TANAMI
EXPLORATION NL
ACN 063 213 598

FINAL REPORT

EL 9788
SIX BLOCK

From 22 August 2002 to 27 July 2005

Author
C Rohde

Distribution:
☐ Department of Business, Industry, & Resource Development (1)
☐ Central Land Council (1)
☐ Tanami NL, Perth (1)

File: cr92dpifm_FR2005_Six Block
### APPENDICES

<table>
<thead>
<tr>
<th>FILE</th>
<th>DESC</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL9788.FR_ass</td>
<td>Vacuum drillhole samples</td>
</tr>
<tr>
<td>EL9788.FR_coll</td>
<td>Vacuum drillhole collars</td>
</tr>
<tr>
<td>EL9788.FR_drill</td>
<td>Drill company</td>
</tr>
<tr>
<td>EL9788.FR_event</td>
<td>Event log</td>
</tr>
<tr>
<td>EL9788.FR_geochem</td>
<td>BLEG drillhole sample</td>
</tr>
<tr>
<td>EL9788.FR_litho</td>
<td>Interval geology log</td>
</tr>
<tr>
<td>EL9788.FR_surv</td>
<td>Vacuum drillhole surveys</td>
</tr>
<tr>
<td>Drillkingdict</td>
<td>Geological codes</td>
</tr>
<tr>
<td>Translat</td>
<td>Geological codes</td>
</tr>
</tbody>
</table>
1.0 SUMMARY

Exploration Licence 9788 ‘Six Block’ is located approximately 250 km east-southeast of Halls Creek in the Tanami Region, Northern Territory (Figure 1). The tenement was granted to Tanami Exploration NL (TENL), a wholly owned subsidiary of Tanami Gold NL (TGNL), on 22 August 2002 and formed part of the Tanami (NT) JV, a Joint Venture agreement between TGNL and Barrick Gold of Australia Limited (Barrick) from 2002 to 8 June 2005. This report describes exploration by Barrick and TENL for the period 22 August 2002 to 27 July 2005.

EL 9788 was explored as part of the Supplejack project. Barrick tested the tenement with limited rockchip and lag sampling and vacuum drilling (Table 1). Upon closure of the JV, TENL reviewed the tenement and recommended it be relinquishment based on Barrick’s poor exploration results.

Table 1 Summary of Exploration

<table>
<thead>
<tr>
<th>EL 9788</th>
<th>Rock Chip Sampling</th>
<th>Lag Sampling</th>
<th>Vacuum Drilling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 sample</td>
<td>1 sample</td>
<td>26 holes, 160 metres</td>
</tr>
</tbody>
</table>

2.0 INTRODUCTION

EL 9788 is situated approximately 250 km east-southeast of Halls Creek, in the northwestern portion of the Tanami Desert, in the Northern Territory near the border to Western Australia (Figure 1).

Access from Halls Creek is provided via the unsealed Tanami Highway for approximately 320 km to the Tanami Mine, then 80 km north along the Lajamanu Road to the Supplejack Downs and then 40 km northwest using station and access tracks. Access from Alice Springs is northwest via the Tanami Highway for approximately 700 km to the Lajamanu turnoff.

The project covers an area of gently undulating hills and aeolian sand plains, dominated by spinifex, acacia thickets and sparse stands of eucalypts. To the north of the project area, the plains are surrounded by high scarps (20->100m) of flat lying Proterozoic sandstones that support little but spinifex and sparse acacia scrub. Occasional springs and ephemeral waterholes occur close to these scarps (Purcell, 2004). The area is affected by monsoonal rainfall between December and March, which typically floods roads and restricts road access.

This report documents all exploration on EL 9788 carried out by Barrick and TENL from its grant date on 22 August 2002 to its date of surrender on 27 July 2005. The tenement was explored as part of the Supplejack project and included in Combined Reporting together with EL 5888, 8809 and 22935.

3.0 TENURE

EL 9788 (Figure 2) is part of the Supplejack project and formed part of the Tanami (NT) JV project. Tenement details are listed in Table 2.

