BENDIGO MINING

Henty Gold Mine

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EL28/2001 Annual Report

'Lake Newton'

EL28/2001

Vol. 1 of 1

HELD BY:	**BENDIGO MINING LTD.**
MANAGER & OPERATOR:	**BENDIGO MINING LTD**
AUTHOR:	**A. LORRIGAN**
DATE:	**APRIL 2010**
MAP SHEETS:	**1:25k Tyndall (3835) Oceana (3635)** **1:100k Sophia**
GEOGRAPHIC COORDS (GDA94):	**Min East: 379,100mE** **Max East: 382,100mE** **Min North: 5,356,200mN** **Max North: 5,360,200mN**

COMMODITY(s): Au, Basemetals

Summary

EL 28/2001 (Newton Creek) was purchased by Bendigo Mining Ltd. (BML) from Barrick Australia in July 2009. The tenement was part of the sale package that included the Henty Gold Mine.

Following the sale, BML immediately embarked on a review of the targets previously proposed by Barrick. An early conclusion of this review was that there was a gold target at Tyndall Creek which had not been adequately tested by previous drilling. It was proposed that a hole be drilled to address this. However, because the Tyndall Creek prospect was within 200m of the tenement boundary, and there was a 200m gap between the EL28/2001 boundary and the neighbouring tenement to the south, it was deemed prudent to apply for the ground to the south before commencing the drill hole. The application to have the ground included in EL 28/2001 was approved on 12 February 2010. A drill rig was sought immediately. The rig has been secured and will start work on 12 April 2010.

In addition to preparation for drilling at Tyndall Creek, since July 2009, BML has:

- reviewed the Barrick target priorities;
- commenced a review of the magnetic data with a particular emphasis on structure;
- started to compile geochemical data stored in disparate spreadsheets into a single database;
- commenced a validation of the drill hole database.

Expenditure on the tenement for the 11 months since the tenement anniversary has been $53,075. It is anticipated that the drilling programme will be complete before the tenement expiry date and that expenditure will have exceeded the $89,000 specified in the conditions for a 12 month extension of the tenement granted to Barrick.

BML will be applying for a 12 month extension to EL28/2001. The application will be submitted prior to the expiry date, when the drilling program at Tyndall Creek is complete.

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1. INTRODUCTION

This report details work completed by Barrick (Henty) Limited and Bendigo Mining Limited (BML) on EL 28/2001 .over the past year

EL28/2001 is due for relinquishment on 10 May 2010.

BML intend to submit an application for extension of the tenement for 12 months before the expiry date and when the current drilling programme is complete.

The license area consists of crown land and land vested in the HEC, both land uses coming under the mines act. The far western edge of the tenement is part of the Mt Dundas Regional Reserve (World Heritage Recommended Area for Protection). The far eastern extent, east of the HEC high-tension power lines is the Tyndall Regional Reserve. Any disturbances in these areas require notification and approval from the Mineral Exploration Working Group (MEWG). Further conditions of exploration are outlined in the Exploration Code of Practice (produced by Mineral Resources of Tasmania (MRT)).

The land vested in the HEC includes Lake Newton and associated pump station, the Henty canal, the high-tension power lines and service tracks.

1.1. Tenure

EL28/2001 was acquired in 2002 by Placer Dome Asia Pacific (formerly AurionGold Exploration and previously Goldfields Exploration) after a successful tender for ETA 552.

Barrick (Henty) Limited acquired the EL in January 2006, following the global takeover of Placer Dome by Barrick Gold Ltd.

In July 2009 Bendigo Mining Limited (BML) purchased the Henty Gold Mine and EL 28/2001 from Barrick Australia. BML subsequently applied for, and were granted, a variation to the tenement, which enlarged the area to the south by 1.4 sq km (Figure 1).

1.2. Location and Access

Lake Newton (EL28/2001) lies midway between Queenstown and Tullah on Tasmania's west coast. The EL's northern boundary abuts the Henty Gold Mine leases (Figure 1).

