

## FINAL RELINQUISHMENT REPORT FOR EL 22456

for the period  
**19/10/2005 to 24/12/2007**

NORTHERN TERRITORY

Volume 1 of 1

**1:250,000 SHEET:** Tanami SF52-15

**1:100,000 SHEET:** Tanami 4858

**AUTHOR:** F. Parker

**TENEMENT HOLDERS:** Otter Gold Pty Ltd

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☐ Newmont Asia Pacific

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## **SUMMARY**

This is the final relinquishment report for EL 22456. As such, it details all exploration activity conducted over the licence for the period 19<sup>th</sup> October 2005 to 24<sup>th</sup> December 2007.

The tenement was originally part of the Central Desert Joint Venture between AngloGold Ashanti Ltd and Otter Gold NL. It is located approximately 10 km east of the Tanami Mine.

No exploration activity was conducted over the tenement during the reporting period.

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## 1 INTRODUCTION

This document is the final relinquishment report to be completed for EL 22456. It describes exploration activities associated with the tenement. The document reports on exploration activity over the tenement from 19<sup>th</sup> October 2005 to the 24<sup>th</sup> December 2007.

## 2 LICENCE DETAILS

Otter Gold Pty Ltd (Otter) held EL 22456 and the tenement was managed by Newmont Tanami Pty Ltd.

**TABLE 1: Tenement Summary for EL 22456**

Licence	Grant	Surrender	Blocks	Km <sup>2</sup>	Title Holder
EL 22456	19/10/2005	24/12/2007	12	39	100% Otter Gold Pty Ltd

### 2.1 LOCATION, ACCESS & PHYSIOGRAPHY

The tenement comprises 12 blocks situated on land belonging to the Central Desert Aboriginal Land Trust and is located approximately 10 km east of the Tanami Mine.

Main access is via the Alice Springs/Tanami /Halls Creek road and tracks.

## 3 GEOLOGY

The Granites-Tanami Goldfields lie in the eastern part of the Early Proterozoic Granites-Tanami Inlier, which is part of the Northern Australian Orogenic Province (Plumb, 1990). The Inlier abuts the Arunta Complex to the south and east and is probably a continuation of the Halls Creek Orogen in Western Australia (Hendrickx, et al, 2000). The Inlier underlies younger cover sequences including the extensive Paleozoic Wiso Basin on its northeastern margin, and Victoria River Basin to the north. To the west, clastic sediments of the Middle Proterozoic Birrindudu Basin overlie and separate the Inlier from the similar age rocks in the Halls Creek Province.

The oldest rocks of the Tanami region belong to the Billabong Complex, a suite of Archaean age gneiss and schist. This is unconformably overlain by the Proterozoic MacFarlanes Peak Group (mafic volcanic and volcanoclastic rocks), followed by a thick succession of clastic sediments of the Tanami Group. (Hendrickx et al, 2000). A suite of syn-to post-deformation dolerites and gabbros are found intruding both the MacFarlane Peak and Tanami Groups.

Complex, polyphase deformation during the Barramundi Orogeny (1845 – 1840Ma) has affected the entire Granites-Tanami Inlier. It appears to have been largely controlled by two sets of regional scale fundamental crustal fractures that trend NNE and WNW. This is evidenced by the orientation of successive phases of macroscopic folding in the region and the consistent sympathetic trends of late tectonic faults.

Peak metamorphism during the Barramundi Orogeny reached amphibolite facies (The Granites Gold Mine), but is more generally greenschist facies through the Inlier (Callie Gold Mine). Contact metamorphic aureoles, commonly identified in pelitic schist units by randomly orientated andalusite porphyroblasts, are well developed at the margins of the syn- and post-orogenic granite plutons.

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Localised extension followed, forming small basins which filled with shallow marine sediments to the west (Pargee Sandstone) and pillow basalts and turbiditic sediments to the east (Mt. Charles Formation).

Following the period of extension, widespread granite intrusion and volcanism followed in the period 1830 – 1810 Ma. At least three suites of granitic intrusives and two volcanic complexes are present. The last intrusion of (undeformed) granite occurred at around 1800 – 1795Ma, with intrusion of The Granites Suite (Hendrickx et al, 2000).

Residual hills of gently folded Carpentarian Gardiner Sandstone unconformably overlie Early Proterozoic lithologies. Younger flatlying Cambrian Antrim Plateau Basalts are also preserved as platform cover in areas protected from erosional stripping.

Tertiary drainage channels, now completely filled with alluvial and lacustrine clays and calcrete are a major feature of the region. Some drainage profiles are 10 km wide and greater than 100m deep.

A desert terrain comprising transported and residual colluvial cover sediments and aeolian sand blanket a large portion of the Inlier, with an estimated outcrop exposure of less than 10% of the early Proterozoic lithological units.

Gold mineralisation within the Newmont Tanami tenement holdings is dominantly hosted by the Tanami Group, a sequence of fine to medium-grained turbiditic metagreywackes with lesser amounts of metapelite, carbonaceous siltstone and schist, banded iron-formation, chert and calcsilicates. (Hendrickx et al, 2000). Owing to their more resistant nature, only the cherts and iron-formations and associated interbedded graphitic schists tend to outcrop above the sand plain. The interlayered pillow basalts and sediments of the Mt.Charles Formation at the Tanami Mine deposits also host significant gold mineralisation.

