EL 24464 – Mt. Mabel

Forth Annual Report
for the Year ended

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1. INTRODUCTION

This tenement is considered prospective for uranium, gold, platinoids and base metal sulphide mineralisation. During the first year of tenure, two reverse circulation drill hole were completed at the Kylie Prospect and in the second year a further 10 RC holes were drilled at the SE Kylie prospect. In the third year a review of exploration results and compilation of historical exploration data into a GIS format was undertaken. This highlighted the long exploration history of the area and that much of the historical data was not comprehensively compiled. As a consequence a second more comprehensive compilation of historical data was undertaken. This covered the whole Rum Jungle Mineral Field and has resulted in a dramatic shift in the understanding of timing and controls to mineralisation within the field.

2. TENEMENT DETAILS

An application for 21 blocks (60 square kilometres) was made on 17 November, 2004. This area was granted as EL 24464, effective 2nd April 2006 (see Figure 1). Ownership was originally Compass Resources NL 90% and Guardian Resources Pty. Ltd. 10%. Compass now owns Guardian Resources Pty Ltd, so has effective 100% ownership of the tenement.

The tenement is located on the Pine Creek 1:250,000 map sheet (5270), Batchelor 1:50,000 and Rum Jungle 1:50,000 topographic maps (5171-4 and 5071-1 respectively).

3. ACCESS

Access to the area is by following the old railway route south from Batchelor, or via the unsealed Camp Creek road from Adelaide River. Both major and minor tracks exist in the tenement.
4. GEOLOGICAL SETTING

This tenement is located approximately sixteen kilometres south-south-west of Batchelor on the southern side of the Archaean Waterhouse complex, covering the basal sedimentary sequence, including the Namooa Group and the Mt. Partridge Group. Areas of brecciated ferruginous rocks and sandstones, variably referred to as the Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group have been re-interpreted to be of structural origin and this represents a major change to the exploration potential of the tenement.

Outcrop is fair in the area, with strong lateritisation and recent alluvium obscuring much of the underlying rocks.

The tenement covers the Spring Creek, Kylie and Kylie South East uranium prospects, originally located by Uranerz in the late 1970's.

The most recent published data of this area is from Lally et al 2002 (Rum Jungle 1:100,000 Mineral Field Map).

5. PREVIOUS EXPLORATION

During the period 1950-1974, most of the regional exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. United Uranium, CRA Exploration and the BMR explored the Waterhouse No. 2 copper-uranium prospect. The BMR explored for phosphate in the 1960s.

The most extensive exploration was undertaken by Uranerz in the late 1970s and early 1980s. This involved extensive drilling programmes and ground geophysical surveys. Marathon, CRA and others also explored the area during this time.

Aztec Mining last held the area in the period 1992-1998 and gives a good summary of previous exploration in its early Annual Reports. Work by Aztec included stream sediment sampling, soil and rock chip sampling, costeaning and
various drill programmes. The also completed a large aeromagnetic survey of the region and re-assayed some existing drill core.

Compass Resources drilled two RC holes into the Kylie prospect in 2006 and in 2007 completed a further 740m in 10 RC holes at the SE Kylie prospect. The majority of holes intersected weakly anomalous uranium mineralisation associated with disseminated pyrite close to the shale–dolomite boundary without encountering potentially economic intersections.

6. WORK COMPLETED THIS YEAR

6.1 Compilation of Previous Exploration

A major push was undertaken to collate all historical exploration data for the Rum Jungle Mineral Field into a true GIS system. Exploration drilling data was collated and entered into the Datashed database and evaluated using ARC GIS and Micromine. In addition 260 historical maps were geo-referenced in ARC.

The database contains a total of 224 drill holes within the Mt Mabel tenement (see figure 2, appendix 1, 2, 3 & 4). The extensive shallow RAB drilling programs undertaken in the 1990s by Aztec/Nicron/Normandy covering much of the tenement were not entered due to time constraints though geo-referenced maps of this data were registered in ARC. No attempt was made to compile stream sediment, rock chip or soil geochemistry due to time/cost constraints.

All available assay data associated with the historical drilling was entered into the database. Some of the data proved problematic to enter. For instance Uranerz often only provided pdf’s of hard copy down hole probe profiles rather than chemical assays and we are still working towards developing a means of converting this data into meaningful assay information.

Detailed aeromagnetic and radiometric surveys flown in the 1990s were merged with the regional geophysical data sets and reprocessed.
6.2 Regional Geological Interpretation

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)
(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite and disseminated pyrite.

Within the Mt Mabel tenement these thrust surfaces start to merge generating zone of semi continuous brecciation and variable alteration up to 2.5km across. Recent published mapping has mis-identified this brecciation/alteration as Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group. The structural event has effectively destroyed the Proterozoic stratigraphy within the Mt Mabel tenement (see Figure 3).

Extensive sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

The extent of brecciation has been confirmed through field checking and reviewing historical drill logs.
PLANS FOR NEXT YEAR.

Given the extensive brecciation and hydrothermal alteration present throughout much of the Mt Mabel tenement we propose to fly the entire tenement with detailed airborne EM to help identify targets for drill testing. Relogging of historical drilling into a format suited to computerisation will be completed and the data reviewed to determine the location of priority targets for additional drilling. RAB drilling data may also be entered into the GIS database.

Expected expenditure is anticipated to exceed $20,000.
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