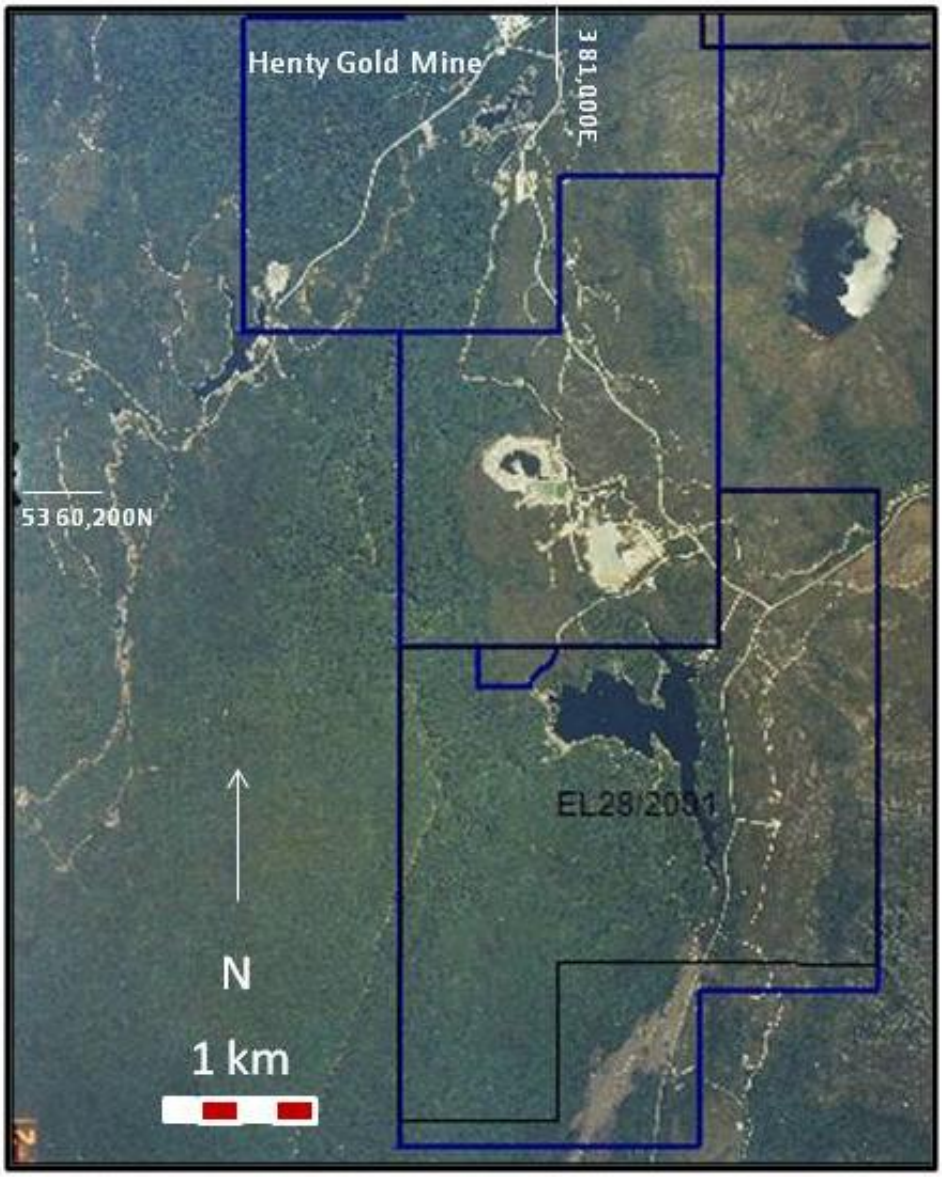

Figure 1. Location of EL28/2001. The blue outline shows the new boundary (since February 2010). The black line shows the old boundary. Other BML tenements are shown to the north. GDA 94 projection.

1.3. Regional Geology

This section, and the following are taken from the Annual Report for this tenement for the period April 2008-April 2009 (Barrick 2009):

Basement rocks of western Tasmania comprise sediments multiply deformed during the Late Proterozoic Penguin Orogeny (700±50 Ma) (Berry, 1994). A rift phase followed, characterised by continental shelf sedimentation and tholeiitic volcanism (Crawford and Berry, 1992).

The first phase of the Cambrian Delamerian Orogeny (510-490 Ma) is characterised by extensional tectonism which resulted in the rapid deposition of sediments and calc-alkaline volcanics (Mount Read Volcanics), particularly along the eastern margin of the newly formed Dundas Trough (Berry, 1994).

