EXPLORATION LICENCE 10370
BARKLY

SECOND YEAR RELINQUISHMENT REPORT
20 March 2001 - 19 March 2003

LICENSEE:
GIANTS REEF EXPLORATION PTY LTD
A.B.N. 009 200 346

AUTHORS:
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S C RUSSELL

May 2003

DISTRIBUTION:
TENNANT CREEK 1:250 000
SE53-14
Tennant Creek 1:100 000
5758
Flynn 1:100 000
5759
Gosse River 1:100 000
5858
Barkly 1:100 000
5859
SUMMARY

Exploration Licence 10370 Barkly, was acquired by Giants Reef Exploration Pty Ltd (Giants Reef) to search for large base metal deposits associated with an elongate gravity anomaly trending west north-west to east south-east through the north-central part of the Licence.

Exploration in EL 10370 is being carried out by Giants Reef under a Strategic Alliance agreement with BHP Billiton, who are funding the program.

This report records the exploration work completed on the portion of no continuing interest of the relinquished area of EL 10370, to the end of the second year of tenure, on the 19th March 2003.

Tennant Creek-style orebodies are regarded as secondary targets in EL 10370, as the focus of exploration, under the Strategic Alliance agreement with BHP Billiton, is to find major base metals or base metals/precious metals deposits.

However, assessment of the base metals/precious metals prospect areas within EL 10370 downgraded the potential for this type of deposit, and no target areas for exploration for the traditional Tennant Creek-type ironstone hosted Au-Cu-Bi orebodies were identified by Giants Reef.

Approximately 15% of the relinquished land was identified as a culturally sensitive area by the Central Land Council under instruction from the Native Title holders of the Tennant Creek region. This zone would present considerable difficulties if exploration were to be pursued in this area.

At the end of the second year of tenure Giants Reef made the statutory tenement reduction of the EL from 262 to 131 graticular blocks. Assessment recognised that relinquished portion of EL 10370 has little potential to host either Tennant Creek style gold-copper occurrences or major base metals or base metals/precious metals deposits.
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1. Location of the Licence area
2. Area relinquished at end of Year 2
1. INTRODUCTION

Exploration Licence 10370 Barkly, was acquired by Giants Reef Exploration Pty Ltd (Giants Reef) to search for large base metal deposits associated with an elongate gravity anomaly trending west north-west to east south-east through the north-central part of the Licence.

Exploration in EL 10370 is being carried out by Giants Reef under a Strategic Alliance agreement with BHP Billiton, who are funding the program.

This report records the exploration work completed on the portion of no continuing interest of the relinquished area of EL 10370, to the end of the second year of tenure, on the 19th March 2003.

2. LOCATION

EL 10370 covers a wide tract of country, with the centre of the Licence situated approximately 45km east north-east of Tennant Creek township and south of the Barkly Highway. Much of the Licence area is without tracks, and difficult to reach.

The northern parts of EL 10370 can be reached from Tennant Creek township by driving along the Barkly Highway, and then by following the few existing bush tracks to the south.

Access into the central parts of the Licence is possible by driving to the Gigantic mine or to Boundary Bore, along dirt tracks from the Tennant Creek township or from the old Overland Telegraph Station. These routes are not negotiable during or soon after rainy periods.

Figure 1 shows the location of the Licence area.

3. TENURE

Exploration Licence 10370 was granted to Giants Reef Exploration Pty Ltd on the 20th March 2001, for a period of 6 years.

On the 12th November 1999, Billiton Exploration Australia Pty Ltd (Billiton) entered into an Agreement with Giants Reef whereby Billiton acquired approximately 7% equity in Giants Reef, in return for providing funding for the exploration, by Giants Reef, of four project areas in the Tennant Creek region. Exploration Licence 10370 is explored as the Barkly Project Area.

The original Licence area totalled 262 one-minute blocks, covering sections of the Barkly (5859), Gosse River (5858), Tennant Creek (5758) and Flynn (5759) 1:100,000 scale map sheets. At the end of the second year of tenure the Licence was reduced to 131 blocks.

EL 10370 falls within NT Portion 494, Perpetual Pastoral Lease 1142, Tennant Creek Station. EL 10370 is subject to an Indigenous Land Use Agreement (ILUA), signed in September 2000 between the Native Title holders of the Tennant Creek region, represented by the Central Land Council, and Giants Reef.

Figure 2 shows the relinquished blocks and retained Licence area of EL 10370.
4. GEOLOGY

4.1 Regional Geology

Papers contained in AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861 provide a good introduction to the Tennant Creek regional geology and styles of gold-copper mineralisation of the area.

