ANNUAL EXPLORATION REPORT
EL 23270

"WOOLWONGA NORTH"

YEAR ENDING 19 February 2010

McKinlay River 1:100, 000
PINE CREEK 1:250, 000

Distribution:-

1. **DPIFM Darwin NT**
2. **GBS Gold Australia Perth**
3. **Burnside Operations P/L Brocks Creek**
4. **Union Reefs, Pine Creek**

Report No: PC/BJV/10-04

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SUMMARY

EL 23270 is located 140km SE of Darwin, NT and 18km NE of Brocks Creek Siding. It was granted to Buffalo Creek Mines Pty Ltd (50%) and Territory Gold Fields Pty Ltd which are wholly owned subsidiaries of GBS Gold Australia. GBS Gold Australia went into voluntary administration on 15 September 2008 and all assets including EL 23270 were placed under care and maintenance. In 2009, Crocodile Gold Australia purchased all assets held by GBS Gold Australia (liquidated), and after meeting all statuary and regulatory requirements, EL 23270 along other assets were transferred to new owner.

The tenement comprises a suite of Palaeoproterozoic meta-sedimentary rocks, intruded by late orogenic granites, and form part of the Pine Creek Orogen sequence. It lies just north- east of the Woolwonga gold open pit and the four blocks are contiguous with the Woolwonga tenement group.

During the year under review, GBS Gold Australia remained under voluntary administration. The main activity, however, has been to prepare assets for sale. For this purpose, a review of the tenement along with tenement ranking and evaluation was undertaken, which identified significant potential of the project area. In addition, a few trips with interested parties were also undertaken.

Proposed future work would involve detailed interpretation of the magnetically anomalous NW trending signature parallel to the Woolwonga structure in the south and the drilling of broad spaced RAB / Air Core holes to basement under the colluvial / alluvial cover that masks a good deal of the landholding.

LIST OF CONTENTS

LIST OF FIGURES

LIST OF APPENDIX

1.0 INTRODUCTION

EL 23270 is considered as strategic landholding which was applied for to cover vacant ground north and east of the Woolwonga Group of tenements, containing the Woolwonga open pits. It is expected that Woolwonga style of gold mineralisation may extend into EL 23270 which can add significant resource to depleted inventory base at Woolwonga mine.

Since 2002, the Burnside Joint Venturer comprising Buffalo Creek Mines NL and Territory Goldfields NL have managed the EL and have explored other mineral assets in the immediate area including Woolwonga, Yam Creek and Fountain Head. These areas are known for significant gold production in the region.

