



TANAMI EXPLORATION N.L.

ABN 45 063 213 598

FINAL REPORT

EL 23651
Wood Duck Creek

HOME OF BULLION PROJECT

11 April 2003 to 10 March 2004

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May 2004

Distribution:

- Department of Business, Industry, & Resource Development (1)
- Central Land Council (1)
- Tanami Gold NL (1)

File: cr28dbirdFR2004_EL 23651 ' Wood Duck Creek'

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1.0 SUMMARY

Tanami Gold NL identified the potential for Palaeoproterozoic gold mineralisation and Neoproterozoic base metals mineralisation in the Home of Bullion region of Central Australia. The Home of Bullion Project lies within Central Australia at the boundary of the Arunta Region and the Southern Georgina Basin approximately 230 kilometres north of Alice Springs (**Figure 1**).

EL 23651 ‘Wood Duck Creek’ forms part of the Home of Bullion Project. The tenement was granted in April 2003 to Tanami Exploration NL (TENL) and surrendered on 10 March 2004. TENL is a wholly owned subsidiary of Tanami Gold NL (TGNL), a publicly listed company, and active explorer in the Tanami – Arunta region.

Exploration on EL 23651 ‘Wood Duck Creek’ consisted of a regional data assessment including regional geological mapping and geophysical data interpretation. No targets were outlined and EL 23651 was recommended for relinquishment based on unprospective geology and lack of any metallogenic data indicative of mineralisation within the tenement.

2.0 INTRODUCTION

EL 23651 formed part of the Home of Bullion Project, which is located approximately 230 kilometres north of Alice Springs (**Figure 2**).

Access to the project area is via the Stuart Highway, which passes to the west of EL 23651 (**Plate 1**). Station tracks and the Ghan Railway service track provide further access throughout the project area.

3.0 TENURE

EL 23651 ‘Wood Duck Creek’ was granted to TENL in April 2003 and surrendered on 10 March 2004 (**Figure 2**). Tenement details are shown below in **Table 1**.

Table 1: Tenement Details

Tenement	Tenement No.	Blocks	Km ²	Grant Date	Expiry	Covenant
Wood Duck Creek	EL 23651	103	318	11 Apr 03	10 Apr 09	\$ 25,000

For the purposes of conducting initial reconnaissance exploration, a ‘self clearing’ program was granted by the CLC in April 2003, whereby TENL could conduct a geological appraisal of the tenements and wide-spaced non-systematic (‘grab’) sampling to assess prospectivity. Areas of possible cultural significance recorded within the Aboriginal Areas Protection Authority (AAPA) database were noted and avoided.

4.0 GEOLOGY

The Home of Bullion Project tenements cover parts of the northern Arunta Inlier and the southern margin of the Georgina Basin (**Plate 2**). The surface geology has been mapped and described by the Northern Territory Geological Survey (NTGS) in the 1:250 000 scale Barrow Creek (SF53-6) sheet and explanatory notes (Haines *et al.* 1991).

The surrendered tenement area of EL 23651 is interpreted to be underlain by sediments of the Southern Georgina Basin and is mainly covered by Tertiary and Quaternary sediments.

The southern Georgina Basin sedimentary sequence unconformably overlies the Palaeoproterozoic basement. The flat to gently dipping strata forms extensively outcropping tabletop hills and mesas, often with the basement exposed at the base of the hills or in the plains between ranges. The basal sediments in the Home of Bullion Project area are the Neoproterozoic Forster Member of the Central Mount Stuart Formation, locally exposed in unconformable contact with the basement. The Forster Member is overlain by a thick sequence of red beds, the Tops Member, which is in turn overlain by a white quartzite, the Adnera Member, which often forms the resistant cap to the hills. The Central Mount Stuart Formation ranges between an estimated thickness of approximately 200m in the northwest and almost 600m in the southeast and are interpreted as deltaic sediments.

Palaeocurrent data and progressive onlap of basin sediments to the northwest indicate that the sediment was predominantly sourced from the northwest and transported towards the southeast (Haines, 1991).

Early Cambrian sediments of the Octy and Neutral Junction formations locally disconformably overlies the Central Mount Stuart Formation.

Cainozoic sediments, predominantly uncemented aeolian sand plains and dunes, overlie 80% of the tenement. Aeromagnetics suggest these covered areas are underlain by thick sequences of Georgina Basin sediments.

5.0 METALLOGENY

Tanami Gold NL identified the potential for gold and base metal mineralisation in the Arunta Block basement inliers in the Home of Bullion project area, also potential for base metals mineralisation in the Georgina Basin sedimentary sequence. The Palaeoproterozoic Bullion and Ledan Schists were targeted for gold and base metal mineralisation, whilst the Southern Georgina Basin sediments were targeted for stratabound base metal mineralisation with the Tops Member red beds in particular targeted for stratiform Cu mineralisation of the Zambian Copper Belt -style.

No mineralisation or anomalous geochemistry has been discovered by previous explorers in this area and no MODAT occurrences are located on EL 23651.

6.0 TENL EXPLORATION

Exploration on EL 23651 ‘Wood Duck Creek’ consisted of regional data assessment. The regional geology is depicted in **Plate 1**, showing an in-house geological interpretation by Dr. Ding Puquan prepared in 2001. No targets were outlined based on the regional geology or the geophysical data interpretation (**Plate 3**).

Tanami Gold NL conducted reconnaissance in the Home of Bullion Project during May-June 2003. Various outcrops on the tenement were visited by a Company geologist to verify previous mapping and to place the locally occurring Georgina Basin sediments within the basin depositional and structural framework. No prospective geology was noted during the field work and no sampling was conducted.

7.0 REHABILITATION

No ground disturbing work was conducted and therefore no rehabilitation is required.

8.0 EXPLORATION EXPENDITURE

Exploration expenditure to 10 March 2004 is given below in **Table 2**.

Table 2: Exploration Expenditure 11 April 2003 - 10 March 2004

Item	\$
Salaries/Wages	871
Drafting and Computing	120
Field Costs	183
Travel/Accommodation	269
Vehicles/Fuel	357
Overheads/Administration	270
Total	\$2,070

8.0 REFERENCES

AGES, 2003. Annual Geoscience Exploration Seminar, NTGS.

Haines et al, 1991. Barrow Creek, First Edition 1:250,000 scale geological map and notes. *Bureau of Mineral Resources, Geology and Geophysics, Canberra*.

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