GBS GOLD AUSTRALIA PTY LTD

ANNUAL REPORT

ON

EXPLORATION LICENCE, EL 10368

AUQUEST PROJECT

PERIOD ENDING 16 JUNE 2009

Tenement Holder: GBS Gold Australia (Toms Gully) Pty Ltd

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

Report No. PC/TG/09-10

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SUMMARY

EL 10368 is one of the significant tenements within GBS Gold Australia’s portfolio and is located 100 km SE of Darwin. It comprises 8 blocks covering 14 km². On 25 July 2007, GBS Gold Australia Pty Ltd acquired all tenements including EL 10368 and Toms Gully gold mine held by Renison Consolidated Mines NL, Northern Territory.

EL 10368 is located within the Pine Creek Orogen, which has been interpreted as an intra-cratonic basin lying on an Archaean basement. It contains a 14 km thick sequence of Palaeoproterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. The northern portions of the project area contain the oldest sediments of the Mount Partridge Group that is unconformably overlain by the South Alligator Group. The southern portion of the Project area is comprised of the Burrell Creek Formation, which conformably overlies the South Alligator Group.

In 2008 GBS Gold Australia entered into a JV agreement with Rum Jungle Uranium Limited to explore uranium and gold in the Toms Gully area. As a result during 2008, a high resolution airborne geophysical survey (magnetic and radiometric) was flown over the project area. In addition an in-depth technical review of the EL 10368 together with other tenements in the package was also undertaken. Findings based on available data suggest that the tenement is prospective for gold and uranium mineralisation. Geological setting of the area is ideal for medium size gold deposit, where prospective lithologies of the Koolpin Formation, Mt Bonnie Formation Gerowie Tuff and Burrell Creek Formation which have been intruded by the Mount Bundy Intrusive complex further north.

Technical review of the project area has identified gold and uranium potential of the project area. In the next reporting year, ground-truthing of the project area will be undertaken. In areas of black soil cover, aircore drilling will be required to retrieve bed rock samples. All soil, rock chip samples will be assayed for gold, uranium and base metal mineralisation. If encouraging results received, it will lead to RC drilling.
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1.0 INTRODUCTION

EL 10368 is situated in the Toms Gully area and is a part of package which GBS Gold Australia acquired from Renison Consolidated Mines NL in 2007. This report documents the exploration activities carried out during the reporting period.

2.0 LOCATION AND ACCESS

EL 10368 is located about 100 km SE of Darwin (Figure 1) and 22 km south of Toms Gully gold mine.

Access to the tenement is made possible by an east – west track along the southern boundary of the EL, which connects to McKinley River Station homestead and the Arnhem Highway. A fenced laneway 16 km long between McKinley River station homestead and EL 10368 was also frequently used. These tracks become impassable after heavy rain, and therefore no access is possible throughout the wet season.

3.0 TENEMENT DETAILS

The tenement comprises 8 blocks covering 14 km², located south of the Quest 29 and was granted to Renison Consolidated Mines NL on 17 June 2002 for a period of six years. It was renewed for another period of two years and now will expire on 16 June 2010. Under Renison, very limited exploration was conducted on the tenement. On 25 July 2007, GBS Gold Australia Pty Ltd acquired all tenements including EL 10368 and Toms Gully gold mine held by Renison Consolidated Mines NL, Northern Territory. As a result, GBS Gold Australia became the largest gold explorer and producer in the Northern Territory with two ore processing facilities located at Toms Gully and Union Reefs.
Figure 1: Tenement Location Map
4.0 REGIONAL GEOLOGY

EL 10368 is located within the Pine Creek Orogen, which has been interpreted as an intra-cratonic basin lying on an Archaean basement. It contains a 14 km thick sequence of Palaeoproterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. The northern portions of the project area contain the oldest sediments of the Mount Partridge Group that is unconformably overlain by the South Alligator Group, which comprises most of the tenement areas. The southern portion of the Project area is comprised of the Burrell Creek Formation, which conformably overlies the South Alligator Group (Figure 2). Tertiary and Quaternary Soils and Gravel’s unconformably overlie all the low lying portions of the tenement areas, generally referred to as “Black Soils Regions”. All of the early Palaeoproterozoic sediments and volcanics in the Mount Bundey area were folded during a major deformation event dated around 1800 million years. The fold axes trend north-northeast, and generally plunging gently to the south. In the following a brief description of the regional geology is presented.

