SUBSTITUTE EXPLORATION LICENCE 8814

SHORT RANGE

FINAL REPORT

28 April 1995 – 27 April 2002

LICENSEE:

SANTEXCO PTY LTD

Formerly

NORMANDY TENNANT CREEK PTY LTD

A.C.N. 002 910 296

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SUMMARY

Substitute Exploration Licence 8814 *Short Range* originally comprised 69 graticular blocks around and north north-west of the Warrego Mine site. At the seventh and final year of tenure SEL comprises 18 graticular blocks. The Licence area is located approximately 50km north-west of Tennant Creek.

Access is gained via the sealed Warrego Road, then along the unsealed Wiso borefield road and north along bush tracks or along the Amadeus Basin to Darwin gas pipeline track which traverses the Licence.

This report summarises exploration work carried out on SEL 8814 during its 7-year term, from 28 April 1995 to 27 April 2002.

Targets were gold and copper orebodies.


Work included geological mapping, rock sampling, ground magnetics, geophysical modelling, vacuum drilling, RAB drilling, RC percussion and diamond drilling. Activity was concentrated on exploration of the Explorer 68 and Explorer 70 magnetic targets. Drilling by Normandy in 1998 and 1999 located these magnetic sources, however assays and geological characteristics did not look encouraging enough to contemplate further drilling.

Santexco completed a literature review and brief geological-geophysical assessment of the Licence and surrounding area and were satisfied that the identified magnetic anomalies had been adequately explained. This combined with Santexco’s initiative to reduce the amount of Exploration Licences held by the company, led to the decision not to renew SEL 8814 for a further term.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY</td>
<td>i.</td>
</tr>
<tr>
<td>CONTENTS</td>
<td>ii.</td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1.</td>
</tr>
<tr>
<td>2. LOCATION</td>
<td>1.</td>
</tr>
<tr>
<td>3. TENURE</td>
<td>1.</td>
</tr>
<tr>
<td>4. GEOLOGY</td>
<td>1.</td>
</tr>
<tr>
<td>4.1 Regional</td>
<td>1.</td>
</tr>
<tr>
<td>4.2 Local</td>
<td>2.</td>
</tr>
<tr>
<td>5. PREVIOUS WORK</td>
<td>2.</td>
</tr>
<tr>
<td>6. WORK DONE DURING THE TERM</td>
<td>3.</td>
</tr>
<tr>
<td>7. REHABILITATION</td>
<td>5.</td>
</tr>
<tr>
<td>8. CONCLUSIONS</td>
<td>5.</td>
</tr>
<tr>
<td>9. EXPENDITURE</td>
<td>5.</td>
</tr>
<tr>
<td>10. REFERENCES</td>
<td>6.</td>
</tr>
</tbody>
</table>

## FIGURES

1. Year 1 Licence Area and Surrounding Tenure
2. Year 7 Licence Area and Surrounding Tenure
1. INTRODUCTION
Substitute Exploration Licence 8814 Short Range comprises eighteen graticular blocks around and north north-west of the Warrego Mine site. The Licence area is located approximately 50km north-west of Tennant Creek. Normandy Tennant Creek Pty Ltd explored the Licence for ironstone hosted gold-copper-bismuth mineralisation.

This report summarises exploration work carried out on SEL 8814 during its 7-year term from 28th April 1995 to expiry on 27th April 2002.

2. LOCATION
SEL 8814 Short Range is located approximately 50 kilometres north north-west of Tennant Creek, on the Short Range 1:100 000 scale map sheet.

Access from Tennant Creek is via the all-weather sealed Warrego Road then along the unsealed Wiso borefield road and north along bush tracks. Alternately access can be made along the Amadeus Basin to Darwin gas pipeline track which traverses the Licence.

3. TENURE
Substitute Exploration Licence 8814 initially comprised seven Exploration Licences (6795, 7896, 7897, 8080, 8081, 8535, 8667 and EL 8668) on the Short Range 1:100 000 scale map sheet, concentrated around and to the north of the Warrego Mine site. On 28th April 1995 the SEL was granted to Normandy Tennant Creek Pty Ltd for a period of three years and at that time comprised 69 blocks (210 km²).

In March 1996, 29 of the 69 graticular blocks comprising the Licence area were relinquished, with a further 22 blocks relinquished in March 1997.

In 1998 the Licence was renewed for 2 years and in January 2000 was further renewed to expire 27th April 2002.

Numerous Mining Leases and Holding Licences owned by Santexco Pty Ltd are located wholly or partially within SEL 8814. These include MLA’s 22, 39-41, 71-74, 81-82, 98-102, 104-106, 170, 682, 692 and HLDC’s 37, 45 and 46 which cover dams to the north of the Warrego mine site.

In June 2001, Giants Reef Mining Limited purchased Normandy Tennant Creek Pty Ltd (NTC) and all its assets, including SEL8814. After the purchase, NTC was re-named Santexco Pty Ltd, and is now a wholly-owned subsidiary of Giants Reef Mining Limited.

