ANNUAL EXPLORATION REPORT
EL 23270

FOR PERIOD ENDING 19th February 2006

WOOLWONGA NORTH EAST
BURNSIDE PROJECT NT

Pine Creek SD5208 1:250,000
McKinlay River 5271 1:100,000
Ban Ban 1:50,000

Titleholders: Buffalo Creek Mines (50%)
Territory Goldfields (50%)

GBS Report No. PC/BJV/06/06
Prepared for GBS Gold Australia Pty Ltd.
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1. SUMMARY

EL23270 is adjacent to the Woolwonga tenement group, which produced 230,000oz Au between 1991 and 1995 (Mackenzie, 2005). The area is prospective for Woolwonga-style mineralisation, and a recent literature review has shown that very little exploration has been recorded within the tenement area. GBS is in the process of acquiring 100% of the Burnside project after a takeover of Northern Gold NL in late 2005, and by purchasing Harmony’s 50% share. The tenements will be reviewed and prioritised against other exploration targets held by GBS Gold during the 2006 field season. The tenements are largely covered by alluvium and colluvium, so planned work will involve RAB drilling and possibly some geophysical modelling to refine targets under cover.

2. LOCATION AND ACCESS

EL23270 is situated 140km SE of Darwin and 18km ESE of the Brocks Creek siding on the Darwin-Alice Springs railway. Brocks Creek is also the location of a gold treatment plant recently sold by the Burnside Joint Venture.

Access to the tenement is via the Stuart Highway, then north via the Fountain Head/Ban Ban Springs sealed road that comprised the haul road for Woolwonga in the mid 1980s. 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 (Figure 1).

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.

3. TENEMENT STATUS AND OWNERSHIP

EL23270 was granted on 20th February 2003 and expires on 19th February 2009. It comprises four blocks that cover approximately 12.9 sq. km.

It is contiguous with the Woolwonga tenement report group on the north and east side. It is registered in the names of Territory Goldfields NL and Buffalo Creek Mines NL in equal shares. It is unencumbered by third party tenements. The expenditure covenant set for this, the third year, was $5000.00.
4. GEOLOGY

EL23270 is situated within the Pine Creek Geosyncline, a tightly folded sequence of Lower Proterozoic rocks. The tenement encloses a sequence of Finniss River Group clastic sediments that are folded and faulted on north west strike trends in parallel with the Pine Creek Tectonic Zone that crosses the area. 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 the Group is represented 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 (Fig 2) and most appear to be related to the Pine Creek Tectonic Zone. The north easterly alignment can only be seen on regional scale geological plans.

The structural setting is attractive, however poor exposure has made this tenement difficult to prospect and explore. Gravels of the Margaret River and its tributaries have made previous exploration drilling somewhat inconclusive.

The Woolwonga mine immediately to the south west is hosted by an NW trending anticlinal zone exposing Mt Bonne Formation siltstones interlayered with Zamu Dolerite sills. The intense folding and faulting that marks the tenement area could have preserved slices or axial exposures of Mt Bonnie Formation, though evidence for these is not presently known. The presence of Zamu Dolerite at Woolwonga may be structurally important for the preparation of suitable gold deposit sites in the region. Several faults and lineaments were observed on the SPOT image. Some could be host to gold mineralised settings.
5. EXPLORATION DURING CURRENT TENURE

During the first year of grant of the tenement, the Burnside JV focussed exploration in the vicinity of the Zapopan mine and at Cosmo Howley. During the second year of tenure, work on EL23270 included refinements to the lineament interpretation study (Fig.2) by John Shaw, and compilation and validation of the geochemical digital database. The latter activity is still in progress (along with addition of data from adjacent tenements).

The lineament study (See Fig.2) shows the importance of the Pine Creek Tectonic Zone in the structural fabric of the Woolwonga area. North-west trending faults and shears align with the Zone which is regionally extensive. 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.

The existence of a north-east striking set of controls on deposits in this region is suggested. The AGSO geology (McKinlay River) shows an alignment of late Proterozoic sediments NE-SW normal to the Pine Creek fold fabric. Also the stratigraphy along south eastern boundary of the Burnside Batholith has a sympathetic linearity. A fundamental corridor several kilometres wide is indicated. It is noted that several important gold deposits occur within this theoretical NE corridor, Cosmo Howley, Zapopan, Fountain Head, Glencoe and Woolwonga. The intersection of this alignment with the Pine Creek Tectonic Zone could have structural importance in gold deposition and is worthy of attention.