4.1 Mount Partridge Group

Wildman Siltstone

The Mount Partridge Group is represented by the Wildman Siltstone, which is interpreted to be up to 1500m thick. In the Mount Bundey Region the Wildman Siltstone consists of laminated and banded shale, carbonaceous and often pyritic siltstone inter bedded with undifferentiated volcanics in up to 100m interbeds, minor dolomitic sediments may also be present. The sediments near the granite intrusion may also be hornfelsed. The Wildman Siltstone is interpreted to be prospective for large tonnage, low-grade gold deposits and small tonnage, high-grade deposits. The Wildman Siltstone hosts the Tom’s Gully gold deposit.

4.2 South Alligator Group

The Koolpin Formation, Gerowie Tuff and the Mount Bonnie Formation represent the South Alligator Group. The rocks of the South Alligator Group are considered to be prospective for either large tonnage, low grade gold deposits (such as that at the nearby Rustler’s Roost gold mine) or small tonnage, high grade deposits.

Koolpin Formation

The Koolpin Formation comprises ferruginous siltstone and shale, which is commonly carbonaceous and pyritic. Chert bands and nodular horizons are common and lenses of ironstone occur occasionally, as haematitic breccias throughout the sequence into undisturbed
quartz-veined siltstone and shale. Minor components of dolomite can also occur. The Koolpin is one of the most prospective units in the Mount Bundey Region for hosting mineralisation (West Koolpin, Taipan, BHS and North Koolpin Open Pits at Quest 29 are all within Koolpin sediments)

Gerowie Tuff
The Gerowie Tuff conformably overlies the Koolpin and has similar characteristics of siltstones and shales but is not as iron rich. Within the Mount Bundey Region it is dominated by graded beds of siliceous tuffaceous mudstones grading to greywacke and arenite, diagenetically altered, up to 600m thick, and generally poorly mineralised. The highly siliceous component of the tuffs and arenites make them resistant to erosion, and they tend to form areas of high relief.

Mount Bonnie Formation
The Mount Bonnie Formation conformable overlies the Gerowie Tuff and is dominated by a shallow marine sequence of interbedded and graded siltstone, chert and greywacke with occasional BIF’s. The unit can be up to 600m thick and is generally iron rich and may be siliceous in places. The Mount Bonnie Formation hosts the Rustler’s Roost deposit.

4.3 Finniss River Group

Burrell Creek Formation
Conformably overlying the Mount Bonnie Formation is the Burrell Creek Formation interpreted as a flysch sequence of fine to coarse marine sediments and appears to be part of continuous sedimentation process. Due to the lack of marker horizons and poor exposure the width of the unit is unknown but is thought to be >1000m. This Formation is considered prospective for large low-grade gold deposits as typified by the Batman deposit of Mount Todd. The potential also exists for small high-grade deposits similar to Possum and Happy Valley with John Shields GIGIAC Theory (Gold in Greywacke in Anticlinal Crests). Also high-grade deposits such as Bandicoot, Marrakai and the Ringwood line which all lie on a major deep-seated magnetic trend.

4.4 Intrusives

Zamu Dolerite
The Zamu Dolerite occurs as small bodies that are poorly exposed, as a result of its weathering; some rubble boulders may be present at surface. It consists of altered quartz dolerite and gabbro and is generally narrow and broadly conformable to bedding as thin sills.
The Zamu Dolerite is the only known suite of mafic intrusives that were emplaced prior to regional metamorphism and deformation. The Zamu Dolerite appears to have a controlling influence on the mineralisation at Quest 29 within the Koolpin sediments but this is not fully understood at this stage. Mineralisation is also hosted within this unit at Quest 29 and also at Chinese Howley.