2.0 TENURE DETAILS

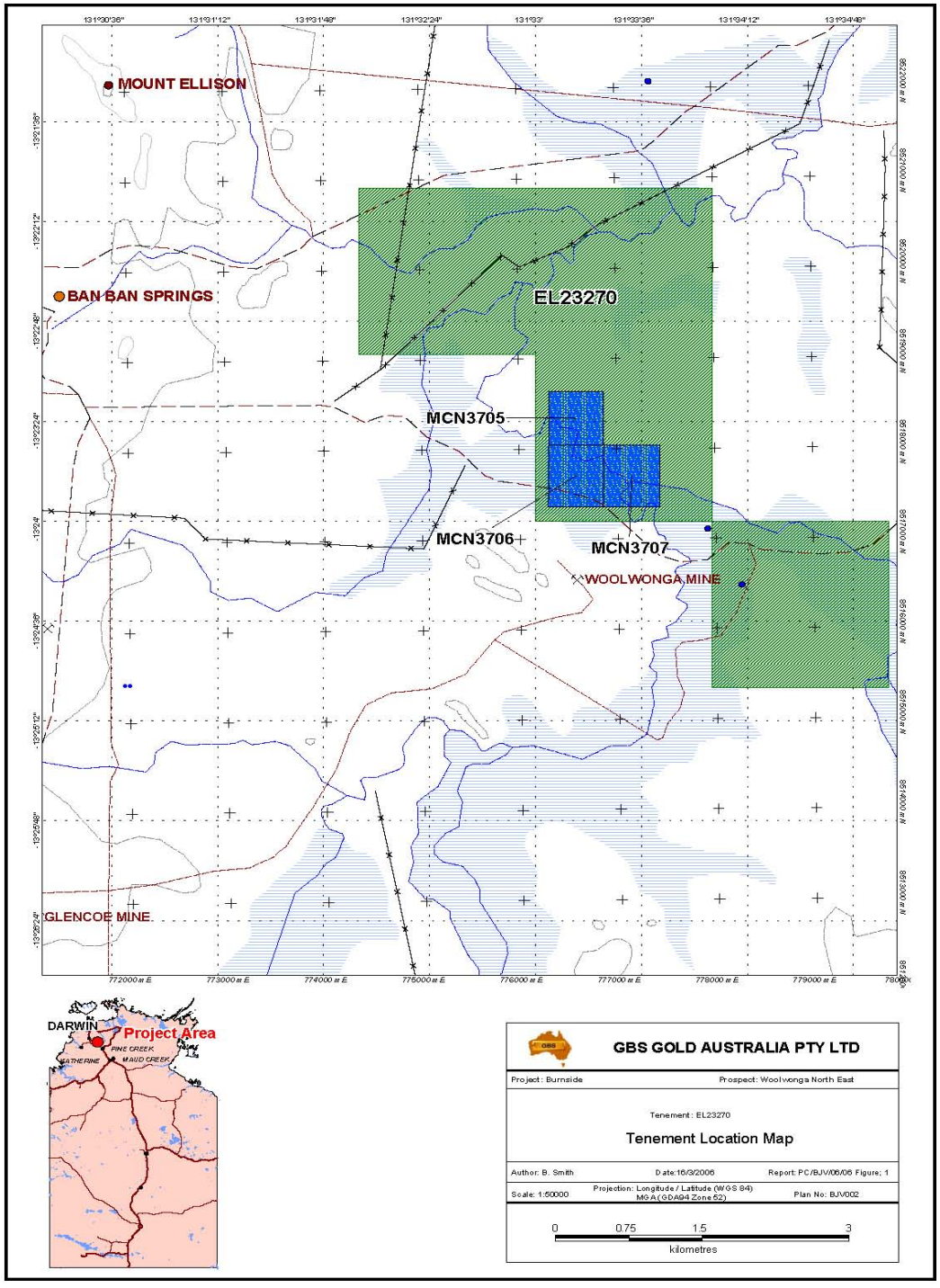
EL 23270 was granted on 20 February 2003 and was to expire on 19 February 2009. It was renewed for another period of 2 years and will expire on 19 February 2011. The tenement comprises four blocks that cover approximately 12.9 km^2.

It is contiguous with the Woolwonga tenement group on the north and east side. It was granted to Territory Goldfields NL and Buffalo Creek Mines NL in equal shares which were the wholly owned subsidiaries of GBS Gold Australia. In September 2008, GBS Gold Australia went into voluntary receivership and all assets including EL 23270 were placed under care and maintenance. Crocodile Gold Australia announced to purchase all Northern Territory assets held by GBS Gold Australia in April 2009. After meeting all statutory and regulatory requirements, these assets including EL 23270 were transferred to Crocodile Gold Australia Pty Ltd.

3.0 LOCATION AND ACCESS

Figure 1 shows the location of EL 23270 which is situated 140km SE of Darwin NT and 18km ESE of Brocks Creek siding on the Darwin-Alice Springs railway. Access to the

Figure 1: Location of the EL 23270



tenement is via the Stuart Highway, thence north via the Fountain Head/Ban Ban Springs sealed road that comprised the haul road for Woolwonga in the mid 1990s. The access deteriorates beyond Woolwonga but reasonable dry season access can be gained using bush tracks that service the Ban Ban Springs pastoral area. The Margaret River and tributaries meander northward through the tenement.

The tenement falls on the Pine Creek 1:250,000 sheet and on the Ban Ban 1:50,000 sheet. The tenement also is within the Ban Ban Springs pastoral lease. Outcrops are relatively sparse through much of the tenement due to the influence of the Margaret River alluvial deposits. Due to steep incised banks, river crossings of the Margaret River are difficult except at prepared locations.

4.0 GEOLOGICAL SETTING

4.1 Regional Geology

Region geology of the area has been described by several workers notably Ahmad et al (1993) and Stuart-Smith et al (1987). EL23270 is situated within the Pine Creek Orogen, a tightly folded sequence of Palaeoproterozoic rocks, 10km to 14km 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 locally significant inter-layered cherty tuff units. Pre-orogenic mafic sills of the Zamu Dolerite event (~1.87Ga) intruded the lower formations of the South Alligator Group.

