Deep Yellow Limited

ABN 97 006 391 948

ANNUAL REPORT

Exploration Licence 10223

Cornelius

22 May 2011 – 21 May 2012

Holder	Deep Yellow Ltd
Operator:	Deep Yellow Ltd
Tenement Manager:	Deep Yellow Ltd
Author:	H Bridgwater
Commodity:	Uranium
Report Date:	June 2012
Datum/Zone:	GDA94/Zone 52
250,000 Mapsheet:	Mount Solitaire
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Distribution:

- ❑ Department of Resources
- ❑ Mining Unit - Central Land Council

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1.0 SUMMARY

Exploration Licence 10223 was acquired by Tanami Exploration NL (TENL) through a Sale and Purchase Agreement with AngloGold Ashanti Australia Limited (AngloGold). Transfer of the title was delayed awaiting execution of a Deed of Covenant between TENL and the Central Land Council (CLC).

Under the terms of a Heads of Agreement between Deep Yellow Limited (DYL) and TENL, DYL acquired the right to 100% of any uranium minerals with TENL's tenure. Pursuant to the terms of that agreement DYL is now the beneficial owner of EL 10223.

The Deed for Exploration entered into by AngloGold and assigned to TENL did not permit exploration for uranium. Therefore the CLC requested that DYL submit a Uranium Exploration and Mining Proposal to cover uranium exploration. The new proposal was submitted to the CLC in September 2006. The Amended Deed for Exploration between the CLC and DYL, covering the tenements comprising the Officer project, was executed on 1 December 2011.

DYL's target within EL 10223 is calcrete-hosted uranium mineralisation occurring as a sinuous sheet like body at 5 to 20 metres below surface within paleodrainage now represented by chains of playa lakes. Tributary channels of the main drainage may also be targeted.

During the reporting period DYL carried out a reconnaissance field trip to EL 10223 which consisted of a ground radiometric survey and collection/assay of two soil samples. An application for a Sacred Site Clearance Certificate was submitted to the CLC in respect of further reconnaissance and shallow aircore drilling programmes. DYL received a clearance certificate for the non-ground disturbing work in May 2012 but are still awaiting a response on the drilling programme.

2.0 INTRODUCTION

EL 10223 forms part of the Officer Project. The tenement is situated approximately 500 kilometres northwest of Alice Springs and 45 kilometres east of the Tanami Gold Mine within the Tanami Desert (Figure 1).

Access to the tenement is via the Tanami Highway that provides entry to the western margin of EL 10223 and then by 4WD tracks (Sinclair et al, 2003). Vegetation over the project area varies from open spinifex plains to low lying scrub. The region has a characteristically subdued topography with very rare low-lying breakaway hills and sub-cropping areas. Surficial regolith over the majority of the area comprises a veneer of aeolian or colluvial sediments. Deep palaeo-drainage systems, comprising fluvial, lacustrine and aeolian sediments, are known to transect some of the tenements (Sinclair et. al., 2003).

3.0 TENURE

Exploration Licence 10223 was granted to AngloGold Australia Limited (AngloGold) on 22 May 2002 over an area of 439 blocks pursuant to the Arunta Deed for Exploration with the Central Land Council (CLC). Tanami Exploration NL (TENL) acquired the tenement pursuant to a Sale and Purchase Agreement with AngloGold dated 23 June 2005.

Under the terms of a Heads of Agreement between Deep Yellow Ltd (DYL) and TENL, DYL purchased the right to 100% of any uranium minerals within TENL's tenements in the Tanami-Arunta Province, including EL 10223. Following a downgrading of the gold potential by TENL, DYL acquired EL 10223 outright with DYL's interest being registered effective 19 July 2010.

The Deed for Exploration entered into by AngloGold and assigned to TENL did not permit exploration for uranium. Therefore the CLC requested that DYL submit a Uranium Exploration and Mining Proposal and negotiate a new Deed for Exploration to cover uranium exploration. The new proposal was submitted to the CLC in September 2006. The Amended Deed for Exploration between the CLC and DYL, covering the tenements comprising the Officer project, was executed on 1 December 2011. As the Deed had been verbally agreed in July 2011, DYL sought special approval to carry out non-ground disturbing exploration work before the Deed was signed. The CLC granted DYL this right and a reconnaissance exploration programme was carried out in late 2011.

Following four reductions in area pursuant to the requirements of section 26 of the *NT Mining Act,* the current area of EL 10223 is 76 blocks.

