



# GIANTS REEF EXPLORATION

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## EXPLORATION LICENCE 9293

*JOKER*

### FIFTH ANNUAL REPORT

*8 March 2003 - 7 March 2004*

*LICENSEE:*

**SANTEXCO PTY LTD**

A.B.N. 002 910 296

*AUTHOR:*

**B.J. PARKER**

*February, 2004*

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*SE53-14*

*TENNANT CREEK 1:250 000*

*5758*

*Tennant Creek 1:100 000*

## SUMMARY

This report records exploration undertaken by Santexco Pty Ltd (Santexco) a wholly owned subsidiary of Giants Reef Mining Limited (Giants Reef) on Exploration Licence 9293 *Joker*, for its fifth year of tenure, from the 8 March 2002 to the 7 March 2003.

On 13 June 2001, Giants Reef Exploration Pty Ltd, a wholly owned subsidiary of Giants Reef Mining Limited, purchased all of the shares in Normandy Tennant Creek (NTC) from Normandy Consolidated Gold Holdings Pty Ltd, a subsidiary of Normandy Mining Limited. As a result of this, NTC is now a wholly owned subsidiary of Giants Reef and has had its name changed to Santexco Pty Ltd.

Targets are ironstone-related gold-copper deposits.

Only 60% of the area within the Licence boundaries is available for exploration under EL 9293. The remainder of the tenement is held under Mineral Leases that cover Golden Kangaroo, Nobles Nob and Joker Mines.

Work carried out on EL 9293 during Year 5 included an interpretation of the previously flown high-quality magnetic and TDEM data and its incorporation into the companies exploration GIS. This analysis has enabled Giants Reef to define with greater confidence higher priority targets. These targets, which include a series of subtle magnetic anomalies coincident with a number of significant secondary structural corridors are considered highly prospective and Giants Reef plans to test these during the Year 6 period. In addition to this a number of geochemical anomalies have been identified from previous exploration and these will be similarly tested.

The development of Giants Reef's Chariot Deposit, the completion of extensive regional exploration in the the Chariot deposit corridor and resource definition drilling at the Cat's Whiskers prospect during the report period resulted in a postponement of drilling activities elsewhere in the company's tenements including EL 9293. However, Giants Reef has announced in its December Quarterly Report to the ASX that, as part of an accelerated exploration program, exploration within a second mineralised corridor, that incorporates EL 9293, will be one of its highest ranked priorities for the 2004 calendar.

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## 1. INTRODUCTION

This report records exploration undertaken by Santexco Pty Ltd (Santexco) a wholly owned subsidiary of Giants Reef Mining Limited (Giants Reef) on Exploration Licence 9293 *Joker*, for its fifth year of tenure, from the 8 March 2003 to the 7 March 2004.

On 13 June 2001, Giants Reef Exploration Pty Ltd, a wholly owned subsidiary of Giants Reef Mining Limited, purchased all of the shares in Normandy Tennant Creek (NTC) from Normandy Consolidated Gold Holdings Pty Ltd, a subsidiary of Normandy Mining Limited. As a result of this, NTC is now a wholly owned subsidiary of Giants Reef and has had its name changed to Santexco Pty Ltd.

Targets are ironstone-related gold-copper deposits.

## 2. LOCATION AND ACCESS

Exploration Licence 9293 *Joker* is located approximately 15 km east southeast of Tennant Creek township on the Tennant Creek 1:100 000 scale map sheet (5758).

Access is via the sealed Peko and Nobles Nob roads and the gazetted Gosse River Road. Various dirt and gravel tracks extend from these roads to provide reasonable vehicle access. During and immediately after rain the area is generally inaccessible.

Figure 1 shows the Licence area and surrounding tenements.

## 3. TENURE

Exploration Licence 9293 consists of two graticular blocks (6.6 km<sup>2</sup>) and was granted to Normandy Tennant Creek Pty Ltd (now Santexco) on the 8<sup>th</sup> March 1999 for a period of six years.

The Licence falls on Inalienable Aboriginal Freehold land held by the Warrumungu Land Trust. An Agreement referred to as the Areas of Interest Deed for Exploration was signed by the Central Land Council (CLC), Traditional Landowners and NTC on the 9<sup>th</sup> December 1998. This agreement established land access for mineral exploration upon Warrumungu Land Trust areas, including EL 9293.

