

## ASX Announcement

22<sup>nd</sup> March 2010

### Significant NEW potential in Copper / Gold results

Gulf Mines Limited is pleased to announce that it has currently under development a new conceptual model for known Copper / Gold mineralization at Nowa Nowa, Victoria:

- A review of previous GLM drilling [2008], that resulted in **Copper** mineralization occurring over significant intervals including **33.5 m averaging 1.89% Cu downhole** and **Gold** values of **1.0 m averaging 2.41 g/t Au downhole**, now takes on major significance relative to GLM's new mineralization model
- Additional geological, geochemical and geophysical data recently acquired by GLM's new geological team has resulted in development of a significant Iron Oxide / Copper / Gold [**IOCG**] conceptual model warranting immediate testing
- The gross structural setting is similar to that associated with known IOCG deposits with existing ironstone bodies now appearing clustered around the margin of a major gravity low feature that could represent a buried intrusive body
- A follow-up gravity survey was completed in February 2010 resulting in a model favouring IOCG in a mineralised horst / graben system over the previous porphyry system concept. The original and new gravity surveys, combined with other additional work, already completed, indicates where the hydrothermal mineralization occurs
- An immediate easily drilled target in the quarry just north of Nowa Nowa village will be tested by an inexpensive percussion drilling program
- This evolving model has also predicated further work underway to intensively re-analyze previous drill data and other fieldwork from prospects in the north of the tenement

#### Immediate Exploration Priorities:

- Priority exploration areas remain those areas of mineralisation relevant to the development of an effective empirical model
- In particular, the silica-sulphide quarry zone is a style of mineralization / alteration that has received little exploration attention in the past
- A drilling program of some 500 m proposed for 2010 will test an empirical model for the base / precious metal mineralisation
- The base metal / precious metal mineralisation recorded in the drilling results of the Three Mile prospect also requires integration into the mineralisation model
- GLM will compile and review recently acquired geological and geophysical data to assist in the location of further scout drill holes

#### Work completed this year:

Field work already completed during early 2010 had been designed to assist in the development of an effective empirical model and included:

- mapping of recently recognised dyke lithologies that may have intruded along fault structures
- volcanic facies mapping to locate eruptive centres that could represent locie for mineralization; and
- an extended gravity survey to connect the previous survey over the main ironstone bodies with the quarry exposure and the Three Mile Prospect [108 stations]

## Previous Exploration Results:

In 2009 GLM's new exploration team recognised a potentially large area of silicification, sulphidation and quartz [sulphide] veining in the walls of a road base quarry north of the township of Nowa Nowa:

- Detailed geological mapping of the quarry walls established a fault-bounded zone of moderate to intense pervasive silicification, pyritisation and quartz [sulphide] veining in a volcanic fragmental host rock over an exposed area of approximately 150 m east-west and 300 m north-south
- Forty-two rock chip samples of host rock, quartz [sulphide] veining and vein selvage material returned three elevated gold values [0.15 g/t Au maximum with detectable mercury]. Copper [432 ppm maximum], lead [554 ppm maximum], arsenic [2810 ppm maximum] and thallium [300 ppm maximum] were also elevated in most of the samples collected
- These results suggest that the quarry exposure represents a precious and base metal enriched hydrothermal system
- The possibility that the quarry hydrothermal system could be linked genetically to the Nowa Nowa ironstone bodies is consistent with the occurrence of the 'silica-pyrite Au-Ag' high-grade gold mineralisation associated with the skarn environment at Bingham in the United States of America and other gold-enriched skarn deposits in British Columbia in Canada

A review of the various mineralisation styles within the broader Nowa Nowa district and the interpretation of an earlier ground gravity survey conducted by GLM revealed that:

- Petrological examination of drill core specimens from the Three Mile ironstone body by Western Mining Corporation in 1989 suggested that the ironstone represents a high-temperature skarn / replacement deposit within Silurian sediments
- Copper sulphide mineralization occurs over significant intervals [33.5 m averaging 1.89% Cu downhole] within the Five Mile ironstone body
- Gold values are associated with the Three Mile Prospect [1.0 m averaging 2.41 g/t Au downhole] and the quarry silica-sulphide zone
- Porphyry type copper mineralization [**Dogwood, Stringer Knob**] in Victoria is associated with a number of intrusive bodies located peripheral to the Buchan Rift zone that hosts the ironstone bodies and the quarry exposure.
- The Dogwood Prospect, located 14 km north-west of the Five Mile Prospect, consists of hypogene stockwork, vein-hosted and disseminated copper-molybdenum mineralization in altered intrusive rocks overlain by 100 m of Ordovician metasediments.