The Mount Read Volcanics (MRV) interfinger with the Dundas Group to the west and are bound by Precambrian rocks of the Tyennan Region to the east.

On the south-eastern side of the Henty Fault, the MRV package can be divided into four main lithostratigraphic groups (Corbett, 1992). These are: the Western Volcano-Sedimentary Sequence (WVSS), the Central Volcanic Complex (CVC), the Eastern Quartz Phyric Sequence (EQPS) and the Tyndall Group (TG).

The WVSS comprises rocks of the Dundas Group and the Yolande River Sequence (Corbett, 1992) which interfinger with the lava rich zones of the CVC and the EQPS sequence. The WVSS was deposited in a marine setting and consists of tuffaceous mass flow deposits, volcano-sedimentary siltstones/mudstones, volcaniclastic turbidites and black graphitic shales (Corbett & Lees, 1987).

The CVC is the central belt of the MRV and interfingers with both the WVSS and EQPS. CVC lithologies are predominantly feldspar-porphyritic rhyolitic to andesitic volcanics and pumiceous volcaniclastics, with lesser intercalated minor sediments and mafic units (Corbett 1992). A useful geochemical subdivision is proposed by Crawford et al (1992) where the CVC is split into two distinct geochemical suites (Suite 1 and Suite 2, see Section 2.5: Local Geology).

The EQPS occurs along the eastern margin of the MRV belt and interfingers with the CVC to the west. The package comprises rhyo-dacitic lava-dominated volcanics with common quartz-feldspar phyric intrusives (Corbett, 1992).

The TG comprises a lower association consisting mainly of crystal-rich sandstones and polymictic breccias with minor rhyolitic and andesitic lavas, overlain by the volcanogenic conglomerate and sandstone units of the upper TG.

The last phase of the Cambrian Delamerian Orogeny (~490 Ma) caused the earlier faults to be reactivated as reverse faults and formed open north trending folds along with the uplift and erosion of the Tyennan Block which formed the Owen Group conglomerates (Berry, 1994). The Owen Group appears to conformably overly the TG in the Henty area (Corbett, 1992).

Deposition of the Owen Group ceased in the mid Devonian with the onset of the Tabberabberan Orogeny resulting in tightening of the north trending Cambrian Folds in the Dundas Trough with formation of a NNW striking cleavage (Berry, 1994).

1.4 Local Geology

Stratigraphy

The stratigraphy of the South Henty lease has been well documented by previous workers through detailed lithogeochemistry and mapping. The stratigraphic interpretation remains largely unchanged following work completed by Barrick with the exception of separating the Howards Basalt unit into an upper and lower unit. A slightly amended stratigraphic column is suggested for the South Henty area and has been summarised in Figure 3.

In the Lake Newton area the volcanic package comprises a section of Central Volcanic Complex (CVC) conformably overlain by lower Tyndall Group stratigraphy. The CVC is broadly divided into a lower association (Suite 1) and an upper package (Suite 2), based on geochemical divisions (Crawford et al, 1992). The lower CVC (Suite 1) comprises a package of interlayered feldspar-phyric rhyolitic to dacitic lavas, volcaniclastic breccias, conglomerates and crystal rich sandstones (Williams, 2000).

The overlying upper CVC (Suite 2) is commonly referred to as the Anthony Road Andesites after the andesite members that dominate the package, but is also known as the Anthony Road Volcanics (ARV). Upper CVC units within the tenement area are dominated by a quartz-feldspar porphyry facies interpreted to be a sill in the South Henty area (Street, 1999) and a comagmatic package of interlayered plagioclase+hornblende-phyric andesite units with lesser interlayered sandstone, mudstone and carbonate units (Williams, 2000).

Conformably overlying the CVC package are crystal-rich sandstones, polymictic breccia units and lesser quartz-feldspar felsic lavas of the Lower Tyndall Group. The felsic lavas of the Tyndall Group are characteristically Suite 1 (Williams, 2000).