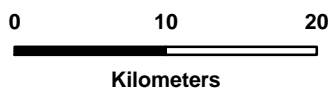
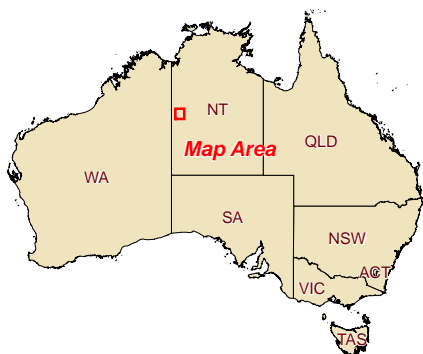
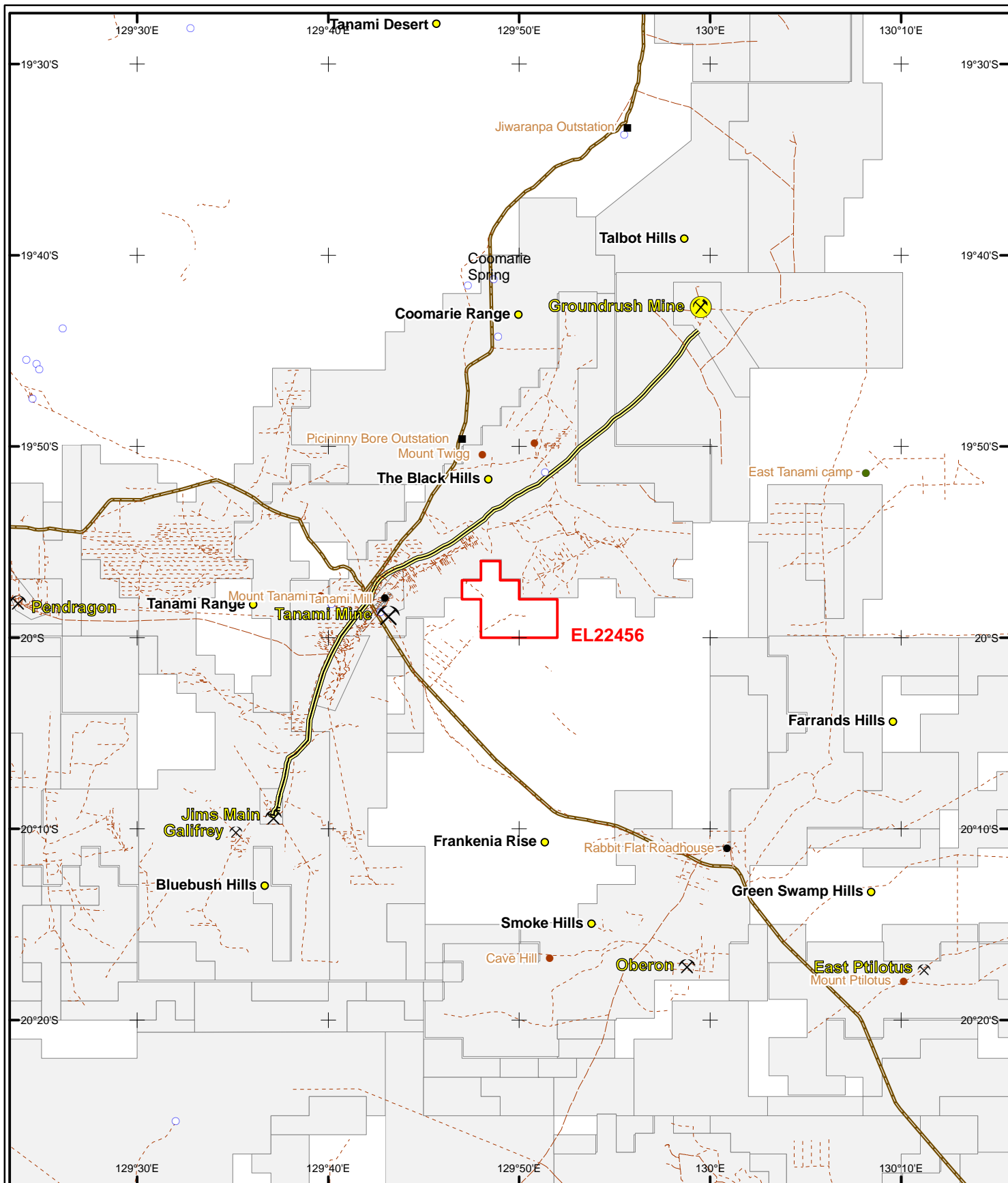
## **4 EXPLORATION HISTORY**

No work has been conducted on this tenement due to budgetary constraints and priorities elsewhere in the region.

