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EL 2674

SNAKE ROCKS

**FINAL ANNUAL TECHNICAL REPORT FOR THE
PERIOD 4/12/99 TO 3/12/2000**

Submitted by

Oxford Resources Pty Ltd
2001

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**PRIMARY INDUSTRIES
AND RESOURCES SA**

Final Report for
Exploration Licence 2674 “Snake Rocks”
for the period 4 December 1999 to 3 December 2000

Author: W L Corbett **Date:** February 2001
Volume 1 of 1 Volume

Map Sheets	1:250,000 Tarcoola SH 53 10 1:100,000 Mulgathing 5637, Carnding 5737
Commodity(s)	Cu Pb Zn Ag Au
Tenement Holder	Oxford Resources Pty Ltd
Operator	PlatSearch NL
Keywords	Gawler Craton, Hiltaba Granite, Archaean, Proterozoic, Exploration Review, EL 2674, Muckanippie Anorthosite Complex
Distribution:	<i>PIRSA</i> <i>Oxford Resources</i> <i>PlatSearch NL</i>

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DIGITAL DATA

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<i>Final_Report_EL2674.doc</i>	<i>1591 KB</i>	<i>Word 97 SR-1 document</i>
<i>Final_Report_EL2674.pdf</i>	<i>490 KB</i>	<i>Adobe Acrobat Ver 4.0 pdf file</i>

Summary

Exploration Licence 2674 is located approximately 60 kilometres north-west of Tarcoola within the Gawler Craton and was granted to Oxford Resources Pty Ltd to search for gold and base metal deposits 3 December 1999. Oxford Resources is in joint venture with PlatSearch NL who is currently managing the exploration on this tenement. EL 2674

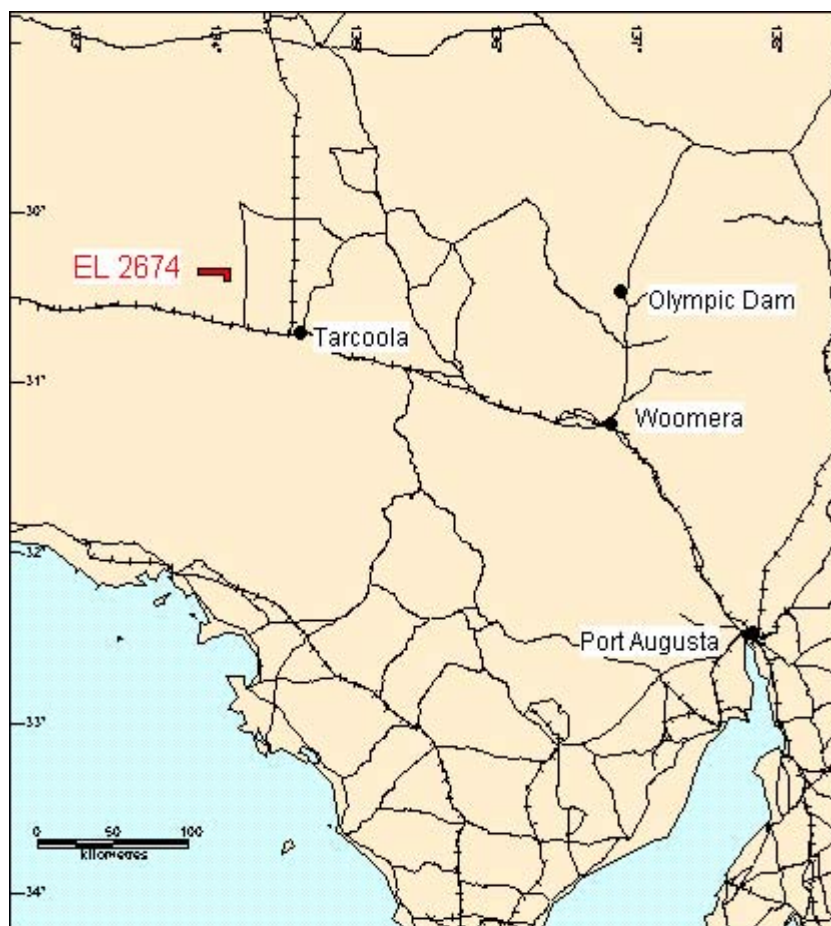


Figure 1 - Location EL 2674

shares a common boundary with EL 2475 also held by Oxford. This area is in a key part of the western Gawler Craton only 40 kilometres south-east of the Challenger gold deposit and 40 kilometres north-west of the Tarcoola goldfield.

PlatSearch has undertaken a compilation of all work carried out to date in the area including available geophysical data. Previous exploration in this area has encountered numerous occurrences of anomalous base metals, gold, nickel, titanium and rare earths (especially niobium). As a results of the review of the available technical data PlatSearch has decided to withdraw from the joint venture with Oxford over EL 2674.

1 Introduction

Exploration Licence 2674 is located approximately 60 kilometres north-west of Tarcoola (Figure 1) and was granted to Oxford Resources to search for gold and base metal deposits. The licence covers an area of approximately 101 square kilometres most of which has minimal outcrop. The area lies within the Archaean Gawler Craton province of central South Australia, approximately 560 kilometres north-west of Adelaide. Access can be gained on several roads north from Tarcoola, or from the west on the Bulgunnia-Mulgathing Station road, which connects with the Stuart Highway approximately 107 kilometres north of Glendambo.

