

**ANNUAL TECHNICAL REPORT EL26777**

**FOR YEAR THREE**

**ACACIA PROJECT AREA**

**(Frazers North Prospect)**

**for the period**

**15<sup>th</sup> January 2011 to 14<sup>th</sup> January 2012**

DARWIN SD52-4  
MANTON DAM 5172-3

By: Andrew Chapman

For: Equator Minerals

February 2011

TABLE OF CONTENTS

Summary .....	3
1. INTRODUCTION .....	3
1.1 Project Description .....	3
1.2 Location.....	3
2.0 Tenement Status .....	5
3.0 Regional Geology .....	5
3.1 Local Geology .....	6
4.0 Exploration Activities.....	6
4.1 Exploration Year 2.....	6
4.3 Exploration Year 3.....	6
 Figure 1. EL26777 Location plan.....	 4

## **Summary**

The Frazers North Prospect (EL26777), of the Acacia Project Area, consists of the granted exploration licence covering 6.33 sq. km (5 Blocks) located about 60 kilometres south of Darwin, NT.

The project area is 100% owned by Acacia Minerals Pty. Ltd. a subsidiary company of Equator Resources.

No exploration was completed on this tenement as Equator Resources decided to sell the project during the year and entered into a sale agreement with TUC Resources who are actively exploring similar terranes in the Rum Jungle – Pine Creek Region. The deal was completed in February 2012 and tenement transfer is currently underway.

## **1. INTRODUCTION**

### **1.1 Project Description**

Exploration Licence 26777 is located on the Manton Dam (5172-3) 1:50,000 sheet.

The licence was taken out in order to explore an area which is in a similar geological and structural setting to the Woodcutters Mine and which has base metal soil and gossan anomalies detected during earlier recent exploration programmes conducted by Acacia Minerals personnel and by numerous companies prior to Acacia Minerals involvement.

### **1.2 Location**

The licence area is about 60 kilometres south of Darwin, NT and can be accessed via the Acacia Hills Road or via Mocatto Road. The tenement is on private land in the rural area of Darwin's south and is very accessible during the dry period. Figure 1. represents a regional location of the tenement.

