ANNUAL EXPLORATION REPORT
EL23432
FOR PERIOD ENDING 8 MAY 2010
‘HAYES CREEK NORTH’
BURNSIDE PROJECT NT

Pine Creek SD5208 1:250,000
Tipperary 5170 1:100,000

Titleholders: Crocodile Gold Australia

Distribution:-

1. DOR Darwin, NT
2. Crocodile Gold Australia, Darwin
3. Crocodile Gold Australia, Brocks Creek

CGA Report No: PC/BJV/10-21

Zia U. Bajwah
June 2010
EL 23432 is located about 140km SE of Darwin, Northern Territory, and 3km north of Hayes Creek roadhouse on the Stuart Highway. The tenement was granted to Burnside Joint Venture, managed by Burnside Operations P/L comprising Territory Goldfields NL and Buffalo Creek Mines NL. These were wholly owned subsidiaries of GBS Gold Australia Pty Ltd. GBS Gold Australia went into voluntary administration on 15 September 2009 and Crocodile Gold Australia purchased all assets held by the previous owner on 6 November 2009.

The tenement overlies the Burrell Creek Formation of the Finniss River Group. East of the tenement is the Hayes Creek Fault, a major north east striking fracture system. The Burrell Creek Formation that forms high ground in the tenement occupies the axial zone of the fold. This is interpreted as a refolded syncline. South-east and South-west of the tenement, deformed and metamorphosed rocks of the South Alligator and Mount Partridge Groups are present, which are inter-bedded with the Zamu Dolerite.

During most of the reporting period, the tenement remained under voluntary administration. On the instructions of Several Administrators a technical review, tenement ranking and valuation was undertaken. This review identified mineral potential of the project area. TMI image of the project area shows that it is characterised by the presence magnetic anomalies in the northern part of the project area. These anomalies along with geological setting provide fertile ground for the localisation of gold, uranium and base metals mineralisation.

Crocodile Gold Australia regards EL 23432 highly due to its significant potential. In the next reporting year, company plans to explore the tenement aggressively. It is expected that selected parts of the project area will be mapped in detail. Historical geophysical data will be processed and magnetic and radiometric anomalies will be identified. This will lead to rock chip/soil sampling program. Results obtained from above mentioned program will be interpreted and drill targets will be defined. This will lead to RC/RAB drilling in the project area to fully assess the geochemical and geophysical targets.
TABLE OF CONTENTS

SUMMARY 2
1.0 INTRODUCTION 4
2.0 LOCATION AND ACCESS 4
3.0 TENEMENT STATUS AND OWNERSHIP 4
4.0 GEOLOGICAL SETTING 6
5.0 PREVIOUS EXPLORATION 6
6.0 EXPLORATION DURING THE REPORTING YEAR 2009-10 10
7.0 PROPOSED EXPLORATION PROGRAM FOR YEAR 2010-11 10
8.0 REFERENCES 12

List of Figures
Figure 1: Location of EL 23432
Figure 2: Geological Setting of the project area
Figure 3: TMI image of the area

List of Appendix
Appendix 1: Exploration Expenditure Statement
1.0 INTRODUCTION

EL 23432 is located within historically prospective region of the Pine Creek Orogen, and is surrounded by a number of gold, uranium and base metal deposits/prospects. Although located in a flat synclinal structure, it still may have some potential for mineralisation. So far, it has been explored without any success.

2.0 LOCATION AND ACCESS

EL 23432 is situated 140km SE of Darwin NT and 3km north of Hayes Creek Roadhouse on the Stuart Highway. The Brocks Creek exploration office lies 9km to the north, adjacent to the Darwin-Adelaide Railway. The Stuart Highway crosses to the south west of the tenement (Figure 1). Further east and north east extensive elevated outcrops and ridges of Burrell Creek Formation have been dissected by a network of creeks, which makes accessibility difficult. The tenement falls on the Pine Creek 1:250,000 sheet and on the Fenton 1:50,000 sheet. It falls within Douglas pastoral lease.

