

# EL 25101 MORDOR WEST

## **ANNUAL AND FINAL REPORT**

21 November 2006 to 17 November 2011

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#### SUMMARY

Exploration Licence 25101, Mordor West, is located approximately 60 kilometres northeast of Alice Springs. The tenement was granted to Deep Yellow Ltd (DYL) on 21 November 2006.

DYL entered into a Joint Venture Agreement (JVA) with Rum Jungle Uranium Ltd (RJU) commencing on 30 November 2007. This included EL 25101 and a number of other tenements in the region over which RJU earned a 50% interest. RJU handed the tenement back to DYL during the previous reporting period. Exploration over the tenement conducted by RJU throughout the JVA included general reconnaisance work including rock chip sampling and ground gravity and radiometric surveys.

Exploration carried out by DYL during the reporting period has been limited to data review.

## 1. INTRODUCTION

Exploration Licence 25101 was explored for both roll-front and intrusion related uranium mineralisation by Deep Yellow Ltd (DYL). A decision to surrender the tenement was made followng a review of exploration to date.

This report covers exploration conducted druing the life of EL 25101 from 20 November 2006 to 19 November 2011.

#### 1.1. Tenure

Exploration Licence 25101 was granted over an area of 59 blocks to DYL on 21 November 2006. Pursuant to the requirements of the NT Mining Act, the licence was reduced to 30 blocks at the end of the second year of term, 15 blocks at the end of the third year of term and 8 blocks at the end of the fourth year of term.

#### 1.2 Location and Access

The Mordor West tenement is located approximately 60 kilometres northeast of Alice Springs on the 1:250,000 Alice Springs geological and topographic sheets (Figure 1).

Access to the tenement from Alice Springs is via the Ross Highway and then via a network of station tracks.





#### 2. GEOLOGY AND URANIUM MINERALISATION

#### 2.1 Regional Geology

EL 25101 lies at the southern boundary of the Arunta Block where it is unconformable overlain by lower sequences of the Amadeus Basin. The Arunta Block is a complex assemblage of Proterozoic to Palaeozoic meta-igneous and meta-sedimentary rocks. The region has undergone several periods of regional metamorphism and undergone intense structural deformation. Shaw (1990) has divided the block into three provinces.

- Northern and Southern Provinces consisting of low grade metamorphic rocks to amphibolites facies
- Central Province comprising high grade metamorphic rocks to granulite facies.

#### 2.2 Tenement Geology

EL 25101 is represented by units of the Central and Southern Provinces including sections of the well documented Mordor Aljkaline Igneous Complex (MAIC) in the eastern section of the tenement.

Within the tenement, rocks of the Amadeus Basin (Heavitree Quartzite and lower Bitter Springs Formation) unconformably overlie the Arunta Block. Both the basement rocks and lower Amadeus Basin sequences were deformed during the Alice Springs Orogeny. Consequently, the beds of the Amadeus basin are folded into the Arunta Block creating the Winneke Nappe Complex to the immediate north of the EL and an interesting juxtaposition of various lithologies in the north west portion of EL 25101.

Dominant topographic features include the Georgina Range, a SW – NE trending ridge of Heavitree Quartzite that separates the Mordor Pound and MAIC from the north-western areas of the tenement (Fig ). Minor occurrences of Cainozoic schist can be found in the north-western and north-eastern parts of EL 25101.



Figure 2. EL25101 Geology

## 3. PREVIOUS EXPLORATION

Previous exploration activity in and around EL 25101 has focussed either on the Winnecke gold region to the immediate north or the Mordor Alkaline Igneous complex (MAIC) to the east. Some exploration activity overlaps the southeastern portion of EL 25101 due to its adjacency with the MAIC. This previous exploration has been detailed in a previous annual report (Rollings and Doyle 2008) and is not reported here.

## 4. EXPLORATION COMPLETED

Exploration completed by DYL during the reporting period was limited to data review.

During the second year of tenure minimal field exploration was carried out by RJU which included ground radiometric prospecting and general reconnaissance. In the third year of tenure RJU extended their exploration activities to include a ground gravity survey and rockchip sampling.

The ground survey was conducted by Fugro Ground Surveys utilising quad bikes and 4wd vehicles at 200m station spacing. The survey aimed to try and detect sub-surface western extensions of the MAIC which may host polymetallic mineralisation on EL 25101. This turned out not to be the case. Parts of the survey were not completed due to difficult and unsafe topography for quad bikes and the longer than anticipated time it took because of the difficult terrain. Figure 3 shows the results of the gravity survey and Appendix 1 contains the data.

Prior to commencement of the first phase of fieldwork for 2009, a series of ground investigation sites were compiled using airborne radiometrics and magnetics. These targets were then assessed in the field using mapping, sampling and scintillometer transects. A total of twenty three rock chip samples were collected and assayed in RJU's Darwin office using a Niton Portable XRF.

A selection of samples was sent to Northern Territory Environmental Laboratories (NTEL) for assay to verify the XRF results. Three of the NTEL samples corresponded with samples taken from EL 25101. Appendices 2 and 3 contain the results from both sets of analyses.





### 5. BIBLIOGRAPHY

Rollings N and Doyle N, 2008. Second annual report for EL25101, Mordor West for the period ending 20/11/2008. Rum Jungle Uranium Ltd company report.

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