ANNUAL REPORT

EL29318 - Mt Bundy Project

For Period Ending 22\textsuperscript{nd} October 2013

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1. DOR Darwin NT
2. Primary Gold, Perth Australia

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1 **EXECUTIVE SUMMARY**

EL29318 is a tenement of the Mt Bundy exploration group located 90 km SE of Darwin, and is situated approximately 30km SW of the historic Toms Gully Mine owned by Primary Gold and 30km NE of the small township of Adelaide River. The licence was granted to Primary Minerals Pty Ltd in October 2012 for a period of 6 years. Primary Minerals is a wholly subsidiary of Primary Gold Ltd.

The tenement is underlain by extensive areas of Cainozoic alluvium, colluvium and soil with minor outcropping feldspathic lithic greywackes of the Burrell Creek Formation of the Finniss River Group.

The thickness of the Burrell Creek Formation is difficult to establish but is thought to be >1000m and is conformably underlain to the NE of the tenement by the formations of the South Alligator Group. This Burrell Creek Formation hosts numerous small to moderately sized gold bearing quartz vein style prospects, the largest of which is the abandoned Goodalls Mine some 11km south of the tenement.

Work completed during the reporting period by Primary Minerals was limited to a desktop literature review of available public data.

The tenement forms part of the greater Primary Gold Mount Bundy Project which includes the historic Toms Gully, Rustlers Roost and Quest 29 Mines. Primary Gold has undertaken a successful feasibility study on the Toms Gully Mine and hopes to use the infrastructure development of this project to realise the potential of regional prospects such as may be found on EL29318.

The proposed work program for the second year of tenure is to include an airborne hyperspectral survey using HYVISTA and ground reconnaissance and investigation of historic sample data.
2 COPYRIGHT

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Any information included in the report that originates from historical reports or other sources is listed in the “References” section at the end of the document.

PGO authorises the department to copy and distribute the report and associated data

This report may be released to open file as per Regulation 125(3)(a).
3 INTRODUCTION

EL29318 is a tenement of the Mt Bundy exploration group located about 90 km SE of Darwin. The tenement forms part of the broader Mt Bundy group of projects owned by Primary Gold (PGO) covering some ~2,000km². The licence was granted PGO in October 2012.

This report documents the exploration activities conducted from 23rd October 2012 to 22nd October 2013.

4 LOCATION AND ACCESS

EL29318 is best accessed via the Stuart Highway, travelling some 95km south from Darwin to the Mt Ringwood Road and thence heading east for some 34km to the Mt Ringwood Station Homestead and then north via station tracks into the tenement (Figure 1). The station tracks provide good access for 4WD vehicles during the dry season, however these tracks become impassable after heavy rain, and therefore access is restricted during the wet season.

In the south the tenement is cut by the Margaret River and the landform is dominated by the riverine plains associated with this feature. In the north east of the tenement package low lying ridges of Cainozoic soil are orientated NNE reflecting the regional strike of the near surface, underlying Burrell Creek Formation.

5 TENEMENT DETAILS

EL29318 was granted to Crocodile Gold on 23rd October 2012 for a period of 6 years and expires on 22nd October 2018. The tenement is 4 blocks in size covering 13.4km².

The tenement is located on Crown Lease Perpetual 1222, Crown Lease Perpetual 1058, Perpetual Pastoral Lease 1212 and Perpetual Pastoral Lease 1163 and falls within the Pine Creek SD 52-08 1:250,000 map sheet and the Batchelor 5171 1:100,000 map sheet.
Figure 1 shows the location of EL29318.
6 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY

EL29318 is located within the Archaean to Palaeoproterozoic Pine Creek Orogen, one of the major mineral provinces of Australia. The Pine Creek Orogen is a deformed and metamorphosed sedimentary basin up to 14 km maximum thickness covering an area of approximately 66,000 km² and extending from Katherine in the south to Darwin in the north. It hosts significant resources of gold, uranium and platinum group metals (“PGMs”), as well as substantial base metals, silver, iron and tin-tantalum mineralization.

