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MINERAL CLAIM C95

NOBLES NOB 7300 WEST

FINAL REPORT

3 January 1984 to 31 December 2001

LICENSEE:
SANTEXCO PTY LTD

Formerly

NORMANDY TENNANT CREEK PTY LTD
A.C.N. 002 910 296

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Giants Reef Exploration Pty Ltd
Giants Reef Mining Limited

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SE53-14
TENNANT CREEK 1:250 000
5758
TENNANT CREEK 1:100 000

SUMMARY

Mineral Claim C95 *Nobles Nob 7300 West* was located approximately 15 km southeast of the Tennant Creek township, on the Tennant Creek 1:100 000 map sheet (5758). Access from Tennant Creek is along the Gosse River road. The area is easily accessible by four wheel drive vehicle. There are a number of small mines and prospects within a five kilometre radius of the claim, including the Red Terror, Tunnel, Black Boy and the Joker.

The Claim was originally granted on 3rd January 1984 to Strata Resources NL for 10 years. In December 1986 the title was transferred to Anthappi Pty Limited (a Normandy subsidiary). Title was again transferred in July 1999, to Normandy Tennant Creek Pty Ltd (NTC).

On 13th June 2001, Giants Reef Exploration Pty Ltd, a wholly-owned subsidiary of Giants Reef Mining Limited, purchased all of the shares in NTC from Normandy Consolidated Gold Holdings Pty Ltd, a subsidiary of Normandy Mining Limited. As a result, NTC is now a wholly-owned subsidiary of Giants Reef and has been re-named Santexco Pty Ltd (Santexco).

This final report covers exploration work carried out on MC C95 during its 18-year term, from January 1984 to its expiry on 31st December 2001.

Targets were gold and copper orebodies.

The area contained within MC C95 lies on the 'Nob Line Shear' which also runs through Juno, Nobles Nob, Rising Sun, Black Boy, Red Terror and other old mines. It also appears to be on the same general stratigraphic horizon as these mines.

Work over the years has including drilling, geological mapping, geophysics and geochemistry. While no orebody has been discovered during this time, it has been convincingly demonstrated that the area of MC C95 has high potential for a discovery, because of its structural and geological position, its geochemical indications, and the presence of the concealed magnetic source which still remains un-drilled.

Giants Reef intends to continue the exploration of this target area under EL 8665.

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1. INTRODUCTION

This report records exploration work carried out on Mineral Claim C95 *Nobles Nob 7300 West* during the 18-year term from 3rd January 1984 to 31st December 2001.

On 13th 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 Pty Ltd (NTC) from Normandy Consolidated Gold Holdings Pty Ltd, a wholly-owned subsidiary of Normandy Mining Limited. As a result, NTC is now a wholly-owned subsidiary of Giants Reef and its name has been changed to Santexco Pty Ltd (Santexco).

This is the final report for Mineral Claim C95.

In producing this report, Giants Reef has endeavoured to find as much information as possible to record all the work done on this Mineral Claim over its 18-year life. However, the changes of ownership over that time, together with Giants Reef's unfamiliarity with the large database acquired as a result of the purchase of NTC, mean that there may be some unintentional omissions.

2. LOCATION

Mineral Claim C95 is located approximately 15 km south east of the Tennant Creek township on the Tennant Creek 1:100 000 map sheet (5758). Access is via the sealed Peko and Nobles Nob roads and the gazetted Gosse River Road. A well-developed network of gravel tracks extends from these roads to provide good vehicular access. The area is easily accessible by four-wheel drive vehicle. There are a number of small mines and prospects within a five kilometre radius of the claim including the Red Terror, Tunnel, Black Boy and the Joker.

Figure 1 shows the Mineral Claim and surrounding tenements.

3. TENURE

Mineral Claim C95 *Nobles Nob 7300 West* was granted on 3rd January 1984 to Strata Resources NL for a period of 10 years.