During the Top End Orogeny (Nimbuwah Event ~1.87-1.85Ga) the sequence was tightly folded, faulted and pervasively altered with metamorphic grade averaging greenschist facies with phyllite in sheared zones

The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholiths into the sequence in the period ~1.80-1.78Ga. These high temperature I-type

intrusives induced strong contact metamorphic aureoles ranging up to (garnet) amphibolite facies, and created regionally extensive biotite and andalusite hornfels facies.

Less deformed Middle and Late 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 cementation overlie parts of the Pine Creek Orogen lithologies. Recent scree deposits sometimes with proto-laterite cement occupy the lower hill slopes while fluviatile sands, gravels and black soil deposits mask the river/creek flats areas.

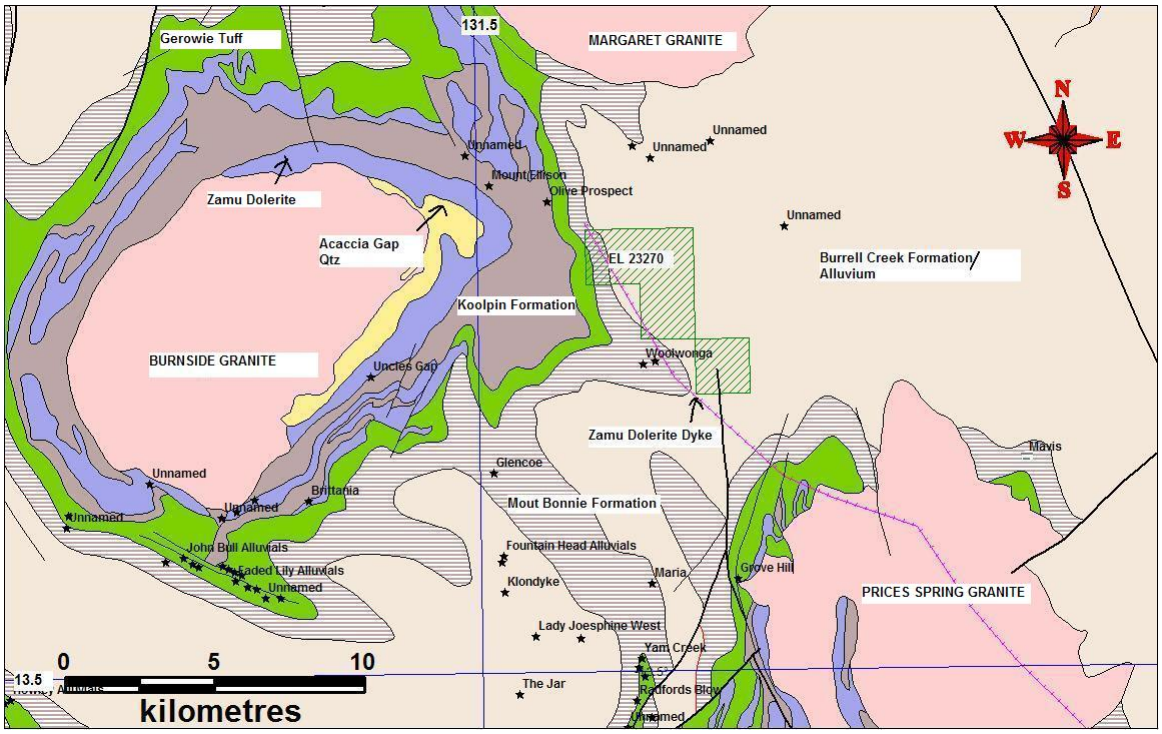
There is a tendency for gold mineralisation to be focused in the contact aureoles present within anticlinal structures (D3) of the South Alligator Group and lower parts of the Finniss River Group. This sequence evolved from initial low energy shallow basinal sedimentation to higher energy deeper water flysch facies. Some of gold mineralisation appears to be related to the I-type members of Cullen Batholith, formed during the evolution of hydrothermal fluids as a result of fractionation and differentiation processes (Bajwah, 1994).