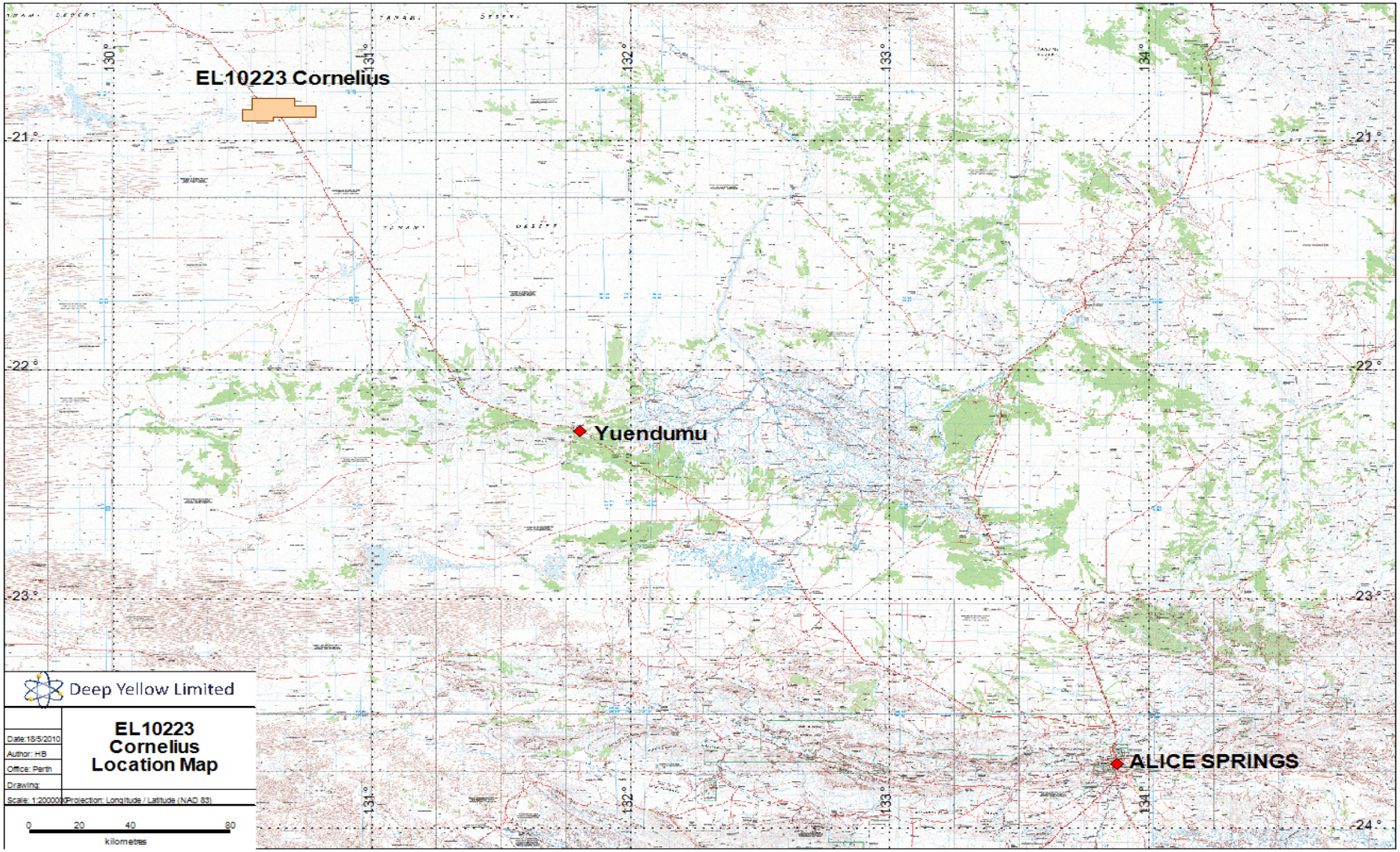

Figure 1. Tenement Location Plan EL10223 Cornelius

4.0 GEOLOGY

The project area is in the Granites - Tanami Block that forms the basement to the surrounding Birrindudu Basin (Blake et al. 1979). To the west are the Halls Creek Mobile Zone and the Canning Basin; whilst to the east and south are the Wiso Basin and the Arunta Block (which is possibly of similar age and stratigraphic equivalence to the Granites - Tanami Block). The Granites - Tanami Block contains the Tanami Complex, which hosts the mineralisation at the Tanami and Granites gold mines. The Tanami Complex is of Early Proterozoic age and comprises meta-sediments and meta-volcanics, which are steeply dipping with a bedding parallel cleavage. Poor exposure and structural complexity have precluded a full understanding of the stratigraphy. The NTGS has remapped the eastern portion of the inlier and erected a stratigraphy, which broadly correlates with the Pine Creek and Hall's Creek inliers. Economic gold mineralisation is found in a variety of host rocks, and appears to be related at least partly to geochemical properties of those rocks, rather than a particular stratigraphic age. At Dead Bullock Soak, the Callie deposit, gold is hosted in a weakly carbonaceous siltstone sequence, the Dead Bullock Formation. At the Tanami Mine gold is hosted by rocks deposited in a younger basin. These comprise a series of pillow basalts and greywackes of the Mount Charles Formation. In the western Tanami on AngloGold tenements, mineralisation is hosted by a sequence of weakly carbonaceous shales, siltstones, micaceous greywackes and sandstones, which have been tentatively assigned to the Killi Killi Formation by AngloGold. The Killi Killi Formation is slightly younger than the Dead Bullock Formation but is part of the same basin fill sequence. The Killi Killi Formation is thought to represent late stage, passive margin basin fill sedimentation. Late Proterozoic and early Carpentarian granites intrude the Tanami Complex. Most of the known gold mineralisation is spatially related to these granites, although a genetic relationship has not yet been proven.

