EXPLORATION LICENCE 22240

MORGAN

FOURTH ANNUAL REPORT
24 July 2004 - 23 July 2005

LICENSEE:
SANTEXCO PTY LTD
A.B.N. 520 029 102 96

AUTHORS:
B. J. PARKER
S.C. RUSSELL

August 2004
SUMMARY

Exploration Licence 22240 Morgan, covers a small portion of land in two strips north and west of two shallow but concealed mineralised ironstone bodies (the Malbec prospect) contained within the Mineral Claims C526, C527 and C528, located 1km west of the Chariot gold mine.

Targets are shallow haematite-ironstone related gold deposits.

This report records the exploration work done on EL 22240 during the fourth year of tenure, from the 24th July 2004 to the 23rd July 2005.

No obvious magnetic targets exist within EL 22240. Giants Reef noted that limited gravity data exists over the tenure and concluded that the potential for new non magnetic haematite-hosted discoveries within the Licence are possible.

A regional gravity survey was conducted over EL 22240 and surrounding tenure in 2003. Interpretation of the gravity data identified two low-order residual gravity anomalies that were tested this year by shallow RAB drilling. Results were disappointing with both the gravity anomalies potentially explained by denser pisolitic gravel located within the first 1-3m of the all drill holes. There was no magnetic anomalism to support the gravity response.

In terms of explaining the gravity anomaly (density contrast) it was a good result and adds to GRM’s growing understanding and expertise in relation to interpretation and ranking of these often subtle and weak gravity anomalies.

Exploration will continue within EL 22240, primarily to identify strike extensions to the Malbec West mineralisation. Geophysical interpretation of the Year 3 gravity survey data by the Giants Reef’s Geophysicist continues including refined and reprocessing of the original data. No shallow gravity targets remain to be drill tested.
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1. Location and Surrounding Tenements
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1. MARB067 – MARB072 Micromine Drilling Database.
1. INTRODUCTION

Exploration Licence 22240 Morgan, covers a small portion of land in two strips north and west of two shallow but concealed mineralised ironstone bodies (the Malbec and Malbec West prospects) contained within the Mineral Claims C526, C527 and C528, located 1km west of the Chariot gold mine.

Targets are shallow haematite-ironstone related gold deposits.

This report records the exploration work done on EL 22240 during the fourth year of tenure, from the 24th July 2004 to the 23rd July 2005.

2. LOCATION

EL 22240 is centred approximately 11km west of Tennant Creek Township, on the Tennant Creek 1:100,000 scale map sheet (5758).

Access to the Licence area from Tennant Creek is via Udall Road to Giants Reef Exploration Pty Ltd (Giants Reef) TC8 mine, through the TC8 mine compound and over the Darwin to Alice Springs rail line, on to the all-weather unsealed Chariot gold mine Haul Road. This road extends west from TC8 for approximately 5km to the Chariot gold mine site and continues another 1.5km, past the Malbec West gold mine to the Licence area.

Figure 1 shows the Licence area, surrounding tenements and major infrastructure.

3. TENURE

Exploration Licence 22240 Morgan, was granted to Normandy Tennant Creek Pty Ltd (NTC) on the 24th July 2001 for a period of six years. The Licence covers an area of 1 part graticular block (3.22km$^2$).

In June 2001, Giants Reef Mining Limited purchased NTC and all its assets, including EL 22240. After the purchase, NTC was re-named Santexco Pty Ltd (Santexco), and is now a wholly-owned subsidiary of Giants Reef Mining Limited.

The Licence lies within Perpetual Pastoral Lease 1142 (Tennant Creek Station) and comes under the terms of an Indigenous Land Use Agreement (ILUA) entered into between Giants Reef Exploration Pty Ltd and the Central Land Council (CLC), in September 2000.

