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# HARTS RANGE 1 PROJECT

**EL25451** YEAR 1 ANNUAL REPORT for period 22/3/2007 – 21/3/2008

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MAP REFERENCE: Illogwa Creek 250K Sheet SG53/15 Hukkita 250K Sheet SF53/11 Alcoota 250K Sheet SF53/10

#### SUMMARY

This report presents the work completed during the first year of tenure on the Harts Range Project; a joint venture between Mithril Resources and Oklo Uranium Ltd. The project covers granted Exploration Licences 25451 and 25453. This report details work completed on EL25451.

The Project area straddles the Huckitta and Illogwa Creek 250,000-scale map sheets and is centred about 180 km northeast of Alice Springs, south of the Plenty Highway.

Work completed over the tenement area during the first year of tenure includes:

- A review on the historical work over the project by Oklo Uranium focussed on the uranium prospectivity of the area
- Joint Venturing of all commodities outside of uranium to Mithril Resources Ltd
- Planning of field programs commencing in April 2008

Planned work during year two over the project will include stream sediment sampling, geological mapping, prospecting, rock sampling and ground and/or airborne geophysics.

## CONTENTS

- 1.0 Introduction
- 2.0 Tenure
- 3.0 Geology
  - 3.1 Regional Geology
  - 3.2 Project Geology
- 4.0 Exploration Work Completed
  - 4.1 Historic Exploration
  - 4.2 Oklo Uranium Work Completed 2007/08
  - 4.3 Mithril Resources Work 2007/08
- 5.0 Further work 2008/09
- 6.0 Expenditure 1st Year of Tenure

## TABLES

- Table 1:Tenement details
- Table 2: Proposed expenditure Year 2

## FIGURES

- Figure 1: Location of Harts Range Project
- Figure 2: Geology on magnetics and planned sampling

#### 1.0 Introduction

This report presents the work completed on EL 25451 for the year ending 21<sup>st</sup> March 2008. This tenement is one of two that comprises the Oklo Joint venture. The Tenements are located approximately 150 kilometres east-northeast of Alice Springs in the Northern Territory (Figure 1) and are contiguous with Mithril's Huckitta Project.

Early in 2008, Mithril Resources entered into a joint venture with Oklo Uranium to farm-in to the Harts Range Project. The agreement covers all minerals other than uranium and Mithril may earn an initial 60% interest in the Oklo Tenements by completing expenditure of AUD\$1M within the first 3 years of the commencement date. Mithril may then elect to earn a further 20% interest (for total of 80%) by incurring additional expenditures of AUD\$1M within an additional 2 years.

Access to the project is via the Plenty Highway, which passes through the northernmost part of the projec. Station tracks provide reasonable access throughout the project area.

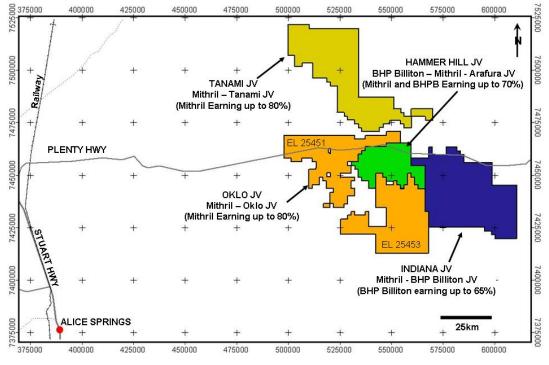


Figure 1: Project Location Plan

The project area is considered prospective for Ni-Cu-PGE sulphide deposits associated with mafic and ultramafic magmatic rocks. Such rock types have been identified at the Hammer Hill Prospect in EL 9725 where they are associated with elevated nickel and chrome, immediately to the east and south of EL25451.

### 2.0 Tenure

On the 3<sup>rd</sup> of November, Mithril Resources entered a joint venture with Oklo Uranium to farm-in to this tenement as part of the Harts Range Project. Prior to this Oklo have held the tenement in their own right.

Tenement	Grant date	Original size (blocks)
EL25451	22/03/2007	276

Table 1: Tenement details

#### 3.0 Geology

#### 3.1 Regional Geology

The Project lies within the Irindina Province (also known as the Harts Range Metamorphic Complex) of the south-eastern Arunta Inlier. The Irindina Province comprises the Harts Range Group, a volcanosedimentary succession that was metamorphosed to granulite facies during the Ordovician Larapinta Event (475-460 Ma). Lithostratigraphical and geochronological data indicate that the Harts Range Group correlates with Neoproterozoic to Cambrian sediments of the adjacent Amadeus and Georgina Basins. Therefore, the Harts Range Group was probably deposited in a basin contiguous with, and possibly linking, the Amadeus and Georgina Basins.

While the Harts Range Group was metamorphosed to granulite-facies, however, sedimentation continued in the Amadeus and Georgina Basins. Structural and lithological evidence suggest that the Larapinta Event was extensional, with very deep burial required for the measured metamorphic conditions (30-35 km). Such an event was probably associated with mantle melting. The numerous mafic and ultramafic units found throughout the Irindina Province, although their timing is poorly constrained, may have intruded during the Larapinta Event. These intrusions are considered prospective for Ni-Cu-PGE sulphide deposits.