**Mount Bundey Granite & Mount Goyder Syenite**

The sedimentary sequences and the Zamu Dolerite are intruded by the Proterozoic Mount Goyder Syenite and Mount Bundey Granite which form a co-genetic complex which crops out over about an 80km area. This intrusion is believed to have been the heat and fluid source for the mineralisation, which occurs throughout the local region. Their mineralogy and geochemistry suggests they are both differentiated from a common magma, which intruded into the gently south plunging folded belt of sediments.

A thermal metamorphic overprint associated with the southern margin of the Mount Bundey Granite intrusive has resulted in the development of both cordierite and andalusite, and probably was the generator for the local gold mineralisation. Further to the south of the Mount Bundey and Mount Goyder intrusive is possibly a second deep-seated pluton to the south as indicated by a roughly circular magnetic feature (Discussions with Williams Resources 1998).

**4.5 Deformation & Metamorphism**

Regional deformation with north-northeast folding plunging gently south occurred around 1800 My, based on a rubidium-strontium analysis, causing metamorphism to greenschist, and sometimes higher to amphibolite facies. This event also resulted in the intrusion of thin sills of Zamu Dolerite, and the post – tectonic emplacement of the Mount Bundey Granite and Mount Goyder Syenite is a comparable co-genetic pluton dated at 1790 ± 110 My in the region. Structural deformation of the meta-sediments is complex.

The major folding episode resulted in tight folds whose axes plunge southwest. However within these major folds the more incompetent beds, i.e. carbonaceous shales, have been deformed into localised complex structures. The granitic emplacement has also influenced the fold structures as can be seen on the regional geological map. Metamorphism to greenschist facies through dynamic compression associated with intense folding is common. The granitic emplacement and the associated structural deformation and generation
Figure 2: Geology & GIS Data

- Koolpin Formation
- Burrell Creek Formation
- Gerowie Tuff
- Mt Bonnie Formation
- Koolpin Formation
of hydrothermal fluids are thought to have been responsible for most of the gold enrichment throughout the Pine Creek Geosyncline. E.g. Cosmo Howley, Rustlers Roost, Toms Gully, Moline, Mt Todd and Quest 29.

5.0 PREVIOUS EXPLORATION

The earliest record of exploration in the Mount Bundey region was Australian Geophysical Pty. Ltd. (AP 1727-1730, AP 1751 & AP 2226-2228) from 1967 – 1971 utilising geochemical and geophysical surveys and some limited follow up RAB drilling, primarily looking for Uranium and Base Metals with no recorded success.

The next significant exploration within the region was undertaken by Geopeko (EL 142) during the early 1970's following their acquisition of the then relatively new BMR aeromagnetic and radiometric survey data, which was flown during 1970. Interpretation of this geophysical data outlined a large number of potential target areas throughout the region, which were subsequently investigated by ground based geophysics, geochemical sampling, stream sediment sampling; soil geochemistry; rock chipping, geological mapping, costeaneing, and limited drilling. These sampling programs defined anomalies, which were thence-designated "Quest" numbers for identification. These anomalies became the focus of Geopeko's exploration activities for some six years. The majority of the Quest prospects were covered by Mining Claims during this exploration program. Which now make up Quest 29 Mining area and the Quest 30 area within EL 8508, Quest 36 & 42 also occur within EL 9161 but are not covered by MCN’s.

After the mineral claims were pegged by GeoPeko the AJP Joint Venture 1978-1983 (EL 1653) Aquitaine, Jimberlana Minerals & Pan d’Or Mining came to the region also looking for uranium and base metals with a minor focus on gold. The AJP JV also utilised geophysical and geochemical surveys, which included rock chipping, and stream sediments with follow up trenching and drilling. Their targets were given names of “Anomaly 1-15” which were pegged with Mineral Claims N68-N91 many of which abutted the original GeoPeko claims and also some of the Quest Targets. Renison currently holds these claims.

All of this early exploration was focused on uranium and base metals with gold being of minor consideration. Geopeko having located some base metal and gold mineralisation at Quest 29 then brought in Carpentaria Exploration.
In 1986 EL 4927 was granted to Carpentaria Exploration who from a stream sediment survey discovered a new gold deposit at Tom's Gully in the Wildman Siltstone.

