



## **MOUNT SOLITAIRE PROJECT**

**EL 27997**

### **Annual Technical Report**

**For the Period 01/06/2017 to 31/05/2018**

**Tenure Holder:** Ramelius Resources Limited (85%)  
Tychean Resources Limited (15%)

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## **Summary**

This report discusses exploration activities on EL27997, located c. 600km north-west of Alice Springs, Northern Territory, for the first year of tenure, covering the period 1<sup>st</sup> June 2017 to 31<sup>st</sup> May 2018.

Ramelius Resources Ltd entered into a Joint Venture Agreement with Tychean Resources Limited, comprising the Tanami Joint Venture, which includes EL27997. Ramelius are operators of the project and have an 85% Joint Venture Interest in the tenement.

No fieldwork was carried out on the tenement during the reporting period. Geological reconnaissance and geochemical sampling are proposed for 2018-19.

## 1. INTRODUCTION

EL27997 is currently held by Ramelius Resources Ltd (85%) and Tychean Resources Ltd (15%), and operates under joint venture agreement. This report summarises the exploration activities carried out for the first year of tenure, covering the period 1<sup>st</sup> June 2017 to 31<sup>st</sup> May 2018.

No fieldwork was carried out on the tenement during the reporting period. The proposed field activities now proposed for 2018-19.

### 1.1 Location and Access

Exploration License EL27997 is located approximately 600km north-west of Alice Springs, Northern Territory. The license covers 57 sub-blocks for a total area of 183.7 square kilometres. Vehicle access from Alice Springs is by way of the Tanami Highway to the Granites Mine, thence eastwards approximately 100km by 4WD tracks to the tenement. Figure 1 shows the location of EL 27997.

### 1.2 Tenure and Land Status

Exploration License EL27997 was granted to Tychean Resources Ltd (Tychean; formerly ERO Mining Ltd) on 1<sup>st</sup> June 2017 for a period of 6 years. The license comprises 57 sub-blocks.

The license forms part of a Joint Venture Agreement with Western Australian based gold producer Ramelius Resources Limited, who are responsible for the management of the exploration programs on this tenement. Ramelius have an 85% interest in the license.

The company operate under a Mineral Exploration Agreement with the Central Land Council (CLC) in respect of EL27997, being land vested in the Central Desert Aboriginal Land Trust NTP 1740.

**Table 1: Tenement details for EL27997**

Tenement	Holder	Operator	Grant Date	Expiry Date	Sub-Blocks	Exp. Comm 2017-18
EL27997	Tychean Resources Ltd (15%) Ramelius Resources Ltd (85%)	Ramelius Resources Ltd	1/06/17	31/05/23	57	\$30,000