Cainozoic surficial overburden comprises laterite, calcrete and vein quartz rubble. In addition there is a thin veneer of Quaternary aeolian and alluvial sand. Palaeodrainage channels are well developed in the western Tanami, filled by lacustrine clays and sheetwash sedimentation. Silcrete is locally developed. Where tested by drilling they have a maximum depth of around 40m, but may be locally deeper elsewhere. These commonly follow major structural lineaments in the underlying bedrock and for that reason tend to inhibit exploration.

Structurally the Block is very complex with multiple phases of deformation and faulting. Two main types of folding have been identified in the Killi Killi Beds. Broad northerly-plunging anticlines and synclines are recognised and east-southeast-trending zones of smaller chevron folds with steep limbs. The chevron folds cut across the broad folds indicating at least two phases of deformation. Both phases have been disrupted by the intrusion of granite. D1 and D2 involve progressive deformation about NWSE to E-W trending axes. Dextral strike slip reactivation of the Trans Tanami fault during D3 or late D2 resulted in rotation and re-folding of previously folded units to a N-S orientation.

NW-WNW trending strike slip/dip-slip faults (D3) are very prominent and are commonly associated with intense shearing and quartz veining. The structures are possibly related to deep-seated structures in the metamorphic-granitoid Archaean basement, which to the NW define the margin of the Canning Basin on the Lennard Shelf. NE to ENE and N-trending faults are also common and can be related to phases of basin extension and compression during regional tectonism.

The NTGS has identified seven stages of deformation, with the gold mineralisation relatively late and related to a D6 event. Recent dating by AGSO/NTGS of mineralisation also indicates late stage mineralisation. AngloGold has erected a simpler, but broadly similar structural model, with three major deformation events, with mineralisation related to late D2 deformation. Much of the dextral faulting on NW-WNW Trans-Tanami Faults is thought to post-date mineralisation.

5.0 HISTORIC EXPLORATION

Historically the Cornelius tenement was worked by Sons of Gwalia Ltd (SOG) in the mid- to late 1990's, which conducted surface sampling and extensive shallow drilling on regional lines. A "failed VAC hole" returned 3 ppb Au, and follow-up drilling returned 11 ppb Au in a RAB hole that just "bottomed into saprolite". Additional deeper drilling delineated two large, coherent Au-As anomalies subsequently named Abrolhos and Abrolhos South.

AngloGold completed data compilation and review prior to commencement of field based exploration programs on EL 10223. TENL undertook reprocessing of the regional open-file aeromagnetics in early 2006.

All field exploration was carried out by AngloGold during the first three years of tenure including surface sampling and a helicopter reconnaissance survey, as well as limited aircore and slimline RC drilling in previously surrendered areas of EL 10223.

Exploration carried out by TENL during the 2007/08 reporting period included geochemical sampling of one field grab sample and a 32 hole, 2996m aircore drilling programme at the Abrolhos Prospect. The aim of this programme was to test extension of mineralisation and to follow up on some additional anomalies. Results and details can be found in Rohde, J. 2008.

6.0 EXPLORATION

During the reporting period DYL carried out a reconnaissance field trip which included a ground radiometric survey and collection and assay of two soil samples.

The ground radiometric survey was designed to further delineate a low level radiometric anomaly identified in regional data trending east-west over an area of approximately 2.5km x 8km associated with current/palaeo drainage patterns. The survey was carried with an RS125 Super Spectrometer on 500m line spacings totalling 22.55 line kilometres (Figure 2)

The best anomalism is located over a saline claypan lying adjacent to the most westerly gridline. The anomalism comprises an area some hundreds of metres long by 80 metres wide; being continuously >2x background (BG). Two hotspots of 7x BG were sampled for chemical analysis (Figure 2):

1. Sample D050018 comprises a clayey loam with no visible mineralisation; taken from 60cm below natural claypan surface. RS-125: 1300 cps TC insitu.
2. Sample D050019 comprises a surface calcrete crust with visible carnotite. RS-125:1700 cps TC in-situ.