4.2 Local Geology

Much of the EL covers a sequence of the Burrell Creek Formation (Finniss River Group) with minor lithologies of the Mount Bonnie Formation and Gerowie Tuff (South Alligator Group), which are present on the north-western corner of the EL (Figure 2). Clastic sediments of these formations are folded and faulted on north-west strike trends in parallel with the Pine Creek Shear Zone that crosses the area (Shaw 2005, Ahmad et al 1993). A regional scale NE linear zone also passes between the Burnside and the Prices Spring Granites. The intersection of these two major linears may have significance in terms of local crustal geometry and gold focusing. Within the tenement, topography is dominated by sparse low outcrops of Burrell Creek Formation which is typically a cyclic greywacke-dominated assemblage with subordinate dark siltstone and mudstone packages. Black soil and other alluvial deposits relating to the Margaret River and its tributaries mask large areas of the tenement. Several lineament sets cross the tenements

and most appear to be related to the Pine Creek Shear Zone. The north easterly alignment can only be seen on regional scale geological plans.

Figure 2 Geology of the EL 23270. Black stars are known gold deposits/prospects in the area.



4.3 Mineralisation and Prospectivity

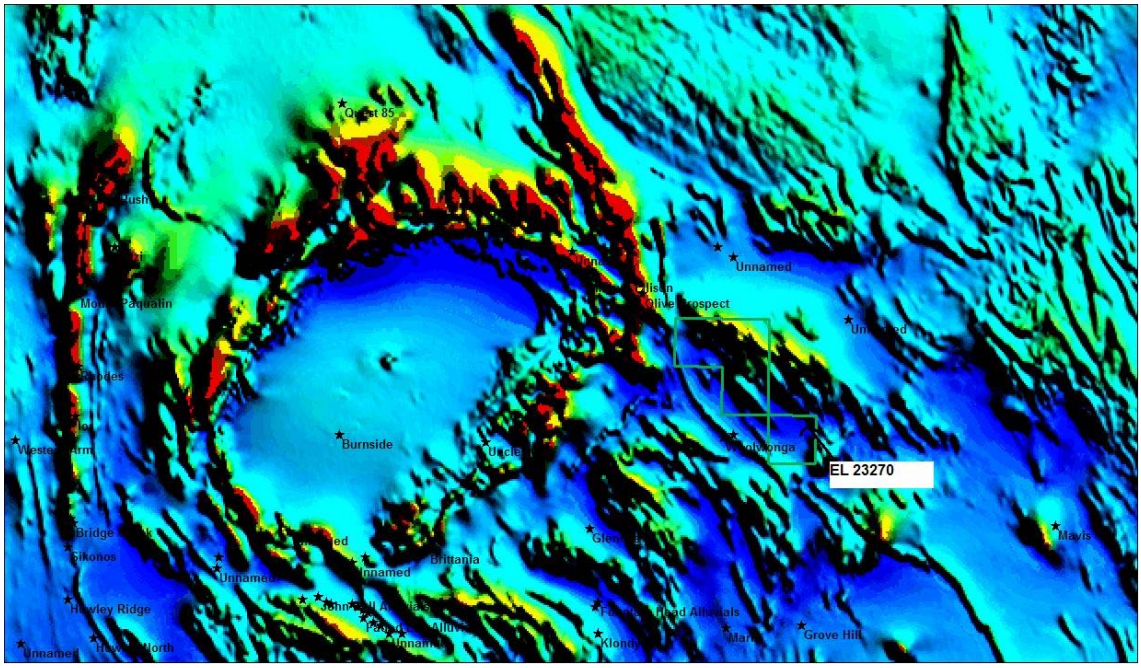
The Geological and structural setting of the tenement makes it quite prospective for gold mineralisation, however poor exposure has made it difficult to explore. Gravels of the Margaret River and its tributaries have made previous exploration drilling somewhat inconclusive.

The EL is characterised by the presence of prospective lithologies of the Burrell Creek and Mount Bonnie formations which are located in contact aureoles of Burnside Granite (Figure 2), and intersected by a dyke of Zamu Dolerite. This is the setting, which hosts the main gold deposits such as Brocks Creek, Rising Tide, Glencoe and many more in the area. The Woolwonga deposit immediately to the south-west is hosted by an NW trending anticlinal zone exposing Mt Bonnie Formation siltstones interlayered with Zamu

Dolerite sills. Shaw (2005) investigated the importance of lineament for gold mineralisation and particularly the significance of structural setting of the Woolwonga area. North-west trending faults and shears align with the Pine Creek Shear Zone, which is regionally extensive and host may gold deposits (Ahmad et al 1993). Splay faults at low angles to the Zone appear to have had influence on gold deposition in the area, particularly where Zamu Dolerite is present and mudstone/greywacke packages are cyclically interlayered. Competency contrast between mudstone and more massive greywacke packages also provide setting for gold mineralisation.

