Otter Gold Pty Ltd (100%)

TANAMI REGION
NORTHERN TERRITORY

PARTIAL RELINQUISHMENT REPORT

For

EXPLORATION LICENCE

EL22178
(Lake Sarah North 1)

(Part of the McFarlane2 Agreement)

8th JUNE 2001 to 7th JUNE 2004

Volume 1 of 1

Newmont Report No: 31503

Compiled By: M.Muir

DISTRIBUTION:

NT Dept. Business, Industry & Resource Development
Newmont Exploration

The contents of this report remain the property of Otter Gold Pty Ltd and may not be published in whole or in part nor used in a company prospectus without written consent of the company.
Exploration Licence (EL) 22178 (Lake Sarah North 1) was granted on the 8th of June 2001 for a period of six years. The exploration license was subject to a Deed (McFarlane 2) between the Otter Gold NL (now Otter Gold Pty Ltd) and the Traditional Owners. At the end of the third year of exploration it was decided to relinquish ground because of escalating tenement costs. The ground was reduced from 186 blocks (598 km$^2$) to 115 blocks (370 km$^2$).

The relinquished ground included 299 regional surface samples completed by Otter Gold Pty Ltd where results were less than 1.2ppb Au. The surface samples were taken in bulk on a 500m x 500m grid and sieved at a later date. One area to the north was infilled to 250m x 250m. The samples were taken using a Helicopter. Other activities during the tenure of the licence focussed on remote detection of targets using the multiscale edge analysis worm technique and aeromagnetics and rockchipping (three rockchips were taken in the relinquished regions). An assessment of the Exploration License was made and the decision was made to partially surrender EL22178 on the 7th June 2004.

<table>
<thead>
<tr>
<th>Activity in Relinquished Ground</th>
<th>No. of Samples</th>
<th>High Result</th>
<th>Sample Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geochemistry</td>
<td>299</td>
<td>1.2ppb Au</td>
<td>500m x 500m, 250m x 250m</td>
</tr>
<tr>
<td>Rockchips</td>
<td>3</td>
<td>180ppb Au</td>
<td></td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

## SUMMARY

1.0 INTRODUCTION ........................................................................................................... 1

2.0 LOCATION AND EXPLORATION HISTORY ......................................................... 1

2.1 Location and Access ................................................................................................. 1

2.2 Tenement Status ....................................................................................................... 1

3.0 GEOLOGY ................................................................................................................ 1

3.1 Regional Geology ...................................................................................................... 1

3.2 Local Geology ........................................................................................................... 4

4.0 EXPLORATION HISTORY of Relinquished Ground within EL22178 ...................... 4

   4.1 Exploration completed during 8th June 2001 to 7th June 2002 ......................... 4

   4.2 Exploration completed during 8th June 2002 to 7th June 2003 ....................... 5

   4.3 Exploration completed during 8th June 2003 to 7th June 2004 ....................... 5

5.0 ENVIRONMENT ........................................................................................................ 5

6.0 REFERENCES .......................................................................................................... 6

## LIST OF FIGURES

| Figure 1 | Tenement Map showing area of relinquishment |
| Figure 2 | Regional Surface sample IDs |
| Figure 3 | Regional rockchip sample IDs |

## LIST OF TABLES

| TABLE 1 | Comparison of stratigraphic nomenclature |

## APPENDICES

| APPENDIX 1 | Figures |
| APPENDIX 2 | Sampling Data |
1.0 INTRODUCTION

This report contains details of exploration activities conducted within the relinquished ground EL22178 for the period 8th June 2001 to 7th June 2004. The tenement is part of the McFarlane 2 Agreement and was partially relinquished at the end of the third year of tenure.

The exploration that has been completed on the ground was seen to be adequate. Also due to the high tenement costs associated with this licence there was seen a need to “drop off” the least prospective ground to focus exploration dollars in regions of substantially higher prospectivity.

2.0 LOCATION AND EXPLORATION HISTORY

2.1 Location and Access

The tenements are located approximately 650km northwest of Alice Springs along the Tanami Track.

EL22178 is located 38km – 63km south west of the Tanami Mine (Groundrush). Main access to the tenement is by the Tanami Track. Access to EL22178 is via the “Wilsons Camp” track and old Normandy North Flinders Exploration tracks throughout the region.

2.2 Tenement Status

Exploration Licence 22178 (Lake Sarah North 1) was granted to Otter Gold NL (now Otter Gold Pty Ltd) on the 8th June 2001 for a period of six years. The Exploration Lease is part of the McFarlane 2 Agreement between Otter Gold NL and the Traditional Owners.

The tenement originally comprised 186 blocks covering an area of 598 square kilometres, with control of Otter Gold NL (now Otter Gold Pty Ltd) being gained by Newmont NFM it was decided because of escalating tenement costs that the ground should be partially relinquished at the end of its third year. During June of 2004 a decision was made to reduce EL22178 ground from 186 blocks (598km²) to 115 blocks (370km²). See Figure 1 for ground relinquished.

