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# EL 27788 - Miles Road East

Annual Report for the period 11 May 2010 to 10 May 2011

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Batchelor 1:100,000 Sheets MGA 94 Zone 52

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Figure 1: Tenement location map for EL 27788.

#### 1. INTRODUCTION

This tenement is considered prospective for uranium, gold and base metal sulphide mineralisation. During the reporting period the tenement was flown with detailed airborne magnetics and EM to help define potential drill targets.

### 2. TENEMENT DETAILS

An application for this exploration licence of 3 blocks (4.63 square kilometres) was made on 16 November 2009. This area was granted as EL 27788, effective 10th May 2010. Compass Resources Ltd has 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 general area is by following Miles Road south from Batchelor with the tenement located to the north and east of the historical Gould Airstrip. Only minor tracks exist in the tenement with much of the area impassable in the wet season.

#### 4. GEOLOGICAL SETTING

This tenement is located approximately four kilometres south-east of Batchelor on the eastern side of the Archaean Waterhouse complex. Basement rocks are shales of the Lower Proterozoic Whites Formation (the underlying Coomalie Dolomite outcrops to the north and west of the tenement). To the east the Whites Formation is overlain by units of the Mid-Proterozoic Burrell Creek Formation.

The boundary between the Lower and Mid-Proterozoic units is a series of bedding parallel thrusts that are often intruded by Zamu Dolerite. To the north of the tenement the boundary between the Whites Formation and Coomalie Dolomite is also a thrust (represented by extensive development of HQB).

Outcrop is fair in the area, with some lateritisation and both ?Tertiary sediments and recent alluvium obscuring parts of the basement rocks.

# 5. PREVIOUS EXPLORATION

During the period 1950-1992, the area was covered by a variety of regional surveys without any specific prospects being identified within the tenement boundaries.

Aztec Mining held the area in the period 1992-1998. Work by Aztec included stream sediment sampling, soil and rock chip sampling and a diamond drill hole in 1991. The hole (91WHD01) was drilled to 802m and tested the faulted boundary between the Lower and Mid-Proterozoic. The hole intersected several major fault zones and two large sills of Zamu Dolerite. They also completed a large detailed aeromagnetic survey of the general region including EL 27788.

#### 6. WORK COMPLETED THIS YEAR

In the last few years Compass Resources compiled 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 all historical maps relevant to EL 27788 were geo-referenced in ARC.

As mentioned above the database contains a single historical drill hole within the Miles Road East tenement.

The detailed aeromagnetic and radiometric surveys flown in the 1990s were merged with the regional geophysical data sets and reprocessed.

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 Miles Road East tenement these thrust surfaces separate the major lithological units. 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 thrusting and brecciation has been confirmed through field checking and reviewing historical drill logs.

Given the improved understanding of the prospectivity of EL 27788 it was decided to fly the area of the tenement (along with all other Compass tenements at Batchelor) with helicopter borne aeromagnetics and EM. The survey was completed by GPX Surveys in late 2010 with flight lines at 150m spacing, orientated east-west and with a terrain clearance of 30m. East-west tie lines were spaced at kilometre intervals. This generated approximately 24 line kilometres of data within EL 27788.

Processing of the data commenced in early 2011 and unfortunately an error was detected in the helicopter altimeter readings used in the survey requiring correction and considerable reprocessing. At the time of writing this report the error in the data had finally been rectified and the data was at a consultant geophysist being processed. Compass Resources was yet to receive the final, corrected data from this extensive survey.

### 7. PLANS FOR YEAR 2.

Upon receipt of the final geophysical data magnetic and electromagnetic targets will be selected for ground follow up and drilling.

Expected expenditure is anticipated to exceed \$5,000.00.

# REFERENCES

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Johnson, K., Hone, I.G., Ingram T.A & Crick, I.H., 1979 Stratigraphic Drilling in the Rum Jungle Area N.T. 1973-74. Geological and Geophysical Results. *BMR Record No. 1979/89* 

Lally, J. H., 2002

Stratigraphy, structure and mineralisation, Rum Jungle Mineral Field, Northern Territory. NTGS Record 2002-005

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# EL 27788 EXPENDITURE REPORT

# For Year Ending 10 May 2011

\$
3,500
1,560
8,000
750

Total Expenditure \$13,810

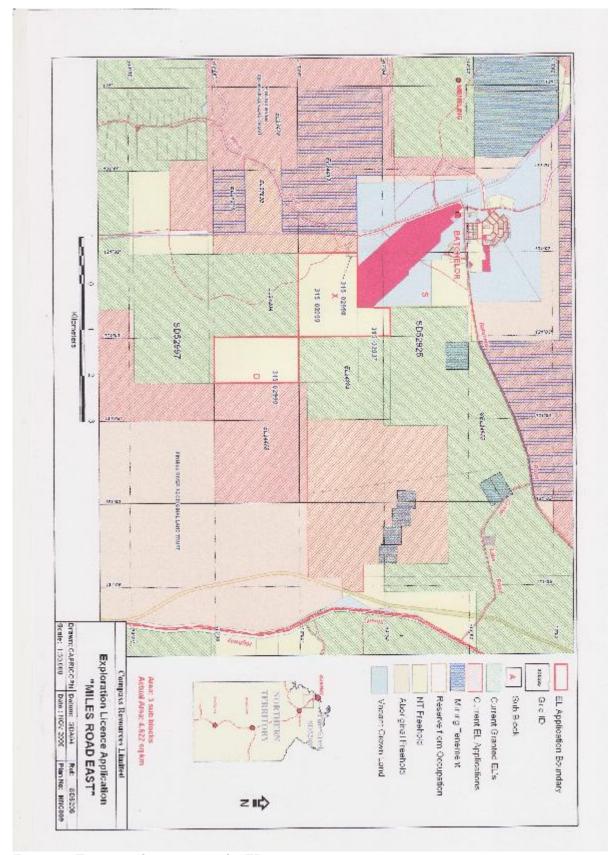


Figure 1. Tenement location map for EL 27788.