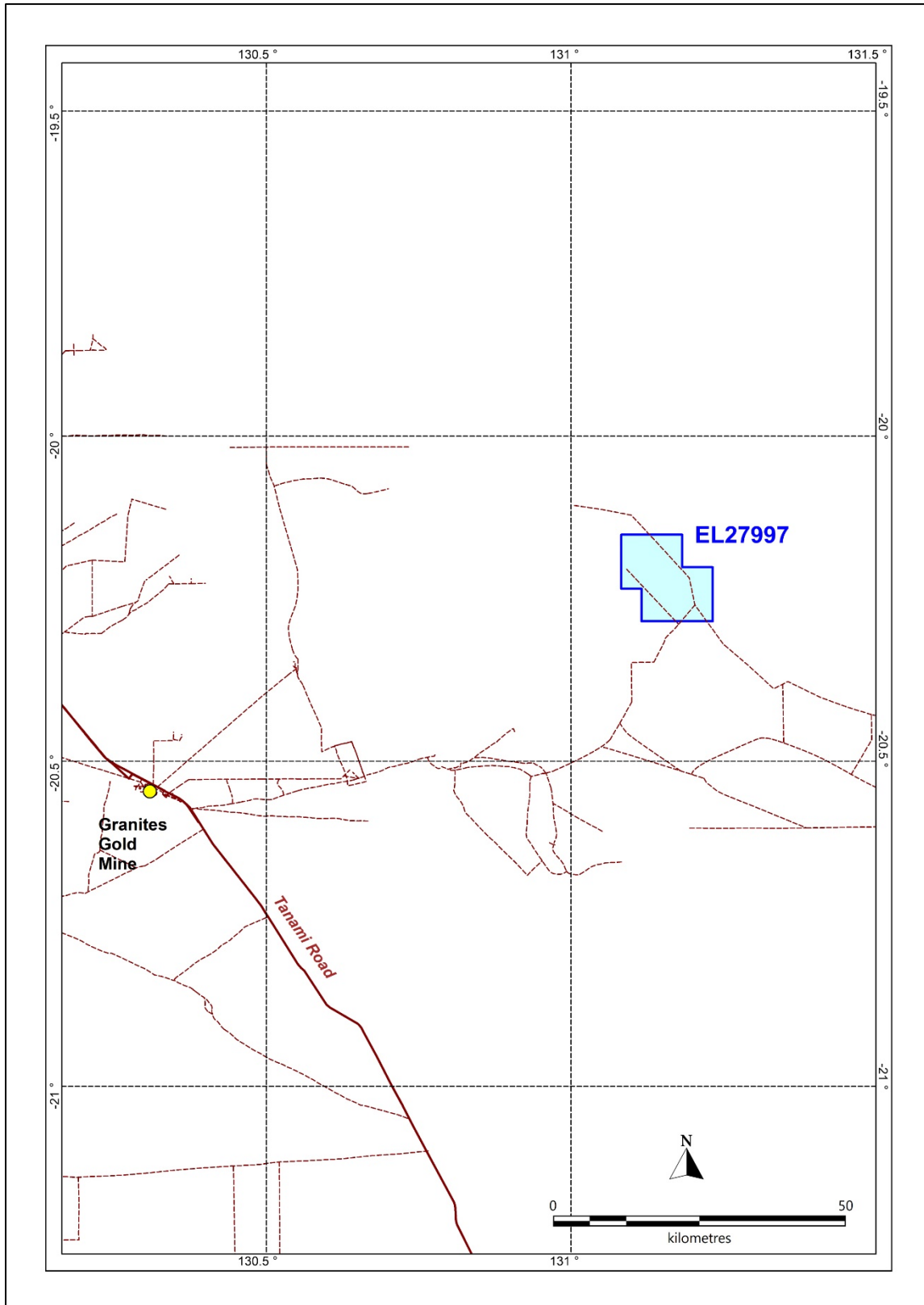


Figure 1: Locality plan showing tenement EL27997

## **2. GEOLOGICAL SETTING**

### **2.1 Regional Geology and Mineralisation**

The Palaeoproterozoic Tanami Region forms part of the North Australian Craton and comprises a succession of fine grained siliclastic sedimentary rocks, turbidite, BIF, mafic sills, basalt and minor Volcaniclastics. The region was subject to multi-phase deformation, regionally metamorphosed to greenschist to mid-amphibolite facies and subsequently intruded by 1825-1790Ma granites (Wygralak *et al.*, 2005)

The Mount Solitaire EL27997 is located on the northern margin of the Early Proterozoic Tanami Complex, and straddles the NW-trending, thrust-fault contact with the Palaeozoic Wiso Basin Sequence to the north (Figure 2).

Rocks of the Tanami Complex include meta-chemical sediments of the Killi Killi Formation, undivided Tanami Group metaclastic sediments, and felsic granitoid of the Grimwade Suite. The Wiso Basin sequence to the north includes Cambrian Antrim Plateau Volcanics, Cambrian Montejinni Limestone and Ordovician Lake Surprise Sandstone.