Several target styles are sought:

- Base metal deposits in metasedimentary sequences (similar to Menninnie Dam)
- Copper-uranium-gold deposits in iron-rich breccias (Olympic Dam)
- Iron-rich vein networks in any potential host rock including, and older than, the Hiltaba Suite granites
- Gold deposits in quartz-veined gneissic rocks and banded iron formation (Challenger, Glenloth goldfield, Earea Dam goldfield).

2 Tenure Details

2.1 Tenement Information

Exploration Licence 2674 was granted on 3 December 1999 to Oxford Resources Pty Ltd over an area of approximately 101 square kilometres. This area was previously known as the Warrior Area (EL 2015,) which covered approximately 367 square kilometres, was held by Aztec and which expired on 1 September 1999.

The current annual expenditure requirement is \$40,000. In the current year \$9,208 has been spent on exploration activities within the licence.

2.2 Joint Venture Details

PlatSearch entered into a six month option agreement with Oxford Resources Pty Ltd to earn a 95% interest in ELs 2674 and 2475 by progressing exploration on the tenements. Following an initial assessment of the potential of this area PlatSearch has decided to withdraw from the joint venture with Oxford over EL 2674.

2.3 Native Title

The project area is covered by Native Title claims from the Antakarinja Mutuntjarra (SC 95/7) and the Bira Clan Kokotha (SC95/5) peoples.

3 Work Completed

3.1 Geological Setting

Exploration Licences 2475 and 2674 cover a key area of the West Gawler Craton, only 40 kilometres south-east of the Challenger gold deposit, and 40 kilometres north-west of the Tarcoola goldfield (Figure 2). Basement geology in this area consists of Archaean rocks of the Mulgathing Complex principally comprising gneissic metasediments, including banded iron formations. In parts, these are overlain by Proterozoic Gawler Range volcanics. The presence of greenstones in the Mulgathing Complex suggests similarities to the Yilgarn Block in Western Australia.

The area of EL 2475 embraces the Muckanippie Anorthosite Complex covering an area of approximately 800 square kilometres and containing anorthosite, gabbroic anorthosite, gabbro, diorite, syenite, granodiorite and granite. All of these rocks are intruded by Proterozoic granites of the Hiltaba Suite and dykes of the Wiltabbie Volcanics.

Ubiquitous soil cover, while not necessarily thick, has hindered effective exploration of this region, especially in the area of EL 2674.

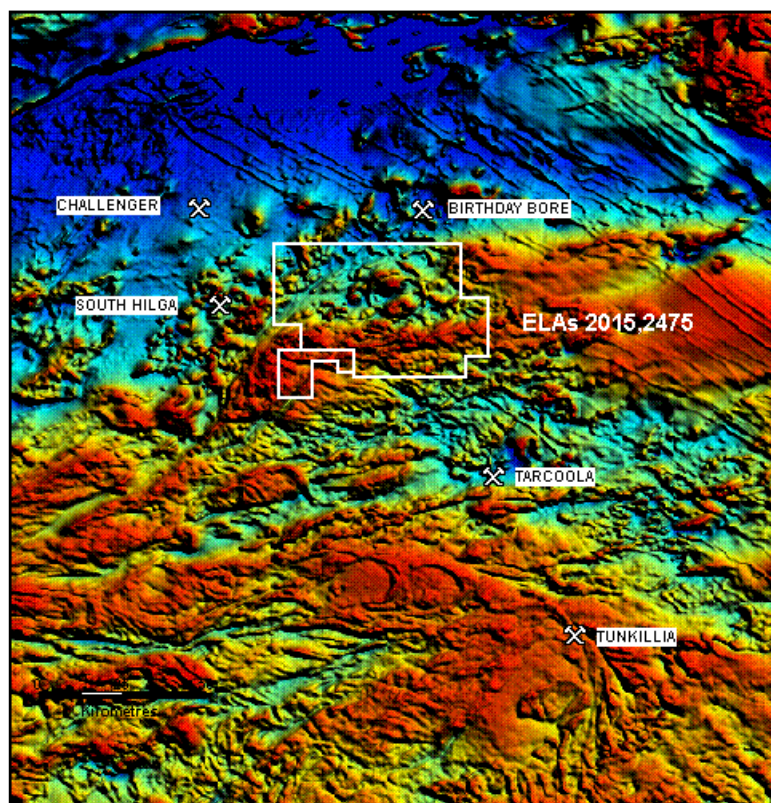


Figure 2 – aeromagnetic image (PIRSA)

3.2 Previous Exploration

Past explorers include CRAE, Dampier, Freeport, Kennecott, Tarcoola Gold, and PIRSA. Work previous to 1991 has been well summarised by Youles, 1991. Since 1994, the area has been held by Oxford Resources Pty Ltd. Oxford's principal Frank Greene introduced Aztec (subsequently taken over by Normandy) under a joint venture arrangement. Normandy undertook a very systematic exploration program for gold and finally handed the area back to Oxford in July 1999. Work completed by Normandy has been summarised in their annual report to 18 December 1998 by S Dries and included calcrete sampling, soil, lag and BLEG sampling, RAB, aircore and RC drilling with follow up gravity traverses.