On 4th December 1986 title was transferred to Anthappi Pty Limited (a Normandy subsidiary). Title was again transferred on 27th July 1999 to Normandy Tennant Creek Pty Ltd. In June 2001, Giants Reef Mining Limited purchased NTC 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.

The first renewal of the claim was granted for a period of four years ending 2nd January 1999. A second renewal was granted for a period of three years ending with its expiry on 31st December 2001.

The claim covered 33 hectares and lay within Perpetual Pastoral Lease 1142, Tennant Creek Station.

Upon expiry, the western end of the claim area became part of EL 8786, and the eastern end became part of EL 8665. Both these ELs are held by Santexco.

4. GEOLOGY

4.1 Regional

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 the styles of gold-copper mineralisation of the area.

4.2 Local

The claim is underlain by the Palaeoproterozoic Warramunga Formation. Porphyritic felsic volcanoclastic rocks of the Yungkulungu Formation (Flynn Sub-group) are found within a few hundred metres outside the southern boundary of the claim.

The area lies across the easterly extension of the Eldorado-Juno-Nobles Nob trend of mines and mineral occurrences. Mapping by Normandy geologists in recent years indicates that this trend, termed the 'Nob Line Shear', runs east-west centrally through the area. A pronounced east-west cleavage can be seen in outcrops on the low hill in the middle of the tenement.

Minor quartz veins have been mapped throughout the claim area. Most have a northerly strike suggesting they may be due to tensional shears associated with faulting. Veins with an east-west orientation were also identified and these may be following bedding plane shears.

5. WORK DONE DURING THE TERM

5.1 Diamond drill hole DDH336/DDH336A

DDH336 and its wedge-off hole DDH336A were collared at local grid co-ordinates 1320 South, 7300 West, on the Australian Development Ltd (ADL) local grid, referred to as the "Elbon" grid. The concrete collar was located by differential GPS, in July 2000, to be at the AGD84 AMG co-ordinates shown below:

| Hole | Easting | Northing | Azimuth | Dip | Depth (m) |
|--------------|---------|----------|-----------|------|-----------|
| DDH336, 336A | 430447 | 7819079 | 357° True | -70° | 598.3 |

The object of the drilling was to test the source of a large aeromagnetic anomaly. It appears as though no ground magnetics survey was carried out until *after* the drilling of DDH336/336A, perhaps because the target was so large that more detailed magnetics seemed unnecessary. An ADL memo by R McKenzie dated 19th October 1973, states "Subsequent follow-up gridding and ground magnetometry has located the centre of the anomaly at 8000W, 600N...".

The drilling was done between 3rd April 1969 and 28th June 1969, by Glindeman and Kitching Enterprises. The hole intersected a variety of Warramunga Formation sediments, mostly mudstone and sandstone, but also haematite shale, siltstone, cherty mudstone and dolomitic siltstone. A two-metre lamprophyre interval was also logged. Core sizes were BQ Wireline and BX Wireline. Downhole surveys were carried out using a Tropari and acid bottles.

A wedge-off hole, DDH336A, was drilled from 275.2m and ended at 587m. Its purpose was to intersect the target zone approximately 50m below DDH336. No core was taken from 275.2m to 415m. Sediments similar to those in the parent hole were intersected.

Apart from minor pyrite and traces of chalcopyrite at a few extremely restricted intervals in the holes, no mineralisation was encountered, and only weak chloritic alteration of limited extent. The source of the magnetic anomaly was not found.

5.2 Jacro drilling program

Eleven vertical holes were drilled in a north-south line along Elbon grid line 7300W (=AGD84 430447E) in mid-November 1973. The drill used was a Jacro 200 rig with spiral auger blades. The holes were at 100 foot spacings (~32m) except for the gap between the southernmost two holes, which was 300 feet. These holes were on the same north-south section line as DDH 336/336A.

Depths to bedrock ranged from 5m to 8m. In all cases the bedrock was Warramunga Formation argillaceous sediments. Abundant disseminated magnetite was found in six of the holes. Coatings of manganese oxide were recorded on grains in hole JDH 339. Bedrock samples were collected from the bottom 5 feet of each hole and analysed for Cu, Bi, Pb, Zn and Mo, but the results were described as "mostly insignificant" and all were within background levels.