3.0 TENEMENT STATUS AND OWNERSHIP

EL 23432 was granted on 9 May 2003 and expires on 8 May 2009. It comprises 6 blocks that cover approximately 19.32 km². Three blocks were surrendered at the end of Year 2. It is registered in the names of Territory Goldfields NL and Buffalo Creek Mines NL in equal shares, which are subsidiaries of GBS Gold Australia Pty Ltd. The tenement is unencumbered by third party tenements.

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 all assets held by GBS Gold Australia (liquidated) in the Northern Territory. After meeting regulatory and statutory requirements all these assets including EL 23432 were transferred to Crocodile Gold Australia on 6 November 2009.
Figure 1: Location of EL 23432
4.0 GEOLOGICAL SETTING

Regional geology is outlined in many publications, notably Ahmad et al. (1994), and Needham and Needham and Stuart-Smith (1984), and Needham et al. (1988). The tenement is within the Pine Creek Orogen, a folded sequence of 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 overlies the Burrell Creek Formation sediments of the Finniss River Group (Figure 1). East of the tenement is the Hayes Creek Fault, a major north east striking fracture system. The Burrell Creek Formation that forms high ground in the tenement occupies the axial zone of the fold. This is interpreted by AGSO as a refolded syncline.

South-east and South-west of the tenement, deformed and metamorphosed rocks of the South Alligator and Mount Partridge Groups are present (Figure 2), which are interbedded with the Zamu Dolerite. These are the Mount Bonnie Formation, Koolpin Formation, Gerowie Tuff and Wildman Siltstone. The Depot Creek Sandstone and Stray Creek Siltstone are present south of the EL 23432. There are no MODAT occurrences recorded within the tenement.

5.0 PREVIOUS EXPLORATION

Part of the work done during Year 3 included a review of previous exploration. AP1681 covered the 2 eastern blocks of EL23432, plus a larger area to the north and east. Placer Prospecting explored for Cu, Pb, Zn and Mo but found no economic mineralisation during their work in 1967.

AP1959 covered a very large area around the Burnside granite, including the 2 eastern blocks of EL23432. Exploration focussed on prospects outside of EL23432, such as Woolwonga, Lady Josephine, Mount Ringwood, Grove Hill etc. Central Pacific Minerals explored AP1959 in JV with Magellan Petroleum in the late 1960’s and early 1970’s,
Figure 2: Geological Setting of the project area
focussing on Cu, Pb, Zn, with lesser focus on U, Au, Ag, Co, Fe and Mn. No specific work is mentioned within EL23432.

CRA Exploration held **EL1072**, covering the 2 eastern blocks of EL23432, plus an area north of EL23432 in 1977. Soil sampling to the south of EL23432 found some weak Cu anomalies (around 50ppm Cu) and Sn anomalies (below 20ppm Sn). The Sn anomalies were attributed to a locally higher density of Sn-bearing quartz veins with possible contamination from the nearby Hayes Creek tin mine.

**EL4219** covered the whole of EL23432 from 1983-1989. The titleholder viewed the tenement as having potential for quartz-vein stockwork type gold mineralisation in Burrell Creek Formation sediments. Interpretation of Landsat imagery recorded a SE-trending anticlinal structure intersected by NE structures. Rock chip sampling did not return any anomalous results from inside the EL. In the third year Grants Patch Mining entered into an agreement with the Titleholder (Bronte Douglass) and the work on EL4219 then focused on the Zapopan anticline to the north (outside EL23432).

**EL5097** comprised 6 blocks, 3 of which covered EL23432, for a 14 month period from 1988. A ‘structural approach’ (combining geophysical data, aeromagnetic data and regional geology) was favoured over geochemical sampling due to poor drainage, soils and outcrop within the tenement area. Two target areas were outlined, ‘Target 2’ is an interpreted anticline that trends southward into the western block of EL23432. Similar structural targets in the same regional setting have been deemed to have low economic significance, and the ground was relinquished without any further work.

**EL6755** covered the same 6 blocks as EL5097 and was held for a year in 1990 by Billiton Australia. Work included; aeromagnetic survey interpretation (from both BMR and multi-client surveys). The area of EL23432 had a ‘flat aeromagnetic signature’ and the highest stream sediment sample was 0.3ppb Au (out of 3 samples within EL23432). Billiton dropped the ground after the disappointing results.