A waiver of reduction was granted at the end of the fourth tenure year.

## 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) give a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

More recently, the regional geology of the Tennant Inlier has been described in the 1:250,000 Tennant Creek geological map and its explanatory notes, published by the Northern Territory Geological Survey in 1999.

### 4.2 Local Geology

The geology in EL 9293 consists of scattered outcrops of weathered siltstone and greywacke of the Palaeoproterozoic Warramunga Formation, which probably underlies the non-outcrop areas of the EL. These areas are covered by recent soils, sands and alluvial material.

Figure 2. shows the licence area and regional geology.

## 5. WORK CARRIED OUT IN YEAR FIVE

### 5.1 Available Area

Approximately 50% of the north block of EL 9293 is held under Mineral Leases surrounding the Golden Kangaroo Mine. About 20% of the southern block is held under Mineral Leases surrounding the Nobles Nob Mine. The Mineral Leases on EL 9293 are all Giants Reef and subsidiary owned. In effect, only half of the area within the rectangular Licence boundary is available for exploration under EL 9293.

### 5.2 Targets and Concepts

EL 9293 was initially applied for on the 14 August 1995 by Poseidon Gold Limited (Poseidon). The Licence was applied for to cover the Nobles Nob Mine and associated magnetic anomalies within the Juno to Nobles Nob structural corridor.

Final granting of the Licence took over three years due to lengthy land access negotiations. Once the Areas of Interest Deed for Exploration was signed, access for mineral exploration upon Warrumungu Land Trust areas was established, and the Exploration Licence was subsequently granted.

Giants Reef view the Licence as highly prospective for ironstone-related gold-copper deposits due to the existence of favourable structural and geophysical targets and Warramunga host rocks, and because of its spatial relationship to the the high-grade Juno, Nobles Nob, Golden Forty and Peko Mines.

### 5.3 Literature Review and Data Compilation

Very little work had been undertaken within the Licence areas by past explorers since the discovery of the Nobles Nob West prospect in the late 1980's. Since the grant of the Licence, NTC did not complete any direct onground exploration over the Licence area.

In the third year of tenure Giants Reef assessed the detailed aeromagnetic data from NTC's 1998 survey and generated a subtle magnetic anomaly within the Licence area.

#### *Magnetic anomaly*

The detailed aeromagnetic data from NTC's 1998 survey show a distinct moderate intensity magnetic anomaly in the northern block of EL 9293. The anomaly is located approximately 1 km north of the Joker Mine, at AGD84 AMG co-ordinates 427400E 7822300N. The NTGS Tennant Creek 1:100,000 geology map shows this location to be an area of Warramunga Formation, but no ironstone outcrops are marked, so presumably the source of the magnetic anomaly does not have a surface expression.

As part of the Giants Reef evaluation and ranking study in Year 5, tenements within the Nobles Nob region, including EL 2993, underwent data validation and integration into the companies new exploration geological information system.

### 5.4 Work carried out on EL 9293 during Year 5

Work carried out on EL 9293 during Year 5 included an interpretation of the previously flown high quality magnetic and TDEM data and its incorporation into the companies exploration GIS. This analysis has enabled Giants Reef to define with greater confidence higher priority targets. These targets, which include a series of subtle magnetic anomalies coincident with a number of significant secondary structural corridors are considered highly prospective and Giants Reef plans to test these during the Year 6 period. In addition to this a number of geochemical anomalies have been identified from previous exploration and these will be similiary tested.

Figure 3 shows the magnetic image over the licence area

## 5.5 Tenement Review

An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities assessed the future exploration potential of EL 9293 and the prospects within the Licence.

Assessment of the Licence noted that the Licence is at an immature stage of exploration and still requires a great deal of geological assessment and compilation. However EL 9293 was found to display geological and geophysical suitability to host Au-Cu ironstone mineralisation.

Preliminary assessment of the geophysical anomaly within the Licence areas by Lindeman Geophysics, confirmed the structural significance of the Licence area within a zone potential fluid mobilisation. Lindeman postulated that the weak magnetic anomalies identified within the Licence area may represent haematite bodies as in the case of the Chariot Gold Mine. Giants Reef will consider the area for ground gravity surveys during Year 6.

