



GBS GOLD AUSTRALIA PTY LTD

ANNUAL *EXPLORATION REPORT*
EL 24018
Hayes Creek East
YEAR ENDING 9 AUGUST 2009

Pine Creek 1:250,000 SD5208
Pine Creek 1:100,000 5270
Tipperary 1:100,000 5170

Distribution:

- **DRDPIFR Darwin, NT**
- **GBS Gold Australia P/L, Darwin**
- **Union Reef Mine Site Pine Creek, NT**

Report Number: [PC/BJV/09-32](#)

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September 2009

SUMMARY

EL 24018 is located about 140 km SE of Darwin, NT. It was granted on 10 August 2004 and expires on 9 August 2010. The tenement comprises seven sub-blocks that cover approximately 2,331 hectares (23.37km²). The EL is registered in the names of Territory Goldfields NL and Buffalo Creek Mines NL in equal shares. During 2005-2006, GBS Gold Australia Pty Ltd successfully made a takeover of Northern Gold NL and has purchased Harmony Gold (through subsidiary Buffalo Creek Mines) 50% share of the Burnside Project as of 1st April 2006.

The tenement largely covers a tract of the McMinns Bluff Granite that has been unconformably overlain by Mesoproterozoic Tolmer Group sandstone, conglomeratic sandstone and subordinate dolomite. The more resistant Tolmer Group has formed an arcuate escarpment that faces north on the south side of the valley. Table-tops of Cretaceous sandstone overlie the granite to the east. To the north, rocks of the South Alligator and Finnis River groups are also present. An important feature is the presence of Hayes Creek Fault which transacts the area from NE to SW.

During the reporting period, project area was reviewed for the presence of uranium mineralisation. Initially, there was no significant encouragement; however, during 2008-2009 drilling campaign significant uranium mineralisation was discovered along the Hays Creek Fault which included prospects like Thunderball (EL 23431), Corkscrew and Bella Rose. EL 24018 is located towards SW of the Thunderball uranium prospect, and is intersected by Hays Creek Fault which appears to have control over uranium mineralisation. Therefore, further drilling program may intersect another uranium mineralised area within EL 24018.

EL 24018 is a significant asset which holds gold, uranium and base metals potential. Current technical review identified multi-commodity potential of the project which Crocodile Gold along with its JV partner intends to explore. A program of geological mapping, geochemical sampling and possible Aircore/RAB drilling will be undertaken to fully assess the mineral potential of the area.

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1.0 INTRODUCTION

EL 24018 is located south of Hays Creek and was applied for to cover ground that fell vacant south of the Golden Dyke Dome. The project appears to have potential for gold, uranium and base metal mineralisation. The following report deals with exploration activity carried out over EL 24018 during the year ending 9 August 2009.