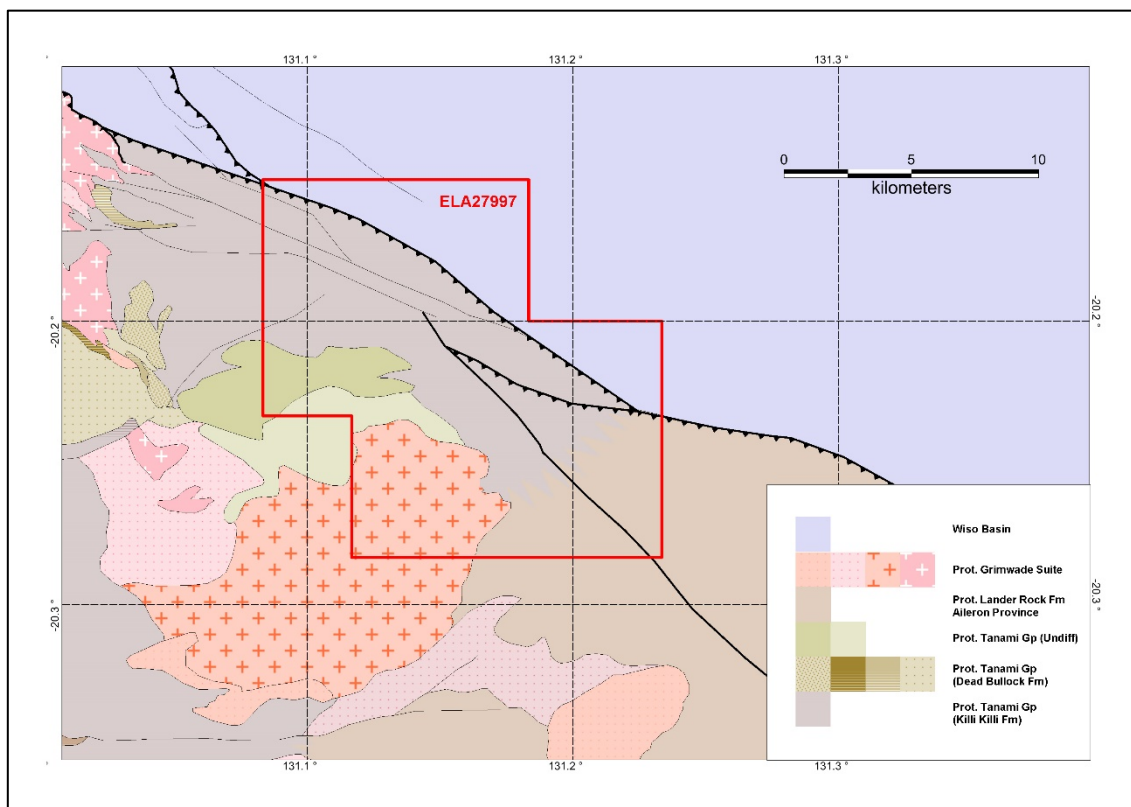
Bedrock exposures in the application area are sparse (Figure 3). Several NW-trending topographic ridges are marked by exposures of quartz vein (breccia) systems associated with regional faults, previously mapped by the BMR. The ridges are typically flanked by residual laterites. The remainder of the license area is covered by unconsolidated Cenozoic sediments, aeolian sands and dune fields.

Styles of gold mineralisation in the Tanami Region are predominantly Orogenic lode gold deposits, predominantly within mafic volcanic and sedimentary lithologies of the Dead Bullock Formation (e.g. DBS and Granites Goldfields). Several gold deposits located south of the Talbot North EL include the Hyperion Project (200,000oz Au; quartz-carbonate vein-hosted deposits within granitic, doleritic and metasedimentary rocks) and the Groundrush Deposit (460,000oz; hosted in foliated dolerite sill within metagreywacke of the Killi Killi Formation.

## **3. PREVIOUS EXPLORATION**

The area covering EL27997 was originally held by Zapopan (EL4519) from 1990-1992, who conducted regional gold and base metal exploration.

Normandy / North Flinders Mines held the ground as part of their Sore Tooth North Project (EL8287) from 1996 to 1998, with the initial target as quartz vein systems mapped by the BMR on the Mt Solitaire 1:250,000 geological map sheet. Work carried out over the area included interpretation of aeromagnetic data, regional lag sampling and composite rock-chip sampling over areas of subcrop or outcrop. No drilling has been carried out on the application area.



**Figure 2: ELA27997 Regional Geology**

#### 4. EXPLORATION COMPLETED 2017 - 2018

No fieldwork was conducted on the license during the reporting period. The company had proposed initial geological reconnaissance and geochemical sampling. Owing to other commitments, the proposed exploration was not undertaken and the company intends to complete these activities during 2018-19.

A desktop review of previous exploration and target generation was undertaken during the reporting period.