Following the successful discovery of the Tom's Gully gold deposit during 1986 - 1993, Carpentaria launched a regional gold exploration program, largely completed under Joint Venture agreements with smaller companies or syndicates, which held exploration tenure within the area. (EL 4165, EL 5345, EL5346, EL 5923 EL 5924, EL 5942, EL 6214, EL 7083, EL7166, EL 7322, SEL 7389). Comprising mainly of stream sediment sampling, which had successfully discovered Tom’s Gully. The work on the rest of the Mount Bundey Region however produced limited success with follow up rock chipping and drilling only finding very small scale prospects, such as Bandicoot, Henry’s Prospect, Fence line, Block X and further delineated Quest 29 Dolerite deposit.

With the discovery of gold at nearby Tom’s Gully by Carpentaria Gold, the exploration focussed more on gold, with work completed by Newmont 1987 – 1988 (EL 5008), Pinnacle Mining Gold and Base Metals 1993 – 1995 (EL 8505).

Normandy Poseidon 1993 – 1995 (SEL8019, EL7352, EL7473, EL7566, EL7567, EL7568, EL7569, EL7582, EL7583, EL7624, EL7625, EL7643, EL7644, EL7750, EL7751, EL7568) searching for Diamonds, Base Metals and Gold. The most recent exploration completed by Poseidon Exploration under a regional exploration program aimed primarily at the discovery and evaluation of lamprophyre dykes, which were found to be shedding kimberlitic indicator minerals. Exploration was based upon interpretation of kimberlitic target signatures from aeromagnetic imaging. The project area consisted of 15 separate Exploration Licences that were subsequently amalgamated under Substitute Exploration Licence 8019. Of the original tenements, EL's 7569 and 7643 collectively covered the entire area of the current EL 9196. Dominion 1995 – 1996 (EL 8045, EL 8160 & EL 8243) completed LAG sampling on western portions of the area.


This work has been compiled into GIS format; which can be seen in Figure 2.
EXPLORATION DURING THE REPORTING YEAR

In 2008 GBS Gold Australia and Rum Jungle Uranium Limited entered into a JV agreement to explore uranium and gold in the Toms Gully area. During the reporting period, a high resolution geophysical cover (magnetic and radiometric) of the project area was obtained, which helped to conduct an in-depth technical review of the project area. Findings based on available data suggest that the tenement is prospective for gold and uranium mineralisation. Geological setting of the area is ideal for medium size gold deposit, where prospective lithologies of the Koolpin Formation, Mt Bonnie Formation, Gerowie Tuff and Burrell Creek Formation are present. These formations have been folded in north-easterly trending folds and together with the presence of contact aureoles point towards characteristic features of gold mineralised settings in the Pine Creek Orogen.

Figure 3 shows the TMI image of the project area where south-western part of EL 10368 is transacted by a NW-trending deep-seated structure. This feature represents major crustal disturbance during tectonic event in north Australia and could be important mineralised structure. In addition, there are some N-trending weak magnetic ridges which are located in the northern part of the project area. These ridges could be important for hosting gold mineralisation because in the central part of the Pine Creek Orogen, gold mineralisation has been observed associated with weak subtle magnetic anomalies.

Radiometric image of the project area (Figure 4) appears to be flat and lack any significant radiometric anomalies. As the project area is mainly covered by a thick layer of alluvial material, therefore, it is likely that if any radiometric areas may have been concealed under thick alluvial cover. This should be pursued by ground radiometric survey followed by rock chips sampling. If encouraging results received then the project area should be tested with RC drilling.

Other activities included reconnaissance visit, tenement administration and report writing.

This exploration program costed $18370.00 and details are given in Appendix 1.
Figure 3: TMI image of the project area
Figure 4: Radiometric image of the project area
7.0 PROPOSED EXPLORATION PROGRAM YEAR ENDING 16 JUNE 2010

Technical review of the project area has identified gold and uranium potential of the project area. In the next reporting year, ground-truthing of the project area will be undertaken. In areas of black soil cover, aircore drilling will be required to retrieve bed rock samples. All soil, rock chip samples will be assayed for gold, uranium and base metal mineralisation. If encouraging results received, it will lead to RC drilling. For this program a minimum budget of $18500.00 is proposed.

8. REFERENCES