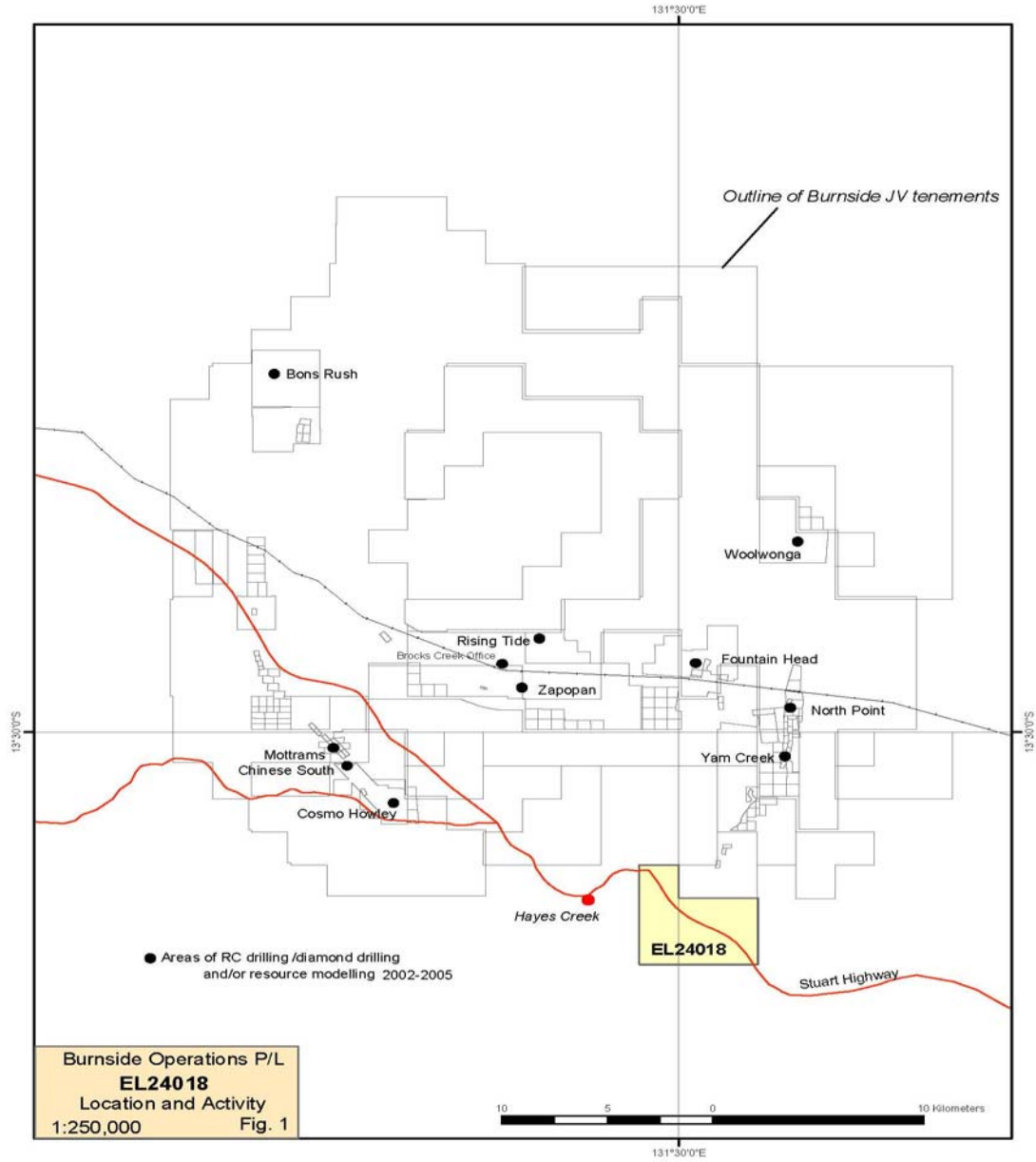
2.0 TENEMENT DETAILS

EL24018 was granted on 10 August 2004 and expires on 9 August 2010. It comprises seven sub-blocks that cover approximately 2,331 hectares (23.37km²). The EL is registered in the names of Territory Goldfields NL and Buffalo Creek Mines NL in equal shares.

3.0 LOCATION AND ACCESS

EL 24018 is situated 140km SSE of Darwin NT and 4km east of Hayes Creek Inn on the Stuart Highway which passes diagonally through the centre of the tenement, from NW to SE. The junction of the Stuart Highway with the Mt Bonnie and the Grove Hill Pub road falls within the centre of the tenement. The tenement also covers the headwaters of the Margaret River. McMinns Bluff, formed from a scarp of Tolmer Group sandstone, lies south of the Stuart Highway. The tenement falls on the Pine Creek 1:250,000 sheet and on the Burrundie 1:50,000 sheet. The tenement also falls within the Douglas and Mary River West Pastoral Leases.

Figure 1: EL 24018 Tenement Location



4.0 GEOLOGICAL SETTING

4.1 Regional Geology

EL 24018 is situated 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. The sequence is dominated by pelitic and psammitic (continental shelf shallow marine) sediments with minor interlayered tuffaceous units. Pre-orogenic mafic sills of the Zamu Dolerite event (~1.87Ga) intruded the lower formations of the South Alligator Group and part of the Mt Partridge Group.

