ANNUAL EXPLORATION REPORT
MCN 4267
FOR PERIOD ENDING 11 MAY 2010
“DAVIES”
BURNSIDE PROJECT NT

Pine Creek SD5208 1:250 000
Pine Creek 5270 1:100 000

Titleholders: Crocodile Gold Australia Pty Ltd – 85%
McCleary Investments Pty Ltd – 15%

Report No. PC/BJV/10-24

Zia U. Bajwah
August 2010
SUMMARY

MCN 4267 is an important tenement within Crocodile Gold Australia’s portfolio and is situated about 150 km southeast of Darwin, and 500 m north of the Golden Dyke Open Pit. Crocodile Gold Australia acquired the tenement and other assets after purchasing assets held by previous owner, GBS Gold Australia who went into voluntary administration on 15 September 2008.

In the project area, gold mineralisation (Davies No. 1) is hosted by the Koolpin Formation and outlined by RC and diamond drilling. It has a 60 m strike length, averages 2m in width and is estimated at 49,000t @ 2.58g Au/t. The deposit comprised of quartz vein system which is concordant and tabular. It is hosted by sulphidised carbonaceous shale that dips steeply west.

During the period under review, previous owner, GBS Gold Australia remained under ‘Care and Maintenance’. In June 2009, Crocodile Gold Australia Pty Ltd announced to acquire GBS Gold Australia’s assets in the Northern Territory. After meeting all statutory and regulatory requirements, these assets were transferred to new owner on 6 November 2009. Since then Crocodile Gold Australia commenced review of all assets. After ranking exercise, the company commenced mining and exploration activities in the Pine Creek area.

MCN 4267 contains a strategic resource which will provide additional feed stock to the Union Reefs mill. There is a strong possibility that with further exploration, current resource might increase substantially. In the year 2010-11, the tenement will be ranked and, if possible a campaign of sampling and drilling will be carried out.
CONTENTS

SUMMARY 2
1. INTRODUCTION 4
2. LOCATION AND ACCESS 4
3. TENEMENT STATUS AND OWNERSHIP 4
4. GEOLOGY 6
5. PREVIOUS EXPLORATION 8
6. EXPLORATION FOR YEAR ENDING 11 May 2010 10
7. FORWARD PROGRAMME 2010-11 11
8. REFERENCES 11

List of Figures
Figure 1: Tenement Location Map
Figure 2: Geological Setting of the Project area
1. **INTRODUCTION**

MCN 4267 is located in the Golden Dyke Dome which is host to gold and base metals mineralisation in the Pine Creek Orogen. Crocodile Gold Australia acquired the project after purchasing liquidated assets of GBS Gold Australia on 6 November 2009. It has the potential to provide feed stock to the Union Reefs gold processing facility.

2. **LOCATION AND ACCESS**

The tenement (MCN 4267) is located 15km SE of the Brocks Creek mine office, on the Burrundie (14/6-IV) 1:50,000 sheet. It is also 6.5km ENE of the Hayes Creek Inn on the Stuart Highway. The mineral claim lies between latitudes 13°33’30” south and 13°34’30” south, and longitudes 131°30’30” east and 131°31’ east (Figure 1). It is situated within Pastoral Lease No. 903, Douglas, held by Tovehead Pty Ltd. Access is via the Stuart Highway turning north onto the Grove Hill/Mt Bonnie Road. The road passes just east of the tenement.

3. **TENEMENT STATUS AND OWNERSHIP**


In April 2002, the tenement came under the control of the Burnside JV, and Northern Gold’s 85% interest was shared with JV company Buffalo Creek Goldfields Pty Ltd, a subsidiary of Harmony Gold. In September 2005, Northern Gold entered into an agreement with a Harmony subsidiary company to acquire the 50% Harmony interest in
the Burnside JV. GBS Gold acquired 100% of Northern Gold in January 2006, and finalised the 50% acquisition of Harmony’s share in March 2006. GBS Gold then held 85% of the tenement through subsidiaries Territory Goldfields NL and Buffalo Creek Mines Pty Ltd.

On 15 September 2008, GBS Gold Australia went into voluntary administration and as a result of that all exploration and mining assets were placed under care and maintenance. In June 2009, Crocodile Gold Australia announced to purchase these assets, and after meeting regulatory and statutory requirements, these assets were transferred to Crocodile gold Australia on 6 November 2009.

