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GRAND CENTRAL

FINAL REPORT

2 January 1993 – 1 January 2003

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

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SUMMARY

This report details the exploration work carried out on Mineral Claims C1097 - C1110 Grand Central, during their ten years of tenure until their expiry on the 1st January 2003. They have been the subject of two different exploration agreements with other companies. The first was Carpentaria Gold Pty Ltd (1995-1996) and the second was Normandy Tennant Creek Pty Ltd (1998-2000).

Targets were Tennant Creek-style magnetite ironstone associated gold and copper ore bodies.

Work carried out over the Mineral Claims C1097 to C1110 during their ten years of tenure included gridding, gravity and magnetics surveys, vacuum, reverse circulation and diamond drilling, aerial photography, assessment and review.

RC and diamond drilling of a coincident magnetic and gravity anomaly identified dolerite bodies, which would explain the elevated copper and iron values noted in an earlier vacuum drill program. No further target areas were identified in Mineral Claims C1097 to C1110.

Given the low prospectivity of the Mineral Claims area, combined with Giants Reef’s initiative to reduce the amount of Mineral Claims and Leases held by the company, Giants Reef decided to allow the Mineral claims to expire at the end of their second term of tenure on the 1st January 2003.

On expiry, Mineral Claims C1097 to C1110 will be subsumed by Giants Reef’s wholly owned Exploration Licence’s 10017 Stoney Dam and 23073 Pump Station.
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FIGURES

1. Location and Surrounding Tenements
2. Mineral Claim Area
1. INTRODUCTION

This report details the exploration work carried out on Mineral Claims C1097 - C1110 Grand Central, during their ten years of tenure until their expiry on the 1st January 2003. They have been the subject of two different exploration agreements with other companies. The first was Carpentaria Gold Pty Ltd (1995-1996) and the second was Normandy Tennant Creek Pty Ltd (1998-2000).

Targets were Tennant Creek-style magnetite ironstone associated gold and copper ore bodies.

2. LOCATION

Mineral Claims C1097 - C1110, Grand Central, are located approximately 40km north-west of Tennant Creek town, on the Short Range 1:100 000 scale map sheet (5659).

Access is from the sealed road to Warrego, from which several dirt tracks turn off into the claims area.

Figure 1 shows the Mineral Claims and surrounding tenements.

3. TENURE

Mineral Claims C1097 - C1110, each of 40 hectares, covering 560 hectares in total, were granted to Giants Reef Exploration Pty Ltd (Giants Reef) on the 2nd January 1993 for a term of five years, expiring on the 1st January 1998.

Renewal of the claims was granted for a further period of five years, ending 1st January 2003.

In July 1995 a farm-in agreement was entered into with Carpentaria Gold Pty Ltd, a wholly-owned subsidiary of MIM Holdings Limited (MIM). Under the agreement, MIM undertook to explore the Mineral Claims C1097 - C1110 as part of a much larger contiguous area of tenements held by Giants Reef.

In October 1996, Carpentaria Gold Pty Ltd withdrew from the joint venture.

Later, the Mineral Claims became subject to the Grand Central Joint Venture Agreement between Giants Reef Exploration Pty Ltd and Normandy Tennant Creek Pty Ltd (NTC), which commenced on the 21st January 1998 with NTC as manager and operator.

In June 2001, Giants Reef Mining Limited purchased Normandy Tennant Creek Pty Ltd and all its assets. After the purchase, NTC was re-named Santexco Pty Ltd, and is now a wholly-owned subsidiary of Giants Reef. This purchase brought the Grand Central Joint Venture Agreement to a close.

The claims are within NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek Station.

In September 2000, Mineral Claims C1097 - C1110 became subject to an Indigenous Land Use Agreement (ILUA), signed between Giants Reef, the Native Titleholders of the Tennant Creek region and the Central Land Council. A large number of other tenements and EL applications in the region are also subject to the ILUA. These are all on the Tennant Creek and Phillip Creek Pastoral Leases.


Figure 2 shows the area of the Mineral Claims.
4. GEOLOGY

4.1 Regional Geology

The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861, to gain a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

4.2 Local Geology

The claims are underlain by the Early Proterozoic Flynn Sub-group, consisting mainly of felsic volcanics and volcaniclastic sediments, with greywackes, siltstones, mudstones and shales. Outcrop is limited. The westerly extension of the major regional Quartz Hill Fault runs through the claims block in a northwesterly direction. A strong aeromagnetic anomaly with a northwesterly trend is located centrally within the claims block.

