Annual and Final Report

Tenements
MCN’s 4863-4871

9 November 2009 to 30 April 2015

Map Sheets
Pine Creek - SD5208, scale1:250,000
McKinlay River – 5271, scale 1:100,000

Distribution:-

1. DME Darwin, NT
2. Crocodile Gold Australia, Darwin
3. Rockland Resources, Brisbane
4. Phoenix Copper, Adelaide

Amanda Schwartz
May 2015
TABLE OF CONTENTS

1 EXECUTIVE SUMMARY ............................................................................................................. 3
2 COPYRIGHT ................................................................................................................................. 5
3 INTRODUCTION .............................................................................................................................. 6
4 LOCATION AND ACCESS .............................................................................................................. 6
5 TENEMENT DETAILS ...................................................................................................................... 8
6 GEOLOGICAL SETTING ............................................................................................................... 9
   6.1 Regional Geology ..................................................................................................................... 9
   6.2 Local Geology ......................................................................................................................... 13
7 EXPLORATION ACTIVITIES Pre-2011 ....................................................................................... 15
   7.1 EXPLORATION ACTIVITIES 2011-31 DECEMBER 2014 ..................................................... 16
8 REFERENCES .................................................................................................................................. 17

LIST OF FIGURES

FIGURE 1: RELINQUISHED MCN’S LOCATION MAP ........................................................................ 3
FIGURE 2: MCN’S LOCATION MAP ................................................................................................. 7
FIGURE 3: STRATIGRAPHIC COLUMN, PINE CREEK OROGEN (GILLMAN ET AL, 2009) ..................... 10
FIGURE 4: RELINQUISHED MCN TENEMENTS ON A REGIONAL GEOLOGY BASE MAP ............... 12
FIGURE 5: RELINQUISHED MCN TENEMENTS IN RELATION TO LOCAL GEOLOGY ...................... 14

LIST OF TABLES

TABLE 1: MCN TENEMENT DETAILS ............................................................................................ 8
1 EXECUTIVE SUMMARY

Tenements MCN’s 4863-4871 are located in the central part of the Pine Creek Orogen, which is one of the main gold producing areas in the Northern Territory. The mining tenements are situated roughly 140 km southeast of the city of Darwin, NT. The Brocks Creek area has historically been the focus of open pit, underground and alluvial gold mining with significant quantities of gold being discovered along the Brocks Creek-Zapopan (BKZ) structure. Crocodile Gold Australia acquired the project area in August of 2011.

The tenement area is underlain by a sequence of Palaeoproterozoic meta-sedimentary rocks found in the South Alligator Group and Finniss River Group, which is intruded by the Burnside Granite. This rock sequence has been tightly folded on axes, which trend north-westerly, and have been subjected to greenschist facies metamorphism. Thermal effects from the late-orogenic Burnside Granite, which lie to the north, have imparted hornfelsing and porphyroblastic spotting of garnet, biotite and andalusite/cordierite. This tends to depend on lithology and the proximity to the contact.

Figure 1: Relinquished MCN’s Location Map
Minor exploration activities were conducted on the tenement area outlined in Figure 1 (above) during the period of 2011 and 2014. This included several desktop reviews of the data pertaining to the area as well as reconnaissance mapping of the tenements.

Crocodile Gold has made the decision to relinquish mineral titles MCN4863, MCN4864, MCN4865, MCN4866, MCN4867, MCN4868, MCN4869, MCN4870 and MCN4871, to allow another party to conduct exploration activities within the area.
2 COPYRIGHT

This document and its content are the copyright of Crocodile Gold Australian Operations (CGAO). The document has been written by Amanda Schwartz for submission to the Northern Territory Department of Mines and Energy as part of the tenement reporting requirements as per Regulation 86 of the Mineral Titles Act.

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.

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

Tenements MCN4863, MCN4864, MCN4865, MCN4866, MCN4867, MCN4868, MCN4869, MCN4870 and MCN4871 are located approximately 140km southeast of the city of Darwin in the Northern Territory and were a part of the Brocks Creek Project area. The area has historically been the focus of alluvial and gold mining, with featured gold production from the Brocks Creek-Zapopan (BKZ) structure. These tenements are located approximately 7km southeast of the Brocks Creek office area. From its acquisition in 2011, the area was regarded with potential for gold deposits due to the proximity to the Brocks Creek and Zapopan structures.

The tenements are underlain by a sequence of Palaeoproterozoic meta-sedimentary rocks, which are intruded by the Burnside Granite and form part of the Pine Creek Orogen. The area is the host to significant amounts of gold, uranium and a variety of base metal mineralisation.

4 LOCATION AND ACCESS

MCN’s 4863 - MCN 4871 are situated approximately 140km SE of the city of Darwin NT, and roughly 45Km northwest of the village of Pine Creek (Figure 2). Access may be gained by travelling approximately 160 km south from Darwin via the Stuart Highway, then heading east along the Fountain Head Road for approximately 12 km.