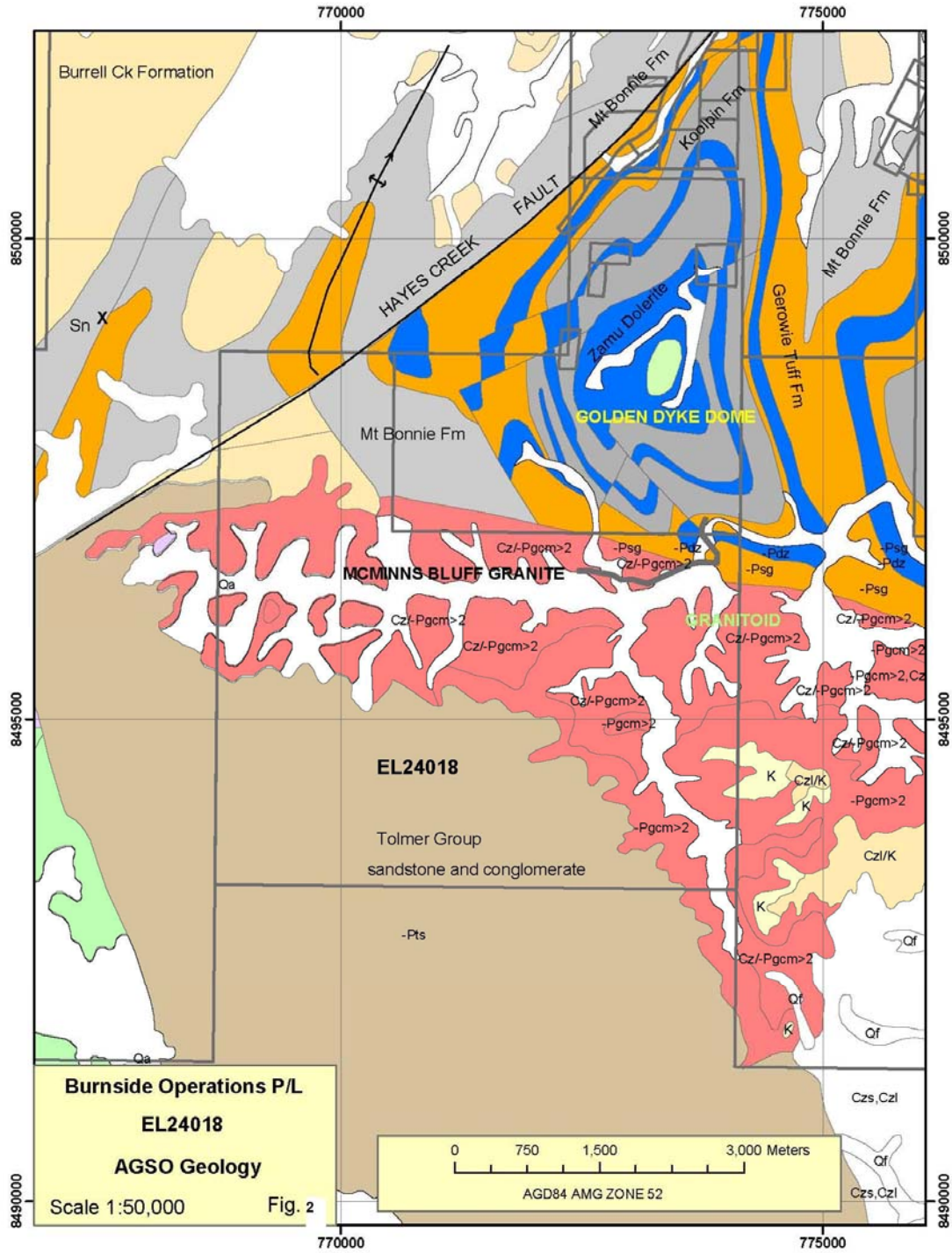
During the Top End Orogeny (1.87-1.85Ga) the sequence was tightly folded and pervasively altered with metamorphic grade averaging greenschist facies to phyllite. The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholiths into the sequence in the period ~1.84-1.75Ga. These high temperature I-type intrusives induced strong contact metamorphic aureoles ranging up to (garnet) amphibolite facies, and created more extensive biotite and cordierite and andalusite hornfels facies.