SOIL SAMPLING						
SAMPLE No	Easting	Northing	Zone 52	Depth	Assay ppm U_3O_8 Amdel	Assay ppm U_3O_8 ALS
D 050018	677086	7692268		0.6m	1474	1500
D 050019	677066	7692245		0.1m	5719	6110

Ground inspection confirms that EL 10223 has potential to host significant paleodrainage uranium mineralisation. Although the true extent of anomalism is masked by sand cover; broad areas of >1.5 x BG can be detected from surface. A 60cm test pit showed that the uranium is not just skin deep. Furthermore the positive disequilibrium, if widespread, implies much higher grade than radiometrics would suggest. Disequilibrium also means that drill sample analysis would need to be chemically rather

than radiometrically based; at least initially. The prospect is ideally suited to first pass low pressure air-core or even power auger drill assessment. Initial drilling would need to address both shallow and potentially deeper palaeodrainage targets.

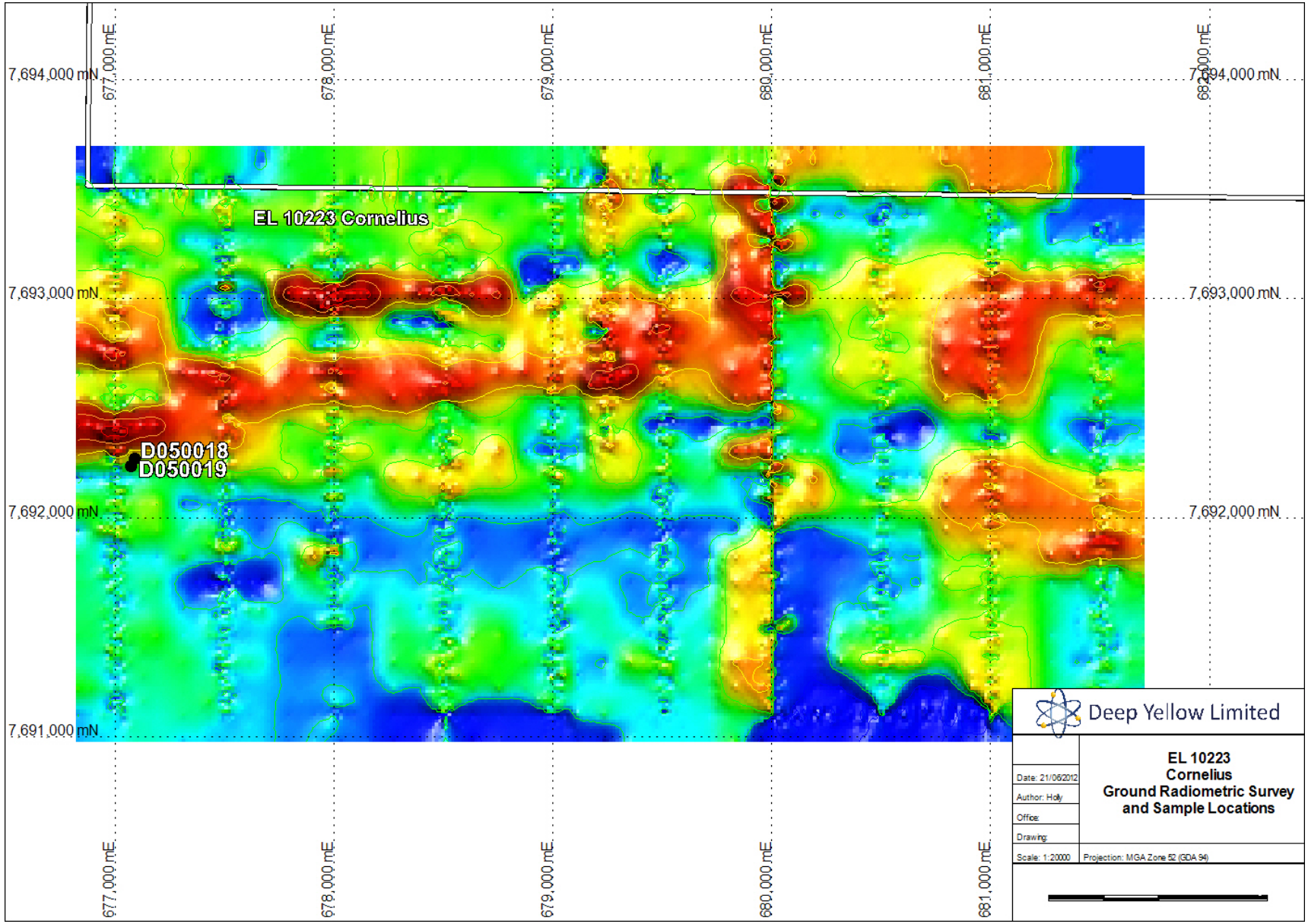

Figure 2 EL 10223 Ground Radiometric Survey Grid with Sample Locations

7.0 BIBLIOGRAPHY

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