The tenement’s falls on the Pine Creek SD5208 1:250,000 map sheet and on the Batchelor 5271 1:100,000 map sheet. The tenements lie on the Douglas Station pastoral lease, PL2683. The area consists of hills, flats and undulating terrain, which generally support tall and mixed open woodland with tall grassy understorey (NSR, 1995).
Figure 2: MCN's Location Map
5 TENEMENT DETAILS

The tenement details associated with the MCN’s can be viewed in Table 1 (below). The tenements were consolidated between 1987 and 1995 by Cypress Gold Australia and Solomon Pacific-Acacia Resources Pty Ltd. These MCN’s were a part of the original 26 MCN’s which, comprised with MLN1139 and another MLN, and made up the Brocks Creek Group.

A gold mill was commissioned by Solomon Pacific Resources NL in April of 1996, which was used to process the ore from several open pit gold deposits within the area. The company was subsequently acquired by Acacia Resource (a subsidiary of AngloGold Australia) which continued open pit mining and exploration of the Brocks Creek area up to April 2000. The area was then purchased by Buffalo Creek Mines P/L, a subsidiary of Hill 50 Limited in November 2001.

During 2005, GBS Gold Australia Pty Ltd successfully made a takeover bid for Northern Gold NL, as well as purchased Harmony Gold’s 50% interest of the Burnside Project area. Full acquisition of the Burnside Project by GBS Gold Australia Pty Ltd occurred in April of 2006.

Crocodile Gold Australia Pty Ltd received the liquidated mining lease application from GBS Gold on November 9th 2009. The titles were transferred to the Company in August 2011.

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Area (ha)</th>
<th>Area (&quot;Kms&quot;)</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCN4863</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4864</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4865</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4866</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4867</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4868</td>
<td>33.71</td>
<td>0.34</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4869</td>
<td>31.00</td>
<td>0.31</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4870</td>
<td>31.00</td>
<td>0.31</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
<tr>
<td>MCN4871</td>
<td>31.00</td>
<td>0.31</td>
<td>13/02/1995</td>
<td>31/12/2015</td>
</tr>
</tbody>
</table>

Table 1: MCN Tenement Details
6 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY
Tenements of the Brocks Creek Projects are located within the Pine Creek Orogen, a tightly folded sequence of Palaeoproterozoic rocks, 10 to 14 km in thickness, laid down on a rifted granitic Archaean basement during the interval ~2.2-1.87Ga (Ahmad et al. 1993). The sequence is dominated by pelitic and psammitic (continental shelf shallow marine) sediments with minor inter-layered tuff units. Pre-orogenic mafic sills of Zamu Dolerite intruded the sequence prior to regional metamorphism and deformation.

During the Top End Orogeny (Nimbuwah Event ~1.87-1.85Ga) the sequence was tightly folded and pervasively altered with metamorphic grade averaging greenschist facies to phyllite. The Cullen Intrusive Event introduced a suite of fractionated calc-alkaline granitic batholiths into the sequence in the period ~1.85-1.78Ga (Bajwah 1994). These high temperature I-type intrusives induced strong contact metamorphic aureoles ranging up to (garnet) amphibolite facies, and created more extensive biotite and andalusite hornfels facies.

Less deformed Neo- to Meso-Proterozoic clastic rocks and volcanics have an unconformable relationship to the older sequences. Flat lying Palaeozoic and Mesozoic strata along with Cainozoic sediments and proto-laterite overlie parts of the Pine Creek Orogen lithologies. Recent scree deposits occupy the lower hill slopes while fluviatile sands, gravels and black soil deposits mask the river/creek flats areas.
Strata comprising of the Gerowie Tuff are the host rocks for mineralisation within the Brocks Creek MCN area. This unit contains a repetitious sequence of volcano-sedimentary unit comprising argillite (siltstones/shales/schists) and silicified tuffs. The formation has an apparent thickness of more than 500 m and is the middle of three discrete units comprising the South Alligator Group (Figure 4). Koolpin, Gerowie Tuff and Mt Bonnie Formations, and the overlying Burrell Creek Formation (part of the Finniss River Group), are host to almost all of the significant gold deposits in the Pine Creek Inlier.
Upper and lower contacts between these four formations are gradational and interdigitations are common, however, there is an angular unconformity at the base of the Koolpin Formation. Subjacent to the unconformity is the Mount Partridge Group, though it does not outcrop in the Brocks Creek area (Figure 4).

Regionally, the South Alligator Group has been intruded and dilated by semi concordant pre-orogenic sills of Zamu Dolerite. Only the Koolpin Formation appears to have been intruded within the Brocks Creek area. A tight WNW trending, shallow southeast plunging, asymmetric fold structure termed the Brocks Creek-Zapopan (BKZ) anticline has been subject to axial plane failure and thrust fault movement. It hosts the bulk of gold mineralised occurrences in the area. The association of gold with failed anticlinal axial zones in South Alligator Group is common in the Pine Creek Orogen (Shaw, 2005).