Normandy's exploration approach appeared to be based solely on regional calcrete sampling followed by systematic RAB drilling over selected areas of gold. Despite their total expenditure of \$2 million, Normandy's exploration was almost totally reliant on one technique, calcrete sampling. This seems to be a somewhat narrowly focussed approach for such a complex and prospective area. Towards the end of this program they did focus some RAB drilling on several magnetic anomalies (Anomaly 3/4 and Kooyale Tank). The rationale for selecting these anomalies is not clear.

Previous work has encountered numerous occurrences of anomalous base metals, gold, nickel and rare earths (especially niobium). Of particular significance are the results of the basement drilling program by PIRSA as part of the SA Exploration Initiative program. This drilling (RC) encountered strongly anomalous copper and zinc values in a number of holes (up to 2,900 ppm Cu and 1,600 ppm Zn). These anomalous results all fall within the

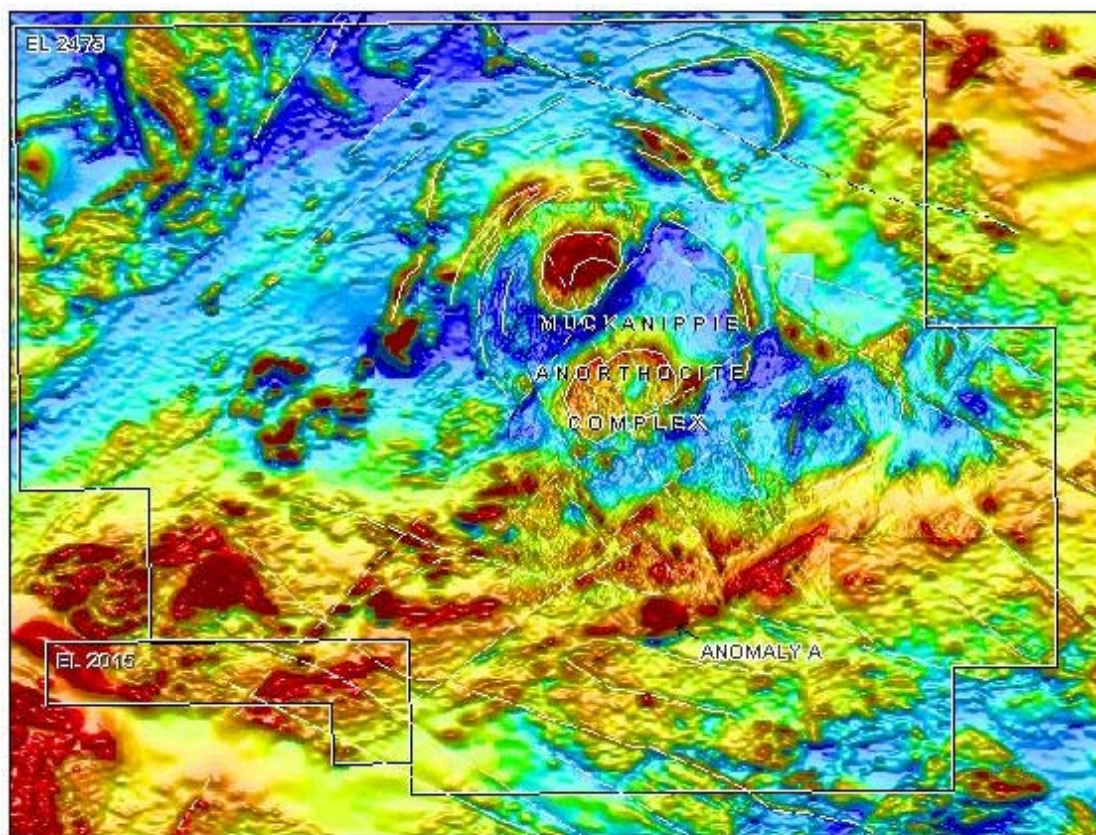


Figure 3 – PIRSA TMI image with Normandy helimag over the anorthosite complex spliced in.

Muckanippie Anorthosite Complex (EL 2475), or its periphery, and do not appear to have been specifically followed up by previous explorers. Moreover, there does not appear to have been a systematic targeting of the stronger magnetic anomalies which could represent, for instance, ferruginous breccias associated with Hiltaba granites, or BIF associated base metal and gold deposits, or VMS deposits. PlatSearch is increasingly interested in the anorthosite complex to the north-east of this licence in EL 2475 where specific targets exist for base metals however, has decided to withdraw from the joint venture with Oxford Resources over EL 2674.

4 Expenditure

Exploration expenditure on EL 2674 for the 12 months ending 2 December 2000 was \$9,208. The expenditure can be detailed as follows:

Category	\$
Geological consultants	3,831
Geophysical consultants	3,300
Tenement costs	876
Administration	1,201
Total	9,208

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