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

Figure 1 shows the original Year 1 Substitute Licence area, Mineral Claims and Holding Licences.

Figure 2 shows the final Year 7 Substitute Licence area, Mineral Claims and Holding Licences.

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 the styles of gold-copper mineralisation of the area.
4.2 Local Geology

The Licence area is flat covered by aeolian sands and gravels with little or no bedrock exposure. The area is underlain by the Palaeoproterozoic Warramunga Formation and Flynn Sub Group metasedimentary lithologies. The Warrego Granite is located to the west of the Licence area and drilling indicates the granite margin has a complex irregular geometry.

5. PREVIOUS WORK

Various companies worked on the area covered by SEL 8814 during the last 35 years.

Under exploration titles EL 214 and EL 3573, GeoPeko Limited used low level aeromagnetic data flown by both the Bureau of Mineral Resources (BMR) and GeoPeko to define two magnetic anomalies named Explorer 68 and 70. Explorer 68 (3km N of Warrego) was further defined with ground magnetics and comprises a weak magnetic bullseye with a poorly defined associated dipolar magnetic low. Explorer 70 (2km N of Warrego) was also located via ground magnetics and defined as a weak magnetic high only. Both Explorer 68 and Explorer 70 were interpreted to be due to the presence of magnetic sediments.

During the late 70s, Uranerz held numerous exploration Licences within the Tennant Creek fields (including EL 1668, which includes the areas of EL 6795 and EL 7897) targeting uranium mineralisation associated with either haematite-magnetite bodies or unconformity related deposits.

CRA Exploration undertook airborne magnetic and radiometric surveys. Two radiometric anomaly sources were investigated and explained by groundwater ponding and evaporation.

During the mid to late 80s, Central Electricity Generating Board Exploration Australia (CEGBA), later to have Golden Plateau NL as a joint venture partner, held four Exploration Licences within the Tennant Creek field. CEGBEA utilised radiometric, magnetic and geochemical programs to target uranium and gold mineralisation. CEGBEA re-investigated the anomalies generated by CRA Exploration.

During the late 80s EL 4895, held by Australian Development Limited (ADL), covered EL 6795. Stream sediment sampling conducted in 1988 identified the Fossicker prospect (FA04) as an area worthy of follow-up, located in the central south area of EL 4895.

Since 1990, PosGold Limited (formerly ADL) conducted further stream sediment sampling, soil sampling and RC drilling infill soil sampling, ground magnetic surveying, vacuum geochemical drilling, and infill vacuum drilling. The work defined anomalous geochemical responses in the Last Hope vicinity. The Last Hope Mine is the only mine located within EL 6795 and comprises several shallow pits and shaft systems. In 1936, alluvial gold was discovered in the creek system west of the mine. The graticular block immediately south of Last Hope is a gazetted public fossicking area (FA 04).

In February 1990, PosGold purchased EL 4896 from the CEGBEA - Golden Plateau NL joint venture. Work conducted by PosGold on EL 4896 for the period February 1990 to May 1992 included regional geological appraisal of the Licence area and a Golden Plateau NL commissioned aeromagnetic survey over the entire EL 4896 area.

PosGold undertook a comprehensive exploration program involving stream sediment and soil sampling over EL 4896. Limited RC drilling was conducted to test magnetic anomalies highlighted in the earlier aeromagnetic surveys. These anomalies were named Chook, Chook North, Parakeet and Toucan.

Exploration undertaken over EL 7896 for the period 5 February 1993 to 28 April 1995 comprises regional vacuum drilling, infill vacuum drilling and RAB drilling. The samples recovered from the infill vacuum program were submitted after 28 April 1995 and were reported in Mouchet (1996).
The lithologies intersected included hematite-altered siltstone, shale, quartz-porphyry and saprolitic clay. Bottom of hole bedrock samples were collected and submitted for low level Au, Cu, Bi, Pb, Zn and Ag analysis by AAS using an aqua regia digest.

Exploration over EL 7897 (Headframe Prospect) for the period 28 March 1993 to 28 April 1995 comprised vacuum drilling and a ground magnetic survey. Drilling targeted the interpreted window of Warramunga Formation metasediments in the central north of the Licence and its contact with Warrego Granite to the west. The ground magnetic survey defined two magnetic anomalies, one corresponding to Explorer 70; the other located 500m south.

Exploration over EL 8080 (Mars Prospect) for the period 28 April 1993 to 28 April 1995 comprised airborne magnetic survey, photogeological mapping, regional vacuum drilling and overburden sampling. The drilling was planned to target regional magnetic anomalies.

Exploration over EL 8081 (Jupiter Prospect) for the period 28 April 1993 to 28 April 1995 comprised an airborne magnetic survey, photogeological mapping and vacuum drilling. The drilling was planned to cover a magnetic anomaly and interpreted faults.

Exploration over EL 8535 (Cascade Prospect) for the period 14 March 1994 to 28 April 1995 comprised vacuum drilling and RAB drilling.

Exploration over EL 8667 (Asteroid Prospect) and EL 8668 (Meteorite Prospect) for the period 15 June 1994 to 28 April 1995 comprised geological reconnaissance field trips and a review of the exploration data from previous explorers.

