ANNUAL REPORT ON
G.M.L's 14D, 16D, 22D to 25D (Incl)
and 27D MT TODD, NORTHERN TERRITORY

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1.0 **Summary**

GML's 14D, 16D, 22D to 25D and 27D near Mt Todd in the Northern Territory cover two prominent gold bearing reefs (Quigley and Tollis Reefs) and part of a third (Jones Bros. Reef).

Hosted by the Burrell Creek Formation, the main auriferous reef (Quigley Reef) strikes north-south and dips 30° to 50° to the west.

Recent exploration, costean and adit sampling and drilling on the Quigley Reef has delineated a tabular gold-bearing reef averaging 0.8 metres in true width. An in situ indicated reserve of 160,000 tonnes of oxidized mineralization with an average grade of 6.3 g/t has been outlined. An additional drilling programme to extend and prove up known mineralization is proposed.

A preliminary feasibility study is also proposed for the area, engineering studies for which are currently underway.
2.0 Introduction

Pacific Goldmines N.L. may acquire a 100% interest in seven Gold Mining Leases (GML's 14D, 16D, 22D to 25D and 27D) in the Northern Territory of Australia, near Mount Todd which is 47 kilometres south east of Pine Creek, 258 kilometres from Darwin south east by the Stuart Highway(Figure 1). The interest is subject to a 4% royalty on production payable to the lease-owner, Australian Ores and Minerals Ltd.

The leases have a total area of 59 hectares and cover two prominent gold bearing reefs (Quigley and Tollis Reefs) and portion of a third reef (Jones Bros reef)(Figure 2).

Recent exploration, costean and adit sampling and drilling on the Quigley Reef(Figures 3 and 4) has outlined an in situ indicated reserve of 160,000 tonnes of oxidised mineralisation with an average grade of 6.3 g/t gold.

3.0 History and Exploration to Date

Gold was first discovered in the area around 1908 and between 1908 and 1919 a number of shallow workings were operated on the gold bearing reefs. In 1937, the Aerial, Geological and Geophysical Survey of Northern Australia surveyed and sampled the Quigley Reef. Surface samples were taken at 30 to 60 metre intervals along approximately 1,000 metres of strike length giving an average gold value of 13 g/t over 0.6 metres average width. In 1973-74 the Quigley Reef was
sampled by the Wanderoo Mining Corporation Pty Ltd using a bulldozer and backhoe. 38 samples taken across the reef along 800 metres of strike length averaged 11 g/t over a width of 2 metres. Wanderoo also sampled five test pits along a strike length of 120 metres of the Jones Bros Reef resulting in an average 33 g/t gold over 0.76 metres width.

In 1975, Australian Ores and Minerals Ltd (A.O.M.) completed two diamond drill holes to test parts of the Quigley Reef at depth. The first hole intersected gold values of 7 g/t and 11.3 g/t over true widths of 2 and 1.46 metres respectively. The second hole intersected gold values of 0.4 g/t and 1.1 g/t over true widths of 0.5 and 1.5 metres respectively. During 1981, sampling and preliminary feasibility studies were conducted by Arrowville Pty Ltd on behalf of A.O.M. Costean samples were taken from Quigley Reef and assayed giving average values of 7.1 g/t gold and 4 g/t silver. Arrowville concluded that it is likely that the Mt. Todd area is capable of supporting a viable gold mining and treatment operation, however further work would be required.

In late 1981, C.R.A. Exploration (C.R.A.) conducted grid surveys, geological mapping and completed a 14 diamond drill hole programme, with an aggregate depth of 676.5 metres, to test gold content in the hanging wall and reef over a strike length of 800 metres. Further exploration was recommended north and south of the drilled zones, as well as preliminary drilling in the Jones Bros Reef, however C.R.A. did not proceed.
4.0 Geology

The gold bearing reefs at Mt. Todd are hosted by the Burrell Creek Formation, of the Finnis River Group, comprising siltstones and greywackes (Figure 2). The Quigley Reef is on the eastern link of a north westerly plunging open syncline, striking northerly and dipping 30º to 50º to the west. It is a tabular body averaging 0.8 metres in true width and is oriented sub-parallel to the sedimentary beds. It is believed that the Reef is structurally controlled, probably emplaced along a bedding plane fault. In the primary zone the gold is associated with massive and disseminated sulphides comprising pyrite, arsenopyrite and chalcopyrite.

5.0 Reserve Estimates

The recent drilling of C.R.A. all encountered gold mineralisation in the Quigley Reef varying between 1 g/t and 13.3 g/t gold over true widths varying between 0.33 and 3.1 metres (Figures 3 & 4).

For the purpose of reserve calculations an average specific gravity of 2.7 was determined by core measurements and an average true width of 0.8 metres was determined. One intersection of 1.1 metres true width at 9.3 g/t gold was not used in calculations as the interval was in primary mineralisation.

On the basis of the drill results, together with results of costean and adit sampling, an in situ indicated reserve, in the oxidised zone
mostly between 70 to 100 metres depth over a strike length of 800 metres, has been estimated at 160,000 tonnes at an average grade of 6.3 g/t gold. Further drilling and bulk sampling will be required to upgrade the reserve to proven classification.

Further potential is present along strike extensions as well as in the other, as yet, untested reefs.

6.0 Future Programme

A programme of additional drilling to extend and prove the known mineralisation in the Quigley Reef and to test the nearby gold-bearing reefs is proposed. This should be accompanied by bulk metallurgical testing and pit design for the purpose of feasibility estimates.

Metallurgical and engineering studies are currently being undertaken by independent consultants.

Estimated Exploration Budget

$%

Geological Services 2,000
Bulk Sampling 5,000
Drilling 50,000
Assays, Metallurgical 15,000
Engineering Studies 8,000

TOTAL $80,000