Until January 2003, EL 22240 formed part of the Central Joint Venture 2 (CJV2), which covered the Chariot gold deposit and a number of other tenements in the Tennant Creek goldfield. The Joint Venture was between Giants Reef, (managers, holding 57% equity), Sons of Gwalia (replacing PacMin; 33%) and Newmont NFM (formerly Normandy NFM; 10%). Giants Reef purchased Sons of Gwalia’s Joint Venture assets (43%) and became the sole owner of the CJV2 project, including EL 22240. On the eastern margin on the EL lies part of the Chariot Mine Lease ML C176, which also came under the CJV2.

Within the central section of the Licence area there are three Mineral Claims (MC C526, C527 and C528), collectively referred to as Malbec Claims. Until January 2003, the Claims were subject to the Central Joint Venture 1 (CJV1) covering these three Claims and a number of other tenements in the Tennant Creek goldfield. This Joint Venture was between Giants Reef (managers, holding 57% equity), Sons of Gwalia Ltd (replacing PacMin; 33%) and Newmont NFM (formerly Normandy NFM; 10%). Giants Reef purchased Sons of Gwalia’s Joint Venture assets (43%) and became the sole owner of the CJV1 tenements.
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 regional geology and styles of gold-copper mineralisation of the area. A more recent reference is the 1998 Northern Territory Geological Survey second edition geological map and explanatory notes on the Tennant Creek 1:250,000 sheet, which include a revised stratigraphy.

4.2 Local Geology

There are no outcrops of Proterozoic basement rocks in EL 22240, which is blanketed by a layer of colluvium, outwash and aeolian sand up to seven metres thick.

The Palaeoproterozoic Warramunga Formation is assumed to underlie all of the Licence area. This formation is host to virtually all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield. The Chariot and TC8 deposits are typical occurrences of this type in the area. The Chariot gold deposit is hosted by haematite dominated ironstone which is quite unique to the Tennant Creek goldfield.

In January 2004 Giants Reef announced the discovery of economic gold mineralisation within Malbec Mineral Claims C527-C528. Subsequent exploration and definition drilling delineated a shallow oxide gold resource containing 15-20,000 oz Au. Gold mineralisation occurs within a haematite dominant ironstone and proximal altered Warramunga Formation sediments, not dissimilar to the Chariot style of mineralisation. This mineralisation was called Malbec West. Giants Reef commenced mining of the Malbec West gold mineralisation in September 2004 with completion in late December 2004. The deposit produced 38,890 tonnes at 18.1 g/t Au for 20,584 oz Au.

5. WORK COMPLETED DURING THE YEAR

5.1 Exploration Concepts

5.1.1 Traditional Tennant Creek-type Ironstone hosted Au-Cu-Bi Orebodies

The close association with of Tennant Creek ironstones to host Au-Cu-Bi orebodies has enabled the use of magnetic surveys to locate concealed magnetite-rich ironstones. Some of the earliest mineral exploration aeromagnetic surveys in Australia were conducted in the Tennant Creek region, and to this day, magnetics has been the most important exploration tool.

The magnetic exploration technique traditionally used has assumed that mineralisation was intimately associated with magnetite-dominant ironstones, which is supported by the number of high grade orebodies discovered with this tool. Successful examples include Warrego (6.75Mt @ 7.6g/t Au, and 1.9% Cu), Juno (0.45Mt @ 56g/t Au) and Gecko (2.7Mt @ 1.1g/t Au and 4.3% Cu).

Numerous local and regional magnetic surveys have been completed over the Tennant Creek goldfield, primarily targeting ironstone masses within Warramunga Formation host-rock. Using these surveys, magnetic anomalies in structurally prospective trends have been identified and further explored.

