Buge and Grasshopper.
• BHP tested the northern Mount Doreen and southern Mount Theo mapsheets for Cu-Au in the late 1990s, based on AGSO studies (Wyborn, 1998)
• Tanami Gold NL carried out extensive geochemical sampling and drilling across the Mt Doreen Area from 2001 to 2005. The main areas targeted were Terry’s Find, Mount Hardy and Pyramid Hill prospects.

7.0 EXPLORATION

Exploration carried out over the reporting period by DYL within the relinquished tenement area included reconnaissance field trips, and an AC drilling programme (Figure 3).

7.1 Reconnaissance Field Trips

Reconnaissance field trips were carried out over the reporting period to evaluate drill rig access, potential drill water supplies and drill targets.

7.2 AC Drilling Programme

A total of 1 AC hole for 15 metres was drilled within the relinquished portion of EL25702. Composite 3-5 metre samples of the top 10 metres were taken for uranium assay. All drill samples were measured for total gamma response with a hand-held RSS-125 spectrometer. All composite assay samples were submitted to ALS Chemex in Alice Springs and analysed for uranium by XRF (method ME_XRF_05) with a detection limit of 4 ppm.

8.0 REHABILITATION

The drillhole has been plugged and covered. All drill samples and drill pads have been raked over. The affected areas are the subject of ongoing monitoring to ensure regeneration of the native spinifex ground cover.
Figure 3. AC Drilling Programme