EXPLORATION REPORT

EXPLORATION LICENCE 6832

RED ROCK BORE

1991

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**CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY AND RECOMMENDATIONS</td>
<td>3</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>PREVIOUS EXPLORATION</td>
<td>4</td>
</tr>
<tr>
<td>PRESENT WORK AND EXPLORATION POTENTIAL</td>
<td>4</td>
</tr>
</tbody>
</table>

**FIGURES**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION DIAGRAM</td>
<td>1</td>
</tr>
<tr>
<td>GEOLOGICAL MAP</td>
<td>2</td>
</tr>
<tr>
<td>AEROMAGNETIC MAP</td>
<td>3</td>
</tr>
</tbody>
</table>

**APPENDICES**

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCES</td>
<td>1</td>
</tr>
<tr>
<td>EXPENDITURE</td>
<td>2</td>
</tr>
</tbody>
</table>
SUMMARY AND RECOMMENDATIONS

The area covered by EL 6832 is prospective for base metals mineralisation. Occurrences of copper, lead and zinc are known for locations near the centre of the exploration licence. Mineralisation occurs in hematite-magnetite quartz rocks which are good targets for geophysical (magnetics) exploration.

Records of previous work were not found. These need to be located and assessed. Follow up field work should include mapping and ground magnetics of the prospective zone which trends north-south and which includes Coles Hill. Subsequent percussion drilling is contingent upon geophysical interpretations indicating potential for a substantial target. Total cost, not including drilling, is about $7,000.00.

INTRODUCTION

This report summarises reconnaissance exploration carried out in EL 6832 located 75km north of Alice Springs (see Figure 1). The area covered by EL 6832 is a rectangle oriented east-west, 30km wide and 7.3km from north to south. Access to the western end of the exploration licence is via the Stuart Highway.

The area was brought to White Range Gold’s attention by consultant geologist Dr B. Murrell. A substantial magnetic anomaly is recognised from the 1:250,000 BMR Total Magnetic Intensity map of Alice Springs (see Figure 3). Recommended work included griding and mapping the anomaly, and drill testing the most prospective targets.

GEOLOGY

Exploration Licence 6832 is located within early Proterozoic Arunta Block rocks of the Strangways Metamorphic Complex (see Figure 3). Rock types in the eastern half of the exploration
licence are mainly felsic and mafic granulites mapped by the BMR (1984) as part of the Yambah Granulites. The western half of EL 6832 is mainly covered by sand and soil.

Base metals mineralisation occurs in an area near the centre of EL 6832. A copper, lead and zinc occurrence is recorded in Coles Hill 1km east of Red Rock Bore. Mineralisation is hosted by hematite-quartz rocks. Copper occurrences are also recorded 3km north east of Red Rock Bore in migmatites as well as hematite-quartz rocks.

PREVIOUS EXPLORATION

Past exploration for base metals at Coles Hill included costeining and one diamond drill hole. Previous reports were not located, however, five costeans, each about 300m long and covering about 1km of strike are noted. It is assumed that the costean results provided enough encouragement for further testing by a single diamond drill hole.

Exploration by White Range Gold NL 22km to the south in an area previously covered EL 6693, included a ground magnetic survey, reverse circulation percussion drilling, petrology and chemical analyses. The main target was a substantial magnetic anomaly of 8817 nano Teslas (nT) which is about 4000 nT above background levels. The target was considered prospective for a Mount Weld-type (Western Australia) carbonatite.

The magnetic rocks intersected by drilling were magnetite-bearing granulites with anomalous levels of apatite and zircon with possible alkaline affinities. The exploration licence was relinquished in November 1990 after expenditure of about $32,000.

PRESENT WORK AND EXPLORATION POTENTIAL

Work by White Range Gold personnel involved data searches and field reconnaissance. Reports were not located.
The most prospective area in EL 6832 is the main magnetic anomaly of 8200 nT in the BMR airborne magnetic data. This anomaly is 3000 nT above background levels and correlates well with the Coles Hill base metals occurrence. Orientation of the anomaly is approximately north-south with dimensions 2½km long by 1½km wide.

The outcrop of the Coles Hill mineral occurrence trends north west for about 1km and is about 200m wide. Field checking confirmed the presence of copper, lead and possibly zinc in magnetite-hematite quartz rocks. A small outcrop (less than 50m wide) of magnetite-hematite rock hosting copper carbonates is situated 2½km to the north of Coles Hill. The area between this occurrence and Coles Hill is covered mainly with sand and soil.

The extent and orientation of the BMR magnetic anomaly strongly suggests that the Coles Hill mineral occurrence and the isolated outcrop 2½km to the north may form part of a continuous magnetic body beneath the intervening soil covered area. Even though previous exploration results at Coles Hill may not be encouraging, this occurrence may represent only the southern extent of a potentially larger target.
APPENDIX 1

REFERENCES


APPENDIX 2

EXPLORATION EXPENDITURE

Proposed Exploration Expenditure

1. Data acquisition and research:
   - 2 days at $250.00 per day $500.00

2. Acquisitions of aerial photographs:
   - 2 runs of 14 photos each at 1:50,000 scale $400.00

3. Detailed mapping:
   - 1 geologist for 5 days at $250.00 per day $1,250.00

4. Gridding:
   - 1 surveyor and assistant for 2 days at $300.00 per day $600.00

5. Ground magnetics:
   - 1 contract geotechnician and assistant for 4 days at $400.00 per day $1,600.00

6. Geophysical interpretation:
   - 1 geophysicist for 1 day at $400.00 per day $400.00

7. Consultant exploration geologist:
   - 2 days at $400.00 per day $800.00
   - travelling costs $800.00

TOTAL EXPENDITURE PLUS 10% OVER RUN CONTINGENCY $7,000.00
Expenditure to Date

1. Research and data acquisition:
   - 1 day at $250.00 per day  250.00

2. Reconnaissance exploration:
   - 1 geologist for 3 days at $250.00 per day  750.00

3. Transportation and consumables:
   - 3 days at $200.00 per day  600.00

4. Compilation of data and reporting:
   - 1 geologist and typist for 1 day at $300.00 per day  300.00

5. Consultant:  1,600.00

6. Administration overheads:  1,050.00

TOTAL EXPENDITURE  4,550.00