FINAL REPORT ON
EXPLORATION LICENCE 3012

BY
R.L. ADAMS

OPEN FILE

DISTRIBUTION
PETROCARB
DEPARTMENT OF MINES AND ENERGY

JULY, 1985
NORTHERN TERRITORY GEOLOGICAL SURVEY
CR85/167
CONTENTS

1. INTRODUCTION
2. LOCATION
3. TENEMENT HISTORY
4. EXPLORATION PHILOSOPHY
5. EXPLORATION PROGRAMMES AND RESULTS
6. REFERENCES
7. PLANS
1. **INTRODUCTION**

Exploration Licence 3012 was applied for by Attutra Exploration Co. Pty. Ltd. on the 13th January 1981. It was granted on the 28th October 1981 and following grant was incorporated into a Joint Venture between Peko-Wallsend operations Ltd, and Petrocarb Exploration N.L. (Part owners of Attutra) dated 17th December 1981.

Geopeko managed the tenement on behalf of the Joint Venture until late 1983 when a farm-in agreement with Anaconda Australia Inc. was arranged and eventually registered on 6th April 1984. Anaconda managed the property until 14th June 1984 when they withdrew from the agreement. Petrocarb then assumed sole management of the area.

2. **LOCATION**

Exploration Licence 3012 is located approximately 250 kilometers east north east of Alice Springs and 35 kilometers south east of Jervois (latitude 22° 57', longitude 136° 25') on the Huckitta 1:250,000 map sheet (SF 53-11). Jervois Range 1:100,000 map sheet.

3. **TENEMENT HISTORY AND EXPENDITURE**

Table 1 outlines the tenement history of Exploration Licence 3012.

<table>
<thead>
<tr>
<th>Grant</th>
<th>Renewal</th>
<th>Blocks</th>
<th>Expenditure Commitment</th>
<th>Actual (estimated) Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.10.81</td>
<td></td>
<td>94</td>
<td>$7,000</td>
<td>$57,000</td>
</tr>
<tr>
<td>11.2.83</td>
<td></td>
<td>94</td>
<td>$20,000</td>
<td>$50,000 est.</td>
</tr>
<tr>
<td>1.2.84</td>
<td></td>
<td>42</td>
<td>$20,000</td>
<td>$20,328</td>
</tr>
<tr>
<td>Relinquished</td>
<td>19.6.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. EXPLORATION PHILOSOPHY

Peko's exploration was undertaken in search for Molyhil style, skarne hosted, scheelite-molybdenite mineralization. The Molyhil deposit occurs in a magnetite rich skarn which shows up as a major aeromagnetic anomaly on detailed survey. The exploration method used was detailed regional aeromagnetics with ground follow-up of magnetic features which broadly fitted the Molyhil model.

Anaconda carried out exploration for large, stratiform, massive Ag-Pb-Zn sulphide bodies similar to those at Broken Hill. The basis of this approach was the presence at Jervois of a defined resource of about 3 million tonnes of grading 3% Cu and 250,000 tonnes grading 10% Pb + Zn, 1.5% Cu, 170ppm Ag.

They conducted reconnaissance INPUT EM surveys over several areas with strong linear magnetic signatures similar to those occurring over the Jervois lodes.

5. EXPLORATION PROGRAMMES AND RESULTS

In 1982 the Northern Territory Geological Survey completed an aeromagnetic survey over the area and released contour plans at a scale of 1:100,000. The survey proved to be of insufficient detail for locating Molyhil-type magnetic anomalies and Geopeko carried out a more detailed survey over the Exploration Licence. This survey indicated the presence of some weak positive magnetic features but they were not of sufficient interest for drill testing. Refer to Geopeko report on Exploration Licences's dated May 1983 for full details and plans.
In late 1983 when Anaconda took over management of Exploration Licence 3012 as part of a joint venture area, they reviewed the regional aeromagnetics published by the Northern Territory Geological Survey and identified several areas with a strong linear magnetic signature. One of the areas selected by this work for test airborne Electro-magnetic surveying impinged upon Exploration Licence 3012. A report on this work was presented by Anaconda with Appendices detailing the aeromagnetic and airborne EM interpretations, refer Marjoribanks R.W. January 1984.

Three low order EM anomalies were located within Exploration Licence 3012 and followed up by ground location and geochemical soil and plant sampling without encouraging results and the Joint Venture was terminated. Refer Annual Report on Exploration Licence 3012, Ball G.R. July 1984 and Buerger and Dunnet, June 1984.
6. REFERENCES