## 5 REFERENCE LIST/ANNUAL REPORT BIBLIOGRAPHY

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## Tanami Project

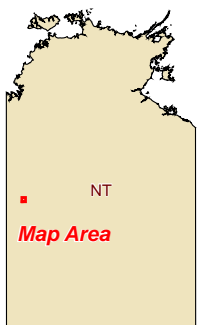
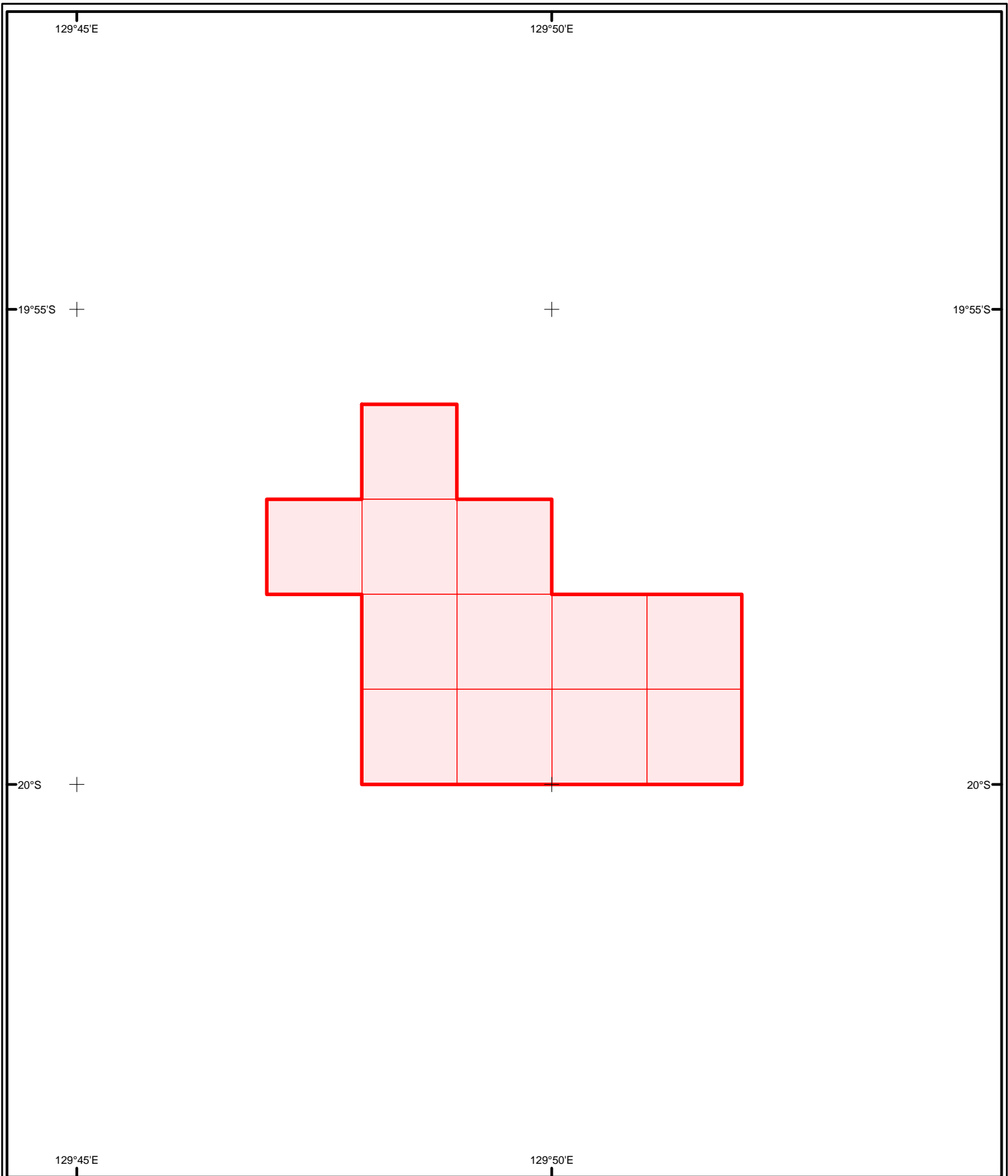
**EL 22456**

# LOCATION AND ACCESS

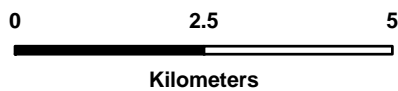
**FIGURE 1**


Author: F. Parker	Scale: 1:500 000
Drawn: V. Preedy	Date: Apr 2008
File: TAN_Lnd_Ten_A4_EL22456surr1.mxd Projection: Lat/Long (GDA 94) \\AUS\NT\Tanami_Tenements\MXD\Reports\	





 Area Surrendered - 12 blocks



 <b>NEWMONT EXPLORATION PTY LTD</b>	
<b>Tanami Project</b>	
<b>EL 22456</b>	
<b>TENEMENT RELINQUISHMENT</b>	
<b>FIGURE 2</b>	
Author: F. Parker	Scale: 1:100 000
Drawn: V. Preedy	Date: Apr 2008
File: TAN_Lnd_Ten_A4_EL22456surr2.mxd      Projection: Lat/Long (GDA 94) \AUS\NT\Tanami_Tenements\MXD\Reports\	