4. GEOLOGY

Regional geology is outlined in many publications, notably Ahmad et al. (1993), and Needham and Needham and Stuart-Smith (1984), and Needham et al. (1988). The tenement is within the Pine Creek Origin, a folded sequence of the Palaeoproterozoic pelitic and psammitic sediments, with interlayered cherty tuff units. Mafic sills of the Zamu Dolerite (~1.87Ga) intruded lower formations of the South Alligator Group. The tenement lies on the arcuate western limb of the Golden Dyke Dome (Figure 2). The Dome comprises Koolpin Formation, the basal member of the South Alligator Group. It is typically of dark anoxic mudstones, chert and grey-wackes, with minor calc-silicate facies rocks and magnetic iron formation facies. Concordant sills of Zamu Dolerite of various thicknesses are interlayered with the Koolpin Formation. Wildman Siltstone is exposed by erosion in the core of the Dome.

These rocks have been tightly compressed into a series of north-south trending folds with west limbs generally shallower dipping than the east. North-east striking faults including splays off the Hayes Creek Fault have truncated parts of the Golden Dyke Dome and have played a part in localising gold mineralisation. North-west and north east trending cross-fractures may also play a part in localising gold mineralisation. An interpretation of the SPOT image indicates that the most important gold mineralisation in the Golden
Figure 2: Geological setting of the project area
Dyke Dome is focussed on an arcuate parasitic anticline ("Good Shepherd Anticline") on the western limb of the Dome. This extends from Langley’s in the south to Afghans Gully-Black Rock in the north, a distance of 3km. Outcrop is quite good in the elevated areas, but a veneer of colluvium and rock detritus masks the geology on the low lying sectors.

The topography of the area comprises a series of low hills and ridges with sub-crop present on the crests and flanks. Seasonal creeks forming the headwaters of the Margaret River have incised the area. Gold mineralisation is within a bedding-concordant west dipping structure that comprises a quartz veined carbonaceous shale striking 340 degrees. The better grade mineralisation is one to two metres in thickness, and dips 70 degrees westerly. The strike extent of the best mineralisation appears to be in the vicinity of 60m.

5. PREVIOUS EXPLORATION

Shaw (2005) has outlined previous exploration at MCN4267, and this is incorporated here.

The Golden Dyke area, containing some of the earliest worked gold deposits in the Northern Territory, was first prospected in 1872, after the initial discovery of alluvial gold. Early production was largely derived from outcropping reefs and alluvial deposits. Various companies have extensively and systematically explored the Golden Dyke Dome, since the early 1900’s. These include, Golden Dyke Mining N.L., Anglo-Queensland Mining Pty. Ltd., Geopeko, Anaconda Australia, C.R.A.E., Oceania Exploration and Mining N.L., Zapopan N.L., Henry and Walker Ltd., Harlock Pty. Ltd., Eupene Exploration Enterprises, Kintaro Resources Ltd., Mount Bonnie Gold Unit Trust, Dominion Gold Operations Pty. Ltd. and Northern Gold N.L.

In 1980, Geopeko conducted a thorough exploration program over the Davies Prospect. This work consisted of costeaning, rock chip sampling, mapping and diamond drilling (Nicholson, 1981). Channel sampling of costeans identified a narrow, high grade zone of bedrock mineralisation in a siliceous gossan. Assay results returned up to 13.1 g/t Au
within a strike length of 60m. The mineralisation was reported as hosted by a thin bed of carbonaceous shale in Koolpin Formation. Five diamond drill holes (S12, S17, S18, S19, S20), totalling 746.69m, were also completed at Davies No. 1 Prospect. This confirmed promising grades of mineralisation over a strike length of approximately 60m, with a width of 1 to 2m. The best intersections were, 1.5m @ 36.0g/t Au from 76.2m in S12, 1.14m @ 2.75 g/t Au from 105.16m in S17, and 0.65m @ 4.7 g/t Au from 126.7m in S19 (Nicholson, 1981).

In the mid-1990’s, Northern Gold tested the reliability of previous drilling, and strike continuity of mineralisation by a programme of RC drilling and costeaneing (Hardy, 1994). The program was also aimed at testing the potential for mineralisation in sedimentary rocks overlying a footwall dolerite sill, below the main zone of mineralisation. Seven RC drill holes (DV1 - DV7) were completed for 472 metres, along four lines. All samples, collected at 1m intervals, were submitted to Assaycorp, in Pine Creek, for 50 gram fire assay, quartz-flush Au analysis. Best intercepts included 2m @ 20.7g/t Au from 12m (DV5), and 2m @ 8.73g/t Au from 8m in DV7.