A more recent reference is the 1:250,000 Tennant Creek geology map and Explanatory Notes, published by the Northern Territory Geological Survey in 1999, which includes a revised stratigraphy.

4.2 Local Geology

Outcrop throughout the Licence is patchy and in most areas non-existent. The majority of EL 10370 is covered with Quaternary alluvium and soils, including the extensive flood-out area of the Gosse River, in the eastern part of the Licence. In the large northern area of the EL, flat-lying sediments of the Cambrian Georgina Basin occur, with some restricted outcrops of the Palaeoproterozoic Warramunga Formation. The underlying geology is for the most part unknown.

5. WORK DONE DURING THE TERM

5.1 YEAR 1

5.1.1 Introduction

The main target in EL 10370 is a major base metals or base metals/precious metals deposit associated with a trend of moderately elevated gravity readings (the gravity ridge) running in a west north-west to east south-east direction along the western portion of the relinquished portion of the EL.

The gravity ridge is more-or-less coincident with a similarly oriented zone of magnetic highs. The basement geology of this trend is masked by Cambrian and Recent cover sequences, so that the reason for the gravity and magnetic anomalies is not known.

The relinquished area of EL 10370 does not contain any Warramunga Formation outcrops. The Warramunga Formation is the host rock to virtually all of the well-known Tennant Creek style of ironstone-associated Au-Cu-Bi orebodies. However, Tennant Creek-style orebodies are regarded as secondary targets in EL 10370, as the focus of exploration, under the Strategic Alliance agreement with BHP Billiton, is to find major base metals or base metals/precious metals deposits.

5.1.2 Literature Search and Previous Work

Giants Reef examined reports of exploration by previous companies in the EL 10370 area.

The most recent exploration in the area was by Posgold Limited, under Substitute Exploration Licence 8687, which was made up from former Exploration Licences 7274, 7690, 7692, 7693, and 8005. Exploration in these earlier Licences and SEL 8687 extended over eight years from 1991 to 1998, and was aimed at finding concealed Tennant Creek-style ironstone-associated Au-Cu-Bi orebodies.

Posgold’s work included grid vacuum drilling over the highest amplitude section of the regional gravity ridge referred to in Section 5.1.1. The vacuum drilling (297 holes) was conducted over two grid areas separated by a 2km gap, contained within a rectangle measuring 10.5km east to west by 3.8km north to south (443100E to 453600E, and 7846800N to 7843000N).
The bedrock sample assays provided some geochemical anomalism but two follow-up RC holes, and some later RAB holes in the eastern grid area where the vacuum drilling apparently did not reach bedrock, did not find any ironstone bodies.

5.1.3 Reconnaissance
A field trip was made to (AGD84) co-ordinates 448200E 7846400N, the site of a proposed drillhole that was under consideration by Giants Reef in the first year of tenure. The proposed hole was located at the peak of the gravity anomaly along the gravity ridge in the north western portion of the relinquished area of EL 10370.

5.1.4 NTGS/AGSO Gravity Survey Assessment
In mid-2001, the Northern Territory Geological Survey and the Australian Geological Survey Organisation jointly carried out a gravity survey over the Tennant Creek 1:250,000 sheet and parts of some adjacent sheets. In the EL 10370 area, the station spacing was at 4km by 4km centres, and along much of the gravity ridge the spacing was at 2km by 2km. The new survey information was a great improvement upon the old 11km by 11km coverage.

Using the new dataset, the peak residual gravity anomaly along the gravity ridge is now located at 448200E 7846400N. This location is north of the Posgold/Normandy vacuum drilling is in an area of Quaternary alluvium or other cover. Giants Reef were considering the idea of drilling a test hole at this location to obtain a geological and geochemical sample of the bedrock.

Consulting geophysicist Frank Lindeman, of Lindeman Geophysics Pty Ltd, Melbourne, assessed the new NTGS/AGSO gravity data over EL 10370 for Giants Reef. His report pointed out that the Bouguer gravity and the residual gravity contours in this area do not differ greatly from each other, which suggests that “the responses are of a singular nature and not affected by secondary and deeper responses”. The gravity ridge in EL 10370 is most probably a reflection of the regional geology.

This observation downgraded the exploration potential of the EL 10370 gravity ridge as an exploration target for major base metals or base metals/precious metals deposit. The proposed drillhole at the residual gravity peak was abandoned by Giants Reef.

5.1.5 Access Clearance from the Central Land Council
The Central Land Council (CLC) conducted a land access clearance of the work proposed by Giants Reef in a program submitted (under the Indigenous Land Use Agreement) in March 2001. The CLC pointed out in a letter dated 5 December 2001 that the clearance work was made difficult by the fact that Giants Reef did not have firm locations for any possible drilling at the time.