Structure

Two major structures constrain the Cambrian lithologies in the Lake Newton area, the South Henty Fault to the west and the Great Lyell Fault to the east. The South Henty Fault is a steeply west dipping (60-90^{o}) major regional structure which forms the western boundary of the Yolande River Sequence, CVC and Tyndall Group rocks. The Great Lyell Fault forms the eastern margin of Cambrian lithologies and is a large west dipping fault with several hundred metres of displacement (Corbett & Lees, 1987).

Bedding is generally steeply dipping to the east and occasionally appears overturned, dipping steeply to the west. A tight, shallow, north plunging syncline is located near the Great Lyell Fault in the southeast of the lease and may be a southern extension of the Mt Julia syncline (Callaghan, 1999). A major regional S_2 foliation is noted by Callaghan (2003) which steeply dips towards the southwest and overprints most rocks in the Lake Newton area.

Callaghan (2003) also notes evidence for extensive ductile deformation in the Howards Anomaly area. In this area the Howards basalt horizon has a strongly developed foliation and down dip stretching lineation in chloritised basaltic breccias grading into brittle faulting and kinking of the earlier foliation. The fault represents the extended limb and hinge of a series of NNW trending asymmetric folds located in the SE corner of the EL which extend southwards. These structures mark the change from dominantly east-facing, steeply dipping bedding, strongly influenced by the Henty Fault in the west to flatter lying strata to the east. The bedding to the east is disrupted by N to NNW trending open to tight folds and associated faulted limbs with wavelengths of approximately 200m in the east (Callaghan, 2003).

The geology of the tenement is shown in figure 2. The stratigraphy in figure 3.

Figure 2. Geology of EL 28/2001 after Barrick 2008.
Figure 3 Henty area stratigraphy

1.5 Alteration and Mineralisation

There are a number of alteration and mineralisation occurrences within the tenement area. The most significant are:

- The Lake Newton Prospect (Cu-Au).
- Howards Anomaly (Ba-Ag) - Tyndall Creek (Zn-Pb-Ba)
- The spillway horizon (VHMS-polymetallic massive sulphide)

There is an excellent description of each of these in the Annual Report for EL28/2001 for the period April 2008-2009 (quoted below).

1.5.1 Lake Newton Prospect (including Howards Anomaly- Tyndall Creek)

Previous workers have defined the prospect as a well zoned, epigenetic, low grade (0.2-0.4 g/t Au), disseminated copper-gold system with an extensive low grade (<1% Pb + Zn) base metal halo. The entire alteration zone extends over a strike length of at least two kilometres, varies between 30 to over 400 metres in width and is open to the south and at depth. The alteration system is well zoned moving inwards from a distal carbonate-chlorite halo → carbonate-sericite-(chlorite-sphalerite-galena) → sericite-pyrite-carbonate-(gold-galena-sphalerite) and a proximal zone of sericite-silica-pyrite-(chalcopyrite±gold) (Callaghan, 2003). Typical results from the inner zone include:

SHD16	615.0-736.0m	121m @ 0.2 g/t Au
	770.8-791.8m	21m @ 0.4 g/t Au
SHD22	346.0-392.0m	46m @ 0.2 g/t Au
SHD22	482.0-508.0m	26m @ 0.3 g/t Au

The alteration is dominantly hosted in the polymict dacitic massflows of the Spillway Horizon and overlying the massive dacitic pumice breccias of the Newton Creek Dacites, but also overprints the Spillway Basalt and extends down into the underlying Yolande River Sequence (Callaghan, 2003).

The top of the alteration system also crosscuts units of the lower Tyndall Group, particularly the Howards Basalt and Lynchford Member volcaniclastics, and varies in composition along strike from south to north. The Tyndall Creek occurrence, to the south of the lease, is hosted within Lynchford Member units. It is interpreted to represent an exhalative expression of the Lake Newton alteration system and consists of small discontinuous lenses of barite-basemetal-sulphide alteration with weakly anomalous gold, confirmed in limited shallow drilling (to 3.8g/t in TC3). In the north of the lease, the lower Tyndall Group alteration varies between weak, disseminated pyrite-sericite (e.g. SHD21) and occasional elevated silver assays from haematite altered volcaniclastics (e.g. Howards Anomaly, drillholes HA4 and HA6). The presence of barite and jasper veining at both prospects suggests a near seafloor position within the Lower Tyndall Group during the mineralising event (Callaghan, 2003).