The Pine Creek Orogen comprises a series of late Archaean granite-gneiss basement domes, which are overlain by a fluvial to marine sedimentary sequence. Several highly reactive rock units are included within this sedimentary sequence including carbonaceous shale, iron stones, evaporite, carbonate and mafic to felsic volcanic units of the South Alligator and Finniss River Groups. This sequence has been subjected to regional greenschist facies metamorphism and multiphase deformation, which has resulted in the development of a northwest trending fabric. Subsequent widespread felsic volcanism and the intrusion of granitoids caused contact metamorphism, in aureoles between 500 m and 2 km wide that overprint the earlier regional metamorphism. After the granitoid intrusions an extensive array of northeast and northwest trending dolerite dykes intruded the metasedimentary sequence during regional extensional deformation.

Gold mineralization within the Pine Creek Orogen is preferentially developed within strata of the South Alligator Group and lower parts of the Finniss River Group along anticlines, strike-slip shear zones and duplex thrusts located in proximity to the Cullen Granite Batholith. Of particular stratigraphic importance are the Wildman Siltstone, the Koolpin Formation, Gerowie Tuff, Mount Bonnie Formation and the Burrell Creek Formation.

Figure 2: Stratigraphic column Pine Creek Orogen
Figure 3: Geology of the Pine Creek Orogen (NTGS Mapping)
6.2 **Local Geology**

The tenement is largely underlain by Cainozoic alluvial and colluvial cover (Figure 4), particularly in the south west of the tenement where the riverine plains of the Margaret River transect the tenement. In the north east of the tenement thin Cainozoic soils have developed over feldspathic greywackes of the Burrell Creek Formation. Where outcrop is
observed outside and adjacent to the tenement the Burrell Creek Formation is noted to
dip moderately to steeply to the east with a variable NNW to NNE strike.

The NTGS has described the Burrell Creek Formation as consisting of reddish brown
siltstone and shale with a well defined cleavage, greywacke and quartz pebble
conglomerate. Cross cutting quartz veins are common. The maximum measured
thickness of the Burrell Creek Formation is 1800m near Predictor Hill, 15km north of the
Adelaide River township. Massive felspathic lithic greywacke is interpreted to underlie
the tenement but outcrop is exceptionally poor. The formation is thought to have been
deposited in a submarine fan dominated by turbidity flows.

There are several Au prospects in ground adjacent to EL29318; Star of the North, Great
Western, Great Northern and Goodalls, the latter being the most significant.
Mineralisation at Goodalls is hosted in a greywacke-shale sequence in sheeted
auriferous quartz-sulphide veins. The mineralised zone is 750m long and up to 50m wide
and extends to at least 400m deep and trends approximately north south. The zone is
approximately 60m east and sub-parallel to of a major antiformal axis.

After a review of the regional geological setting it has been decided that this title has
some exploration potential similar mineralisation as that seen at the Goodalls Mine
Further mapping and sampling would be required to test this theory.
7 EXPLORATION ACTIVITY YEAR ENDING 22ND OCTOBER 2013

No field work has been undertaken during the past twelve months on EL29318, work has been restricted to desktop studies of the geology and compilation of historic data. Reconnaissance trips to the project were undertaken to assess accessibility and project logistics.

In February 2013 Primary Gold completed an agreement with Crocodile Gold Australia to purchase their Mt Bundy Project, with which EL29318 has been merged. Subsequent to this exploration work has been focussed on evaluating the prospectivity of all tenements in the project package. This work is ongoing. Additionally Primary Gold has successfully completed a Feasibility Study on the Toms Gully Mine the completion of this and the re-opening of the mine and associated infrastructure is a critical step in realising the potential of other smaller regional prospects such as might be found on EL29318.

A total of $11,306 was spent on EL29318 during the reporting period. This was just above the required $10,600.

8 RECOMMENDATIONS AND CONCLUSIONS

During the 2013-2014 exploration year, activities will include an ongoing review of historic geochemical and geophysical data, with reconnaissance field visits and geological mapping. Rock chip and soil sampling may be conducted if targets are identified. The scanning and collation of the reports and documents from previous explorers will continue.

An airborne hyperspectral survey (HYVISTA) is proposed for the entire Mt Bundy Project, including EL29318. It is hoped that this will fingerprint alteration associated with mineralisation in the project area.

It is recommended to retain this license as it does suggest significant potential to discover new mineralisation near the Mt Bundy deposits.

A minimum budget of $11,000 is proposed for the EL29318 for the next reporting period.
9 REFERENCES


