ANNUAL EXPLORATION REPORT
EL24409

FOR PERIOD ENDING 5th MAY 2006
‘BROCKS SOUTH WEST’
BURNSIDE PROJECT NT

Pine Creek SD5208 1:250,000
Tipperary 5170 1:100,000
Batchelor 5171 1:100,000
Fenton 14/5-I 1:50,000
Burnside 14/2-II 1:50,000

Titleholders: Buffalo Creek Mines Pty Ltd 50%
Territory Goldfields NL 50%

GBS Report No. PC/BJV/06/21
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1. SUMMARY

EL24409 occupies an area between the John Bull – Zapopan line of mineralisation (Brocks Creek shear zone) and the Howley anticline to the south and west. Mapped geology is dominantly Burrell Creek Formation, with some Mount Bonnie Formation sediments cropping out in the southern portion of the Licence.

Work during Year 1 comprised a data compilation and review of all available geology and geophysical data. Anomalies from previous work were compiled. Geological mapping (especially in the northern area) and rock chip sampling of outcrops is planned for Year 2.

2. LOCATION AND ACCESS

EL24409 is situated approximately 150km SE of Darwin NT. The Stuart Highway transects the tenement and the intersection of Fountainhead Road and the Stuart Highway is within the tenement.

Topography is relatively flat, with low hills and creeks which can flood in heavy rains during the wet season. Access is relatively easy in the dry season.

3. TENEMENT STATUS AND OWNERSHIP

EL24409 was granted on 6th May 2005 and expires on 5th May 2001. It comprises seven blocks that cover approximately 22.1 sq. km (Figure 1).

It was granted in equal shares to Buffalo Creek Mines Pty Ltd (50%) and Territory Goldfields NL (50%), which were part of the Burnside JV. The Burnside JV was a JV between Harmony Gold (50%) and Northern Gold NL (50%). During 2005, GBS successfully made a takeover for Northern Gold NL, and has reached an agreement to purchase Harmony’s 50% share of the Burnside project. GBS Gold have 100% of the Burnside Project as of 1st April 2006.

Underlying cadastre is NT Portion 2683 (Pastoral Lease 903) held by Branir Pty Ltd.

The expenditure covenant set for the first year was $6000.
4. GEOLOGY

Regional geology is outlined in many publications, notably Ahmad et. al., (1994), and Needham and Needham and Stuart-Smith (1984), and Needham et. al (1988). The tenements are within the Pine Creek Geosyncline, a folded sequence of Lower Proterozoic pelitic and psammitic sediments, with interlayered cherty tuff units. Mafic sills of the Zamu Dolerite (~1.87Ga) intruded lower formations of the South Alligator Group.

Most of the tenement overlies the Burrell Creek Formation of the Finniss River Group. The southern 2 blocks are also mapped with Mt Bonnie Formation sediments from the South Alligator Group. Outcrop within the tenement is sparse. The BMR drilled a stratigraphic hole within the tenement (B21; Crick, 1976) which intersected feldspathic quartz arenite with locally interbedded siltstone and phyllite of the Burrell Creek Formation.

The regional TMI image in the area shows a strong NW-SE trend, which follows the trend of the nearby Cosmo Howley line to the west. Structural interpretation by AGSO at 1:500,000 shows a WNW-ESE trending syncline transecting the northern blocks of the tenement, in a similar orientation to the mineralisation along the Brocks Creek line to the north. Work by Ahmad et al., (1993) shows the interpreted syncline as being closer to the Cosmo-Howley line, and oriented parallel to the arcuate Howley line.

The Burnside JV recognised the potential for reverse faulting parallel to the Howley anticline axis, plus transverse faulting that may be favourable for gold mineralisation within EL24409. The NW-SE trend of lineaments noted in regional geophysical data are a structural trend known to control gold mineralisation.

There are no recorded mineral occurrences within the tenement.

5. PREVIOUS EXPLORATION

Part of the work done on EL24409 for this year is a literature review, and the results are in the section below. Some of the reviews mention block numbers, and these are shown in Figure 2 below.
Figure 2 - Graticular Blocks within EL24409
AP1506 covered a large area, including the Brocks Creek-Zapopan line, Howley line, Mt Shoobridge and further west. EL24409 is within the eastern side of AP1506. United Uranium explored for base metals, uranium, as well as Fe and Mn. Work concentrated on the Howley line and Mt Shoobridge. No work appears to have been carried out over EL24409.

