

# PARTIAL SURRENDER REPORT FOR THE PERIOD

# 3 DECEMBER 2007 TO 2 DECEMBER 2011

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# **EXECUTIVE SUMMARY**

EL 25026 is located about 200km north of Alice Springs and forms part of the Mt Skinner Base Metals Project, and the adjacent Adnera Uranium Project.

The tenement was granted to Uramet Minerals Limited (Uramet) on 3 December 2007. Work within the surrendered portion of the tenement from time of grant until surrender includes a literature search of open file reports and other available data including regional geophysics, and field reconnaissance.

A review of available data, along with field reconnaissance, failed to define any high priority exploration targets within the surrendered area; hence this area is being relinquished.

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# 1 INTRODUCTION

EL 26025 ("Millionaires Well South") is located about 200km north of Alice Springs (Figure 1). This report details work undertaken by Uramet within the surrendered portion of the tenement since granted in December 2007.

## 2 SITE ATTRIBUTES

## 2.1 Location

The tenement is located on the Stirling pastoral station, approximately 200km north of Alice Springs in the Northern Territory (Figure 1). The project area named "Millionaires Well South" falls within the Barrow Creek (SF5306) 1:250,000 map sheet and forms part of Uramet's Mt Skinner Base Metals Project, and the adjacent Adnera Uranium Project.

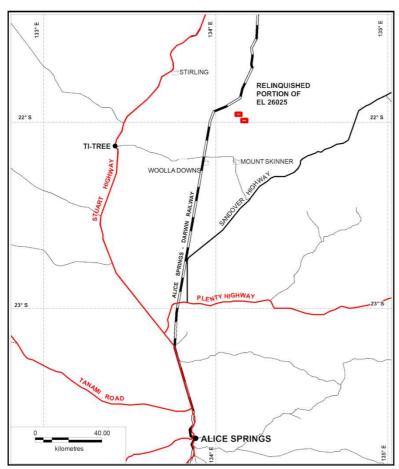


Figure 1. Millionaires Well South Project Location

## 2.2 Climate

The project area is situated in the Central Australian Desert climatic zone with a variable wet season from November to March. The area is classified as semi-arid with between 250 mm and 500 mm of rainfall per year, however, rainfall can be highly variable within a season and from season to season. The climate of the project area can be loosely divided into a dry season

generally from April to October, and a wet season from November to March. Unseasonal rain can however occur at any time. Maximum daily temperatures generally exceed 35℃ between October and April. The normal exploration field season runs from April to October.

### 2.3 Environment

The project area occurs within the Stirling pastoral lease, the primary land use being cattle grazing.

A search of the Sacred Site Registry has shown that a number of sacred sites occur within and adjacent to the tenement. Uramet holds an Authority Certificate from the Aboriginal Areas Protection Authority (AAPA) for adjacent tenements to the north and east of EL 26025 but not directly over the relinquished part of EL 26025. Uramet ensures that all sacred sites are avoided. No ground disturbing work has been conducted within the surrendered portion of the tenement.

### 2.4 Infrastructure

Access to the tenement from Alice Springs is normally by travelling north via the sealed Stuart Highway (Figure 1), then via station tracks from Stirling homestead to the railway line (Figure 2). Most of the station tracks are generally in good condition.

## 3 TENURE

EL 26025 was granted to Uramet on 3 December 2007, originally comprising 34 blocks, covering an area of 108km<sup>2</sup>. A 50% reduction in area was made in 2009, a second reduction of 50% was made in 2010, with Figure 2 showing the original and current tenement boundaries.