The relative timing of the alteration system can be partly constrained by overprinting relationships of the alteration across the boundary of Suite 2 porphyry units. This overprinting relationship implies a syn- to post-porphyry timing of the hydrothermal event (Callaghan, 2003). As Suite 2 porphyries show consistent peperitic intrusive contacts with the overlying Lynchford Member units, the porphyry, and therefore the alteration, post dates at least some units of the Lynchford Member (possibly even the exhalative sulphide lenses within the Lynchford Member).

1.5.2 The Spillway Horizon (Polymetallic Massive Sulphide)

The spillway horizon is a volcaniclastic massflow breccia unit (Ccvag) containing a number of high-grade, polymetallic sulphide clasts, outcropping in the Lake Newton Dam spillway. The source of the massive sulphide clasts is yet to be identified. The sulphide clasts are well-rounded cobbles and boulders consisting of massive sphalerite-galena-pyrite and chalcopyrite with an average grade of 27% Pb, 31.7% Zn, 700 g/t Ag and 0.92 g/t Au (Herrmann and MacDonald, 1996).
A detailed interpretation of the spillway breccia and sulphide clasts by Allen (1993) suggested that the clasts had not been transported far from their source environment. The sulphides are most likely to have formed in the same source area as the dominantly dacitic hyaloclastite rich mass flow. The proximal sulphide source is likely to have existed within 5km of the outcropping clasts (Allen, 1993). The Spillway Basalt forms a distinct and laterally continuous marker horizon at the base of the massflow breccias (Allen, 1993).

1.6 Previous Exploration

The area of the tenement has been explored intensively, mostly for VHMS-style mineralisation for at least forty years. A tabulated summary is contained in Appendix 3.

In the two years between April 2007 and April 2009 Barrick had two brief but intense exploration campaigns. Both of these were largely project generation and data compilation, with only one soil sampling campaign and one drill hole completed. Core from the Newton Creek alteration zone was analysed using short wave-length spectroscopy. A 3D model of the geology of the lease area was commenced.

The drilling completed by Barrick was designed to test the down-dip extension of low-grade gold mineralisation at the Tyndall Creek Prospect. The first hole drilled was abandoned due to ground conditions (Z16732). The second (Z16739) has been interpreted to have drilled down dip and not tested the target. No gold was found in either hole.

2 WORK COMPLETED DURING THE REPORTING PERIOD, MAY 10, 2009 to MAY 10, 2010

Because of the impending sale, no work was done on the tenement between May and July 2009. Once the purchase of the tenement was completed, BML commenced a brief review of the targets generated by Barrick. This review arrived at the following conclusions:

- The “hurdle” for target size was much higher for Barrick than it is for BML;
- There was a strong emphasis on a porphyry/epithermal model (albeit it with a VHMS component) in the Barrick view of Henty and the surrounding area. This contrasts with the BML view of a Henty-style target as a VHMS alteration system with a strong structural overprint which has probably concentrated gold in certain rock types;
- Although there had been an extensive and professional review of the geophysics, the magnetics had not been interpreted for detailed structures and their relationship to gold mineralisation;
- There was a good-quality but unfinished 3D model of the geology of the tenement;
- The surface data was not in a single database and was therefore difficult to use for regional purposes; and
- The drilling at Tyndall Creek had not tested the target there.

With these conclusions in mind, the exploration target, at least for the short term, became the Henty stratigraphic position, or its equivalent, where it has undergone significant deformation.

The Tyndall Creek Prospect fitted this description, and also hosts anomalous gold. A drill hole was designed to test this area at depth.

A review of the Barrick targets and work with the smaller BML target in mind was commenced, as was an interpretation of the magnetic data for the type of structures and the alteration packages that host Henty. Both these tasks were in progress at the time of writing and it is too early to report conclusions.

The validation of surface exploration data to enter into a surface sample database was also commenced.

2.1 Tyndall Creek

At Tyndall Creek a baritic, base metal-bearing horizon thought to be equivalent to the Lynchford Tuff position that hosts gold mineralisation at the Henty Mine is strongly deformed, probably as the result of its proximity to a NNW-NNE-trending, structure which appears to dip at between 45 to 60 degrees to the east.