EL 1154 covered the 4 northern blocks of EL24409, as well as the Brocks Creek-Zapopan line of mineralisation further north. CRA explored for a year in 1977 by carrying out 1:25,000 scale mapping, ironstone sampling and soil sampling for base metals. The work failed to locate first order CRA size targets, and the ground was dropped.

EL 1636 consisted of 7 blocks, 3 of which covered the 3 southern blocks of EL24409. Geopeko explored for EL1636 contiguously with a much larger landholding for base metals in the late 1970’s. Work included photogeological interpretation, stratigraphic mapping (to delineate Mt Bonnie-Iron Blow style mineralisation) and some rock chip samples assayed for base metals (location unknown; description indicates area outside of EL24409). Later work concentrated in the southern blocks (just south of EL24409) which contained Koolpin sediments within the Howley anticline.

EL 1882 covered the same area as EL1154 (4 northern blocks of EL24409 and Brocks Creek-Zapopan line). Geopeko concentrated on evaluating the John Bull-Faded Lily prospects, and did not record exploration within EL24409.

Zapopan NL held the same 8 blocks as Geopeko (EL1882) and CRA (EL1154) with EL 2981. Work concentrated on the Zapopan line, with auger drilling and soil sampling, with no apparent work within EL24409.

EL 3041 consisted of one block, which covers the SW block of EL24409. Talmina Trading drilled 18 auger holes for 82m (average 4.56m) mainly around old gold and copper diggings in ferruginous tuffaceous arenites and schists of the South Alligator Group. Samples from six small trenches dug into the sides of ridges ‘gave significant to minor colours of gold in pans’. The locations and results of the auger drilling were not supplied. Geological mapping showed the Mount Bonnie Formation sediments cut by N to NE-trending faults.

EL 4219 covered 26 blocks over Mt Osborne, and mainly to the east of EL24409. EL4219 covered only 2 blocks of EL24409; the SW and central blocks (SD521361E; and SD521361K). The titleholder viewed the tenement as having potential for quartz-vein stockwork type gold mineralisation in Burrell Creek Formation sediments. A structural interpretation using photogeology was difficult because of steeply dipping
structures, which often appear reversed, which gives the wrong sense to folds, and because of masking by recent sediments and laterites over outcrop.

Photogeological mapping at 1:25,000 scale does not give much more detail than 1:100,000 geological mapping. Within the EL24409 an ‘old mine/alluvial’ is mapped at approximately MGA 760050E / 8504700N. Burrell Creek sediments are mapped as striking approximately 320° and dipping around 70° to the NE. No rock chip samples were taken within EL24409 at this time. Interpretation of Landsat imagery at 1:250,000 scale recorded NW-SE lineaments intersected by NE-trending structures. In the third year Grants Patch Mining entered into an agreement with the Titleholder (Bronte Douglass) and the work on EL4219 then focussed on the Zapopan anticline to the north (outside EL24409).

**EL 4465** covered 4 blocks, 2 of which are the NW blocks of EL24409. Northern Gold acquired EL4465 (along with 17 other tenements) from Talmina Trading, and it became part of EL4737. No work was reported on EL 4465.

**EL 4736** straddled the Howley anticline (and areas further west) and totalled 16 blocks. The SW block EL24409 covers one of the easternmost blocks of EL4736. **EL 4737** covered the area further north along the Howley anticline, and covered the 2 NE blocks of EL24409. Northern Gold held EL4736 and EL4737 as part of the Howley Project in the 1980’s.

Northern Gold negotiated a production agreement with Metana Minerals for alluvial gold on EL 4736, and gold production from the alluvials commenced in September 1986. Northern Gold took approximately 11 stream sediment samples within EL24409 on EL4736, and some soil sampling on the northern boundaries of EL24409 as part of exploration on EL4737.

Oceania Mining and Exploration explored the 2 blocks of **EL 5028** in the late 1980’s. Block SD521289Z of EL24409 was covered by EL5028. Results from geological reconnaissance mapping at 1:25,000 scale (with minor soil and rock chip sampling) produced a maximum value of 0.19g/t Au from soil sample 1119 (approximately MGA52 759310E / 8507070N) with a value of 0.05g/t Au adjacent to it. All other soil sample results were <0.01g/t Au. Highest rock chip sample assayed 0.03g/t Au (HC1; MGA52 759760E / 8508120N).

