Third and Final Annual Technical Report
Exploration Licence 29280
“Woolgathering”

For the period:
13\textsuperscript{th} August 2012 – 12\textsuperscript{th} August 2015

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Date: 18\textsuperscript{th} August 2015
Tenement Holders: DBL Blues Pty Ltd 100%
Tenement: EL29280 “Woolgathering”
Reporting Period: 13th August 2012 – 12th August 2015 (Year 3)
Distribution: Core Exploration Ltd (1)
NT Department of Mines & Energy
Map Sheet: Alice Springs 1:250,000 sheet (SF5314)
Riddoch 1:100,000 sheet (5851),
Target Commodity: Copper
Keywords: Iron oxide copper-gold, literature review, geophysical compilation, target generation
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1.0 Summary

Exploration Licence 29280 “Woolgathering” is located approximately 100 km northeast of Alice Springs. Vehicle access into the area is reasonable, via the Stuart Highway and Plenty Highway to Mt Riddock Station and then by station tracks.

During the life of EL 28280 Core Exploration completed a comprehensive review of historical exploration data, focusing on the northwest corner of the tenement’s potential to host extensions of the exploration model which hosts the Copper Queen Prospect on Core’s neighbouring tenement EL 29689 (Figure 1.1). Additionally, the company investigated the potential for Oonagalibi style Cu-Pb-Zn mineralisation within EL29280 (Figure 3.1).

Both the Copper Queen and Oonagalibi Prospects are hosted within the Aileron Province, within geological units that extend into EL29280. Core has completed extensive exploration activities at the Copper Queen Prospect, including reviews of the surrounding geology, which includes the northwest corner of EL29280.

Following a disappointing drilling program in the Copper Royals area on EL 29689 adjacent to the northwest corner of EL 29280 in late 2014 and as part of a rationalization of the company’s tenure holding in the Albarta region it was decided to surrender EL 29280.
2.0 Introduction

This report details exploration activity completed within EL29280 “Woolgathering”.

The tenement is located approximately 110 kilometres northeast of Alice Springs, midway between the Harts Range and Hale River. Light vehicle travel time to the project area is just under three hours from the township of Alice Springs (Figure 2.1) via the Stuart Highway and Plenty Highway to Mt Riddock Station and then by station tracks.

![Figure 2.1 Location Map of EL 29280](image)

Vehicle access within the tenement is limited; the general area is hilly with only a few vehicle tracks available. The climate is typical of central Australia, hot summers and mild winters. Due to seasonal rains, much of the area is overgrown inhibiting detailed ground exploration activities and access, and the rivers are prone to flooding during heavy rainfalls over the summer. Accommodation can be found at Old Ambalindum Station (approximate one hour drive).

3.0 Geology and Mineralisation

EL 29280 is located in the Proterozoic Aileron Province of the Central Arunta Region. The rocks here mostly comprise variably metamorphosed sediments, volcanics, calc-silicates, amphibolites and granite (Figure 3.1). The dominant structures appear to trend northwest. Detailed geology is covered by Murrell (1989) and Zhao & Cooper (1992).

![Figure 3.1 Extract from Alice Springs 1:250,000 Geology](image)
The area is underlain by the Palaeoproterozoic Strangways Metamorphic Complex and Irindina Gneisses which forms part of the Aileron Province. The south-eastern part of the area is underlain by the Cadney Metamorphics, a sequence of calc silicates, marble and gneisses. Core is particularly interested in the main north-westerly structural trend separating the Caney Metamorphics to the south-east from the Irindina Genisses to the north-east. This structural zone appears to be a major geological boundary which Core believes may be prospective for Iron oxide copper-gold (IOCG) mineralisation. The company is also interested in extensions of the geology that hosts the Oonagalabi base metal deposit to the north-east of the tenement and potential extensions into EL29280.

4.0 Tenure

EL 29280 was granted on the 13\textsuperscript{th} August 2012 to a joint venture between Mr Alistair Mackie and Gempart NT Pty Ltd on 13\textsuperscript{th} August 2012. On 13\textsuperscript{th} February 2013 Alistair Mackie’s share was transferred to Gempart but it should be noted Alistair was a 50\% co-owner of Gempart. EL 29280 overlies pastoral leases PPL1124 (Ambalindum Station) and PPL 989 (Mt Riddock) (Table 4.1). In October 2012, a joint venture (JV) was entered into with Core Exploration Ltd through its wholly owned subsidiary DBL Blues Pty Ltd, whereby Core Exploration managed all exploration activities within the JV tenure. The JV agreement covered a number of leases in the Arltunga area, including EL29280. On 28\textsuperscript{th} October 2014, DBL Blues acquired 100\% ownership of EL 29280. In early 2015 EL 29280 was included in Core Exploration’s Group Reporting (GR359) with a bridging report submitted for the period 13\textsuperscript{th} August 2014 to 31\textsuperscript{st} January 2015.
Table 4.1: Tenement Summary