Table 2: Tenement Details

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Grant date</th>
<th>Expiry Date</th>
<th>Blocks</th>
<th>Area (sq. km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 9788</td>
<td>22/08/2002</td>
<td>21/08/2008</td>
<td>6</td>
<td>19.3</td>
</tr>
</tbody>
</table>
TENL, a wholly owned subsidiary of TGNL, is the registered title-holder of this tenement. Barrick Gold of Australia Limited (Barrick) managed exploration through the Tanami (NT) JV Agreement with TGNL, commencing 13 December 2000. On 8 June 2005, Barrick withdrew from the Joint Venture.

4.0 GEOLOGY

4.1 Regional Geology

EL 9788 lies on the Tanami 1:250,000 map sheets (SE52-15) within the Tanami region, a 250 x 100 km NW-trending Palaeoproterozoic region comprising various packages of multiply deformed metasediments and metavolcanics. It is bound to the south by the Arunta Province, to the northeast by the Tennant Region and Wiso Basin, to the northwest by the Halls Creek Mobile Zone and to the southwest by the Canning Basin.

There are only limited exposures of late Archaean felsic orthogneiss, which are interpreted to be basement to subsequent Palaeoproterozoic sedimentary basins. These orthogneisses have interpreted magmatic ages of $2504 \pm 4$ Ma and $2514 \pm 3$ Ma (SHRIMP U-Pb zircon) and was probably subjected to the Barramundi Orogeny ($1882 \pm 14$ Ma).

The 1840-1830 Ma siliciclastic-dominated Tanami Group was deposited onto the Late Archaean basement. The Tanami Group comprises the basal Dead Bullock Formation, which is includes carbonaceous siltstone, banded ironstone and calc-silicates, and the Killi Killi Formation, which is composed of several thousand metres of turbiditic sandstone. These sediments were deformed and metamorphosed during the 1810-1970 Ma Tanami Orogenic Event, at which time they were also intruded by voluminous granitoids. The Tanami Group hosts numerous Au deposits.

Numerous siliciclastic units were subsequently deposited onto exposed Tanami Group, including the Mount Charles Formation, Pargee Sandstone, Birrindudu Group and Canning Basin sediments. The Antrim Plateau Basalt also covers an extensive part of the Tanami region.

Gold mineralisation in the Tanami is extensive. The gold endowment of the region exceeds 10 Moz, with Callie being the largest deposit at more than 6 Moz. Mineralisation in the Tanami region is diverse, ranging from shallowly emplaced mineralisation at the Tanami mines to a deeper lode gold deposit at the dolerite-hosted Groundrush deposit. Gold is hosted at The Granites in mid-amphibolite-facies banded iron formation and calc-silicates, whereas at Callie, gold is hosted in carbonaceous siltstone. In contrast, Coyote is hosted in unremarkable greywackes. Hence, it appears that host lithology is not critical to the emplacement of gold in the Tanami region. The main shared criterion between all the Tanami gold deposits is structure-related quartz veining.

4.2 Local Geology

The bulk of EL 9788 ‘Six Block’ comprises deformed metasediments of the Tanami Group (Figure 3). Lithologies include shale, siltstones, carbonaceous shale, ferrugineous shale, chert, dolerite and fine- to medium-grained greywacke. Massive granitic stocks intrude the sediments. Surrounding the Supplejack tenements are a thick succession of flat-lying Birrindudu Group sediments, including sandstone which forms elevated plateaus.

A TMI image is shown on Figure 4. Aeromagnetic interpretation suggests numerous structures cut the project area, dominated by a NNE-trending shear corridor in the western portion of the area. Weakly
FIGURE 3

INTERPRETED GEOLOGY

EL 9788

Mt Winnecke Group

Tanami Group

Dead Bullock Formation¹/Davidson & Blake Beds²

Killi Killi Formation¹/Madigan Beds²

MacFarlane Peak Group¹/Thompson Beds²

Twig Formation¹

sandstone, siltstone, basalt

¹siltstone, greywacke, mafic & felsic volcanics, dolerite sills

²quartzite

1835Ma

1880Ma

Tanami Group

Pargee Sandstone

Nanny Goat Volcanics

Undifferentiated Mt Winnecke Formation

Birrindudu Basin

(Carpentarian)