5. WORK DONE DURING THE TERM

Mineral Claims C1097 - C1110 were part of the Great Western Project which originally consisted of Exploration Licences 7465, 7686, 7688 7807 and 7901, together with numerous other Mineral Claims held by Giants Reef in the Orlando-Warrego-White Devil area of the Tennant Creek goldfield. These licences were extinguished in December 1995 upon the grant of SEL 9214.

5.1 YEAR 1 – 1993

5.1.1 Gridding

A total of 9.6 line kilometres were gridded on north-south lines at 100m spacings over Mineral Claims C1097 - C1110. Clearing was done with a front-end loader, lightly scraping the surface so as to allow rapid regeneration of the vegetation.

The lines were gridded using an EDM and topofil. Stations at 100m intervals were marked with white-topped wooded dumpy pegs with their AMG co-ordinates inscribed on stapled aluminium tags. The intermediate stations at 25m intervals were marked with wire pin-markers.

5.1.2 Airborne geophysical survey

An airborne magnetic and radiometric survey was flown over the claims as part of a wider survey covering a larger area of adjacent tenements held by Giants Reef at the time.

The key parameters of the survey were:

- **Contractor:** Austirex International Limited (Job No. 2150)
- **Flight lines:** Traverse lines 80m apart, bearing 180 and 360 degrees AMG
- **Mean terrain clearance:** 60m
- **Magnetometer:** Split beam cesium Scintrex V2321
- **Resolution:** 0.001 nanotesla
- **Cycle rate:** 0.1 seconds
- **Sample interval:** 6.0 metres
- **Navigation:** Syledis UHF radio
5.1.3 Gravity Survey
Eight lines selected for the gravity survey (lines 88200E to 88900E, from 53800N to 55200N) in the area of the strong magnetic anomaly were optically levelled, and gravity readings made at 50m spacings along the grid lines. The survey, totalling 7km over 280 stations was conducted by contractor P W Youngs, using a La Coste Romberg Model G7 instrument.

The object of the survey was to locate relatively dense rock masses, which may be concealed ironstone bodies, and might also be the cause of the major magnetic anomaly.

The gravity contours displayed a northwest-trending "ridge" in the central part of the area surveyed. This feature coincided with the trend observed in the airborne magnetics of the area. A regional gradient, from high in the northeast to lower in the southwest was also interpreted.

5.1.4 Vacuum Drill Geochemistry
A vacuum drilling program to geochemically test the bedrock for anomalous gold and/or copper and bismuth was undertaken over the gravity grid. The contractor was Jackson's Vacuum Drilling of Tennant Creek.

Vacuum drilling was carried out over a slightly larger area than the gravity survey. The boundaries were 88000E to 89000E, and 53800N to 55200N. Much of the central part of the vacuum drilling area was drilled at 100m x 25m spacings, widening to 100m x 50m spacings in the westerly and peripheral area. A total of 2,240.8m was drilled, covering 454 vacuum holes.

Soil and transported cover was thin, and bedrock was reached in almost all the holes.

Gold assays were generally subdued, all below 3ppb and mostly below the level of detection, apart from a single point reading (8800E, 54625N) of 530ppb Au. This closely coincided with the equal highest bismuth assay of 15ppb on the same line at 54600N. Only 10 of the bismuth assays were above 1ppm. Both the bismuth and copper show a clear coincident belt of low order values extending to the west of the above points, to line 88200E. The highest copper values along this trend are 90, 105, 120 and 120 ppm.

Areas of low iron enrichment were noted in the samples, but there was no clear indication as to whether the bedrock in the central grid area was haematitic sediments or a basic intrusive.

The vacuum drill logs and assays were included in full in the First Annual Report to June 1994 on EL 7901.

5.1.5 Geophysical Review
Interpretation of the accumulated data was carried out by consultant geophysicist, L Farrar, to determine future drill targets.

5.2 YEAR 2 - 1994

5.2.1 Percussion and Diamond Drilling
Three reverse circulation angled percussion holes, 1GCRC, 2GCRC and 3GCCD, totalling 341m, were drilled along line 88800E to test the vacuum drill geochemical anomalies at depth. Diamond hole 4GCD and RC percussion hole, 5GCRC, were drilled in a different part of the grid, about 300m to the west, to test the coincident gravity and magnetic anomaly. The drilling contractor was Gaden Drilling Pty Limited of Batchelor, using a Warman 650 convertible rig.