##### 4.1 Data Review

Zapopan explored the area under EL4519 from 1990-1992, and conducted regional gold and base metal exploration. The majority of Zapopan's exploration focussed on magnetic targets to the west of ELA27997. Owing to the paucity of magnetic targets on the area covering the Mt Solitaire project, little work was carried out beyond regional aeromagnetic interpretations, and the ground was subsequently relinquished after the second year of tenure.

Normandy / North Flinders Mines held the ground as part of their Sore Tooth North Project (EL8287) from 1996 to 1998, with the initial target as quartz vein systems mapped by the BMR on the Mt



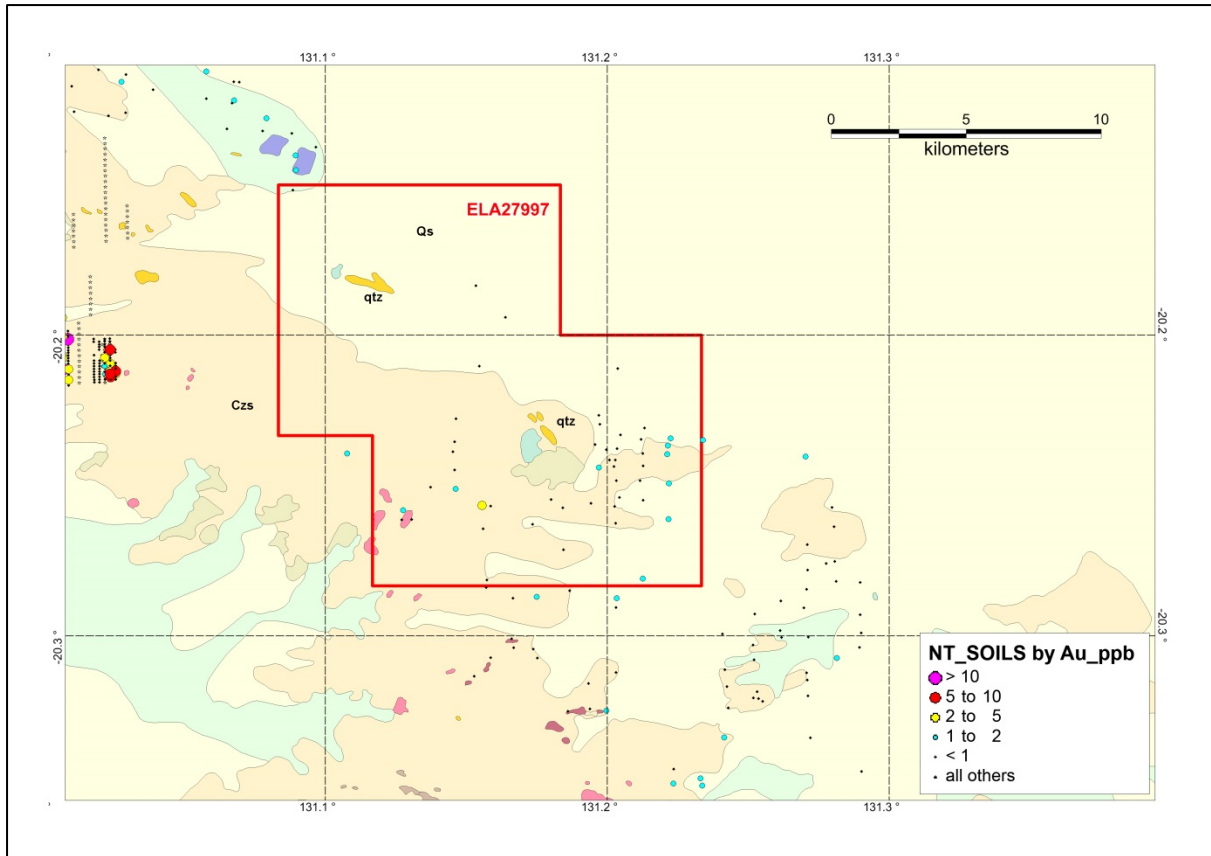
Solitaire 1:250,000 geological map sheet. Work carried out over the current application area included interpretation of aeromagnetic data, regional lag sampling and composite rock-chip sampling over areas of subcrop or outcrop. No drilling has been carried out on the application area.