5 shallow holes (TC1-5) had been drilled into the area by Aberfoyle in a search for base metals. Barrick recognised the prospectivity of this area and determined to test beneath the Aberfoyle holes. Unfortunately the first drill hole, drilling from east to west, was abandoned due to bad ground. Another hole was then designed to test the area by drilling from the west. These holes were plotted on sections and plans of the area and it appears that the second hole, though having been drilled to 330.3m, probably drilled down-dip and didn't test the original target.

BML have planned another hole from the east to test the original target. Research into the reasons the first hole failed has been undertaken. As a result of this a casing advancer will be used to push the HW casing deeper on this attempt. The hole will also be drilled on 2 shifts and at a slightly steeper angle. At the time of writing, the drill site has been prepared and the rig is arriving on site in 3 days time.

A plan showing the location of the prospect and drill site is shown in figure 4. A cross-section through the planned hole is shown below in figure 5.

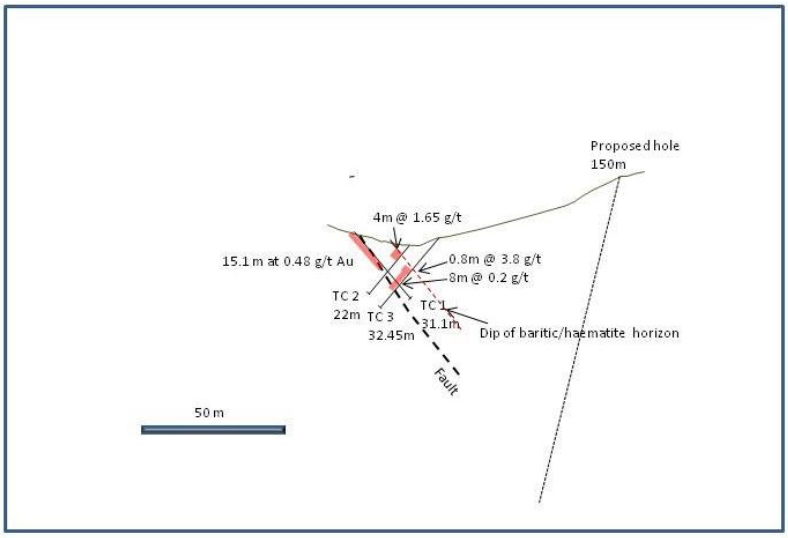

Figure 5 Cross section through proposed drill hole

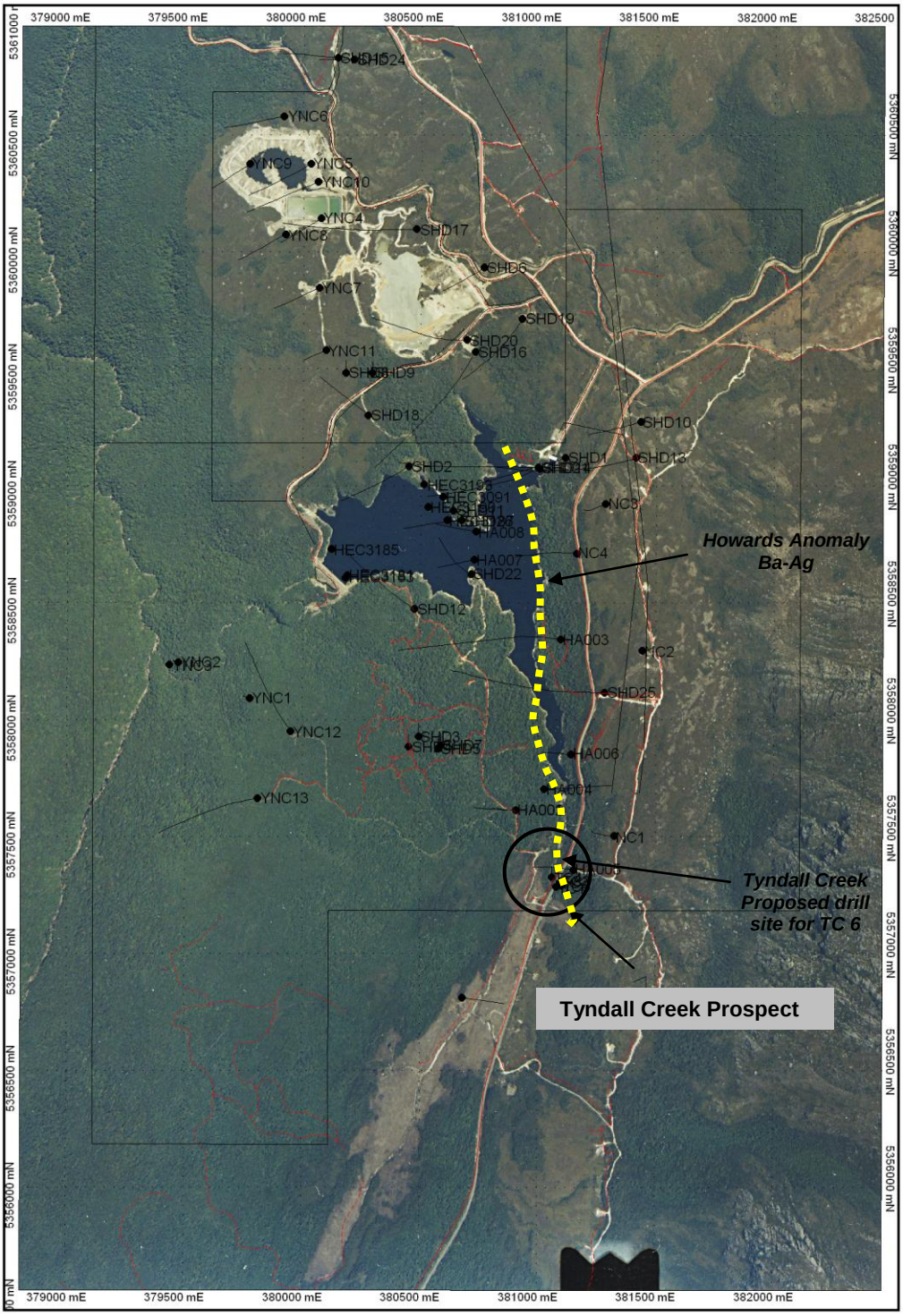

Figure 4 Location of the proposed Tyndall Creek drill hole. The yellow dotted line is the Lynchford Tuff/Henty position.

3.0. Conclusion

Bendigo Mining Limited are still gaining an understanding of the geology, the data pertaining to and the prospectivity of the tenement. Drilling of a previously untested target at Tyndall Creek will be completed within the next 2-3 weeks. It is planned to submit an application for extension of the tenement once the drilling is completed and before the expiry date on 10 May 2010.

