

02 June 2010

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## **Bullabulling Gold Project – Structural Study**

A study of the structural controls on gold mineralisation and the implications for resource potential and exploration within the Bullabulling project area has been completed by consultant Dr Toby Davis of Impel Geoscience. This work has resulted in the development of a model that, for the first time at this project, links the structural framework associated with the gold deposits to their geometry as defined by the existing drilling data.

The main conclusions from the study are:

- Structures were mapped in the weathered and primary rocks that define a +6 km long 300m wide structural system that controls the distribution of gold in primary mineralisation (The N-S Bullabulling Trend).
- Gold mineralisation can be traced through 40m spaced drill sections along the entire length (more than 6 km) of the Trend.
- Higher grade (3-4 g/t Au) zones within a lower grade halo are located at the intersection of older and younger structures. These zones tend to be continuous over 100s of metres, are 5-20m wide, are open at depth and appear to be systematically repeated along the trend.
- A halo of low grade gold mineralisation (0.5-1.5 g/t Au) is present continuously throughout the Bullabulling Trend and is open at depth, except where cut by later pegmatites. The Bullabulling Trend comprises a network of ductile high strain zones and folds that were formed by five overprinting deformation events.
- Gold mineralisation occurred late in the deformation history and was broadly synchronous with the last phase of granite and pegmatite emplacement.
- Gold deposits are located in all the structures but are especially well developed at the intersection of the older and younger structures, the most important being the Bullabulling Shear Zone.

- Structures intersect at a low angles and are sub parallel along the Bullabulling Trend, which explains the along strike continuity in this part of the structure.
- Two distinct mineralised trends were mapped: the N-S-striking Bullabulling Trend and the E-W- to NW-SE-striking Gibraltar Trend. The majority of known resources are hosted by the Bullabulling Trend.
- The host rocks to gold mineralisation at Bullabulling have been weathered to a depth of about 60m.
- Weathering processes produced laterite and supergene gold in the near surface with a zone of gold depletion below this gold mineralisation.
- The grade of gold mineralisation increases with depth as the rocks are less affected by weathering and primary gold mineralisation becomes dominant.

For specific areas the study reveals:

- The Phoenix deposit contains three parallel moderately W-dipping lodes hosted by deformed and altered amphibolite at the contact with quartz-muscovite schist that is exposed in the east and south walls of the pit. Individual lodes can be traced for more than 600 m along strike and have not been closed by drilling down dip. Mining in this area has been limited and there are numerous drilling intersections below the shallow pit that are greater than 5 g/t Au. Additionally these intersections display significant continuity along strike.
- The northern part of the deposit in the Bacchus North pit is up to 25 m wide and dips to the NW. It is composed of multiple anastomosing and bifurcating internal W-dipping lodes that appear to trend to the Phoenix pit 600m to the north.
- Indicator maps of assay grades show that collections of samples greater than 5 g/t Au can be traced for hundreds of metres along strike between these pits.

The main implications for future resource development and exploration are:

• The lateral and down dip continuity of structures mapped along 6km strike length of the Bullabulling Shear Zone increases confidence in the continuity of gold mineralisation between and down dip of current drill sections.



- The structural setting explains the linear continuity within the 6km Bullabulling Trend and this should continue in areas outside and between the current pits into areas with limited drilling.
- The gold grades along the Bullabulling Trend can be divided into domains based on the orientation of individual lodes. These grade domains correspond closely to structural domains, which gives confidence that the continuity of gold grades in these domains is realistic. These domains will be used to constrain future resource modelling so that grades associated with particular structural domains are modelled separately.
- The definition of higher grade shoots and an understanding of their geometry, continuity and formation will also allow a more precise estimation of the resources at Bullabulling.
- It is possible that the folded older shear zone hosted lodes are replicated by parallel structures vertically below the known deposits, following the vertical younger high strain zone at depth. The West Lode in the Bacchus South Pit is the most westerly of the older high strain zones identified on the Bullabulling Trend, consequently the other lodes at Bacchus North and Phoenix, should be located below this West Lode structure at Bacchus South as suggested by some of the deeper drilling below the Bacchus South Pit. The potential for resources to exist below the current pit at Bacchus South in sub parallel lodes is high.
- In terms of structural style and metamorphism of the host rocks, Bullabulling is comparable to Homestake in South Dakota, USA, and Bronzewing in Western Australia containing 40 million oz (Moz) and 4 Moz gold respectively.

Seven diamond drill holes (totalling 1,432m) have been planned from recommendations from the study to confirm the structural interpretation, test continuity and intersect historic mineralisation extending from Bacchus South pit to Phoenix pit (and at depth outside the current known resource), a distance of approximately 2.5 kilometres. All drillholes have the potential to intersect significant mineralisation and provide important geological information.





The Bullabulling Trend between Bacchus and Bonecrusher deposits over a 6km strike extent



3D Model of the structural framework of the Bullabulling Trend showing interpreted extensions to known mineralisation



A program of works has been submitted to the WA Department of Mines and the drill contract has been awarded. Drilling is expected to commence in mid June and be completed by the end of July.

For further information please check our website (<u>www.auzex.com</u>) or contact John Lawton (Managing Director) or Greg Partington (Operations Director) on +617 3333 2822 or +614 4870 0987 respectively.

## Competent Person Statement

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by John Lawton who is a full-time employee of the Company and Member of The Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". John Lawton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