The Licence was ranked as a moderate priority exploration target, and recommended for retention by Giants Reef.

## 6. REHABILITATION

No work that could cause substantial disturbance was conducted on EL 9293, so no environmental rehabilitation work was done during the reporting period.

## 7. CONCLUSIONS

Approximately 60% of the area within the Licence boundaries is available for exploration under EL 9293. The remainder of the area is covered by Mineral Leases surrounding either the Golden Kangaroo, Nobles Nob or Joker Mines.

Work carried out on EL 9293 during Year 5 included an interpretation of the previously flown high-quality magnetic and TDEM data and its incorporation into the companies exploration GIS. This analysis has enabled Giants Reef to define with greater confidence higher priority targets. These targets, which include a series of subtle magnetic anomalies coincident with a number of significant secondary structural corridors are considered highly prospective and Giants Reef plans to test these during the Year 6 period. In addition to this a number of geochemical anomalies have been identified from previous exploration and these will be similarly tested.

A review of the Joker Mine will be undertaken with the aim of assessing the down plunge resource potential and results of this will form the basis for planning and undertaking drill testing.

The development of Giants Reef's Chariot Deposit, the completion of extensive regional exploration in the the Chariot deposit corridor and resource definition drilling at the Cat's Whiskers prospect during the report period resulted in a postponement of drilling activities elsewhere in the company's tenements including EL 9293. However, Giants Reef has announced in its December Quarterly Report to the ASX that, as part of an accelerated exploration program, exploration within a second mineralised corridor, that incorporates EL 9293, will be one of its highest ranked priorities for the 2004 calendar.

## 8. EXPENDITURE FOR YEAR FOUR

The proposed expenditure for the fourth year of EL 9293 was \$3,500. Actual expenditure was as follows:

	\$
1. Geology .....	\$4,821.18
2. Geochemistry .....	\$0.00
3. Geophysics.....	\$0.00
4. Surveying .....	\$0.00
5. Data Integration.....	\$591.00
6. Drilling .....	\$0.00
7. Analytical .....	\$0.00
8. Administration .....	\$326.18
9. Tenement Management .....	\$0.00
10. Rehabilitation.....	\$0.00
<b>TOTAL</b>	<b>\$5,738.36</b>

## 9. PROPOSED PROGRAM AND EXPENDITURE FOR YEAR FIVE

	\$
1. Geology .....	500
2. Geochemistry .....	500
3. Geophysics.....	1,800
4. Surveying .....	0
5. Data Integration.....	100
6. Drilling .....	0
7. Analytical .....	0
8. Administration .....	200
9. Tenement Management .....	400
10. Rehabilitation.....	0
<b>TOTAL</b>	<b>\$3,500</b>

Expenditure for this work is expected to be in the vicinity of \$3,000. Exploration programs are affected by the results achieved as the work progresses, and while this is the proposed program and expenditure for the coming year, some changes may become necessary.

B J PARKER  
PROJECT GEOLOGIST



# GIANTS REEF MINING LIMITED

## ***HARD COPY REPORT META DATA FORM***

REPORT NAME:	EL 9293 <i>Joker</i> , COMBINED ANNUAL REPORT 8 <sup>TH</sup> MARCH 2003 - 7 <sup>TH</sup> MARCH 2004
PROSPECT NAMES(s):	JOKER
GROUP PROSPECT NAME:	
TENEMENT NUMBERS(s):	EL 9293
ANNIVERSARY DATE:	8 MARCH 2004
OWNER/JV PARTNERS:	SANTEXCO PTY LTD
AUTHOR(s):	B.J. PARKER
COMMODITIES:	GOLD, COPPER, BISMUTH
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	TENNANT CREEK 5758
MAPS 1:25 000:	
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s):	WARRAMUNGA FORMATION
AMF GENERAL TERMS:	
AMF TARGET MINERALS:	GOLD, COPPER
AMF GEOPHYSICAL:	
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	
HISTORIC MINES:	NOBLES NOB, JOKER, GOLDEN FORTY
DEPOSITS:	
PROSPECTS:	
KEYWORDS:	EL 9293, JOKER, NOBLES NOB, GOLDEN FORTY