4.0. Expenditure 09/10 Reporting Period

Total Expenditure for the 09/10 Reporting Period was $.

Expenditure EL 28/2001 April 2009-April 2010	$
Personnel	37,390
Consultants	3705
Drill site preparation	5600
Software	5985
Tenement	395
TOTAL	53,075

Table 1: E28/2001 'Lake Newton' Exploration Expenditure 2008-2009

5.0. Forecast Expenditure 10/11 Reporting Period

The drill hole at Tyndall Creek will be completed within the next 2-3 weeks. Any encouraging results in this hole will followed-up with more drilling. A contractor has been engaged to complete the 3D geological model and join it to the Henty Mine model.

The assessment of prospects and of the magnetic data will be completed.

A programme initiated by Barrick to analyse core at Henty for useful alteration and trace element vectors is being continued and the results of this work will inform future exploration on EL28/2001.

In summary, Bendigo Mining Limited have made a start on understanding the geology of this tenement and will advance this work as quickly as possible in order to generate drill targets.

The forecast budget does NOT include the drilling planned for April 2010. This expenditure will be added to the current expenditure when the application for extension is submitted.

Table 2: E28/2001 'Lake Newton' Exploration Budget Forecast 2010/2011

Forecast Expenditure May 2010-April 2011	$
Personnel	50,000
Consultants	15,000
Drilling, site prep and rehab.	65,000
Geochemistry	15,000
Software	10,000
Tenement	1,000
TOTAL	156,000

7.0. References

Barrick (Henty) Ltd **EL 28/2001 Annual Report and Application for Extension. April 2009.**

Appendix 1

Figures 2 and 3

Appendix 2

- Summary of Historical exploration