5.1.2 Tennant Creek-type Haematite hosted Au-Cu-Bi Orebodies

The discovery of the non-magnetic, haematite-rich Chariot deposit in 1998 has resulted in a broader exploration model that allows for the presence of extensive ore grade mineralisation hosted within primary, non-magnetic (haematite-rich) ironstones. Discoveries by Giants Reef of high grade mineralisation associated with haematite dominant ironstone at Marathon, Billy Boy and more recently Malbec West, although small, are further examples of this style of mineralisation.
Exploration for non-magnetic haematite ironstones are best identified using gravity surveys to identify dense rocks within Warramunga Formation sediments. At present there are no gravity maps for the Tennant Creek goldfield considered detailed enough to identify haematite targets.

As an exploration tool, the gravity method would appear to be the obvious way to proceed, but the use of this technique in the same manner as magnetics is prohibitive, principally because of its cost. At present, with the exception of airborne gravity gradiometry, there is no technique available to identify (cost effectively), the relatively small bodies of haematite that could contain economic mineralisation. As, essentially the total Warramunga Formation is a potential to host gold-rich ironstone bodies, magnetic and non-magnetic, selective areas for haematite mineralisation require targeting for which gravity surveying is required.

The potential for the haematite ironstones to host mineralisation in non-magnetic areas essentially opens up the whole Tennant Creek goldfield to new target review. Further target rationalisation would best be proceeded in areas where there is a coincident gravity and magnetic anomalism.

5.2 Mine Management Plan

Giants Reef submitted an Updated Mining Management Plan in July 2004, detailing all aspects of Giants Reef’s plans to explore along the Chariot Mineralised Corridor including areas within EL 22240. The plan was subsequently approved by the Department of Business, Industry & Resource Development (DBIRD) and re-issued under Authorisation 0179-02.

Pursuant to condition 4 of the Authorisation, an additional security of $1,250 was lodged with DBIRD increasing the security payment to $7,250. This security covered all the tenements included within the West TC8 Project Area MMP, of which includes EL 22240. Release of the $7,250 security is conditional upon Giants Reef’s compliance with the activities and commitments contained in the accepted plan (Authorisation 0179-02).

5.3 CLC Work Proposal and Clearance

Under the terms of Giants Reef’s ILUA Agreement with the Native Title holders of the Tennant Creek region, it was necessary to obtain clearances from the Native Title holders before the field party for the planned RAB drilling could enter the area. A work program was submitted to the CLC which outlined the work Giants Reef proposed to undertake over EL 22240 in October 2004.

A site clearance for the proposed drill holes within the West TC8 Project Area, including EL 22240 was conducted in September 2004. This involved a day trip by 4x4 vehicles to the proposed drill sites and tracks. A CLC representative and a number of Traditional Owners were directed to the sites by Giants Reef’s Senior Geologist for inspection.

The CLC representing the Traditional Aboriginal Owners of the land approved the proposed drilling activities ion 28 September 2004. One proviso was that all mature trees of any species must be protected, and stands or groups of trees must be protected.

5.4 RAB Drilling

Six Rotary Air Blast (RAB) holes were drilled within EL 22240 targeting weak, low-order gravity anomalies (MARB069 – MARB072) for a total of 126m. The drill contractor was Bostech Drilling Services of Western Australia. Collar positions are marked on Figure 2.

Samples were collected were placed directly from the drill rig cyclone in metre intervals onto the ground. 3-metre speared, composite samples were collected and sent to North Australian
Laboratories (NAL), Tennant Creek for analysis. Samples were assayed for Au, Fe, Cu and Bi using FA50 and mixed-acid digest respectively. A low-grade standard was added at the end of each drill hole for analysis, to monitor quality control of laboratory results.

No anomalous intervals (>0.1 ppm Au), were returned from this drilling.

Geological logging was completed on site, using an IPaq palmtop computer and downloaded in the evenings. Downloaded geology data was then validated and printed out as separate log sheets and then loaded into a Micromine database, along with collar, survey and assay data (Appendix 1).

