Eastern Areas Exploration Annual Report
13 October 2000 – 13 October 2001
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1 Executive Summary

Exploration licences were granted to GEMCO for EL 10115 and EL 10108 on the 13 October 2000 in the region of Groote Eylandt known as the Eastern Areas. GEMCO began Phase 1 of their exploration program during the dry season of 2001.

The exploration program operated in accordance with the terms predetermined in the exploration agreement between GEMCO and the Anindyakwa Land Council and paid particular attention to the cultural sensitivities of exploring on aboriginal land.

The exploration involved aerial photography, ground reconnaissance upgrading of access tracks, preparation of grid lines and reverse circulation drilling.

Phase one drilling has been completed, however geophysical logging and sample analysis is yet to be completed. Results shall be tabled in early 2002.

2 Objectives

The objectives of Phase 1 exploration on EL10115 and EL10108 were:

1) Investigate areas within the EL's having high potential manganese occurrence as identified from GEOTEM survey data analysis and from regional stratigraphic modelling.

2) Determine characteristics and geometry of stratigraphy to aid in geological modelling for manganese resource estimation and hydrogeological modelling.

3) Determine whether future exploration in the EL is warranted.

4) Carry out this project in a manner that causes minimum practicable disturbance to the natural environment.

3 General Overview

The Eastern Areas are located approximately 6km south-east of GEMCO mining operations in the area known as D Quarry and approximately 16km by road and track SSE of the Angurugu community. Access into EL10115 is by way of 4WD via Emerald River road to D Quarry, then east on a newly constructed track. Access into EL10108 is via Emerald River road south to Emerald River, then east onto the King's Crossing Track approximately 1km south of Emerald River. The King's Crossing Track was passable by 4WD only required upgrading to support the drill rig and service trucks. Refer to the Eastern Lease Exploration Areas map on page 7.

Initially, Phase 1 involved logistics and planning with an emphasis on safety, environmental and cultural aspects of exploring on aboriginal land. Phase 1 was subdivided into a series of steps for project planning and management.

The main objective of Phase 1 was the formation of the liaison committee followed by grass roots exploration including surveying, ground mapping, drilling and wireline logging.
4 Environmental Issues

GEMCO ensured that environmental protection measures were applied in carrying out the exploration, including:

a) conserving and protecting the natural hydrological systems;
b) minimising the disturbance of soil and vegetation where possible;
c) minimising pollution;
d) use of Best Practicable Technology; and
e) prevented the introduction of exotic fauna and noxious or exotic plants to the area.

Traditional owners requested GEMCO not to revegetate access tracks and grid lines so that the tracks could be used as access routes for traditional activities. GEMCO also require the use of these tracks for the next phases of exploration.

On completion of the 2001 exploration program GEMCO shall plug and backfill all drill holes 1m below the surface to prevent the entrapment of native fauna.

4.1 Access

Ground disturbance activities completed during the work program were designed to minimise the impact on the environment. Wherever possible existing roads and tracks were used. Where practicable, “blade-up” clearing was used when forming access tracks and drill pads. Alterations to the natural landform or drainage patterns were avoided where possible. All intermittent and perennial creek crossings were constructed using culverts to avoid any changes to the drainage patterns.

Effective hygiene measures were employed to minimise the risk associated with the introduction of foreign plants or organisms into the exploration area. All earthmoving plant, trucks, equipment and light vehicles that accessed the exploration areas were washed thoroughly prior entering the leases. Operators ensured that mud and other debris that may harbour weed seed or vegetative material were removed during the wash-down process.

During earthworks the amount of area disturbed was confined to the smallest area necessary to meet operational and safety requirements.

5 Cultural Aspects

5.1 Liaison Committee

A “Liaison Committee” was formed comprising of representatives from the Anindyiakwa Land Council and representatives from GEMCO prior to groundwork commencing. The principal role of the Liaison Committee was advisory and as a liaison between the
Anindilyakwa Land Council, the Groote Eylandt communities and exploration professionals employed by GEMCO.

The involvement of Traditional Owners was extremely useful due to their knowledge of the area, particularly in terms of location and construction of access tracks.

5.2 Sacred Sites and Aboriginal Places

Under consultation and accompaniment by the Anindilyakwa Land Council and the liaison committee, the location of sacred sites were surveyed and entered into the GEMCO planning system. Maps highlighting these areas were issued to all personnel working on the project. Sacred Sites were designated 'no go' zones during Phase 1 and future exploration activities.

Regular dialogue with Traditional Owners (represented by the Angurugu based Anindilyakwa Land Council) ensured the process for protection of significant areas.

5.3 Instruction in Aboriginal Culture

As per clause 20.1 and Annexure G of the exploration agreement, GEMCO ensured that all employees, contractors and consultants engaged in the work program, were given appropriate instruction in Aboriginal traditions and culture. Prior to entering the Eastern Areas, personnel were given cross-cultural instruction, which included the following:

- Permit requirements for off-lease areas;
- Alcohol restrictions and policy;
- Conduct whilst on Aboriginal land;
- Basic understanding of Aboriginal culture;
- Significance of Aboriginal sacred sites;
- Listing of Aboriginal organisations and community structures.

6 COST

Many of the costs associated with Phase 1 exploration on EL10115 were shared costs with exploration within GEMCO's mining leases. In order to estimate a true cost of exploration in the Eastern Areas a detailed cost analysis was carried out (summarised in Table 6.1 Exploration Costs 13 Oct 2000 - 13 Oct 2001).

The total cost for the period between 13 October 2000 and 13 October 2001 was $104,445. This is significantly less than what was proposed in the Phase 1 Work.
Program as the sample preparation, assaying and downhole geophysics components of Phase 1 are still to be completed.


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Figure 1: Eastern Lease Exploration Areas
7 Results

Results of Phase 1 exploration cannot be tabled until assaying of samples has been completed.

Early results indicate that GEOTEM (acquired in 1993) cannot be correlated with manganese mineralisation. Smectite clays with traces of manganese were intersected in areas of high electromagnetic response, however, no ore was intersected in these anomalous areas. Profiles of medium grade lump ore were intersected along the rims of the EL's, flanking the east-west trending embayments of the Proterozoic basement. These areas exhibit a low electromagnetic response.

Further exploration is planned in the Eastern Areas over the next four years. Figure 1, "Eastern Area Exploration," locates drill holes, tracks and gridlines used in the 2001 exploration campaign.

8 Next Step – Phase 2

Analysis of drill samples will continue into early 2002. Further exploration will depend on the results of Phase 1. Phase 2, to commence in 2002, is likely to involve:

- Sample preparation and assaying of drill samples acquired in Phase 1;
- Downhole geophysical logging of drill holes drilled in Phase 1;
- Low level aerial photography and interpretation;
- Ground mapping on wide spaced ground traverses to collect Mn samples from gossans or outcrop;
- Re-evaluation of exploration data acquired in the late 1960's;
- Follow up reverse circulation drilling to test areas of interest with decreased spacing of drill holes in areas with the most encouraging results.