Annual Exploration Report – Year 3

Exploration Licence 24192

7th December 2006 to 7th December 2007

Holder: Merlin Diamonds Pty Ltd
Operator: North Australian Diamonds Limited
Reporting Period: 7th December 2006 to 7th December 2007
Sheet Reference: Bauhinia Downs 1:250,000 (SE53-03)
Due Date: 7th January 2008

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Date: January 2008
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NADL Office

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SUMMARY

This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over Exploration Licence EL 24192 for the period 7th December 2006 to 7th December 2007. This period represents year three of the licence.

The exploration licence is located on the Bauhinia Downs (SE53-03) 1:250,000 map sheet and the Glyde (6164) 1:100,000 sheet. Access to the licence is via a 64 kilometre formed gravel access track from the Carpentaria Highway to the Merlin Diamond Mine, the turn-off is approximately 6 kilometres south-west of the McArthur River Mine turn-off. The licence surrounds the Merlin Mine and is accessed via numerous minor vehicle tracks.

The licence has been subjected to intense diamond exploration including airborne geophysical surveys, ground follow-up geophysical surveys, seismic surveys, loam, stream, bulk gravel, and soil sampling.

Since acquiring the licence from Rio Tinto during year one of the licence NADL has completed one drill hole, collected three loam and five stream gravel samples and fifty soil samples as follow-up to previously identified indicator and geophysical anomalies.

During the current reporting period NADL reviewed the uranium and base metal potential of the licence and undertook geological mapping and ground investigations of the year two geophysical/chromite anomaly and ground reconnaissance prior to extension of a loam grid from adjoining licence ML1154. SEM probing of recovered chromites was also completed that indicated the chromites are possibly of kimberlitic origin.
1.0 INTRODUCTION

This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over exploration licence EL 24192 for the period 7\textsuperscript{th} December 2006 to 7\textsuperscript{th} December 2007. NADL acquired 100\% of exploration licence EL 24192 on 25\textsuperscript{th} February 2005 from Ashton Mining (subsidiary of Rio Tinto). The licence is held by Merlin Diamonds Pty Ltd, which changed name from Bulgurri Diamonds during the reporting period. Merlin Diamonds Pty Ltd is a 100\% wholly owned subsidiary company of NADL.

2.0 LICENCE DETAILS

The licence was historically known as SEL 8630, being granted to Ashton Mining on 14\textsuperscript{th} July 1995 for a period of four years. The licence was renewed several times until Ashton Mining applied for EL 24192 on the 3\textsuperscript{rd} March 2004. This was granted on the 7\textsuperscript{th} December 2004. NADL subsequently acquired EL 24192 from Ashton Mining on 25\textsuperscript{th} February 2005.

The exploration licence is located on the Bauhinia Downs (SE53-03) 1:250,000 map sheet and the Glyde (6164) 1:100,000 sheet. Access to the licence is via a 64 kilometre formed gravel access track from the Carpentaria Highway to the Merlin Diamond Mine, the turn-off is approximately 6 kilometres south-west of the McArthur River Mine turn-off. The licence surrounds the Merlin Mine and is accessed via numerous minor vehicle tracks. A location map is shown as Figure 1.

Table 1: Licence Details

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Tenement No</th>
<th>Grant Date</th>
<th>Expiry Date</th>
<th>Blocks</th>
<th>Area (km(^2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merlin Orbit</td>
<td>EL24192</td>
<td>7/12/04</td>
<td>06/12/2010</td>
<td>55</td>
<td>180</td>
</tr>
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</table>
3.0 GEOLOGY

The exploration licence is located within the geomorphic region referred to as the Bukalara Ranges that consists of high level, dissected rocky plateau and ridges of resistant sediments. The licence also contains several sand covered plateau.

The oldest rocks that crop out over the licence are sediments of the Neoproterozoic Bukalara Sandstone that attains a maximum thickness of up to 100m within the licence. Underlying the Bukalara Sandstone are Mesoproterozoic sediments of the McArthur Group. Isolated outcrops of Cretaceous age, plant fossil-bearing silicified sandstone occur on plateaux within the licence. Youngest sediments include surficial deposits of gravel, silt, sand and ferricrete and occur within numerous drainages and on several plateau within the licence.