An alluvial gold exploration programme was planned but not carried out due to the early onset of the monsoon, and the tenement expired.
EL 5043 covered the central middle block of EL24409, and extended in an EW line of 7 blocks. Work in Year 1 comprised photogeological mapping, soil sampling and airborne magnetic and radiometric surveys. Anomalous Au assays for soil samples in EL24409 were reported at (approximate coordinates in MGA52):

a) 759230E / 8506290N – 30ppb Au
b) 761330E / 8506100N – 6ppb Au
c) 760880E / 8505630N – 7ppb Au
d) 760990E / 8505750N – centre of zone of anomalous Pb (over 100ppm)

EL 5676 covered the NE block of EL24409. Driffield Mining sampled a quartz vein which assayed less than 0.008g/t Au. Six auger holes were drilled within EL24409, at 100 spacings from the SE corner of the block. No free alluvial gold was found in any samples, and no other assays from auger drilling was reported. Samples of wash from dumps were taken, which indicated there was gold mineralisation in wah horizons in tributaries draining from the old Zapopan mine.

EL 6244 consisted of 2 blocks, one of which covers EL24409 block SD521289Y. Work included rock chip sampling (one sample within EL24409; assaying below level of detection), and some alluvial sampling and trenching in the block outside EL24409.

EL 6426 covered the SW block of EL24409 for 2 years around 1990. Northern Gold recorded a weak soil anomaly within the tenement, but later work concluded that this was due to being within a creek system that drained from the Howley mullock dumps. (Figure 3). One anomaly at AMG 758610E / 8503016N recorded 18ppb Au which was located on a flat with no obvious source for the anomaly.

EL 6540 covered the same 2 blocks as EL 5028 for 3 years in the early 1990’s. Dominion Gold took 3 rock chip/scree samples within EL24409 with 0.008ppm Au max value at MGA52 761080E / 8506470N. Dominion also carried out 1:10,000 fact geology mapping.

EL 6627 covered the middle central block of EL24409, plus another 3 blocks in an EW line from EL24409. Dominion Gold carried out soil sampling and Lag-scree sampling, plus interpretation of airborne geophysics and 1:10,000 fact geological mapping. Three anomalous results were returned for areas further east of EL24409.

EL6942 covered the SE block of EL24409 (SD521361K) for a year in 1991. Dominion Gold collected 17 rock chip samples and 3 stream sediment samples with no anomalous results, so the ground was dropped.
**EL 7044** covered the NE block of EL24409 (SD521290V) for 2 years from 1990. Stream sediment sampling outlined an anomaly that was in an area that drained the old Zapopan mine. The other anomaly is just north on the truncated part of the block that forms MLN1139 (Figure 3).

**EL7972** ("Skull") covered one block of EL24409 (SD521289Z) for 6 years in the 1990’s. Solomon Pacific took soil auger samples, and conducted vacuum drilling as part of a larger programme over all its tenements. Vacuum drilling found that the depth of transported cover varied from 3-8m and is underlain by weathered bedrock of the Burrell Creek Formation. Maximum values occurred outside of EL24409. Interpretation of magnetic data indicated a zone of magnetite destruction in the SW corner of the licence, and a possible subsurface granite in the SE corner.

**EL7933** covered 11 blocks in a NW-SE trend around the southern edge of the Brocks Creek mine. Some of the area covered by **EL7933** ended up becoming part of MLN1139. Cyprus Gold sold the tenement to Solomon Pacific, who conducted vacuum drilling over the northern parts of the tenement. Acacia Resources took over Solomon Pacific in 1996, and did a regional aeromagnetic/radiometric survey.

**EL 8070** covered the same one block area as EL7044. Solomon Pacific held the tenement for nearly 2 years from 1993, the only report was the group MLN1139 report in 1993, which did not specify work on this tenement.

**EL 8128** consisted of 2 blocks, and covered the SW block of EL24409. Work by Northern Gold consisted of a review of TEM satellite imagery which did not identify any geological structures amenable for targeting gold and base metals.

**EL 9463** covered the same one block as EL8070 and EL7044. Northern Gold held the tenement for 2 years from 1996, and conducted rock chip sampling, and produced a geological plan from satellite imagery and multiclient aeromagnetics. Rock chip samples were below detection for gold.

**EL 9658** covered the 2 southern blocks of EL24409 in the late 1990’s. Acacia Resources conducted soil sampling with a peak value of 161ppb Au at AMG84 Zone 52 759602E / 8503400N (figure 3) as well as aeromagnetic and radiometric surveys.