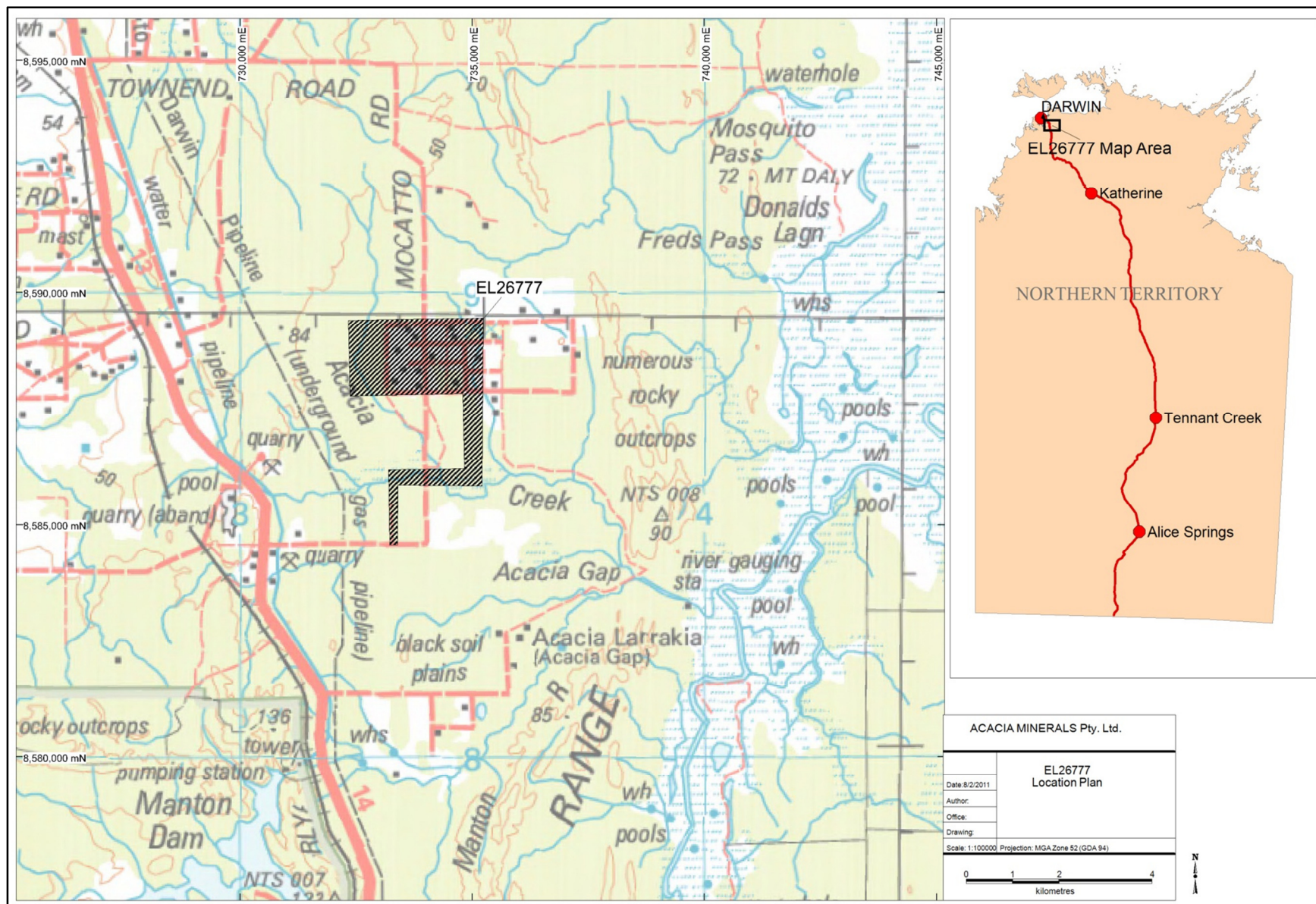


Figure 1. EL26777 Location plan.

## **2.0 Tenement Status**

EL26777 was granted for a period of six (6) years in 2009 to expire on 15<sup>th</sup> January 2015. The 6.33 sq km. (5 blocks) tenement falls within NT Freehold Land and there are fifty-three (53) individual land sections included.

Waiver of block reduction was been accepted by the NT Dept. of Primary Industry, Fisheries and Mines, Titles Division for the second year of tenure due to EL26777 covering part of a major geological province which Acacia Minerals was actively exploring. Year 3 reductions were not required under the new Titles Act.

## **3.0 Regional Geology**

EL26777 lies on the north-eastern margin of the Archaean Rum Jungle and Waterhouse basement complexes. These are overlain by Lower Proterozoic clastic and dolomitic units of the Namoon Group, Crater Formation and Coomalie Dolomite; shales and calcareous shales of the Whites Formation and shales with interbedded quartzite of the Wildman Siltstone.

Uranium and base metal mineralisation at Rum Jungle and Woodcutters is concentrated in structural zones in the lower Whites Formation just above the Coomalie Dolomite. Gold mineralisation at Sundance, Batchelor, is within palaeokarst collapse breccias above the contact of the Coomalie Dolomite and Whites Formation. Base Metals are associated with mafic units intersecting the Coomalie and Whites Formations.

The structure of the area is dominated by an early phase of N-S trending open folds and strike slip faulting consisting with extensional basinal development. A major arcuate fault has been identified in the western portion of the region from interpretation of aeromagnetic and radiometric data. These structures have been subsequently offset by a later phase of NE-SW trending structures, dominated by the Giants Reef Fault.

### 3.1 Local Geology

Most of the project area is covered by Tertiary and Quaternary sediments with the axis of the Woodcutters anticline passing through the centre of the tenement. Airborne geophysics closer defined an interpreted dolerite dyke passing to the east of the anticlinal axis. Numerous associated magnetic anomalies within the calcareous and carbonaceous pyritic argillite, dololutite and dolarenite of the Whites Formation within the Mount Partridge Group are evident.

## 4.0 Exploration Activities

### 4.1 Exploration Year 2

Thomson Aviation, based in Griffith NSW, carried out a Fixed Wing Geophysical Survey of a total of 3,101 line km near Humpty Doo, NT. The survey covered all Acacia Minerals tenements in the area.

### 4.3 Exploration Year 3

No further exploration was completed on this tenement as Equator Resources decided to sell the project during the year and entered into a sale agreement with TUC Resources who are actively exploring similar terranes in the Rum Jungle – Pine Creek Region. The deal was completed in February 2012 and tenement transfer is currently underway.