Gold mineralisation is thought to post date most of the orogenic events of the Pine Creek region as well as the granitoid intrusion “Cullen Event”. Gold tends to be focused in the axial zones of anticlinal folds where late stage reactivation of fracture sets, reverse faults, axial planar cleavage and pre existing barren quartz vein systems are important.

Commonly Zamu Dolerite is involved in competency contrast settings that focused gold on reverse faulted contacts. Elsewhere competency contrasts between mudstone and more massive greywacke packages provided the best setting. The part played by the biotite hornfels facies of the thermal aureoles of the granitoids is also relevant in gold localisation.
Work during the third year of tenure consisted of a review of historic tenure and previous work that covered the area. There are no geochemical data points (soils, stream sediments, drillholes or rock chip samples) currently held in the NTGS database from Open File Company reports.

During the year, a review of previous work was carried out, and sample locations were georeferenced using MapInfo V8 into MGA94 Zone 52 coordinates. A summary of previous exploration from this review is listed below:

**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, 1:25,000 geological mapping and radiometric readings along a grid were 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)**

<table>
<thead>
<tr>
<th>Sample No</th>
<th>MGA_Easting</th>
<th>MGA_Northing</th>
<th>Description</th>
<th>Assay Au ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR2855</td>
<td>774570</td>
<td>8519450</td>
<td>Blue-gy quartz, very common arsenopyrite, scorodite staining. Sample over 25m from 1-3m wide vein</td>
<td>0.09</td>
</tr>
<tr>
<td>TR2851</td>
<td>775410</td>
<td>8519780</td>
<td>White quartz float, minor chlorite</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Exploration on EL5117 targeted hardrock gold mineralisation, but this was hampered by Cenozoic laterites, 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)**

<table>
<thead>
<tr>
<th>Sample No</th>
<th>MGA_Easting</th>
<th>MGA_Northing</th>
<th>Assay Au ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>282395</td>
<td>776380</td>
<td>8519170</td>
<td>&lt;0.012</td>
</tr>
<tr>
<td>282396</td>
<td>776450</td>
<td>8519150</td>
<td>&lt;0.012</td>
</tr>
<tr>
<td>282397</td>
<td>776480</td>
<td>8519100</td>
<td>&lt;0.012</td>
</tr>
<tr>
<td>282398</td>
<td>776400</td>
<td>8519110</td>
<td>1.248 / 1.116 (reassay)</td>
</tr>
</tbody>
</table>

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. The approximate coordinates are shown in the table in Appendix 1. Assay 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 EL23270 (on 8514050N AMG). Platsearch NL purchased EL8047 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 EL23270, but no geochem data was collected within EL23270.
6. PLANNED EXPLORATION
GBS Gold is planning RAB drilling of targets in adjacent tenements, including strike extensions to Woolwonga mineralisation. Targets will be prioritised, and EL23270 will be ranked against other targets at this time. RAB drilling on EL23270 during the 2006 field season will depend upon rig availability and ease of access to the tenements. A field visit to check access and geology is planned. Some geophysical modelling is planned on other GBS targets in the Burnside area, and EL23270 may be examined for geophysical targets at this time.

7. SUMMARY AND CONCLUSION
A literature review has shown that past explorers have sparsely tested the area covered by EL23270. Only a handful of samples have been collected as rock chips, and RAB drilling has been both limited, and not oriented perpendicular to the strike of structures. Further work will be carried out as part of a regional programme of evaluation of mineralisation in the Burnside area. Expected expenditure is estimated at $5000.

Much of the background in this report (Location & Access, Tenement Status, Geology etc) comes from reports written by J.Shaw, and his contribution is gratefully acknowledged.

8. REFERENCES
Mackenzie, W., 2005. Independent Technical Review of the Burnside, Union Reefs, Pine Creek and Maud Creek Gold Projects, Northern Territory, Australia. Independent Engineers (Australia Pty Ltd) unpubl; www.gbsgold.ca

9. EXPENDITURE