Billabong Complex (2514Ma)

rhyolite volcanics, basalt, sandstone

sandstone, greywacke, mafic & felsic volcanics, dolerite sills

sandstone, siltstone, chert

sandstone, siltstone, basalt

Billabong Complex (2514Ma)

Nanny Goat Volcanics

Undifferentiated Mt Winnecke Formation

Birrindudu Basin

(Carpentarian)

Billabong Complex (2514Ma)

sandstone, greywacke, mafic & felsic volcanics, dolerite sills

sandstone, siltstone, chert

sandstone, siltstone, basalt

Billabong Complex (2514Ma)

sandstone, siltstone, chert

Archean

Birrindudu Basin (Carpentarian)
developed WNW-trending Trans-Tanami Style Fault Zones, and smaller-scale brittle faults also cut the area. The package has been multiply deformed giving rise to a well-developed fold interference pattern. Evidence suggests that thrusting has occurred within the package, giving rise to stratigraphic thickening and repetition.

Outcrop of the Tanami Group is sparse, although extremely weathered subcrop is more widespread in the northern portion of the project area, but still limited to slight topographic rises where deflationary lag is well developed. Elsewhere, the Tanami Group is overlain by recent transported sediments, with palaeochannels developed locally. A veneer of aeolian sand from 1-3 metres thick covers the majority of the tenement (Purcell, 2004).

5.0 PREVIOUS EXPLORATION

There is no record of historical exploration within the Supplejack tenement group.

Early explorers Davidson and Talbot passed through the region in 1901 and 1909 respectively, where they recorded the presence of gold at a number of locations, including The Granites, Tanami and Larranganni Bluff (Kookaburra / Sandpiper mineralised system). Mapping of the Birrindudu 1:250,000 sheet (SE52-11) is currently in progress by the Northern Territory Geological Survey.

6.0 EXPLORATION ACTIVITIES AND RESULTS

6.1 Barrick Surface Geochemistry

In 1993, one rockchip sample and one lag sample were collected on EL 9788. Sample locations are shown on Figure 5 and all sample data and assay results are included in the digital Appendix. The following description is repeated from Purcell, 2004.

Systematic lag sampling of the Supplejack project area was completed as part of regional reconnaissance. Priority areas were targeted by geological interpretation of high-resolution aeromagnetics which had been validated by reconnaissance mapping. Good quality lateritic and lithic deflationary lag was well developed on and around slight topographic rises. Away from these rises, laggable areas become covered by 1-3 m of aeolian sand, and vacuum drilling was used to screen these areas. The initial survey was conducted on a nominal 400m x 800 m grid.

Lag samples were collected from an area of approximately twenty metres in diameter. Sample material was swept from the surface and sieved (-6mm+2mm) to remove aeolian sand and organic contamination. A nominal weight of 500 g of lag was collected and stored in snap-lock plastic bags within numbered calico bags. The samples were analysed by Ultra Trace Laboratories Perth and analysed for Au by AR002 (ICP_MS) to a 0.1 ppb lower detection limit. The analytical method AR102 (ICP_MS) was used for Ag (0.05 ppm), As (0.2 ppm), Ba (0.5 ppm) Be (0.1 ppm) Bi (0.02 ppm), Cd (0.1 ppm), Ce (0.1 ppm), Co (0.5 ppm), Ga (0.2 ppm), Hf (0.01 ppm), Hg (0.01 ppm), La (0.01 ppm), Mo (0.1 ppm), Nb (0.1 ppm) Pb (1 ppm), Pt (5 ppb), Sb (0.02 ppm), Sr (0.1 ppm), Te (0.1 ppm), Th (0.1 ppm), Ti (10 ppb), U (10 ppb), W (0.1 ppm), Zn (1 ppm) and Zr (0.5 ppm). The analytical method AR101 (ICP-ES) was used for Al (10 ppm), B (5 ppm), Ca (10 ppm), Cr (5 ppm), Fe (0.01%), K (20 ppm), Mg (10 ppm), Mn (1 ppm), Na (50 ppm), Ni (1 ppm), P (10 ppm), S (10 ppm), Sc (0.5 ppm), Ti (50 ppm), V (2 ppm), Zn (1 ppm), and Zr (0.5 ppm).
GEOCHEMICAL SAMPLE LOCATIONS