The program was cut short when the drill was sent elsewhere. It was recommended at the time that the drilling along line 7300W be continued further to the south, and that another north-south line of holes be drilled along 8000W, to test for magnetite in the sediments above what by then was known to be the middle of the magnetic anomaly. However, it appears likely that this follow-up drilling was never done.

5.3 Ground magnetics surveys

A ground magnetometer survey was carried out over the claim area in August 1971, and a second ground magnetics survey in August 1973. The first of these was restricted to a small area centred on the drill collar of DDH336/336A, and showed that the hole had been drilled into the eastern end of the magnetic anomaly. The second survey was extended to the north, south, east and west of the first area, to encompass the whole anomaly and obtain an idea of the regional magnetic gradient. The instrument used in these surveys was a Sander Proton Precession NPM-3.

5.4 Geological mapping

Mineral Claim C95 and its surrounding area was geologically mapped during September 1973. An ADL memo by R McKenzie dated 19th October 1973 describes the geology and includes mention of a sequence of laminated siltstones and shales containing carbonaceous horizons, some with well-developed haematite bands. These were regarded as favourable lithologies, and one of them could be traced west to the Nobles Nob mine area. The mapping is recorded on ADL drafted 1: 2400 scale maps nos. 981 and 1041.

5.5 Gravity survey

Normandy conducted a semi-regional gravity survey throughout the Nobles Nob region in the mid-90's. The area of MC C95 was included in this survey. Stations in the vicinity of the claim were at 500m by 500m spacings. A weak Bouguer high was noted lying across, and to the north of, the northern boundary of MC C95.

5.6 Vacuum drilling

In (1996?) Normandy conducted a vacuum drill pattern drilling coverage over much of the Nobles Mob district. This included 24 vacuum holes within the boundary of MC C95 (NNV0525-0533, NNV604-612, and NNV 1014-1019). Geochemical sampling of the drill cuttings included a heavy mineral concentrate as well as normal samples of the bedrock. A plot of the gold and copper assay results (both kinds of sample) shows that the relatively higher values occurred in the eastern part of the claim. This is in general agreement with the results of the later soil sampling (section 5.10).

5.7 Nob Line aeromagnetic survey

The Nob Line airborne geophysical survey was completed in October 1998 by Kevron Geophysics Pty Limited for a total of 8,200 line km. MC C95 was covered by this survey, although it only represented a tiny fraction of the area covered.

Lines were flown north-south, 50 metres apart, at an average height of 40 metres above the terrain. Aeromagnetic readings were collected every 7 metres and radiometric and altitude readings were collected every 49 metres. Tie lines were flown east-west every 500 metres. Information gained from the survey included aeromagnetic, radiometric and digital elevation data.

The survey shows a magnetic high immediately north of MC C95. NTC has plotted the source body for this anomaly as being inside MC C95. This is presumably the same magnetic target that DDH336/336A was aimed at in 1969.

5.8 Surveying

The boundaries of Mineral Claim C95 were surveyed by NTC, using a differential GPS, in July 2000. The corner posts of MC C95 were found to be at AGD84 AMG co-ordinates as follows:

| | Easting | Northing |
|-----------|---------|----------|
| SE corner | 430688 | 7819165 |
| SW corner | 429898 | 7819159 |
| NW corner | 429895 | 7819566 |
| NE corner | 430684 | 7819572 |

5.9 Time Domain electromagnetics (TDEM) survey

In October and November 1999, an airborne Time Domain electromagnetics (TDEM) survey was flown over the Nobles Nob and Peko areas, including MC C95. This was a Normandy proprietary system. The helicopter-borne sensor was flown at 30m mean terrain clearance and 100 metre line spacing. No significant anomalies were found over MC C95.