## New Conceptual Model:

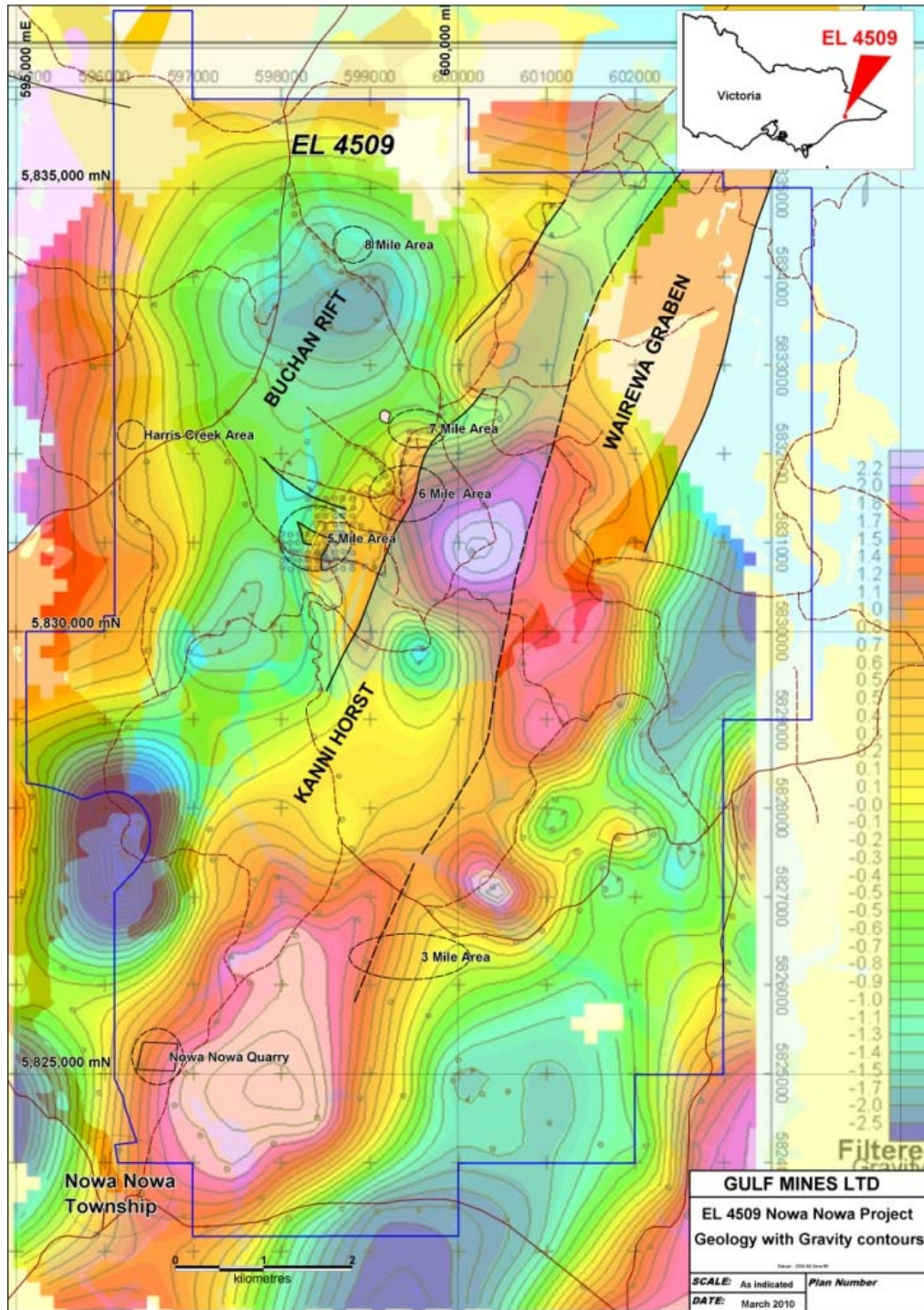
These observations resulted in the development of a new conceptual model for mineralisation in which the ironstone bodies and the quarry hydrothermal alteration are genetically related to a skarn system formed peripheral to a buried single or multiple intrusive body/bodies with vertical and lateral alteration and mineralisation zonation[s]:

- The Nowa Nowa ironstone bodies [Harris Creek, Eight Mile, Seven Mile, Six Mile, Five Mile] previously appeared clustered around the margin of a gravity low feature that could represent a buried intrusive body
- The new model initially suggested the potential for untested porphyry-style base / precious metal mineralisation spatially and genetically associated with an intrusive body at depth:
  - In the greatly expanded new model the major known ironstone [Five Mile etc] and silica-sulphide [the quarry] bodies are located along the margins of north-east trending gravity features possibly bounded by major fault structures such as the Kanni Fault
  - The bounding faults separate the graben structures [Buchan Rift, Wairewa Graben], filled with Devonian Snowy River Volcanics, from the horst structures [Kanni Horst], composed of Ordovician metasediments

## Other Mineralisation Models:

However, the data and observations may be taken to support other conceptual models, namely:

- high-sulphidation epithermal / porphyry [e.g., **Chinkuashih, Taiwan**]
- massive volcanigenic sulphide [e.g., **Henty, Tasmania; Golden Grove, Western Australia**]; and
- Iron Oxide Copper Gold [e.g., **Tennant Creek, Northern Territory**]



Critical data is yet to be collected and / or interpreted to distinguish between the diverse styles of deposit included in the various conceptual models.

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*"The information in this Announcement that relates to Exploration Results is based on information compiled by Graham Reveleigh, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Reveleigh is the Managing Director of Gulf Mines Limited, and has sufficient experience which 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'. Mr Reveleigh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears".*