3.0 GEOLOGY

3.1 Regional Geology

The Granites – Tanami Block is bounded to the west by the Canning Basin, and to the east by the Wiso Basin and is considered to be one of the western most Palaeoproterozoic inliers of the Northern Australian Orogenic Province. The block is thought to have developed around the Barramundi Orogeny – major event 1845 – 1840 Ma (Blake et al., 1979).
The stratigraphy of the Tanami Region has been revised as a result of an intensive study recently completed by the NTGS (Hendrickx et al., 2000). The stratigraphy outlined by Blake et al (1979) has had some significant modifications (Table 1).

The Archaean Billabong Complex and Browns Range Metamorphics are the oldest rocks in the area. Browns Range Metamorphics comprise granitic gneiss and muscovite schist intruded by fine-grained granite, thin granitic sills, aplite and pegmatite. The Billabong Complex comprises banded granitic gneiss’, which are generally elongated and fault bound.

**Table 1.** Comparison of stratigraphic nomenclature (Hendrickx et al, 2000).

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Birrindudu Group</td>
<td>Birrindudu Group</td>
</tr>
<tr>
<td>Coomarie Sandstone</td>
<td>Coomarie Sandstone</td>
</tr>
<tr>
<td>Talbot Well Formation</td>
<td>Talbot Well Formation</td>
</tr>
<tr>
<td>Gardiner Sandstone</td>
<td>Gardiner Sandstone</td>
</tr>
<tr>
<td>Suplejack Downs Sandstone</td>
<td>Suplejack Downs Sandstone</td>
</tr>
<tr>
<td>Mount Winnecke</td>
<td>Nanny Goat Creek Volcanics</td>
</tr>
<tr>
<td>Pargee Sandstone</td>
<td>Pargee Sandstone</td>
</tr>
<tr>
<td>Tanami Complex</td>
<td>Tanami Group</td>
</tr>
<tr>
<td>Mt. Charles Beds</td>
<td>Killi Killi Formation</td>
</tr>
<tr>
<td>Killi Beds</td>
<td>Twigg Formation</td>
</tr>
<tr>
<td>Nanny Goat Creek Beds</td>
<td>Dead Bullock Formation</td>
</tr>
<tr>
<td>Nongra Beds</td>
<td></td>
</tr>
<tr>
<td>Helena Creek Beds</td>
<td>McFarlane Peak Group</td>
</tr>
<tr>
<td>Archaean</td>
<td>Browns Range Metamorphics “Billabong Complex”</td>
</tr>
</tbody>
</table>

Lying unconformably above the Archaean basement is the Palaeoproterozoic McFarlane Peak Group. These rocks are characterised by a thick sequence of mafic volcanic, volcaniclastic and clastic sedimentary rocks, which possess a distinctive magnetic and gravity signature. This package of rocks is structurally complex and is considered to have a tectonic contact with the overlying Tanami Group.

The Tanami group is subdivided into three formations:

Twigg Formation: purple siltstone with minor sandstone and chert
Killi Killi Formation: turbiditic sandstone
Dead Bullock Formation: siltstone, mudstone, chert and banded iron formation
The Dead Bullock Formation occurs at the base of the Tanami Group and is dominated by fine-grained sedimentary rocks. The rocks outcrop at Dead Bullock Soak, Lightning Ridge and Officer Hill. At the Granites the rocks have been metamorphosed to amphibolite facies to form andalusite, garnet and hornblende bearing schists. The Dead Bullock formation is host to significant gold mineralisation at the Granites and Dead Bullock Soak.

The Killi-Killi Formation conformably overlies the Dead Bullock Formation and is the most extensive formation in the group. The sequence of turbidites includes micaceous greywacke, quartzwacke, and lithic greywacke, quartz arenite and lithic arenite, interbedded with siltstone, mudstone and occasional thin chert beds. Detrital mica is a characteristic feature. The Killi-Killi is metamorphosed to lower greenschist facies and is interpreted to be up to 4km thick.

The Twigg formation is confined to a narrow package of rocks immediately west of the Tanami Mine corridor. It comprises a sequence of interbedded purple siltstone with thin-bedded chert and minor medium bedded greywacke.

The Pargee Sandstone unconformably overlies the Tanami Group and is exposed on the western side of the Coomarie Dome extending into Western Australia. The Pargee Sandstone comprises thick-bedded quartz arenite, lithic arenite and conglomerate with pebbly sandstone and conglomerate at the base.

The Mount Charles Formation comprises an intercalated package of basalts and turbiditic sediments, which occur on the western side of the Frankenia Dome. The Mount Charles Formation is host to structurally controlled vein hosted gold mineralisation in the Tanami Mine Corridor. Sediments include sandstone, mudstone, carbonaceous mudstones and intraclast conglomerate. Basalts are predominantly massive units with pillow basalts and basaltic breccias also evident.

The Mt Winnecke Group is also interpreted to lie unconformably over the Tanami Group and is divided into two units - siliciclastic sediments and felsic volcanics.