The Harts Range Group and Amadeus and Georgina Basins were structurally inverted and brought to the surface during the mid-Palaeozoic Alice Springs Orogeny (450-300 Ma).

#### 3.2 Project Geology

The Harts Range Project area is predominantly covered by a veneer of aeolian and colluvial sand and gravel. Strongly weathered biotite, garnet-biotite and quartzofeldspathic gneiss, calcsilicate rocks and amphibolite are sporadically exposed. There are numerous ferricrete, calcrete and silcrete rises, some of which may be indicative of the targeted mafic and ultramafic rocks. No detailed mapping has been undertaken in the area with the best regional maps compiled prior to detailed aeromagnetics and the current understanding of the geological history. The area is considered prospective for Ni-Cu-PGE mineralisation associated with mafic and ultramafic intrusions. Vein-style REE-Th-U mineralisation has also been identified in the area as well as multiple occurrences of mica.

#### 4.0 Exploration Work Completed

#### 4.1 Historical Exploration

Numerous companies and individuals have explored in the general area covered by EL 25453 and EL25451. Exploration has focussed on the uranium potential of this area with little consideration given to the base metal prospectivity. Oklo Uranium have completed a review of the REE and uranium potential of the licecnces and have identified several different model styles of uranium mineralisation, these are summarised below:

- Vein and disseminated hard rock uranium mineralisation located within and around Paleo-Proterozoic peralkaline to alkali granites perhaps associated with their differentiated zones alkali pegmatites. Preservation of the upper zones in such intrusive systems in rocks of this great age does pose some significant problems. The most significant vein type uranium deposits are located in Western and Central Europe. These are invariably hosted within Variscan age (280 – 310 mybp) alkali two mica granites and their contact metamorphic aureoles. Examples include Margnac, Boir Noirs – Limouzat, Mille Vache, Pribram, Jachymov (Joachimstal) and Erzberg to name but a few significant deposits. Lower grade "episyenite" styles of mineralisation present small exploration targets having complex structural and geometric controls. Hence, given these geologic features, such systems may not have been recognized hitherto;
- Marginal uraniferous vein and stockwork vein styles of mineralisation developed at the margins or contact aureoles of tin – tungsten, "S type", peralkaline, tourmaline bearing, granites of the Paleo to Middle Proterozoic. There is the possibility of disseminated uranium mineralisation occurring within tourmaline bearing greisen systems;
- Finally, there is scope within the Tertiary Pleistocene drainage system to locate valley calcrete hosted carnotite uranium mineralization.
  However, to date no economic deposit of this type has been discovered in the Northern Territory.

The next stage in Oklo's work programme will be to acquire existing airborne geophysical data and any quality aerial photography covering areas of interest. A LANDSAT TM "ASTER" study maybe undertaken with the objective of identifying areas of silicate – clay alteration, and combined ferruginous staining, to further define targets for ground follow up exploration.

#### 4.2 Oklo Uranium Work Completed 2007/08

As indicated above in 4.1 Oklo Uranium has completed a review of the uranium potential of the ELs identifying number of target styles of mineralistion to follow-up in Year 2.

#### 4.3 Mithril Resources Work 2007/08

Mithril Resources has just received all of the open file reports covering the project and a detailed review is ongoing. However, Mithril has interpreted that prospective mafic and ultramafic rocks of Irindina age may extend onto the Harts Range project and see them as having significant potential for nickel and copper magmatic sulphides as has been recognised in the adjacent Hammer Hill and Indiana projects.

#### 5.0 Further Work 2008/09

Mithril has mapping and prospecting field trips planned for 2008 commencing in early April. The planned program includes regional geochemical sampling, prospecting and mapping to determine the extent of mafic and ultramafic rocks on the project area. Once this is completed ground and/or airborne EM will be employed to screen these bodies for magmtic sulphide accumultations

Mithril understands the next stage in Oklo's work programme will be to acquire existing airborne geophysical data and any quality aerial photography covering areas of interest. A LANDSAT TM "ASTER" study maybe undertaken with the objective of identifying areas of silicate – clay alteration, and combined ferruginous staining, to further define targets for ground follow up exploration.

A budget for this work is outlined below:

Total	\$45,000
Ground/airborne geophysics Office costs	20,000 5,000
Geological mapping/sampling/prospecting	10,000
Review of historical work (including airphoto interp/acquisition)	10,000

## 6.0 Expenditure 1<sup>st</sup> Year of Tenure

In the 1<sup>st</sup> year of tenure, \$15,169 was spent on the EL. As mentioned above the bulk of this was on a review of historical work by Oklo and planning of field programs in year 2. These costs are broken down below.

		Item	Cost
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Salaries Legal Costs	<u>11,826</u> 1,941
Administration	1,652
TOTAL	\$15,419

Table 2: Expenditure on EL 25451 for 1st year of tenure