EL 29029

FINAL EXPLORATION REPORT

FOR THE PERIOD

6 June 2012 to 5 May 2015

By Company Geologists

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Summary

Exploration title EL29029 was granted to Darwin Mining & Exploration PTY LTD on 6 June 2012. During the last twelve months, a field geological investigation was carried out in September 2014 by the company geologists with three chief and senior geologists from China. Mineralisation of uranium has been identified in the area with outcrops of granite at eastern Silver Kings Mine. Unfortunately, these mineralisations are likely associated with hydrothermal fluid activities after intrusion of the granite(s) and scattered in a small scale with irregular shape. It is difficult in exploration and uneconomic. After further discussion with the shareholders and consideration of currently economic slow and difficulty to raise funds currently, the company has surrndered the whole area of EL29029. This is the final exploration report for EL29029.
Introduction

Exploration Licence EL29029 was granted to DARWIN MINING & EXPLORATION PTY LTD by NT State DEPARTMENT OF RESOURCES on 6 June 2012 for a period of six years. This report summarises work carried out on EL29029 during the period 6 June 2012 to 5 May 2015.

Tenure details

EL29029, total of 127 units (Table 1), is located northwest of Alice Springs in distance of approximately 328km, accessing by Tanami Road and local 4WD tracks (Fig. 1).

![Current EL29029 blocks](image1.png)

**Table 1** EL29029 units

<table>
<thead>
<tr>
<th>BLOCK NO</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF52 1791</td>
<td>L,M,N,Q,R,S,V,W,X SF52</td>
</tr>
<tr>
<td>1862</td>
<td>E,K,P,U</td>
</tr>
</tbody>
</table>

Geological Setting

Geologically the tenement of EL29029 sets at Mount Doreen Mineral Field in Arunta Region of Aileron Province. The major rock types include Mesoproterozoic-Paleoproterozoic variably metamorphosed clastic sediments, meta volcanic rock, calc-silicate rocks, dolerite, mafic rock and intrusion granite. Minerals hosted by the rocks include metamorphosed VMS and carbonate replacement Pb-Zn-Cu, iron-oxide Cu-Au,
orogenic Au, W(-Mo), Sn, mafic-hosted Ni-Cu, vermiculite, hydrothermal U, and apatite-and pegmatite-hosted REE-U(-P). Major explorations in the region target for base metals, Ni-Cu, uranium, mafic-hosted vanadiferous magnetite, REE and orogenic gold. Unfortunately still large areas remain significantly under-explored.

Mineralisation in the tenement of EL29029

Mineralisation occurring in the tenement of EL29029 and adjacent area includes tungsten at Mount Doreen mine, base metal (Cu-Pb-Zn-Ag) at Silver King mine, Tungsten at Ringer mine, base metal (Cu-Pb-Zn-Ag) at Mount Irene mine and Clark Cu Nos 1,2 & 3 mines (Fig. 2).

Also a big fault has been noticed south of Silver King Mine with obvious uranium anomaly at its northern wing (Fig 3). Rio Tinto Ltd took several rock chip samples in 1998 and returned high contents of uranium (Fig. 4).
Fig. 3  Relationship of Silver King Mine, major W-E fault and uranium anomaly.

Fig. 4  Uranium contents of the rockchips samples taken by Rio Tinto Ltd in 1998 near the Silver King Mine and the major fault.
**Previous Work**

**Year 1**

During the first year, a detailed review of the previous exploration work was conducted. This revealed that the title area has potential for base metal mineralisations, such as copper, lead, zinc, tungsten and precious metal silver associated with intrusion of unexposed granite and its hydrothermal fluid activities in the area. Uranium associated with hydrothermal fluid activities along a major fault in the east of the tenement has also been recognized after two reconnaissance trips and is supported by the previous geophysical and geochemical results.

**Year 2**

During the second year, geological reconnaissance was carried out in October and early November. Two local people had been organised to join us for the geochemical sampling using their vehicles because our hire vehicle was not suitable to drive into the bush. Unfortunately, the local people were not available when we first arrived in the field in October 2013. For this reason, we had to change our schedule. Three weeks later when we returned, the locals had had an accident and could not go with us. A short geological reconnaissance was undertaken by us. We failed to access Clark Cu1-3 old mining area with our hire vehicle and did not find the old Ringer mine. Twelve rock chip samples were taken from the Mt Irene old pit area by us on foot. It was slow and ineffective. We had to give it up and plan the sampling for next year.

**Geological investigation in EL29029 in the last year**

A field geological investigation has been carried out in September 2014 by the company geologists with three chief and senior geologists from China.

During the field investigation, we had to walk on foot for several kilometers to the interested area due to no vehicle tracks. More time was spent on road rather than in the field which made the investigation slow.

It has been found that the high uranium samples are mostly scattered in the contact zone between the granite and metamorphosed rocks. The mineralization is most likely associated with the hydrothermal fluid activities after intrusion of the granite and modified during the metamorphsion. They are in very small scales and irregular in shape which would result in a difficulty in mineral exploration and less significance in economy. Therefore, the company has surrendered the whole area of EL29029.
Fig. 5 Outcrops of external contact zone metamorphic rocks with minor quartz veins in the area.

References