Key drillhole statistics were:
Diamond hole 4GCD had a percussion pre-collar to 22m. The first attempt at a pre-collar for 4GCD wandered off line and had to be aborted at 34m. The 3 percussion holes on line 88800E did not intersect any mineralisation. Holes 1 and 3 were drilled to cross each other, as there was no surface outcrop or other information to indicate the attitude of any mineralised target. Copper assays in the low hundreds of ppm in the top of hole 1GCRC suggest that a doleritic rock may have been intersected here, but not recognised in the very weathered and powdered samples.

Hole 4GCD drilled weathered metasediments to 32m, then entered a doleritic intrusion and remained in this rock for 144m until intersection metasediments again from 176m, before the hole was stopped at 200.72m. Selected intervals of the core were saw-cut and assayed. The dolerite showed slightly elevated copper values (maximum 380 ppm Cu) as would be expected in this rock type, and higher iron contents than the metasediments, but the other elements assayed did not register any significant levels.

The dolerite in hole 4GCD was seen as a likely cause of the magnetic and gravity anomaly. Therefore it was decided that the last hole, 5GCRC, which had been planned as a diamond core hole, would be percussion-drilled, considering that its collar was only about 30m from 4GCD and the same rock type could be expected. Dolerite was intersected in 5GCRC from 16m to the end of the hole at 118m. Elevated copper values were again noted, with a peak value of 440ppm Cu, but the other elements were not anomalous.

PVC piping of 50mm diameter was run the full length of 4GCD, in preparation for future down-hole magnetic logging.

5.3 YEAR 3 - 1995

In July 1995 a farm-in agreement was entered into with Carpentaria Gold Pty Ltd, a wholly-owned subsidiary of MIM Holdings Limited. Under the agreement, MIM undertook to explore Mineral Claims C1097 to C1110 as part of a much larger contiguous area of tenements held by Giants Reef.

5.3.1 Aerial Photography

Coloured 1:25 000 scale aerial photography was flown by Qasco in August 1995, over the joint venture area, including Mineral Claims C1097 to C1110.

5.3.2 Target Generation

The claims block was included in an extensive regional assessment by MIM using detailed aeromagnetic data, structural interpretation from available maps and geological reconnaissance.
5.4 YEAR 4 - 1996
Extensive data reviews by MIM continued. In October 1996, Carpentaria Gold Pty Ltd withdrew from the joint venture.

5.5 YEAR 5 - 1997
5.5.1 Joint Venture Review
A review of the data received from MIM on the work carried out by them during the joint venture period was undertaken by Giants Reef. Joint venture negotiations were entered into with Normandy Gold Limited and an the Grand Central Agreement was signed under which Giants Reef and Normandy entered into a joint venture over the Great Western claims and an extensive surrounding area.

5.5.2 Notification of Railway Corridor
Pursuant to Section 181 of the Mining Act the Minister for Mines and Energy authorised the railway constructing authority, and the operating consorium, to construct, maintain and use the railway over a number of Giants Reef tenements including Mineral Claims C1097 to C1110.

A construction corridor was surveyed at approximately 100m wide for the Darwin to Alice Springs Rail link.

Giants Reef was informed by the Department of Mines and Energy (DME) of the titles affected by the construction corridor, including C1097 to C1110. The implications were that the DME were required to carefully monitor and control exploration and mining activities in the corridor.

Mineral Claims C1097 to C1110 completely fall within the railway corridor and the railway line cuts through the claim block, Figure 3.

A full account of all exploration work conducted over the Mineral Claims C1097 to C1110 and surrounding tenements during the first to fifth years of tenure (1993-1997) including geophysical survey data, drillhole location, data and assay results, can be found in the report by Giants Reef entitled, “Mineral Claims C1097 to C1110 Grand Central, First Renewal Report, January 1993 to November 1997,” Author P G. Simpson, (November, 1997).

5.6 YEAR 6 – 1998
5.6.1 Aeromagnetic Survey
A detailed aeromagnetic and radiometric survey over a wide tract of country including the Warrego, White Devil, Orlando and Gecko mines, was undertaken by Kevron Geophysics Pty Ltd. This survey covered Mineral Claims C1097 to C1110, a small part of a survey that covered a large east-west strip of roughly 60km over the southern part of the Tennant Creek goldfield.

Key parameters of the survey were as follows

- Flight line direction: north-south.
- Flight line spacing: 50m.
- Sensor height: 40m above ground surface.
- In-line sampling intervals: 7m for magnetics and 140m for radiometrics.

A full account of all exploration work conducted over the Mineral Claims C1097 to C1110 and surrounding tenements during the sixth year of tenure can be found in the report by Normandy entitled...