The previous diamond drilling and the RC drilling results suggested that the mineralisation had a maximum strike length of 60m. The results from the RC drilling program confirmed the mineralisation is 1 to 2m wide and dips steeply to the west (Hardy, 1994). The underlying dolerite-sediment target exhibited well developed quartz and pyrite, arsenopyrite, chlorite and minor tremolite alteration; however the assay results indicated that there was no associated gold mineralisation. Further drilling of 25 RC drill holes (DV8 – DV32) were completed for 1,639m, on ten sections. The program was aimed at defining the dip and strike continuity of the mineralisation, and to close off the mineralisation to the south. Best intercepts were 1m @ 6.63 g/t Au from 23m in DV31, and 3m @ 3.97 g/t Au from 12m in DV13 (Mottram, 1999). The holes drilled to the south of the 1994 program returned poor results. Block modelling and ore resource calculations by Northern Gold in 1996 at Davies No.1 prospect used a model for 70m vertical depth and a top cut of 10 g/t with a 0.7 g/t lower cut off, resulting in a resource of **49,490 tonnes @ 2.58 g/t Au** (4100oz Au). In 1998/99 NGNL commissioned a review, including MCN4267, to appraise the Golden
Dyke Project Area for additional gold mineralisation and possible farm-in style joint venture agreements. NGNL entered into a JV agreement with Buffalo Creek Mines NL in April 2001. During the time of the Burnside JV, the property has been the subject of technical and ranking reviews while extensive exploratory drilling and underground development was conducted at Zapopan, and resource modelling was carried out at Cosmo Howley.

During the year 2005 - 06 GBS Gold acquired 100% of the Burnside Project with a successful takeover of Northern Gold NL (50%) and acquisition of Harmony’s subsidiary company. GBS have also acquired the mill at Union Reefs, and is re-evaluating the ranking of some of the tenements. Davies now has a more favourable ranking as GBS are investigating the capability of treating refractory ore at its Union Reefs plant. As the Davies tenement is within EL10347, work done on checking drill data on EL10347 during the year also applies to MCN4267. Work started on integrating and validating the historic drillhole database in December 2005. JMA Surveyors visited the tenement in March 2006 to look for markers or drillholes with no success. Mining by Henry & Walker in the 1980’s has obliterated grids and topographic features, and rehabilitation by Northern Gold has obscured drillholes and old grid/tenement markers. NGNL converted drillholes on the Davies No.1 and Golden Dyke grids into AMG coordinates. These have been converted to MGA coordinates using GDAIT. The Geopeko mapped geology was scanned into MapInfo.

6. **EXPLORATION FOR YEAR ENDING 11 May 2010**

As mentioned previous that MCN 4267 remained under voluntary administration during 2009. Under the instructions from Several Administrators, a technical review, tenement ranking and valuation was undertaken in order to prepare assets for sale. In June 2009, Crocodile Gold Australia announced to purchase all assets held by GBS Gold Australia (liquidated). After meeting all statuary and regulatory requirements, these assets including Bridge Creek (North) were transferred to new owner. Crocodile Gold Australia immediately commenced exploration, mining and processing activities in the region. Mining started from Brocks Creek underground and Chinese South (Extension) open pit;
hauling ore to Union Reefs gold mill for treatment. Work is underway to re-commence mining and processing at Toms Gully gold project, which is expected to come on-line in August 2010. So far, over $100.00 million has been spent of which approximately $15.0 million has been directed towards drilling in order to prove up resource base, which is vital for mining and processing operations in the region.

During reporting period, a review of the tenements was undertaken which supports additional mineral potential of the project area. Technical review of the data suggests that there is possibility of additional ore. In the area, gold mineralisation is hosted by the Koolpin Formation. Geological and structural setting of the project area is suitable for the localisation of additional mineralisation.

During 2009–10 additional work completed within the project consisted of:

1. Reconnaissance field visit
2. Tenement Administration
3. Report Preparation

An expenditure of $4280.00 incurred during the reporting period.

7. **FORWARD PROGRAMME 2010-11**

Mineralisation contained within the project area is a strategic resource which will provide additional feed stock to the Union Reefs mill. There is a strong possibility that with further exploration, current resource might increase substantially. In the year 2010-11, the tenement will be ranked and, if possible a campaign of sampling and drilling will be carried out. A minimum budget of $7000.00 is proposed.

8. **REFERENCES**

