Rio Tinto Exploration Pty. Limited
A.C.N. 000 057 125

A member of the Rio Tinto Group

ELs 7970, 8819, 8820 and 8821 - Cox River Tenements

Annual Report

for the Year Ending 23rd July 2001

Author: P. J. Walker

Tenure Holder: Rio Tinto Exploration

Submitted to: G.M. Rheinberger

Date: July 2001

Copies to: Dept of Mines and Energy - Darwin
           Rio Tinto Exploration - Darwin
           Rio Tinto Exploration - Perth

Map Sheet: SD 5314 Hodgson Downs

Submitted by: ...................................................

Accepted by: ..................................................

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ABSTRACT

ELs 7970, 8819, 8820 and 8821 (the Cox River tenements) were granted to Ashton Mining Limited on 23rd June 2000. Ashton Mining Ltd was taken over by Rio Tinto Limited in the 4th quarter of 2000.

Historic gravel sampling collected by Ashton prior to the land being Aboriginal freehold, shows that there are unresolved sporadic chromite and diamond occurrences in an area of Bukalara Sandstone on EL 7970.

It is recommended that bulk gravel samples be collected from drainages on the Cox River tenements. This work will attempt to recover diamonds and chromite grains. The chromites will then be characterised from microprobing, to determine whether they are of kimberlitic origin.
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<tr>
<td>NTd 6923</td>
<td>ELs 7970, 8819, 8820 and 8821</td>
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1. INTRODUCTION

This report describes exploration completed in ELs 7970, 8819, 8820 and 8821 (the Cox River Tenements) during the first 12 month period ending 23rd July 2001.

Exploration Licences ELs 7970, 8819, 8820 and 8821 have a total area of 436 sub-blocks (1442 km$^2$) as detailed in table 1. The Cox River tenements are located within the Alawa Aboriginal Land Trust area, 150km NE of Daly Waters (Ntd 6923).

Table 1 – Tenement Summary

<table>
<thead>
<tr>
<th>EL Number</th>
<th>Blocks</th>
<th>Area (km2)</th>
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<tbody>
<tr>
<td>7970</td>
<td>208</td>
<td>687.7</td>
</tr>
<tr>
<td>8819</td>
<td>50</td>
<td>165.5</td>
</tr>
<tr>
<td>8820</td>
<td>91</td>
<td>301.1</td>
</tr>
<tr>
<td>8821</td>
<td>87</td>
<td>287.7</td>
</tr>
<tr>
<td>Total</td>
<td>436</td>
<td>1442</td>
</tr>
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</table>

ELs 7970, 8819, 8820 and 8821 were granted to Ashton Mining Limited on 23rd June 2000.

Ashton Mining Ltd was taken over by Rio Tinto Limited in the 4th quarter of 2000.

2. CONCLUSIONS AND RECOMMENDATIONS

It is recommended that bulk gravel samples be collected from drainages on the Cox River tenements. This work will attempt to recover diamonds and chromite grains. The chromites will then be characterised from microprobing, to determine whether they are of kimberlitic origin.

3. GEOLOGY

ELs 7970, 8819, 8820 and 8821 are centred approximately 150km northwest of Daly Waters in the Northern Territory.

Rock types in the Cox River area include sandstones and minor siltstones of the NeoProterozoic Roper Group, Cambrian Bukalara Sandstone and Lower Cretaceous sediments. Bedrock units are commonly covered by laterite, lateritic soils and Quaternary deposits.

Sediments within ELs 7970, 8819, 8820 and 8821 are only gently folded, with bed dips rarely exceeding 15°.

Several North trending, pre-Cretaceous faults transect the eastern parts of the Cox River Tenement area.
Significant mineralisation is not known to occur within the Hodgson Down Sheet. However the tenements are considered to be prospective for diamondiferous kimberlite pipes.

4. PREVIOUS EXPLORATION

4.1. Previous exploration prior to current tenement

Historic gravel sampling collected by Ashton prior to the land being Aboriginal freehold, shows that there are unresolved sporadic chromite and diamond occurrences in an area of Bukalara Sandstone on EL 7970.

5. EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration activities completed during the reporting period consisted of a review and prioritisation of all former Ashton exploration licences and applications within Northern Australia. This review concluded that the Cox River tenements be retained.

It is recommended that bulk gravel samples be collected from drainages on the Cox River tenements. This work will attempt to recover diamonds and chromite grains. The chromites will then be characterised from microprobing, to determine whether they are of kimberlitic origin.

6. EXPLORATION PROGRAM AND BUDGET FOR NEXT REPORTING PERIOD

Exploration on the Cox River tenements for the next reporting period will comprise:

?? Liaison Committee Meeting and work area clearance surveys
?? Track construction and camp establishment
?? Infill and follow-up stream and loam sampling
?? Follow-up bulk sampling

This program is estimated to cost approximately $80,000

7. REHABILITATION

No activities occasioning significant ground disturbance were undertaken during the reporting period. Therefore no rehabilitation work was completed.

8. REFERENCES

Dunn, P.R., 1963, Hodgson Downs N.T SD 53-14 1:250 000 Explanatory Notes.

9. **KEYWORDS**
Diamonds; Proterozoic; Roper Group; Bukalara Sandstone; Gravel Sampling

10. **LOCALITY**

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<td>1:250,000</td>
</tr>
<tr>
<td>Nutwood</td>
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<td>Cox</td>
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<tr>
<td>St Vidgeon</td>
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11. **DESCRIPTOR**