The Nanny Goat Volcanics are characterised by extrusive volcanic rocks including quartz-feldspar ignimbrite, feldspar ignimbrite, rhyolite lava, basalt and minor siliciclastic sediments.

The Birrindudu group comprises 3 units with Gardiner Sandstone at the base, overlain by Talbot Well Formation and Coomarie Sandstone. The Suplejack Down sandstone is interpreted to belong to this group but is relationship is unclear. The Birrindudu group lie unconformably over the Browns Range Metamorphics, MacFarlane Peak Group, Tanami Group, Pargee Sandstone, Nanny Goat Creek Volcanics and Mount Winnecke Group.

Cenozoic laterite, silcrete, calcrete, and Quaternary debris cover 60 – 70% of the Tanami Desert. The Quaternary sediments are generally unconsolidated, representing the most recent phase of erosion and deposition of sands, gravels and lithic fragments.
3.2 Local Geology

Both outcropping and basement geology within EL22178 includes Killi Killi Beds (predominantly micaceous sandstones and siltstones) as described by the Northern Territory Geological Survey.

From John Wilford’s interpretation of the regolith, within the area to be relinquished, the cover is variable but predominantly consists of insitu regolith, weathered bedrock and laterite.

4.0 EXPLORATION HISTORY of Relinquished Ground within EL22178

4.1 Exploration completed during 8th June 2001 to 7th June 2002.

299 soil samples were taken over both the northern and southern portions of the relinquished ground within this EL. The surface samples were taken on a 500m x 500m grid from the 14/10/2000 to 2/11/2000. The topography over this extensive region was described as flat. The samples collected were predominantly an orange brown sandy loam. Additional comments included quartz float and rock fragments with the occasional pisolite sample noted. The samples were analysed by the ALS ZARG (Zeeman Aqua Regia Gold) method and were sieved with the 200 micron sieve in the southern most region and the infill sample programme to the north and the ¼” sieve was used for the remaining regions. Surface samples were taken between 15 and 30 centimetres.

One helicopter infill programme was designed over the regional survey at 250m x 250m. This programme to the north did not confirm the initial results and no further work was completed.

Rockchips were taken on a regional overview fieldtrip. The maximum result gained was 180ppb Au (655722). The rockchip was described as part of an outcropping/subcropping siliceous unit (approximately four metres wide) that extended intermittently over at least 1.5km. Two other rockchips were taken from similar types of outcrop with results of 20ppb Au and 40ppb Au.

Magnetic Survey

During the mid-November to December of the 2000 period a regional scale aeromagnetic survey was conducted over portions of EL22178. The survey was part of the Deep Cover Programme instigated by Otter to determine methods of exploring under transported cover.

Magnetic Survey Specifications

Company: Kevron Geophysics Pty Ltd
Aircraft: SHRIKE 500
Magnetic Sensor mean terrain clearance: 50m
Flight Line Spacing: 150m
Tie Line Spacing: 1500m
Flight Line Orientation: 045-225 degrees TN (Block I)
045-225 degrees TN (Block G)
045-225 degrees TN (Block F)
Tie Line Orientation: 135-315 degrees TN (Block I)
135-315 degrees TN (Block G)
135-315 degrees TN (Block F)
Navigation: Real-time differential GPS to achieve better than 5m real and 2m relative positioning in both lateral position and height.

**Worm Data**

The data obtained during the geophysical survey was used in the analysis by Fractal graphics. “Worming” is a tool used for emphasizing edges – and is used as a cost effective tool for exploring under deep cover. Grided data sets were forwarded to Fractal Graphics in Perth for ‘Fractal Worm’ processing. Regional scale aeromagnetic and gravity data were ‘wormed’. The advantage of using the Fractal Worms to assist with interpretation of the basement geology is that they facilitate better definition and location of contacts between adjacent lithologic packages and faults. Utilising the key parameters relevant to the geological model developed earlier for the Granites – Tanami intrusion-related gold mineralisation, ‘worm anomalies’ were identified.

4.2 **Exploration completed during 8th June 2002 to 7th June 2003.**

Work during the second year of tenure included a review of data to assess the exploration potential of EL22178 to budget for work in the 2004 field season and to consider areas for relinquishment.

4.3 **Exploration completed during 8th June 2003 to 7th June 2004.**

Work within the McFarlane 2 group of Licences concentrated on interpretation and mapping as part of a new structural interpretation of the Tanami region by ‘RSG’ (Brett Davies) – part of a major strategic review of the Tanami Region.

Data review and interpretation continued for the gathering of information for the 2004 budget.

5.0 **ENVIRONMENT**

Environmental disturbance has been kept to a minimum wherever possible. The use of a helicopter for surface sampling and the backfilling of sample holes and the emphasis on remote detection of targets have kept the environmental disturbance to a minimum. All rubbish was removed from sites and camps.
6.0 REFERENCES


APPENDIX 1

Figures
APPENDIX 2

Sampling Data

See attached Files