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Owner</th>
<th>Date Granted</th>
<th>Tenure</th>
<th>Size</th>
<th>Rent Year 3</th>
<th>Expenditure Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 29280</td>
<td>DBL Blues Pty Ltd</td>
<td>13/8/2012</td>
<td>6 Years</td>
<td>100 sq. blocks</td>
<td>$7,077</td>
<td>$51,000</td>
</tr>
</tbody>
</table>

5.0 Previous Exploration

The earliest modern exploration in the area was conducted on EL346 by Russgar Minerals NL during the early 1970’s. The work included geological mapping and extensive rock chip sampling for base metals and gold. The majority of the work was concentrated on the Oonagalabi prospect which had been discovered in the 1930’s.

Kinex held EL1337 over the area between 1977 and 1983. Geopeko, Amoco Minerals and Pan D’Or Mining farmed into the tenement at various times. Most of the work was concentrated on the Oonagalabi prospect where geophysical surveys and drilling were carried out.

White Industries and BHP Minerals jointly explored EL 2648 between 1981 and 1984 primarily for diamond. Stream sediment samples were collected and the silt fraction was analysed for base metals. No significant anomalous values were found.

Astron Resources carried out a heavy mineral survey over EL4462. The aim of the survey was to determine if gold or gahnite (zinc spinel) were present in the stream sediments. Gahnite was found in a number of the samples and may indicate the presence of Oonagalabi style mineralisation. No further work was done.

Clarence River Finance Group held the ground under EL 6940 and EL 9420 from 1990 to 2000. They are also the current holders of the mining lease over the Oonagalabi prospect. Exploration was mainly conducted for industrial minerals (garnet). Some minor exploration work was done on the Oonagalabi prospect.

Tanami Gold explored the area under EL10078 and EL22917 between 2001 and 2006. Soil and rock chip sampling, RAB drilling and a hyperspectral airborne survey (Hymap) were completed. Unfortunately these ELs were part of a project group for a number of years and the group annual reports were not included in the compilation. Work was completed at the Virginia Prospect which was described as “a stratiform copper horizon over 1 km strike hosted by a 3-5 m thick leucocratic garnet gneiss band within mafic gneisses” of the Riddoch Amphibolite. Rock chip sampling of the malachite stained rocks returned values in the 1-5% Cu range. Soil sampling showed a strong copper anomaly extending along strike from the main prospect. The prospect does not appear to have been drilled.

The CSIRO undertook some investigations of the Oonagalabi prospect in 2004, and showed that the mineralisation had a distinct geochemical signature – Au-Bi-Cd-Cu-Pb-Sn-W-Zn.

Most of the previous exploration work conducted in this area has been concentrated on the Oonagalabi Prospect. The mineralisation at Oonagalabi is stratabound in a distinct package of rocks which trends southwest into Core’s EL 29280. Primary mineralisation consists of chalcopyrite and sphalerite patches, disseminations and veinlets in calc-silicate rocks, minor pyrrhotite, pyrite and galena are also found. The mineralisation is thought to have either a syngenetic volcanogenic or epigenetic origin. Soil sampling should identify any outcropping zones of mineralisation. Blind zones of mineralisation may be detectable by IP or EM surveys.
During the first and second years of EL 29280’s tenure exploration work was limited to desktop studies including:

- Historical literature and data review
- Geophysical compilation
- GIS compilation
- Target generation

Core Exploration completed a thorough review of historical exploration work undertaken within the Woolgathering tenement. Most of the previous exploration work conducted in this area has been concentrated on the Oonagalabi Prospect. The mineralisation at Oonagalabi is stratabound in a distinct package of rocks which trends southwest into the EL 29280 tenure. Primary mineralisation consists of chalcopyrite and sphalerite patches, disseminations and veinlets in calc-silicate rocks, minor pyrrhotite, pyrite and galena are also found. The mineralisation is thought to have either a syngenetic volcanogenic or epigenetic origin.

6.0 Year 3 Exploration Activities

Core Exploration undertook no additional work during the third and last year of tenure.

7.0 Rehabilitation

There were no earth disturbing activities completed within the tenement. No rehabilitation was required.

8.0 Discussion & Conclusions

Aside from desktop studies compiling and reviewing historical exploration no exploration activities were undertaken on EL 29280. This tenement was held primarily by the company for potential extensions to the copper mineralisation at Copper Queen that is located off-tenement on EL 29689. Drill testing on EL 29689 in late 2014 returned disappointing results thus downgraded the companies interest in exploring on EL 29280. The potential for uranium mineralisation on EL 29280 was also considered but the flat uranium commodity prices at the time could not justify continued interest in this sector.

In mid 2015 Core Exploration undertook a review of its tenement holding in the Alberta North Project and decided to surrender lower priority areas that included EL 29280.
9.0 References