Total magnetic intensity image (Figure 3, NTGS data) shows that central Part of the tenement contains significant magnetic lithologies, which probably belong to Burrell Creek/Mount Bonnie formations, intersected by the Zamu Dolerite. Due to surficial cover of recent sediments, undercover details of geological setting of the area were not known previously, which now present a significant target. Intense folding and faulting that mark the tenement area (located within dilational zone), might lead to the development of enough porosity and permeability which could have provided channel ways for

Figure 3: Total magnetic image of the area (Courtesy of NTGS).



metalliferous fluid emanating from the Burnside Granite. Furthermore, presence of Zamu Dolerite dyke appears to be important for the preparation of suitable gold deposit sites in the tenement as at Woolwonga. Several faults and lineaments were observed on the SPOT image (Shaw 2005), some of which could be host to gold mineralised settings.

Limited geochemical sampling of the area also points toward gold potential of the area. A significant gold anomaly of 1.2 ppm was identified during 1988/89 exploration program (Table 2) which further highlights the gold potential of the tenement.

5.0 PREVIOUS EXPLORATION

EL615 – AOG minerals held a large tenement in the area in the mid-1970's and concentrated most of their work on the Mount Bonnie and Iron Blow prospects. **EL1137** – CRA explored for base metal mineralisation in the late 1970's by regional mapping and sampling of gossanous outcrops. EL1137 was one of a number of tenements in the area explored by CRA (Wills, 1977).

AAR Limited explored **EL 2103** from August 1979 for base metals and uranium. EL 2103 covered the top 2 blocks of EL23270, and extended further north. During the tenure, around 80 rock chip samples were collected. In addition, 1:25,000 geological mapping and radiometric readings along a grid were also carried out. The locations of the rock chip samples were not easily constrained from the supplied maps, but appear to concentrate in the area north of EL23270.

EL3107 covered the southern part of EL23270 from 1981 to 1988, but the work consisted of 'chip sampling (locations and assays not supplied), and dollying. The target appeared to be the slopes and flats below the Woolwonga workings. Exploration was reportedly unsuccessful. The 2 northern blocks of EL23270 were part of **EL3562**, held by Euralba Mining Ltd from 1982 to 1988. Euralba targeted alluvial gold (and to a lesser degree tin) as the area drained the Woolwonga goldfield. Rock chip samples were taken 'from a number of massive quartz outcrops or small conical ridges and from quartz reefs in the Mt Bonnie and Gerowie Formations.' Only one sample (EV8; 774680E / 8520470N MGA94 Zone 52) was within EL23270. Assaying of EV8 was done by Comlabs for Pb (AAS1), Ag (AAS3) and Au (Fire Assay). Results were <4ppm Pb,

<1ppm Ag and 0.1ppm Au. The recommendation for further exploration using auger drilling was not carried out. Dominion Mining explored the 2 southernmost blocks of EL23270 as part of their lease **EL4441**. EL4441 was originally granted to Peko in 1983, and Dominion replaced Anaconda as JV managers in 1985. Exploration during 1984 and 1985 failed to locate quartz veining or alteration to the east of Margaret River, and the EL was reduced. Work done by Dominion during 1987 was restricted to one block, which is now covered by MLN1103.

Territory Resources NL acquired **EL5119** (which covered the 2 northern blocks of EL 23270) in 1987. Two samples were taken within EL23270;

Table 1: Rock chip results from exploration on EL5119 (within EL23270)

Sample No.	Easting	Northing	Description	
TR2855	774570	8519450	Blue-gy quartz, very common arsenopyrite, scorodite staining. Sample over 25m from 1-3m wide vein	0.09
TR2851	775410	8519780	White quartz float, minor chlorite	0.01

Exploration on EL5117 targetted hard rock gold mineralisation, but this was hampered by Cenozoic laterite, colluvium and alluvium overlying bedrock in most of the tenement. The dominant structural orientation was noted as NW-SE. Although anomalous (>0.05ppm Au) rock chip samples were noted, the results from the reconnaissance rock chip sampling programme was considered ‘disappointing’. However, only 15 samples were taken within the tenement, and only 2 within EL23270, so the result could not be called definitive.

