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NORTHERN TERRITORY GEOLOGICAL SURVEY

CR86/058
SUMMARY

Little work was carried out on MLN'S 785, 786, and 787 during 1985 due to heavy commitments at Pine Creek Goldfields new gold mine at Pine Creek.

Recent ground acquisition in the Gandy's Hill area will make future exploration more effective.

Exploration programmes have been planned for the area starting in 1986/87.
1: INTRODUCTION

Mineral leases N785, 786 and 787 are held by Enterprise Gold Mines N.L. and operated by Pine Creek Goldfields Ltd., a company owned 60% by Renison Goldfields Consolidated Ltd., and 40% by Enterprise Gold Mines N.L. The leases are in the process of being transferred from Enterprise Gold Mines to Pine Creek Goldfields.

The tenements are in the Candy's Hill area, (Fig 1) and cover part of the Candy's Hill anticlinal reef systems. These systems are north of, and on strike from the Enterprise gold deposit, which is being developed by Pine Creek Goldfields.

Exploration for the period November 1980 to December 1984 was described in a report by C. Cagnard, submitted in April 1985.

2: GEOLOGY

The Enterprise Anticline has been traced 2km north of the Enterprise Mine area through the Candy's Hill area. In this area, the anticline is an upright tight fold (limbs dip 60 - 80°) with a shallow southerly plunge (5 - 15°). Rock types are mainly banded, cordierite spotted siltstones with greywackes noted at the northern and southern ends.

Two V-shaped, saddle-reef-style quartz reef outcrops and associated workings have been mapped (see figures 4 and 5). One reef system has its closure near the top of Candy's Hill (Candy's Hill Reef), and the other about 500m north of Candy's Hill (North Candy's Hill reef). Both these reef systems are considered to have potential for down-plunge bulk-mineable mineralisation.

Another quartz - limonite reef system with associated workings occurs about 200m west of the main anticline (see figures 2 and 3). Two rock chip samples of the mineralisation returned grades of 14.4 g/t and 8.4 g/t.

3: WORK PRIOR TO 1985

Between 1980 and 1984, the leases were gridded with lines at 50m intervals and mapped at a scale of 1:500. Prospective quartz reefs were also sampled. The results are plotted on figures 2, 3, 4, and 5. Topographic maps were produced by Geospectrum (Australia) Pty. Ltd., from aerial photography flown at a scale of 1:10,000.

4: ACTIVITY DURING 1985

No active exploration was conducted on these leases during 1985, mainly due to the commitment in manpower and expenditure required to bring the Pine Creek Goldfields operation centered on the old Enterprise workings on stream.
In September 1985, Pine Creek Goldfields pegged and applied for 7 mineral claims in the Candy's Hill area (MCN's 1056 - 1062). In addition, an agreement was entered into with the holders of MCN 157, also in the Candy's Hill area. It is intended, in the future, to treat all tenements controlled by Pine Creek Goldfields in this area as one for exploration purposes.

5: EXPENDITURE

$4,000

6: PLANNED EXPLORATION

An exploration programme covering all the Pine Creek Goldfields - controlled tenements in the Candy's Hill area, is planned for commencement during 1986/87. The programme will comprise 4 stages, and will be spread over several years.

Stage 1: Gridding, mapping and sampling on the new tenements (assuming they are granted), to bring them to the same stage of exploration as the existing tenements.

Stage 2: I.P. / resistivity survey (tentative at this stage)

Stage 3: Percussion drilling to test prospective areas.

Stage 4: Diamond drilling to delineate ore reserves if warranted by the percussion drilling results.
PINE CREEK GOLDFIELDS LTD.

MLN 788

ANNUAL REPORT - 1985

P.R. STEPHENSON
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NORTHERN TERRITORY GEOLOGICAL SURVEY

CR86/058
SUMMARY

1: INTRODUCTION

2: GEOLOGY

3: EXPLORATION PRIOR TO 1985

4: EXPLORATION DURING 1985

5: EXPENDITURE - 1985

6: PLANNED EXPLORATION

FIGURES

FIG 6-A LOCATION MAP MLN 788  1:25,000

FIG 6-B ROCK CHIP SAMPLE ASSAYS - g/t Au  1:25,000
SUMMARY

Little work was carried out on MLN 788 during 1985, due to heavy commitments on Pine Creek Goldfields developing gold mine at Pine Creek. Work programmes are planned for this lease commencing in 1986/87.
1: **Introduction**

MLN 788, formerly GML 169A, is held by Enterprise Gold Mines N.L. and operated by Pine Creek Goldfields Ltd., a company owned jointly by Remison Goldfields Consolidated Pty. Ltd. (60%) and Enterprise Gold Mines N.L. (40%). The lease is in the process of being transferred from Enterprise Gold Mines to Pine Creek Goldfields.

The lease is located approximately 3 km north of the town of Pine Creek (Fig 1) and covers the northern section of the old Caledonian workings. These small workings are reported as having produced approximately 460 ozs of gold from ore averaging around 1 oz per ton during the period 1884 to 1908.

Exploration for the period November 1990 to December 1994 was described in a report written by C. Cannard, and submitted in April 1995.

2: **Geology**

The Caledonian workings occur in siltstones of the Burrell Creek Formation, which locally strike north-north-west and dip steeply. Mineralisation consists of a series of poddy quartz veins up to about 2m in thickness which strike parallel to the enclosing foliated siltstone. Several vein sets occur over widths of about 50m, and a discontinuous strike length of 500m.

3: **Exploration Prior to 1985**

Work prior to 1985 consisted mainly of preliminary rock chip sampling and geological evaluation. Seven rock chip samples of quartz vein material were collected, and fire assayed for gold. Results ranged from 0.01 to 9.33 g/t. (Fig 2)

4: **Exploration During 1985**

No active field work was carried out during 1985 mainly because of the commitment in manpower and expenditure necessary to bring Pine Creek Goldfields mine at Pine Creek on stream, and also because of the work required to complete evaluation of EL4308 (surrounding Pine Creek), prior to its expiry in October 1985.

5: **Expenditure - 1985**

$2,000

6: **Planned Exploration**

Exploration is planned for 1986/87 and following years, and will broadly follow the recommendations contained in Cannard’s report of April 1985, viz:-

- Gridding / mapping
- I.P. / resistivity (possibly)
- Costeaming or percussion drilling
- Diamond drilling if warranted.