The drilling statistics for drilling completed within EL 22240 are as follows:

<table>
<thead>
<tr>
<th>Hole No</th>
<th>Easting (GDA)</th>
<th>Northing (GDA)</th>
<th>Dip (deg)</th>
<th>Azi (deg)</th>
<th>Depth (m)</th>
<th>Date Drilled</th>
<th>Tenure</th>
</tr>
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<tbody>
<tr>
<td>MARB067</td>
<td>404185.00</td>
<td>7826880.00</td>
<td>-60</td>
<td>178</td>
<td>21</td>
<td>9/11/2004</td>
<td>EL 22240</td>
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<td>MARB068</td>
<td>404310.00</td>
<td>7826880.00</td>
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<td>21</td>
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<td>MARB069</td>
<td>404055.00</td>
<td>7826800.00</td>
<td>-60</td>
<td>178</td>
<td>21</td>
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<td>EL 22240</td>
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<td>MARB070</td>
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<td>7826820.00</td>
<td>-60</td>
<td>178</td>
<td>21</td>
<td>12/09/2004</td>
<td>EL 22240</td>
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<td>MARB071</td>
<td>404055.00</td>
<td>7826840.00</td>
<td>-60</td>
<td>178</td>
<td>21</td>
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<td>-60</td>
<td>178</td>
<td>21</td>
<td>12/09/2004</td>
<td>EL 22240</td>
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</table>

TOTAL 126m

Drilling intersected Warramunga Formation sediments, typically sandstone and siltstone. No alteration was seen and no ironstone was intersected. Results were considered disappointing.

5.5 Future Exploration Focus for EL 22240

Exploration will continue within EL 22240, primarily to identify strike extensions to the Malbec West mineralisation. Geophysical interpretation of the Year 3 gravity survey data by the Giants Reef's Geophysicist continues including refined and reprocessing of the original data. No shallow gravity targets remain to be drill tested.

6. REHABILITATION

On ground exploration work over EL 22240 in the fourth tenure year consisted primarily of RAB drilling. All drill hole sites were rehabilitated one month after the completion of the drilling program and prior to the wet season. This rehabilitation work included the collection and removal of all "drilling rubbish" and cement "flower pot" plugging of each hole. A wooden picket with an aluminium tag next to each collar identifies the hole and number.

Inspection and drill hole rehabilitation audits for all exploration sites within the West TC8 Project Area including EL 22240 has now been completed under the terms of the Mining Management Plan 0179-02. Giants Reef considers the drill site rehabilitation to be of the high standard.
7. CONCLUSIONS

Exploration Licence 22240 covers only a small area of land, filling a narrow gap between the three Malbec Claims and nearby (Santexco) EL's to the west and to the north. The Malbec Claims (MC C526-C528) are partially located within the EL on the north western margin. On the eastern margin on the EL lies part of the Chariot Mine Lease ML C176.

No obvious magnetic targets exist within EL 22240. Giants Reef noted that limited gravity data exists over the tenure and concluded that the potential for new non magnetic haematite-hosted discoveries within the Licence are possible.

A regional gravity survey was conducted over EL 22240 and surrounding tenure in 2003. Interpretation of the gravity data identified two low-order residual gravity anomalies that were tested this year by shallow RAB drilling. Results were disappointing with both the gravity anomalies potentially explained by denser pisolithic gravel located within the first 1-3m of the all drill holes. There was no magnetic anomalism to support the gravity response.

In terms of explaining the gravity anomaly (density contrast) it was a good result and adds to GRM's growing understanding and expertise in relation to interpretation and ranking of these often subtle and weak gravity anomalies.

Exploration will continue within EL 22240, primarily to identify strike extensions to the Malbec West mineralisation. Geophysical interpretation of the Year 3 gravity survey data by the Giants Reef's Geophysicist continues including refined and reprocessing of the original data. No shallow gravity targets remain to be drill tested.
8. EXPENDITURE

The proposed expenditure for the fourth year of tenure was $4,900. Actual expenditure was as follows:

<table>
<thead>
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<th>Item</th>
<th>Expenditure ($USD)</th>
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<tbody>
<tr>
<td>1. Geology</td>
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<td>2. Geophysics</td>
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<tr>
<td>3. Geochemistry</td>
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<td>4. Surveying</td>
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<td>5. Data integration</td>
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<td>6. Analytical</td>
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<tr>
<td>7. Drilling</td>
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<td>8. Tenure maintenance</td>
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<td>9. Administration and overheads</td>
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<tr>
<td>10. Rehabilitation</td>
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**TOTAL** 13,924

Total expenditure for the fourth tenure year amounted to approximately $13,924.