6. WORK DONE DURING THE TERM

6.1 Year 1 (1995-1996)
During the first year of tenure exploration over SEL 8814 involved extensive vacuum drilling (1,016 drillholes), with 22 RAB drillholes following up previously generated geochemical anomalies. Local rock chip sampling was also conducted.


6.2 Year 2 (1996-1997)
Work completed during year two of tenure included 6 RAB holes (316m) and two RC holes (289m) testing priority magnetic and geochemical targets. Intersected lithologies and assay results confirmed the presence of non-economic ironstone-sulphide hydrothermal alteration systems (Clifford, 1997).


6.3 Year 3 (1997-1998)
Work completed over SEL 8814 during the third year of tenure included a review of previous bedrock geochemistry data resulting in additional assaying, a helimagnetics survey; a ground magnetic survey (29 line kms) and modeling; a TDEM survey (1.5 line kms); and two RC holes at Explorer 68 both abandoned short of the target zone (Ward & Mouchet, 1998).

6.4 Year 4 (1998-1999)
Work completed over SEL 8814 during the fourth year of tenure included the remodeling and diamond drill testing of Explorer 68 and Explorer 70 magnetic anomalies by NTC. It was concluded that these two anomalies were unfocussed systems, with disseminated chlorite-quartz-magnetite alteration zones within interbedded siltstone and sandstone of the Warramunga Formation. Rare pyrite and chalcopyrite was noted in shear zones however this drilling seriously downgraded the prospectivity of the south-eastern part of the Licence.

Down-hole magnetic probing of Explorer 68 drillhole EX68-DH02 indicated a small magnetic ironstone body approximately 50m east of the hole at an interpreted depth of 100-150 metres.

A detailed account of exploration done during the fourth year can be found in Mouchet, P O (1999): Fourth Annual Report for Substitute Exploration Licence 8814 for the period 28/4/98 to 27/4/99. Tennant Creek District, Northern Territory, Short Range Prospect. Tennant Creek 1:250,000 Sheet SE 53-14 Volume 1 of 1 Report to NTDME 99041.

6.5 Year 5 (1999-2000)
Work completed over SEL 8814 during the fifth year of tenure included the drilling of one RC drillhole (68RC-005) at Explorer 68 by NTC. The hole targeted the downhole magnetic anomaly identified in the previous year. The hole intersected weak magnetite-haematite-chlorite altered siltstone in the target area. Later interpretation confirmed the causative body to be disseminated magnetite alteration within sediments of the Warramunga Formation.

Rehabilitation of the Explorer 68 site was completed in June 1999.

A detailed account of exploration done during the fifth year can be found in Orton, V (2000): Fifth Annual Report for Substitute Exploration Licence 8814 for the period 28/4/99 to 27/4/00. Tennant Creek District, Northern Territory, Short Range Prospect. Tennant Creek 1:250,000 Sheet SE 53-14 Volume 1 of 1 Report to NTDME.

6.6 Year 6 (2000-2001)
Work completed over SEL 8814 by NTC during the sixth year of tenure included a re-interpretation of the AGSO Tennant Creek sheet aeromagnetic survey flown in late 1998 and re-evaluation of previous drilling in the north-western part of SEL 8814.
A detailed account of exploration done during the sixth year can be found in Orton, V (2001): Sixth Annual Report for SEL 8814 for the year ending 27 April 2001, Tennant Creek 1:250,000 Map Sheet SE 53-14.

6.7 Year 7 (2001-2002)
In June 2001, Giants Reef Mining Limited purchased Normandy Tennant Creek Pty Ltd (NTC) and all its assets, including SEL 8814. After the purchase, NTC was re-named Santexco Pty Ltd, and is now a wholly-owned subsidiary of Giants Reef Mining Limited.

Work completed over SEL 8814 by Santexco Pty Ltd during the seventh and last year of tenure was limited to a literature review and brief geological-geophysical assessment of the Licence and surrounding area. On completion of this review it was decided not to renew the Licence area for a further term.
7. REHABILITATION
Normandy carried out rehabilitation work at the Explorer 68 and Explorer 70 targets not long after the drilling was completed, including plugging the drillholes and filling in the diamond drillhole sumps.

8. CONCLUSIONS
Work during the 7-year life of SEL 8814 concentrated on the exploration of the Explorer 68 and Explorer 70 magnetic targets. Although the RC and diamond drilling by Normandy in 1998 and 1999 located the magnetic source, the assays and geological characteristics did not look encouraging enough to contemplate further drilling. This combined with Santexco’s initiative to reduce the amount of Exploration Licences held by the company, led to the decision not to renew SEL 8814 for a further term.

9. 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. Using this service the expenditure by NTC for the term of the Licence totalled $225,485. Giants Reef’s expenditure for year seven of the tenure was $2,402.

Total expenditure for the 7-year term of SEL 8814 Short Range from 28th April 1995 to expiry on 27th April 2002 was $227,887.
10. REFERENCES


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