# **Eastern Areas Exploration Report Completion of Phase 3**

December 2003

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## **Executive Summary:**

Exploration licences were granted to GEMCO for EL 10115 and EL 10108 on the 13<sup>th</sup> October 2000 in the region of Groote Eylandt known as the Eastern Areas. Since the granting of the exploration licences three phases of exploration program have been planned and executed to varying degrees.

**Phase 1:** consisted of an exploration program with drilling having been completed during the dry season of 2001.

**Phase 2:** was undertaken during 2002 and focussed upon the sample preparation, and assaying of the samples generated during the 2001 drilling program. Following the assaying process some preliminary data analysis and interpretation was completed. The preliminary data analysis and interpretation was then used to plan Phase 3 of the exploration program.

**Phase 3:** was scheduled to be completed during 2003 with the majority of the work being focussed upon data compilation, geological modelling and ground mapping. As this type of work (interpretation and modelling) requires considerable familiarity and some degree of local knowledge it was anticipated that this work would be completed on site by a GEMCO employee. However due to unforseen staffing changes and issues outside of GEMCO control the proposed work was not undertaken, however a preliminary review of the available information has been conducted in order to plan the Work proposed for Phase 4 (2004).

**Phase 4:** as a result of the Phase 3 work having not been completed as planned; Phase 4 will focus primarily on:

- Further delineation and identification of areas requiring further exploration drilling and sampling
- Clearing of grid lines where manganese has been located in outcrop or drill intersections.
- RC drilling of approximately 100 holes on cleared grid lines. (40 holes EL10115 and 60 holes EL10108)
- Resource modelling and generation of reserve estimation of current data.
- Determining areas that can be handed back to the Traditional Owners.

Planned expenditure for Phase 4 totals \$180,000 (\$60,000 - EL10115 and \$120,000 - EL10108)

## Phase 1 and 2 - Work Completed

The Eastern Areas Exploration Report from December 2002 has been attached; the work completed both in Phase 1 and 2 is clearly detailed within this report.

### **Phase 3 - Progress**

Phase 3 was scheduled to be completed during 2003 with the majority of the work being focussed upon data compilation, geological modelling and ground mapping. More specifically work planned to be undertaken included:

- Compilation of all historical exploration data from BHP Billiton archives, NT Department of Mines, GEMCO archives, GEMCO Tech Services Library and GEMCO drafting department
- Digitising of old maps into the Vulcan geological modelling software

- Entering of old drillhole collars, logs and chemical analysis into the GDHS drillholes database
- Reinterpretation of the GEOTEM data in relation to the new drilling with the aim of distinguishing between clay and manganese
- Ground mapping on wide spaced ground traverses to collect manganese samples from gossans or outcrop
- Investigate the appropriateness of ground EM (electro magnetic) survey techniques or helicopter EM
- Generate a Vulcan geological model
- Determine if and what areas can be handed back to the Traditional Owners
- Determine the next phase of the work program

As this type of work (interpretation and modelling) requires considerable familiarity and some degree of local knowledge it was anticipated that this work would be completed on site by a GEMCO employee. However due to unforseen staffing changes and issues outside of GEMCO control the proposed work was not undertaken, however a preliminary review of the available information has been conducted in order to plan the Work proposed for Phase 4 (2004).

### **Phase 4 - Planned Work**

Given that the planned Phase 3 work was unable to be completed in 2003 as planned; Phase 4 will require most aspects of the Phase 3 plan, to be undertaken more specifically Phase 4 will focus on:

- Further delineation and identification of areas requiring further exploration drilling and sampling
- Clearing of grid lines where manganese has been located in outcrop or drill intersections.
- RC drilling of approximately 100 holes on cleared grid lines. (40 holes EL10115 and 60 holes EL10108)
- Resource modelling and generation of reserve estimation of current data.
- Determining areas that can be handed back to the Traditional Owners.

Planned expenditure for Phase 4 totals \$180,000 (\$60,000 - EL10115 and \$120,000 - EL10108)