9. PROPOSED PROGRAM AND EXPENDITURE FOR YEAR FIVE

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<tr>
<td>2. Geophysics</td>
<td>300</td>
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<td>3. Geochemistry</td>
<td>800</td>
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<tr>
<td>4. Surveying</td>
<td>0</td>
</tr>
<tr>
<td>5. Data integration</td>
<td>300</td>
</tr>
<tr>
<td>6. Analytical</td>
<td>0</td>
</tr>
<tr>
<td>7. Drilling (RAB)</td>
<td>2,000</td>
</tr>
<tr>
<td>8. Tenure maintenance</td>
<td>500</td>
</tr>
<tr>
<td>9. Administration and overheads</td>
<td>200</td>
</tr>
<tr>
<td>10. Rehabilitation</td>
<td>150</td>
</tr>
</tbody>
</table>

**TOTAL** 5,250

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        S.C.RUSSELL
REGIONAL EXPLORATION GEOLOGIST    SENIOR EXPLORATION GEOLOGIST
SANTEXCO PTY LTD
Location of EL 22240 and Surrounding Tenure

Author: GRM
Date: August 2005
Drawn: DMC
Report No.: Figure 1

Projection: GDA94
Scale: 1:75,000

- Perpetual Pastoral Lease
- Aboriginal Freehold Land
- Special Purpose Lease
- Crown Land Perpetual

Scale: 1:75,000

Kilometers

TENNANT CREEK

CHARIOT

EL22240

GIANTS REEF MINING LIMITED

Perpetual Pastoral Lease
Aboriginal Freehold Land
Special Purpose Lease
Crown Land Perpetual

NORTHERN TERRITORY LOCALITY MAP

ELDORADO

Projection: GDA94
Scale: 1:75,000

Perpetual Pastoral Lease
Aboriginal Freehold Land
Special Purpose Lease
Crown Land Perpetual
REPORT NAME: EL 22240 Morgan
PROSPECT NAMES(s): MORGAN
GROUP PROSPECT NAME: WEST TC8 PROJECT AREA
TENEMENT NUMBERS(s): EL 22240
ANNIVERSARY DATE: 24th JULY 2005
OWNER/JV PARTNERS: SANTEXCO PTY LTD
AUTHOR(s): B.J. PARKER S.C.RUSSELL
COMMODITIES: GOLD
MAPS 1:250 000: TENNANT CREEK SE53-14
MAPS 1:100 000: TENNANT CREEK 5658
MAPS 1:25 000
TECTONIC UNIT(s): TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s) WARRAMUNGA FORMATION
AMF GENERAL TERMS:
AMF TARGET MINERALS: GOLD, BISUMITH
AMF GEOPHYSICAL: GRAVITY ANOMALY & REGIONAL SURVEY, GRAVITY INTERPRETATION, GEOPHYSICAL MODELLING
AMF GEOCHEMICAL:
AMF DRILL SAMPLING: RAB DRILLING, MARB067 – MARB072
HISTORIC MINES: THE EXTENSION, TC8,
DEPOSITS: CHARIOT, WEST MALBEC
PROSPECTS: WEST MALBEC
KEYWORDS: EL 22240, MORGAN, CHARIOT MINE, WEST TC8 PROJECT AREA GRAVITY ORIENTATION AND REGIONAL SURVEY, GRAVITY INTERPRETATION, GEOPHYSICAL MODELLING, MARB067-MARB072.