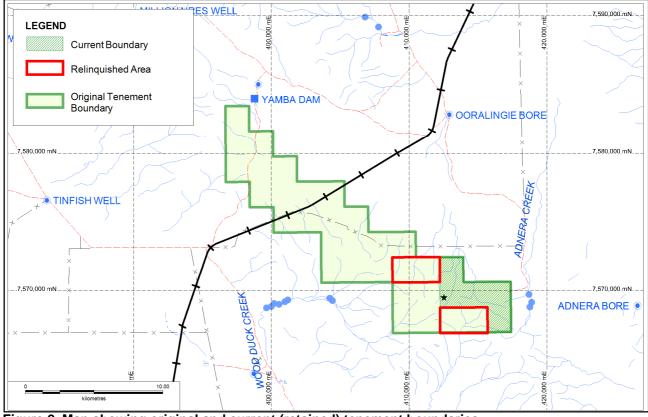


Figure 2. Map showing original and current (retained) tenement boundaries

# 4 GEOLOGY

# 4.1 Regional Geology

The Project area lies at the boundary between Proterozoic-aged basement of the Arunta domain and the younger southern Georgina Basin. Kruse et al. (2002) have described the Georgina Basin as a 330,000km² erosional remnant of a series of originally interconnected central Australian intracratonic basins that range in age from Neoproterozoic to Palaeozoic. In excess of 1.5km of Neoproterozoic sedimentary rocks are preserved in downfaulted blocks and half-grabens on the southern margin of the Georgina Basin in the NT. Depocentres and synclines contain up to 2.2km of Cambrian to Devonian section.

The Arunta basement is dominated by folded and faulted Palaeoproterozoic-age felsic gneiss and metasedimentery rocks (biotite schist, quartzite and calcsilicate), intruded by syn- to post tectonic granitoids.

In early Palaeozoic times the area was a stable platform on which carbonate, clastic and evaporitic units were deposited. The intracontinental, compressional Alice Springs Orogeny (370-310 Ma) affected the Georgina Basin and other central Australian Basin but resulted in little metamorphism (Dunster et al. 2007).

# 4.2 Local Geology

The geology of the project area (Figure 3) is dominated by Neoproterozoic and Cambrian clastic sedimentary rocks of the Central Mount Stuart and Octy Formations, and Paleoproterozoic Barrow Creek Granite Complex, with localised occurrences of early to mid Proterozoic Bullion Schist, and Ledan Schist. The latter three units are part of the Arunta Domain, and generally outcrop poorly in comparison with the Central Mt Stuart Formation.

Strike directions mainly trend NW-SE, sub-parallel to regional faults and shears such as the northwest trending Stirling Fault Zone. A secondary set of faults cross-cut the stratigraphy with a northeast strike.

The Neoproterozoic Central Mount Stuart Formation covers most of the north-eastern and eastern part of the area. The Cambrian Octy Formation is unconformable on the Neoproterozoic sandstones. The succession is part of a tilted fault block dipping gently towards a major geophysically defined bounding fault trending NW-SE. The Neoproterozoic sedimentary rocks range in thickness from a veneer at the base of the Cambrian (Dunster et al., 2007) in the north, to an interpreted 1200m depth to the south. The geology of the relinquished area is the Neoproterozoic Central Mount Stuart Formation.

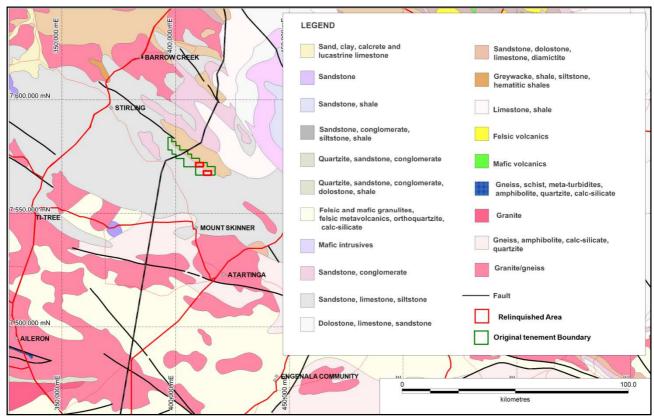


Figure 3. Simplified Geology of Project Area (compilation of various published maps)

# 4.3 Geomorphology

The Landsat image of Figure 4 highlights the variable geomorphology of the area. The topography is generally dominated by flat-topped hills of the outcropping Central Mount Stuart and Octy Formations (largely sandstone) represented as dark blue in the Landsat image.

Sand-plains usually show as light green to light brown, to light purple in the image. The sand-plain shown in the very southern part of the image (light purple) converges into the calcretised Wilora Paleochannel to the west of EL 25993.

Sand dunes can be seen in the north-eastern part of Figure 4.

Part of the alluvial plain, channels and clay pans of the Hanson River (white colour), being the largest drainage system in the area, can be seen in the north-western part of Figure 4.

The vegetation ranges from savanna woodland near the creeks, to gidgee and acacia scrub to annual grasslands. The vegetation is consistent with a semi-arid regime.