EL5325 covered the ‘middle’ block of EL 23270 in 1987-89. Dominion acquired the tenement from Territory Resources NL in 1988, and conducted a surface mapping, scree sampling and a RAB drilling programme. The surface mapping outlined two zones of residual soil/outcrop in the area, with scree sampling returning 1.18ppm Au. Three

mineral claims (MCN3705-3707) were pegged at this time on EL 5325 and are now held by GBS Gold through Buffalo Creek Mines / Territory Goldfields joint ownership.

Assays for 25 rock chips are reported, but the locations of only 4 samples are shown. Table 2 shows the approximate MGA coordinates for these rock chip samples, and their assays. Rock chips were assayed for Au by Analabs using ?Aqua Regia / AAS with a detection limit of 0.012ppm Au (job number 76.0.21.03629; on 12/07/1989).

Table 2: Rock chip results from exploration on EL5325 (within EL23270)

Sample No	Easting	Northing	Assay Au_ppm
282395	776380	8519170	<0.012
282396	776450	8519150	<0.012
282397	776480	8519100	<0.012
282398	776400	8519110	1.248 / 1.116 (reassay)

The RAB drilling was shown on a 1:10,000 scale map as a line of drilling, with drillholes approximately 12.5m apart and averaging 20m depth. Assays were not provided, and the summary showed 'nil mineralisation' for all holes except WRB1589, which had 2m @ 0.24g/t Au from surface. Detection limits, sample depths, and other assay data were not shown. It is interesting to note that while the structure is noted to be trending NW-SE, all the holes were angled at 60° to the east, so it may not have been an effective programme. All drilling was contained in one line of drilling, which is also not an adequate test of mineralisation. Work done by North Limited on EL8047 in the first year of tenure was just south of EL 23270 (on 8514050N AMG). Platsearch NL purchased EL 8047 from North Exploration in 1995, and entered into an agreement with Solomon Pacific Resources where Solpac had the right to earn 65% interest in the tenement. Acacia assumed Solomon Pacific's assets, and earned the right to 65% of the tenement by sole-funding exploration. Extensive work was done to the east and south of EL 23270, but no geochemical data was collected within EL 23270.

During 2006-07 reporting period, Bajwah (2007) under took in-depth technical review of the project area. With the help of previous exploration results, geological setting and geophysical data, he identified targets for further exploration.

6.0 EXPLORATION FOR YEAR ENDING 19 FEBRUARY 2010

During most of the 2009-10 reporting period, EL 23270 remained under voluntary administration. The main activity was confined to a technical review, tenement ranking and evaluation in order to prepare assets for sale. In addition, reconnaissance visits to accompany interested parties were also undertaken. This exercise established the mineral potential of the tenement for gold and uranium. After meeting regulatory and statutory requirements, Crocodile Gold Australia acquired all assets including EL 23270 held by GBS Gold Australia (liquidated) on 6 November 2009. Following this transaction, Crocodile Gold Australia embarked on an ambitious exploration and mining programs in the area. Gold mining and processing re-commenced and first gold pour was achieved on 29 December 2009.

Significant magnetic anomalies were identified on the TMI image of the project area. With favorable geological setting, this feature is good indication of presence of fertile lithology for gold mineralisation. It appears that Hays Creek Fault extends into southern block of the tenement, which could be important structure for hosting uranium mineralisation as has been shown in the south, where area is covered by EL 23431 (Bajwah and Mees, 2009).

Other activities are given below:

- Data review
- Reconnaissance visit
- Report preparation
- Tenement administration

Exploration expenditure for the reporting year is $8340.00 and details are given in Appendix 1.

7.0 FORWARD EXPLORATION PROGRAM FOR YEAR ENDING 19 FEBRUARY 2011

Crocodile Gold Australia considers the EL 23270 a strategic asset. The tenement is of significant importance with respect to its proximity to the Woolwonga mine site and the possibility that a recurrence of this style of mineralisation may exist within EL 23270.

Proposed future work would involve detailed interpretation of the magnetically anomalous NW trending signature parallel to the Woolwonga structure in the south and the drilling of broad spaced RAB / aircore holes to basement under the colluvial / alluvial cover that masks a good deal of the landholding. An expenditure of $14000.00 has been proposed for this program.

8.0 REFERENCES

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