Open-folded Meso- and Neoproterozoic clastic rocks and volcanics have an unconformable relationship to the older sequences. Flat lying Cambro-Ordovician sandstone and limestone of the Daly River Basin along with hill-cappings of Mesozoic arenites overlie the basement. Cainozoic sediments and proto-laterite overlie parts of the Pine Creek Orogen lithologies. Recent scree deposits occupy the lower hill slopes while fluvial sands, gravels and red and black soil deposits mask the river flood plain areas.

4.2 Local Geology

EL24018 largely covers a tract of the McMinns Bluff Granite that has been unconformably overlain by Mesoproterozoic Tolmer Group sandstone, conglomeratic sandstone and subordinate dolomite. The granite body is porphyritic pink and green and is exposed on the flanks of the valley of the Margaret River headwaters that in this region flow east-west. The more resistant Tolmer Group has formed an arcuate escarpment that faces north on the south side of the valley. Table-tops of Cretaceous sandstone overlie the granite to the east. Geology of the project area is shown in Figure 2.

Figure 2: EL 24018 Regional Geology



To the north, the granite has been sheared, close to east-west contact with the Palaeoproterozoic meta-sediments of the Pine Creek Orogen. Here, the South Alligator Group rocks are represented by Gerowie Tuff and Mt Bonnie Formation. The Burrell Creek Formation of the Finnis River Group is also present at the granite meta-sediment contact. Just north of the contact the rocks have been folded into a broad domal structure called the Golden Dyke Dome.

The most northerly block of the tenement contains the contact zone of the granite with the Mt Bonnie Formation and Gerowie Tuff. In addition, some 1.5 m of the regionally important Hayes Creek Fault crosses the block from NE to SW.

5.0 GOLD MINERALISATION

Geological, geochemical and geophysical information gathered so far suggest that areas surrounding the granites are the most prospective for hosting gold mineralisation. This is perhaps due to the presence of geological sequence which has been subjected to ductile as well as brittle deformation during Top End Orogeny (1870 – 1850 Ma), leading to the development of structural sites with porosity and permeability and that have acted as fluid conduits. The project area was subsequently intruded by the McMinns Bluff and Burnside Granites, causing wide spread contact aureole, containing gold mineralisation not only around the Burnside Granite but many others in the region (Bajwah, 1994). These plutons are I-type, fractionated and belong to magnetite-series which are known to contain or responsible for gold mineralisation in the adjacent meta-sediment. The Burnside Granites is more fractionated and oxidised compared to McMinns Buff. In the final stages of granite emplacement, the magma experienced differentiation and fractional crystallisation which subsequently led to the emanation of hydrothermal fluids, responsible for gold mineralisation in already structurally prepared sites such as F₃ anticlinal structures and associated cross fractures.

Perhaps the area covered by EL 24018 has been subjected to contact metamorphism by the both McMinns Bluff and Burnside Granites. It is important to note that the Hayes Creek fault (Figures 2 and 3) intersects the tenements and is known to have been

associated gold mineralisation. Most of the gold mineralisation associated with the Hayes Creek Fault is situated on the north-eastern side of the project but small occurrences of tin are present on the western side of the project area (Figure 3). A magnetic ridge on the northern side of the tenement as shown by the TMI image of the area indicates the gold potential (Figure 3). It is due to fact that similar magnetic ridges host gold mineralisation on the north-eastern side of the project area. However, much of the project area underlies the non-prospective McMinns Bluff Granite.

6.0 PREVIOUS EXPLORATION ACTIVITY

The Golden Dyke region has long been associated with rich alluvial and lode gold deposits. The relatively thin colluvial cover was ideal for prospecting and for extracting alluvial near surface gold. Early last century several well known quartz reefs and lode deposits were developed including Golden Dyke, Langleys, Davies No.1, Margaret diggings, Yam Creek and Mt Bonnie.