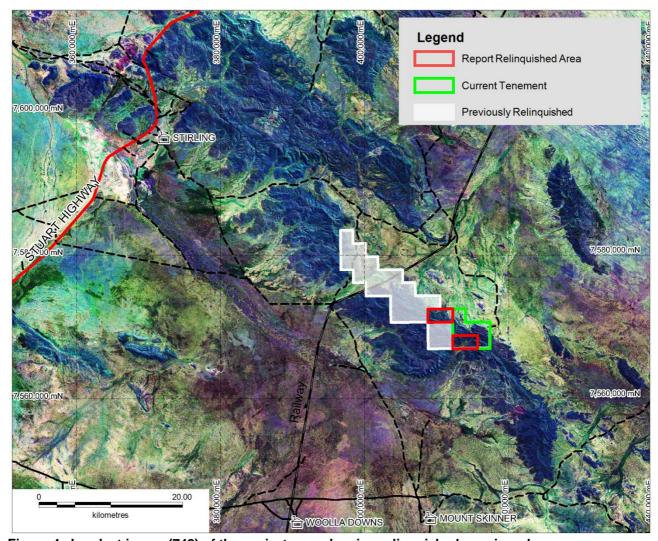


Figure 4. Landsat image (742) of the project area showing relinquished area in red

# 4.4 Geological Model

The style of mineralisation being targeted is sedimentary-hosted base metals (Pb, Cu) in the Neoproterozoic sequence and quartz vein-hosted tungsten (scheelite/wolframite) in the Arunta basement. At the historical Millionaires Well workings in tenement EL 26543 to the north, a WSW-trending quartz-carbonate vein set hosts the tungsten mineralisation. The vein system occurs near a contact between Barrow Creek Granite and what is interpreted to be Bullion Schist. Other tourmaline-rich vein sets appear to be barren.

A review of open file exploration reports and drill core data indicates that this area may be prospective for stratiform copper and lead mineralisation in the Neoproterozoic Central Mount Stuart Formation.

The project area may also be prospective for calc-silicate-skarn-hosted tungsten for shear-zone-hosted gold and alaskite-hosted uranium as occurs on adjacent Uramet tenements.

# 5 PREVIOUS WORK (by Other Companies)

Previous work within the area includes the small-scale mining at Millionaires Well in the 1940's, CRA in the 1970's and early 1990's, and Normandy in the mid to late 1990's.

No production statistics have been located for the Millionaires Well workings; however the workings are of relatively small scale, following veins up to 0.5m wide over a total strike length of about 170m. In a brief report for the Northern Territory Geological Survey (NTGS) by D. Moore in 1978, Moore suggested that a lack of permanent water in the area may have been a contributing factor for the abandonment of the mining.

CRA explored the area nearby for stratabound base metals and uranium in the late 1970's (mostly to the east of the tenement). Work by CRA included mapping and rock chip sampling. CRA reported uranium rock chip results up to 620 ppm U, and a rock chip sample with 780 ppm W, supposedly within a calc-silicate rock.

Normandy explored for shear hosted gold between 1995 and 2000 to the east of the tenement. Work by Normandy included:

- 97 rock chip samples, with one sample returning 5.52ppm Au, another returning 1.36 ppm Au.
- 130 lag samples (no significant gold or base metal values).
- vacuum drilling; 457 holes, usually on a 200m by 800m pattern (no significant gold or base metal values were reported).
- RAB; 36 holes for 896m (no significant gold or base metal values).

It should be noted that Normandy did not assay for tungsten in any of the drill samples.

## 6 URAMET ACTIVIES

Work undertaken by Uramet within the surrendered portion of the tenement includes a data review and field reconnaissance.

### 6.1 Data Review

Data reviewed by Uramet includes the following open file reports:

GS1978-014 (NTGS 1978) CR19800027 (CRA 1979) CR19940356 (CRA 1994) CR20010003 (Normandy 1995 to 2000)

Other available data-sets including satellite imagery (Figure 4), and NT government gravity (4km spaced stations), aeromagnetic (400m line spaced), and radiometric data were utilised.

The gravity data (Figure 5) is useful for regional interpretation, but being too coarse to be of use for detailed interpretation.