**EL7919** covered 9 blocks, which included the 2 eastern blocks of EL23432. Solomon Pacific explored the tenement in 1994-96. Work included collecting 2 BLEG stream sediment samples within EL23432 (MOB20 and MOB21), with highest value of 0.8ppb
Au and 13ppm As from MOB21. Twelve soil samples within EL23432 returned a maximum value of 2ppb Au (8400N / 7000E; approx MGA 766840E / 8503270N). An area just outside the boundary of EL23432 (“Centre Point” at approx MGA 767180E / 8503420N) had a low-order stream sediment anomaly (MOB19) which is also coincident with a change in strike of the magnetic lineaments. Geological mapping of the northern block of EL23432 showed Burrell Creek float.

Acacia took over Solomon Pacific in 1996, and continued exploration on EL7919, plus work on EL9428, which included relinquished blocks from EL7919. On EL7919 during 1996, Acacia collected 105 soil auger samples from within EL23432, with highest value of 13ppb from a sample at (Sample 1070686; MGA approx; 765700E / 8503900N). Acacia named EL9428 ‘Thorium’ due to a radiometric high in that band. A detailed regional aeromagnetic survey was carried out in 1998 plus some stream sediment sampling and rock chip sampling. The stream sediment samples within EL23432 all returned 0.5ppb Au. The ground was relinquished in 2000, which is when Acacia was taken over by Anglogold.

During 2003, the first year of grant of the EL, exploration work by the Burnside Joint Venture initiated the structural analysis of the tenement setting. This was put into a regional context using SPOT and Magnetic images. This work was supplemented by further interpretation during 2004-05. Results of this interpretation show the synclinal nature of the underlying geology. The area is not considered to have a high priority for exploration potential.

Work done during Year 3 of tenure consisted of a historic data compilation. During 2004, a significant part of exploration activity included by checking the historical tenure data, searching data such as COREDAT, MODAT, Explorer 3 and open file company reports 147 soil samples in Explorer 3, comprising 12 soil samples from Solomon Pacific work (and translated from local grid to AMG by Acacia), and 135 soil auger samples collected by Acacia, with a max value of 13ppb Au. 5 stream sediment samples from Acacia work on EL9428 were also examined. All samples were at or below 0.5ppb Au. 10 rock chip samples (3 from Solomon Pacific work; 7 from Acacia work) had a maximum value of 1ppbAu and 175ppm As; CSMO12 assayed at 4ppb Au from the Solomon Pacific work (approx MGA 766900E / 8504170N).
6.0 EXPLORATION DURING THE REPORTING YEAR 2009-10

During most of the reporting period, EL 23432 remained under care and maintenance. Under the instructions from Several Administrators, a detailed technical review of the project area was undertaken, which identified gold and uranium potential of the EL. In addition tenement ranking and valuation was also undertaken.

Figure 3 shows TMI image of the EL which appears to be flat over most of the tenement area. However, northern part of the tenement is characterised by some magnetic ridges which could have significant structure for mineralisation. Other exploration activities were reconnaissance visit of the area, tenement management and annual exploration report preparation. A total of $6960.00 was expended and details are given in Appendix 1, at the end of this report.

7.0 PROPOSED EXPLORATION PROGRAM FOR YEAR 2010-11

Crocodile Gold Australia regards EL 23432 highly due to its significant potential for gold, base metals and uranium mineralisation. In the next reporting company plans to explore the tenement aggressively. It is expected that selected part of the project area will be mapped in detail. Historical geophysical data will be processed and magnetic and radiometric anomalies will be identified. This will lead to rock chip/soil sampling program. Results obtained from above mentioned program will be interpreted and drill targets will be defined. This will lead to RC/RAB drilling in the project area to fully assess the geochemical and geophysical targets. Expected expenditure would be a minimum of $17000.00 for the 2010-11 field season and details are given in attached appendix 1:
Figure 3: TMI image of the area
8. REFERENCES