The Koolpin Formation (100m-500m thick) is typically thin to medium, bedded dark carbonaceous pyritic mudstone-siltstone with rare iron formation and dolomitic horizons. It represents low energy deposition in an anoxic basin and hosts the Cosmo Mine, Howley Mine and Golden Dyke Dome gold mineralisation. It rests unconformably on Mt. Partridge Formation (Wildman Siltstone).

The overlying Gerowie Tuff (200m-500m thick) is made up of a cyclic silt-greywacke-arenite unit with frequent alternations of thin cherty tuffite beds, and carbonaceous argillite. It represents distal sub-aerial felsic volcanism feeding into a euxinic basin. The unit is present at the Faded Lily, Burgan and Alligator gold deposits.

The Mt Bonnie Formation (150m-500m thick) is made up of cyclic siltstone, mudstone and greywacke beds with thin pyritic chert horizons that are locally important host rocks at Brocks Creek. It represents slightly higher energy deposition and is a precursor to the high energy greywacke facies of the Finniss River Group into which it grades conformably (Figure 3).

Late-stage biotite, lamprophyre and felsic porphyry dykes also cut the meta-sedimentary sequence.
Figure 4: Relinquished MCN Tenements on a Regional Geology Base Map
6.2 **LOCAL GEOLOGY**

The relinquished MCN tenements are largely underlain by Burrell Creek Formation, represented by lithic greywackes and siltstone-argillite, which rests gradationally on Mt Bonnie Formation and outcrops extensively to the south of the BKZ. Regionally it is known to host significant gold mineralisation, especially in the Union Reefs area.

It is quite possible that Mt Bonnie Formation and Gerowie Tuff may occur in the northern part of the tenements.

There are no significant occurrences of mineralization noted for the tenement area.
Figure 5: Relinquished MCN Tenements in Relation to Local Geology
7 EXPLORATION ACTIVITIES PRE-2011

For the years prior to 2011, the Brock’s Creek MCN titles were held by other companies; a summary of their work is outlined below:

Gold was first discovered in the Brock’s Creek area at the end of 1872 and was mainly worked by the Chinese up until the turn of the 20th century. The mining techniques consisted of alluvial mining, shafts adits and small pits. By 1895 there were a number of reef mining operations with a total population of 311 people in the Brock Creek Area.

In 1935, 1936 and 1939, the Brock’s Creek area was mapped by the Aerial Geological and Geophysical Survey of Northern Australia. Walpole (1968) also mapped the area in his regional survey of the Pine Creek Geosyncline.

During the period of 1954 to 1956, the Brock’s Creek area was worked by Australian Mining and Smelting Limited, whose main focus was on gold and the base metal potential within the carbonaceous shales from within the region. The area was then sold to Enterprise Exploration Company Pty Ltd in 1957.

From 1976 to 1979 CRA Exploration Pty Limited acquired the tenement area, becoming the first modern explorer to evaluate the gold resources in the area.

In 1993 Cypress and Solomon Pacific formed a joint venture over the area with 75% ownership going towards Cypress on January 5th, 1993. A drill program was completed within the same year, which saw 20 vacuum drill bedrock holes drilled within the tenement areas. The results were poor from this area, with the average grade being 0.5 g/t Au. Further drilling was conducted over the area during the 1998 drilling campaign by Acacia Resources. This involved a total of 47 holes being drilled on the tenement area.

The joint venture was subsequently acquired by Acacia Resource (a subsidiary of AngloGold Australia), which continued open pit mining and exploration of the Brock’s Creek area up to April 2000. The area was then purchased by Buffalo Creek Mines P/L, (a subsidiary of Hill 50 Limited) who had equal shares in the mineral claims with Territory Goldfields, in November 2001. The joint venture between Buffalo Mining P/L and Territory Goldfields NL was known as the Burnside Joint Venture.

In 2004, a remote sensing study was conducted over the area by Burnside Joint Venture, which accommodated the report writing.

During 2005, GBS Gold Australia Pty Ltd successfully made a takeover bid for Northern Gold NL, as well as purchased Harmony Gold’s 50% interest of the Burnside Project.
area. Full acquisition of the Burnside Project by GBS Gold Australia Pty Ltd occurred in April of 2006.

7.1 EXPLORATION ACTIVITIES 2011- 31 DECEMBER 2014

No exploration activities were reported in 2011 as Crocodile Gold took over the titles from the receivers of GBS Gold.

From 2012 to 2014, exploration over the MCN’s included a complete review of the data associated with the tenements as well as the collation of historic reports and maps associated with the area. These reports and maps are now stored at the Brocks Creek document library.

No other work was done on the area.
8 REFERENCES


SHAW J., 2005 Annual Exploration Report EL23270, Year ending 19th March 2005. For DBIRD and Burnside JV.


