HARTS RANGE 1 PROJECT

EL 25451
ANNUAL TECHNICAL REPORT FOR
PERIOD 22nd March 2009 to 21st March 2010

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MAP REFERENCE:
Illogwa Creek 250K Sheet SG53/15
Huckitta 250K Sheet SG53/11
SUMMARY

This report summarises work completed on Mithril Resources Harts Range 1 Project Exploration Licence (EL25451) for the year ending the 21st March 2010.

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

EL25451 is part of the Harts Range Project (incorporating EL25451 and EL25453) and has joint reporting status. Work completed during the reporting period has focussed on EL25453 where significant nickel sulphides were discovered by Mithril over the last 18 months. This work has included airborne and ground geophysical surveys, aircore, RC percussion and diamond drilling for over $520,000 expenditure.

Work completed on EL25451 has been limited to regional reconnaissance geological mapping and desktop studies. This work has identified a number of areas that require detailed ground follow-up within EL25451 during the forthcoming year.
1.0 Introduction

This report summarises work completed on Mithril Resources Harts Range 1 Exploration Licence (EL25451) for the year ending 21st March 2010. This tenement is one of two that comprises the Oklo Joint venture.

The Harts Range 1 Project is located approximately 180 km northeast of Alice Springs. Access to the area is via the Plenty Highway, which passes east-west north of the project area (Figure 1). The tenement is contiguous with Mithril’s Huckitta Project.

Mithril interpret that mafic and ultramafic rock of Irindina age may extend onto the Harts Range 1 Project and that these rocks are prospective for magmatic Ni/Cu/PGE sulphides.

![Figure 1: Location of Harts Range Project EL25451](image)

2.0 Tenure

Leasing details for the project are detailed in Table 1 below. Mithril Resources entered a Heads-of-Agreement 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. Prior to reaching this agreement Oklo have held the tenement in their own right.
### 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, calcisilicate 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.

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### Table 1:

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Grant date</th>
<th>Original size (blocks)</th>
<th>Current Block Size</th>
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<td>276</td>
<td>138</td>
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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 focused on the uranium potential of this area with little consideration given to the base metal prospectivity. Oklo Uranium have completed a review of theREE and uranium potential of the licences 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.

4.2 Mithril Resources Work Completed 2008

Mithril entered into a joint venture on this tenement early in 2008 as part of the Harts Range Project (ELs 25451 and 25453). During the year Mithril completed historical exploration analysis of all work completed on the Project. A number of field trips to the project area (EL25453) identified outcropping Ni – Cu – PGE gossans on the contact between a gabbroic body and a felsic gneiss. Mithril believes the prospect, now known as the Blackadder, is the first indicator of a new nickel sulphide province. As a result of this discovery field work was concentrated on EL25453. Further detailed review of the historical
work has identified a number of mafic bodies (potentially the same generation as Blackadder) on EL 25451 (Figure 2). This has been confirmed by recent mapping by the NTGS where they have identified a number of mafic and ultramafic bodies.

![Figure 2: NTGS mapped mafics, interpreted potential outcropping mafic and the EL25451 tenement boundary](image)

4.3 Mithril Resources Work Completed 2009

EL25451 is part of the Harts Range Project (incorporating EL25451 and EL25453) and has joint reporting status. Work completed during the reporting period has focussed on EL25453 where significant nickel sulphides were discovered by Mithril over the last 18 months. This work has included airborne and ground geophysical surveys, aircore, RC percussion and diamond drilling for over $520,000 expenditure. Work completed on EL25451 has been limited to regional reconnaissance geological mapping and desktop studies. This work has identified a number of areas that require detailed ground follow-up within EL25451 during the forthcoming year (Figure 3).
5.0 Planned Work and Proposed Budget 2010

Work planned for the next year includes, but is not limited to:

- Geological mapping and sampling of targets generated from review of historical work, NTGS mapping and analysis of ALOS imagery.
- Ground based electromagnetic surveys over prospective mafic and ultramafic bodies.
- Heritage surveys prior to drill testing of any conductors identified.
- Planned expenditure is expected to exceed $50,000 on the tenement in the coming year.

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<tr>
<th>Item</th>
<th>Cost</th>
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<td>Analytical costs</td>
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<td>Ground EM</td>
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<td><strong>TOTAL</strong></td>
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Table 2. Planned Work and Proposed Budget 2010