5.7 YEAR 7 – 1999

A review of available magnetic and drilling data over the Grand Central JV leases was undertaken by Normandy.

A full account of all exploration work conducted over the Mineral Claims C1097 to C1110 and surrounding tenements during the seventh year of tenure can be found in the report by Normandy entitled “Annual Report for MCC’s 1046, 1097-1110, 1219-1239 & 1277-1326 for the year ending 20 November 1999: Grand Central JV Reporting Group,” Author V. Orton, (December, 1999).

5.6 YEAR 8 – 2000

No on-ground exploration was carried out during the sixth tenure year by Normandy. A thorough analysis of the available data was performed and the prospectivity of the area was prioritised.

5.6.1 Indigenous Land Use Agreement

In September 2000, the Mineral Claims C1097 to C1110 became subject to an Indigenous Land Use Agreement (ILUA), signed between Giants Reef, the Native Titleholders of the Tennant Creek region and the Central Land Council. A large number of other tenements and EL applications in the region are also subject to the ILUA. These are all on the Tennant Creek and Phillip Creek Pastoral Leases.

The ILUA provides for 25 years of continuity of tenure, and covers any present or future exploration or mining tenement applications and development within the above pastoral leases.

A full account of all exploration work conducted over the Mineral Claims C1097 to C1110 and surrounding tenements during the eighth year of tenure can be found in the report by Normandy entitled “Annual Report for MCC’s 1046, 1097-1110, 1219-1239 & 1277-1326 for the year ending 20 November 2000: Grand Central JV Reporting Group” Author V. Orton, (December, 2000).

5.7 YEAR 9 – 2001

In June 2001, Giants Reef Mining Limited purchased Normandy Tennant Creek Pty Ltd and all its assets. After the purchase, NTC was re-named Santexco Pty Ltd, and is now a wholly-owned subsidiary of Giants Reef Mining Limited. This purchase brought the Grand Central Joint Venture Agreement to a close.

Work completed by Giants Reef over Mineral Claims C1097 to C1110 during the seventh year of tenure included a brief appraisal of previous work completed over the Claims and JV leases. No physical exploration was undertaken over the Claims.

5.8 YEAR 10 – 2002

510.1 Tenement Review

An internal review of the Giants Reefs tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of the Mineral Claims C1097 to C1110. The review ranked the Mineral Claims C1097 to C1110 as an area of limited exploration potential. This assessment was based on the criteria that the Mineral Claims had a history of exploration with no real encouragement.

Recommendations from the review suggested that the Claims be allowed to expire at the end of their second tenure period on the 31st December 2002.
On expiry, Mineral Claims C1097 to C1110 will be subsumed by Giants Reef Exploration Limited wholly owned Exploration Licence 10017 Stoney Dam and Exploration Licence 23073 Pump Station.

6. REHABILITATION

All line clearing carried out was done with a front-end loader with the bucket lightly skimming the surface to leave the rootstock intact and ready to regenerate.

The vacuum holes were filled, capped and covered over, and the diamond and RAB holes capped shortly after the completion of the drill program in 1994. Sample bags were removed and the sites tidied with a front-end loader.

No further substantial disturbance activities were undertaken on over the Mineral Claims C1097 to C1110 and the area was left to vegetate naturally.

7. CONCLUSIONS

Mineral Claims C1097 to C1110 Grand Central have been the subject of two different exploration agreements with other companies. The first was Carpentaria Gold Pty Ltd (1995-1996) and the second was Normandy Tennant Creek Pty Ltd (1998-2000).

Work carried out over the Mineral Claims C1097 to C1110 during their ten years of tenure included gridding, gravity and magnetics surveys, vacuum, reverse circulation and diamond drilling, aerial photography, assessment and review.

RC and diamond drilling of a coincident magnetic and gravity anomaly identified dolerite bodies, which would explain the elevated copper and iron values noted in an earlier vacuum drill program. No further target areas were identified in Mineral Claims C1097 to C1110.

Given the low prospectivity of the Mineral Claims area, combined with Giants Reef’s initiative to reduce the amount of Mineral Claims and Leases held by the company, Giants Reef decided to allow the Mineral Claims to expire at the end of their second term of tenure on the 1st January 2003.

On expiry, Mineral Claims C1097 to C1110 will be subsumed by Giants Reef’s wholly owned Exploration Licence’s 10017 Stoney Dam and 23073 Pump Station.
MCC1097-1110
(1 - 14)
40ha each

Black Angel
NTS178

ENLARGEMENT
90°
500m

0°
800m
800m
180°

500m
270°

Note: All tenements are identical

NOT TO SCALE