Lag sampling carried out by North Flinders mines was limited in coverage owing to the lack of suitable sample material, with most coverage in the southern part of the current application area (Figure 3). No gold anomalism was recorded although weak Pb and Zn anomalism was returned in areas proximal to the Wiso Basin margin.

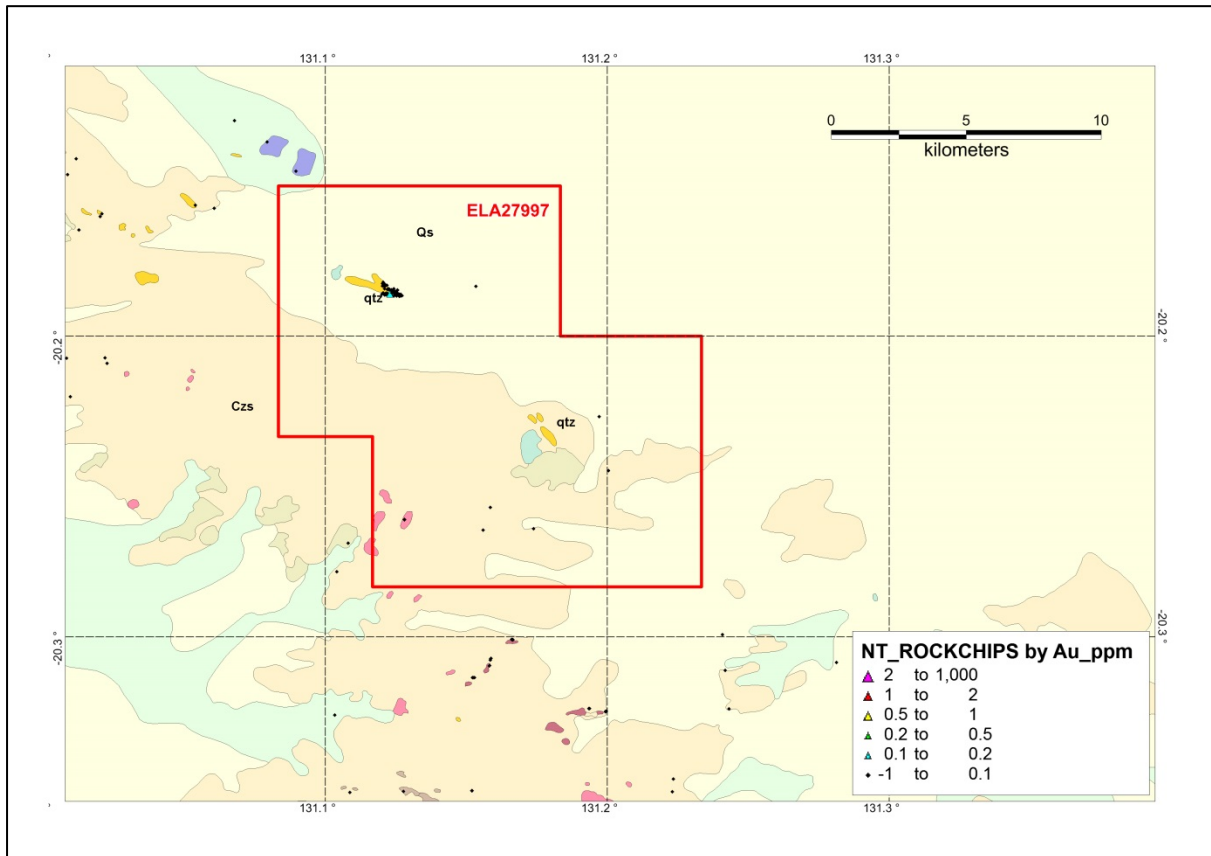
A total of 78 rock-chip samples were collected by North Flinders in the application area, predominantly from a major NW-trending quartz ridge in the northern part of the project area (Figure 4). Results were largely disappointing with most samples below detection limit (1ppb), although one weakly anomalous result (140ppb) was associated with quartz material with colloform-crustiform banding.

## **5. EXPLORATION PROPOSAL**

Work proposed for 2018-19 includes geological reconnaissance and rock-chip sampling over selected areas. Regolith mapping, followed up with soil geochemistry over amenable areas.



**Figure 3:** Mt Solitaire Project historic Lag Geochemistry



**Figure 4:** Mt Solitaire Project historic rock-chip sampling

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