**EL22455** covered the whole of EL24409, plus another 4 blocks to the SE. No exploration work was carried out as a sacred site was found to cover the most prospective area, which is outside and east of EL24409.
A further check of scanned historic mining tenure maps indicated several MCN’s plus ERL 83 within EL24409. No records of activity were found for MCN’s 1087, 5096 and 5106, which were all located in the southern block of EL24409. MCN 1175 (in NW block of EL24409) contains a (non-JORC) probable alluvial source of an estimated 126,000 LCM's at up to 0.4g/t Au (Stokes, 1993). MCN’s 745 and 746 also contained alluvial gold which was mined between 1986 to 1990, and the MCN’s were subsequently relinquished.

Northern Gold explored MCN’s 4479-4481 in the late 1990’s as part of their exploration programme over EL 9463. Interpretation of Landsat imagery showed the area covered by Quaternary sediments with small windows of Burrell Creek sediments within MCN 4481. No fieldwork was completed. MCN’s 4476-4478 are in the northern part of the NE block of EL24409 (SD521290V), and work consisted of soil sampling which returned anomalous values in the areas draining the old Zapopan mine.

ERL83 was within the NW block of EL24409 and hosted alluvial deposits within the 'probable-possible' category. Bulk samples returned 0.17-0.32g – LCM Au, with average grades throughout the deposits estimated at 0.3-0.6g-LCM Au. At that time, the deposit was uneconomic and the ground was relinquished.
6. EXPLORATION DURING CURRENT TENURE

The first step in evaluating the tenement has been to review all known geological, geochemical and geophysical data within the tenement area.

Exploration during Year 1 has consisted of a data search and literature review of previous work, and a summary of work on previous tenure is contained in the previous section. This work involved:

a) check of known geological & geophysical maps/datasets
b) check of Explorer 3 datasets (rock chip, soil stream sediment, drilling) to see if any data is within the tenement
c) check of COREDAT
d) integrating geological maps and datasets into MapInfo

Results from this work indicated that:

a) there are 675 vacuum drillholes recorded within EL24409 from Cyprus-Solomon Pacific-Acacia drilling (anomalies already reviewed in previous section)
b) there are 20 soil samples from Cyprus-Solomon Pacific work (EL 7933) which was reviewed and found to have no anomalism. The 63 samples from Acacia work (on EL 9658) had anomalous values to 161ppb Au and are recorded in Figure 3
c) there are no stream sediment or rock chip samples recorded within EL24409 in the Explorer 3 database
d) there are no COREDAT holes, but there is stratigraphic hole B21 (see Figure 3 and Geology section of report)
e) there are no MODAT occurrences
f) small workings were found in the central western portion of the tenement

A review of regional geology and geophysical data show:

a) an apparent NW trend to strike of bedding, with mapped outcrops of Mt Bonnie Formation and Burrell Creek Formation in the southern portion of EL24409 striking NW and dipping to the NE. SPOT imagery and the regional TMI image also shows a NW-trending fabric.
b) the NW-trend flattens to a more WNW-ESE trend approaching the Brocks Creek shear zone to the north
c) AGSO 1:500,000 structural interpretation shows a WNW-ESE syncline trending through the northern blocks of EL24409. A few sparse strike/dip readings from geological mapping indicates it may be an anticline in this area(?)
GBS Gold (Harris 2005; internal report) have interpreted 4 structural domain quadrants around the Burnside granite, and EL24409 is within an overall dilational structural zone. Mineralisation in these areas are commonly hosted within anticlines (eg; ‘Zapopan-type’) and have a stratigraphic association with Fe-carb greywackes and graphitic siltstones, or may be more stratabound (eg; Cosmo, Howley Ridge) which have mineralisation on the flanks of the anticline.

7. PLANNED EXPLORATION FOR 2006

- Compilation of geological mapping – using previous Dominion mapping and sourcing the 1:25,000 compilation sheets (if available) from the NTGS as a base. Geological mapping (especially in the northern area) may establish whether there is a regional anticlinal structure within the Burrell Creek Formation
- Systematic rock chip sampling of all outcrops within the tenement
- Ground checking of anomalies identified in previous work

Expenditure for this work is expected to be at least $6000.

8. EXPENDITURE

No expenditure was recorded on EL24409 during Year 1 due to:

a) literature search and data review work being charged (and costed) outside the anniversary period (ie; will form part of Year 2 expenditure)

b) changeover of accounts systems from previous JV partner Harmony Gold to GBS Gold in April 2006 has led to changes in cost codes etc. It does not appear that Harmony Gold posted any expenses (eg; tenement management) to EL24405. This may be because EL24405 was granted during the year of the transfer/sale of assets to GBS Gold (?)
9. REFERENCES