The regional magnetics show the rocks of the Arunta Domain as generally having a much stronger magnetic signal than the sediments of the Georgina Basin (Figure 6).

The radiometric data corresponds well with the uranium anomalies located on the ground by CRA (Figure 7).

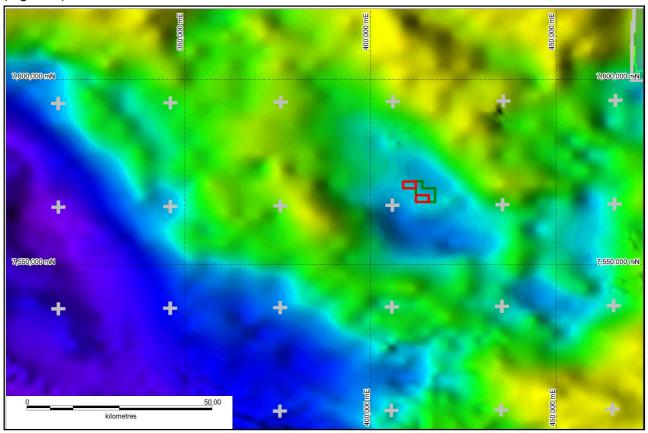


Figure 5. Regional (4km spaced stations) bouguer gravity image

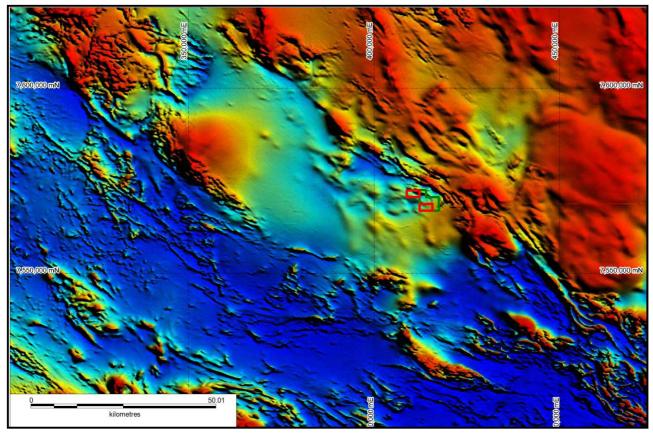


Figure 6. Regional (400m line spaced) aeromagnetic TMI image

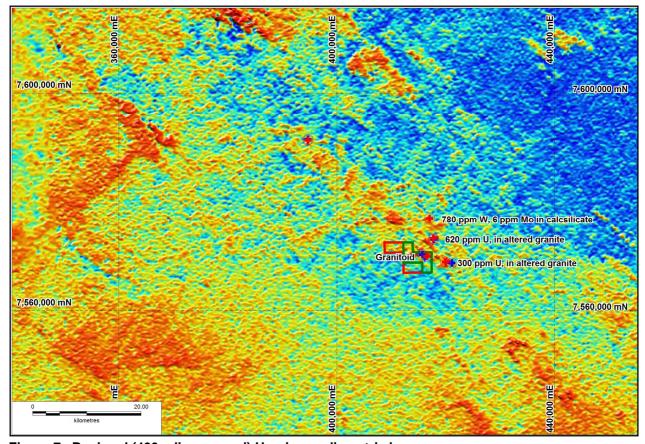


Figure 7. Regional (400m line spaced) Uranium radiometric image

### 6.2 Field Reconnaissance

Field reconnaissance was undertaken within the tenement to locate potential occurrences of uraniferous alaskite (alkali feldspar granite) using a portable scintillometer. This field work did not help define any exploration targets within the surrendered portion of the tenement.

# 7 CONCLUSIONS AND RECOMMENDATIONS

A review of available data along with field reconnaissance failed to define any high priority exploration targets within the surrendered area, hence the area relinquished.

## 8 REFERENCES

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ. 2007. Geology And Resource Potential Of The Southern Georgina Basin, Northern Territory, NTGS.

Kruse PD, Brakel AT, Dunster JN and Duffett ML, 2002. Tobermory, Northern Territory (Second Edition). 1:250,000 geological map series explanatory notes, SF 53-12. Northern Territory Geological Survey, Darwin and Geoscience Australia, Canberra.

Moore D, 1978. A Preliminary Report on the Stirling Tungsten Prospect. Northern Territory Geological Survey, Report GS 78-14.