The extensive flood-out area of the Gosse River was identified as a culturally sensitive area on the map accompanying the clearance letter. This covers approximately 15% of the western area of the relinquished portion of EL 10370. The CLC requested to be advised when drilling sites or other areas likely to disturbed by exploration activities are decided.

While the existence of the culturally sensitive area does not entirely rule out exploration, it would present considerable difficulties if exploration were to be pursued within this area.

5.2 YEAR 2

5.2.1 Review of the Exploration Focus under the Alliance

Tennant Creek-style orebodies are regarded as secondary targets in EL 10370, as the focus of exploration, under the Strategic Alliance agreement with BHP Billiton, is to find major base metals or base metals/precious metals deposits.

However, assessment of the base metals/precious metals prospect areas within EL 10370 during the first tenure year downgraded the potential for this type of deposit. Further assessment of the underlying geology of the relinquished area suggested that there is a little scope for exploration for the traditional Tennant Creek-type ironstone hosted Au-Cu-Bi orebodies either.

5.2.2 Exploration

As a result of the downgrading of EL 10370 for base metals or base metals/precious metals deposits, the drill targets proposed in the first year of tenure for EL 10370 were abandoned. Giants Reef focused their 2002 field season commitments primarily within the Bluebush tenements of EL 8882, 8883 and 10402. These tenements are also under the Alliance with BHP Billiton in which the major targets are base metals and precious metal deposits.

5.2.3 Tenement Review

An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of EL 10370 and the prospects within the Licence. Assessment of EL 10370 recognised that relinquished portion of the Licence has little potential to host either Tennant Creek style gold-copper occurrences or major base metals or base metals/precious metals deposits.

The review recommended that Giants Reef substantially reduce the tenement holding of EL 10370 to retain only the areas covering the targets which may still hold potential for Tennant Creek style shallow or substantial gold mineralisation.

At the end of the second tenure year Giants Reef reduced the EL from 262 graticular blocks to 131 graticular blocks. The north eastern portion of the tenement was relinquished being portion of no continuing interest.

6. **REHABILITATION**

No rehabilitation measures were required on the relinquished portion of EL 10370.

7. **CONCLUSIONS**

Tennant Creek-style orebodies are regarded as secondary targets in EL 10370, as the focus of exploration, under the Strategic Alliance agreement with BHP Billiton, is to find major base metals or base metals/precious metals deposits.

However, assessment of the base metals/precious metals prospect areas within EL 10370 downgraded the potential for this type of deposit, and no target areas for exploration for the traditional Tennant Creek-type ironstone hosted Au-Cu-Bi orebodies were identified by Giants Reef.

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REPORT NAME: EL 10370 Barkly SECOND YEAR RELINQUISHMENT REPORT 20\textsuperscript{TH} MARCH 2001-19\textsuperscript{TH} MARCH 2003

PROSPECT NAMES(s): Barkly

GROUP PROSPECT NAME: Barkly

TENEMENT NUMBERS(s): EL 10370

ANNIVERSARY DATE: 19 MARCH 2003

OWNER/JV PARTNERS: GIANTS REEF EXPLORATION PTY LTD (Owners) BHP BILLITON (Alliance).

AUTHOR(s): J.L. CAHILL
S.C. RUSSELL

COMMODITIES: GOLD, COPPER, LEAD, ZINC, SILVER, BISMUTH

MAPS 1:250 000: TENNANT CREEK SE53-14

MAPS 1:100 000: TENNANT CREEK 5758, FLYNN 5759

MAPS 1:25 000: GOSSE RIVER 5858, BARKLY 5859

TECTONIC UNIT(s): TENNANT CREEK INLIER

STRATIGRAPHIC NAME(s): WARRAMUNGA FORMATION CAMBRIAN GEORGINA BASIN

AMF GENERAL TERMS: LITERATURE SEARCH

AMF TARGET MINERALS: GOLD, COPPER, BISMUTH, LEAD, ZINC

AMF GEOPHYSICAL: GEOPHYSICAL INTERPRETATION, NTGS & AGSO

AMF GEOCHEMICAL:

AMF DRILL SAMPLING:

HISTORIC MINES:

DEPOSITS:

PROSPECTS:

KEYWORDS: BARKLY PROJECT, EL 10370, EXPLORATION LICENCES 7274, 7690, 7692, 7693, 8005 AND SEL8667.
GIANTS REEF EXPLORATION PTY LTD
TENNANT CREEK NORTHERN TERRITORY

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<td>JLC</td>
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<td>SCALE</td>
<td>FIGURE 2</td>
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Area 262 blocks
820.8 sq km