A soil sampling program has been recorded from the northernmost block. Three BLEG sample lines with an east-west orientation cross the whole block. They have a 400m separation with samples 100m apart on lines that straddle the Hayes Creek Fault system and the sheared contact with McMinn's Bluff Granite. None of the samples gave above background levels of gold, being less than 7ppb. The southernmost extension of the (NW-SE) Langley's and Golden Dyke structure barely extends into the EL. It is not known whether work has been carried out at this location.

Exploration for the period 10 August 2004 to 9 August 2008: the Burnside joint venture carried out a remote sensing study based upon satellite SPOT imagery and supported by AGSO geological mapping. The tenement geology indicates that the bulk of the tenement is underlain by Tolmer Formation sandstones and McMinns Bluff Granite. The AGSO geology seems to imply that Gerowie Tuff is present in the NE corner of the EL. The SPOT image suggests that this may not be the case. Ground traverses are needed to resolve this. The north-west block is mostly underlain by Mt Bonnie Formation and minor Gerowie Tuff, adjacent to the Hayes Creek Fault system that transects the block from NE to SW. The sheared contact with McMinns Bluff Granite also passes through the block and trends around 280 degrees magnetic. Secondary fracture sets may be

observed on the SPOT image that trend NE. It would appear that these fractures pass through the Golden Dyke and Langleys deposits, which suggests that they may have played a part in the localisation of the gold mineralisation. These fractures extend SW into EL24018.

Work during the period 2005 to 2006 was minimal and concentrated on tenement administration and report writing. This was due to the acquisition of the Burnside Joint Venture by GBS Gold Australia Pty Ltd. The takeover combined with the concentration of work on the recommencement of mining in the Brocks Creek district has meant exploration targets have had to be prioritised.

During 2006-07, an in-depth review of the tenement was undertaken which identified significant potential of the project area. This involved geochemical and geophysical assessment of the area together with reconnaissance visits of the tenement area.

On 15 September 2008, GBS Gold Australia was declared under voluntary administration and all assets including EL 24018 were placed under care and maintenance.

7.0 EXPLORATION YEAR ENDING 9 AUGUST 2009

On 17 September 2007, GBS Gold Australia entered into JV agreement with Thundelarra Exploration Pty Ltd. According to this agreement, Thundelarra Exploration Pty Ltd secured rights to explore uranium on all tenements within Burnside project area including EL 24018.

During the reporting period, project area was reviewed for the presence of uranium mineralisation. Initially, there was no significant encouragement; however, during 2008-2009 drilling campaign significant uranium mineralisation was discovered along the Hays Creek Fault which included prospects like Thunderball (EL 23431), Corkscrew and Bella Rose (Thundelarra Exploration Pty Ltd Press Release, 2009). EL 24018 is located towards SW of the Thunderball uranium prospect, and is intersected by Hays Creek Fault (Figures 2 and 3) which appears to have control over uranium mineralisation. Therefore, further drilling program may intersect uranium mineralisation within EL 24018.

GBS Gold Australia was declared under voluntary receivership in September 2008 and all assets including EL 24018 were placed under care and maintenance. Under the instructions of several Administrators, all assets were prepared for sale. This required tenement ranking, evaluation and a peripheral review of the project area.

Other activities conducted over the EL 24018 consisted of:

1. Reconnaissance visits
2. Tenement Management
3. Report Preparation

This program costed \$8940.00 and details are reported in the Appendix 1.

8.0 FORWARD PROGRAMME year ending 10 August 2010

In April 2009, Forbes Manhattan, a Canadian investment bank through its subsidiary Crocodile Gold Australia, acquired all GBS Gold Australia's assets with the intention to re-commence gold production in an immediate future. Currently, registration of all tenements against Crocodile Gold is underway, and it is expected that within a few weeks this process will be completed.

EL 24018 is a significant asset which holds gold, uranium and base metals potential. Current technical review identified multi-commodity potential of the project which Crocodile Gold along with its JV partner intends to explore. A program of geological mapping, geochemical sampling and possible Aircore/RAB drilling will be undertaken to fully assess the mineral potential of the area. In addition, Historical geophysical data will be re-processed and interpreted. A minimum budget of \$12000.00 is proposed.

9.0 REFERENCES

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