The licence is host to two kimberlite pipes discovered by CRA in the mid 1980’s. These pipes, Emu1 and Emu 2, are dissected by Matheson Creek and are covered by surficial sands. The kimberlite pipes have been age dated at approximately 367mya (Devonian). The kimberlite type has been described from drillcore as being diatreme facies.

4.0 PREVIOUS EXPLORATION

Pre 2004

- The licence has been subjected to intense diamond exploration including airborne geophysical surveys, ground follow-up geophysical surveys, seismic surveys, loam, stream, bulk gravel, and soil sampling.
- In 2000, three 10 tonne bulk gravel samples were collected to help resolve several chromite anomalies. The samples returned positive results that were not followed up.
- Following take-over of Ashton Mining in 2000, Rio Tinto reprocessed 1999 HEM data and identified 30 anomalies for follow-up investigation. Follow-up work included loam, soil and ground gravity surveys.
- From this work one anomaly (DIG 015) was considered to be high priority and a drill-ready target. The anomaly was not drill tested by Rio Tinto prior to the closure of the nearby Merlin Mine and subsequent pull out of the area by Rio Tinto.

Year One (2004 to 2005)

- Licence acquired from Ashton Mining (Rio Tinto).
- One reverse circulation drill hole was completed for a total of 56m to test geophysical
anomaly DIG015. No kimberlite was intersected and the anomaly remains unresolved.

- Three stream gravel samples (05-039-001, -002 and -003) were collected as follow-up to the Year 2000 positive bulk samples. Results were negative for diamonds and indicator minerals.

**Year Two (2005 to 2006)**

- Three loam samples and two stream gravel samples were collected as follow-up to Rio Tinto positive loam sample 6160758 (3 chromites) collected over geophysical anomaly HUM017. This is an airborne electromagnetic anomaly that Rio Tinto downgraded following a ground gravity survey and SEM probing of the three chromites. Four of the five NADL samples returned positive results with a total of 10 chromites, 2 microdiamonds and 1 macrodiamond recovered.
- A total of fifty soil geochemical samples were collected over a number of previously identified indicator mineral anomalies to identify anomalies worthy of additional follow-up work. Soil results were received but were not interpreted.

### 5.0 EXPLORATION COMPLETED DURING CURRENT REPORTING PERIOD

Field work completed during the reporting period was limited to geological mapping and ground investigations of the Year 2 geophysical/chromite anomaly. In addition, ground reconnaissance for extension of a loam grid from adjoining licence ML1154 was undertaken.

Scanning electron microscope (SEM) probing of chromite grains recovered during Year 2 was completed to obtain mineral chemistry to aid in determining the origin of the chromites (i.e. kimberlitic). A review of these data and previously obtained Rio Tinto chromite chemistry by NADL mineralogist concluded that the chromites are weathered chromites with kimberlitic affinity. The chromite chemistry data and plots are included in Appendix 1.

Additional work undertaken during the current reporting period included desktop studies that comprised the following.

- Internal review of uranium and base metal potential of the licence
- External review of uranium and base metal potential of the licence

The review of the licence to potentially host uranium and base metal mineralization was conducted both internally and externally utilizing the services of an external consultant. This work is still in
progress and will be reported in the next annual report.

7.0 EXPLORATION EXPENDITURE

Exploration expenditure for the reporting period amounted to $63,000 as per the breakdown below;

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
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<tr>
<td>Administration and Support</td>
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<tr>
<td>Field Logistical Support</td>
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<tr>
<td>Field Reconnaissance</td>
<td>$5,000</td>
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<td><strong>Total</strong></td>
<td><strong>$63,000</strong></td>
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8.0 PROPOSED PROGRAMME AND BUDGET FOR 2006-2007

Proposed work for the next reporting period includes interpretation of Year 2 soil geochemistry results and follow-up sampling (approximately 50 loam samples) to be collected over identified chromite/soil geochemistry anomalies. In addition, further follow-up samples are likely to be collected adjacent to the HUM017 anomaly to close off the source of chromites and diamonds. Ground magnetic and electromagnetic methods may also be utilized to generate a drill target.

Proposed budget breakdown below is detailed below;

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<td>Field Logistical Support</td>
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<tr>
<td>Laboratory Costs</td>
<td>$15,000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$100,000</strong></td>
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</tbody>
</table>
REFERENCES


Appendix 1