OPEN FILE

EXPLORATION LICENCE 4677 PLENTY RIVER

NORTHERN TERRITORY

FINAL REPORT - NOVEMBER 1985

HUCKITTA SF 53-11

CR 86/028

R.J. TAYLOR,
ADELAIDE.
CONTENTS

1. GENERAL STATEMENT

2. TITLE

3. FIELD INVESTIGATIONS
   3.1. Aeromagnetic Survey.
   3.2. Aboriginal Sacred Sites.
   3.3. Groundmagnetic Survey.

4. CONCLUSIONS.

5. EXPENDITURE

FIGURES

1. EL 4677 Plenty River, N.T.
   Location Map

2. EL 4677 Plenty River, N.T.
   Summary of Exploration
1. GENERAL STATEMENT

Exploration Licence 4677 was taken up to test the kimberlite potential of the area. An aeromagnetic anomaly, Hd, was selected from the BMR published aeromagnetics as being a potential kimberlite. A low level aeromagnetic survey was flown over a small area three by four kilometres. This was followed up by a ground magnetic survey. The data was re-assessed at this stage and it was decided that further exploration was not warranted and the licence was relinquished on 26th September, 1985.

2. TITLE

Exploration Licence 4677 over an area of 16 blocks was granted to BHP Minerals Ltd. on 22nd November, 1984 for a period of six years. The area was relinquished on 26th September, 1985. Its location is shown in Figure 1.

3. FIELD INVESTIGATIONS

3.1. Aeromagnetic Survey

This area was selected for kimberlite investigation after an examination of the BMR Huckitta 1:250,000 Aeromagnetic Map. A low level aeromagnetic survey was flown for BHP Minerals Limited by Aerodata Services Pty. Ltd. over an area of twelve square kilometres. The survey was flown at a height of 70 metres with 200 metre spacing between north-south flight lines. The total field magnetic contour map and stack profiles are shown on Figure 2.

3.2. Aboriginal Sacred Sites

The Sacred Sites Protection Authority and the Central Land Council were consulted with regard to sacred sites within the licence area. The C.L.C. advised that there was no sacred sites within the vicinity of anomaly Hd.
3.3. Groundmagnetic Survey

This anomaly, H\(d\), was located using 3 one kilometre east-west ground magnetic lines. Readings were taken every 10 metres using a Scintrex MP2 and an automatic base station magnetometer was used for diurnal corrections. The corrected ground magnetic contours and profiles are shown on Figure 2.

4. CONCLUSIONS

With the completion of the ground magnetics the kimberlite potential of this anomaly was re-assessed. It was decided that further exploration was not warranted and the area was relinquished on 26th September, 1985.

5. EXPENDITURE

Expenditure debited to Exploration Licence 4677 was:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages and Salaries</td>
<td>$1,471</td>
</tr>
<tr>
<td>Field Support</td>
<td>218</td>
</tr>
<tr>
<td>Vehicles</td>
<td>137</td>
</tr>
<tr>
<td>Tenement Fees</td>
<td>142</td>
</tr>
<tr>
<td>Aeromagnetic Survey</td>
<td>1,500</td>
</tr>
<tr>
<td>Geophysics</td>
<td>1,420</td>
</tr>
<tr>
<td>Drafting</td>
<td>500</td>
</tr>
<tr>
<td>Central Land Council</td>
<td>333</td>
</tr>
<tr>
<td>Administration and Overheads</td>
<td>572</td>
</tr>
</tbody>
</table>

$6,293