5.10 Soil sampling

In the year 2000, NTC carried out a detailed soil sampling program over MC C95 and out to a distance 400m east of the claim. A total of 240 samples were taken from within the claim. Sample lines were north-south, 100m apart, and with samples at 20m intervals along them. The samples were dug with pick and shovel, and coarse and fine fractions sieved out for analysis for gold and other elements.

A plot of the results showed no clear-cut substantial groupings of higher values, but there was tendency for the more anomalous samples to be towards the eastern end of the claim. It was noted that the highest four results from within the claim were in the range 0.7 to 3.2 ppb Au, and they all were located on or close to the interpreted position of the 'Nob Line Shear'.

The complete dataset for this survey is included with this report as Appendix 1.

5.11 NTC's drilling plans

In 2000, NTC formulated a plan and budget to drill ten RC drillholes into the target area of MC C95, which is an elliptical shaped area, 600m east-west by 300m north-south, and situated over the 'Nob Line Shear' and the interpreted magnetic source. Each hole was to be angled to the north at -60°, and drilled to 150m. The sites for these holes were surveyed and pegged on the ground. An allowance was made in the budget for six additional 150m holes as follow-up to the first ten.

Unfortunately, this drilling was postponed and finally cancelled, as NTC's departure from the Tennant Creek drew progressively closer. Giants Reef is (at present) intending to carry out a modified version of this drill program at the 7300W prospect, under EL 8665 in which the former MC C95 target area is now located.

6. REHABILITATION

No work requiring rehabilitation measures has occurred within the Nobles Nob 7300 West Prospect since the early 1970's, and the area has been left to revegetate naturally. During an inspection by Giants Reef in March 2002, it was observed that vegetation had covered all tracks, and there was no sign of the Jacro drilling or the vacuum drilling. The concrete collar of DDH336/336A and its sump depression were visible but well concealed by shrubs and bushes.

7. CONCLUSIONS

The area contained within MC C95 lies on the "Nob Line Shear" which also runs through Juno, Nobles Nob, Rising Sun, Black Boy, Red Terror and other old mines. It also appears to be on the same general stratigraphic horizon as these mines.

Work over the years has including drilling, geological mapping, geophysics and geochemistry. While no orebody has been discovered during this time, it has been convincingly demonstrated that the area of MC C95 has high potential for a discovery, because of its structural and geological position, its geochemical indications, and the presence of the concealed magnetic source which still remains un-drilled.

Giants Reef intends to continue the exploration of this target area under EL 8665.

8. EXPENDITURE

Giants Reef now has access to the Normandy Tennant Creek Pty Ltd (NTC) archived expenditure records for the tenements purchased from NTC, through a company called Select Software Support Pty Ltd, based in Strathalbyn, South Australia. However, the expenditure for MC C95 within these archived records only goes as far back as July 1996, and the expenditure on MC C95 is not recorded separately but as part of a total for a number of other Claims and Leases in the Nobles Nob area. Based on this information, by allocating to MC C95 an expenditure in proportion to its area, MC C95 has incurred an estimated \$23,605 over the seven years since 1996. Expenditure prior to 1996 may possibly be found in earlier reports on the claim.

There has been no significant expenditure attributed to Mineral Claim C95 by Giants Reef.

S. C. RUSSELL
EXPLORATION GEOLOGIST

P. G. SIMPSON
EXPLORATION MANAGER

| GIANTS REEF EXPLORATION PTY LTD | | | |
|----------------------------------|--------------------------------------|----------|-----------------|
| TENNANT CREEK NORTHERN TERRITORY | | | |
| AREA | MC C95 NOBLES NOB 7300 WEST | | |
| MAP REF. | 5758 TENNANT CREEK 1:100 000 | | |
| SUBJECT | Nobles Nob 7300 West – Location Plan | | |
| DATE | AUTHOR | SCALE | |
| MAY 1999 | | 1:25,000 | FIGURE 1 |

APPENDIX 1

SOIL SAMPLE DATA SET *NOBLES NOB 7300 WEST*