Surface Sampling
- Bleg (26)
- Lag (1)
- Rock Chip (1)

FIGURE 5

Surface Sampling
- Bleg (26)
- Lag (1)
- Rock Chip (1)
Rockchips were collected in conjunction with regional reconnaissance field mapping, undertaken to validate geophysical interpretation. The samples were analysed as the lag samples, see above.

No elevated values were returned from the rockchip or lag sample on EL 9788.

6.2 Barrick Vacuum Drilling

In preparation for regional vacuum drilling, a series of scout holes were initially drilled, demonstrating the regolith was amenable to shallow vacuum drilling, consisting of a thin veneer of aeolian dune sands with variable thicknesses of underlying pisolitic lag and transported clays. This drilling established that the pisolitic lag was widespread and was of good quality for effective sampling. A systematic programme was then completed as part of regional reconnaissance. Drilling was completed by Tracey Drilling P/L (Tennant Creek), to a minimum depth of the cover bedrock interface, unless water was encountered. Drilling was oriented vertically and spaced on a nominal 400m x 800 m pattern. All drill data are included in the digital Appendix.

A total of 26 vacuum holes for 160 metres were completed on EL 9788 in 2003. Drill locations are shown on Figure 6. Drilling was occasionally hampered by slightly deeper than expected cover. Lithologies intersected include broad areas of massive granite with windows of shale, carbonaceous shale, fine to medium-grained clastic sediments, dolerite and NeoProterozoic quartz arenite.

The drill sampling strategy targeted the pisolitic or lag rich horizon that was located below the aeolian sand cover, other geologically interesting horizons and bottom of hole. The pisolitic/lag rich drill samples ('DRILL BLEG') were sieved (-6mm+2mm) and analysed by Ultra Trace Laboratories Perth for Au (bulk cyanide leach with an ICP-MS finish to a detection limit of 0.02 ppb Au).

Geologically interesting horizons and bottom of hole samples were obtained by spear sampling from one to two adjacent one-metres intervals and analysed by Ultra Trace for Au (AR002, 0.1 ppb) and for As, Ag, Bi, Pb, Sb, and W using AR102. Cu and Zn were analysed by both AR101 and AR102 techniques.

No elevated gold values were returned.

6.3 TENL Review

TENL assessed Barrick's exploration work and looked at new exploration strategies for the project area. A regional geological interpretation carried out in-house in 1999 is shown on Figure 3, and aeromagnetic TMI on Figure 4. Based on the underlying geology and Barrick's exploration results it was recommended to surrender EL 9788.
7.0  EXPLORATION EXPENDITURE YEAR 3

Barricks and TENL’s exploration costs for the third year of tenure are summarised below in Table 3.

Table 3:  EL 9788 Exploration Expenditure Year 3

<table>
<thead>
<tr>
<th>Item</th>
<th>Barrick Expenditure $</th>
<th>TENL Expenditure $</th>
<th>Total $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>2,191</td>
<td>675</td>
<td>2,866</td>
</tr>
<tr>
<td>Contractor’s / Consultants</td>
<td>107</td>
<td></td>
<td>107</td>
</tr>
<tr>
<td>Vehicles and Travel</td>
<td>630</td>
<td>-</td>
<td>630</td>
</tr>
<tr>
<td>Field Costs</td>
<td>1,115</td>
<td>-</td>
<td>1,115</td>
</tr>
<tr>
<td>Office Support</td>
<td>82</td>
<td>140</td>
<td>222</td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td></td>
<td>741</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$5,681</td>
</tr>
<tr>
<td>Covenant</td>
<td></td>
<td></td>
<td>$14,150</td>
</tr>
</tbody>
</table>

8.0  BIBLIOGRAPHY
