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EXPLORATION LICENCE 2807

ANNUAL REPORT FOR THE YEAR

ENDING SEPTEMBER 1984

OPEN FILE

Licensee: J. W. Benger
Operator: Northern Gold N. L.
Licence: EL 2807
Location: Pine Creek 1:250,000 SD52-8
          Reynolds River 1:100,000 5071
Period: September 1983 - September 1984
Author: B. D. Richardson
Date Submitted: 29th October 1984

NORTHERN TERRITORY GEOLOGICAL SURVEY

CR 84/253
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1. INTRODUCTION

Exploration Licence 2807 is located 90 kilometres south south west of Darwin on the Reynolds River 1:100,000 topographic map. (Fig 1.) The tenement covers 10 square kilometres and was granted to J. W. Benger on the 12th September 1981. In December 1983 Northern Gold N. L. became the operators of EL 2807, though no formal agreement has been signed to date.

Access to the area is via the Wangi Station road but vehicular movement along these tracks is possible only during the dry season.

To the east of the area the topography is dominated by the Tolmer plateau and escarpment, rising some 100 metres above the floodplain of the Reynolds River. The river flows across the southern boundary of the tenement and the majority of the area is covered by very low lying to gently undulating country with several north striking low ridges.

Northern Gold N. L. operates the adjoining licence to the north, EL 4193. This tenement contains the old Mt. Tolmer tin mine and a number of small areas of eluvial diggings, all occurring on northerly striking pegmatites in the Burrell Creek Formation. Several of these pegmatites run into EL 2807 and limited work was carried out on these during the year.

2. GEOLOGY

Exploration Licence 2807 occurs on the eastern margin of the Litchfield Block. To the east ferruginous sandstones of the Depot Creek Sandstone unconformably overly siltstones, greywackes, shales and conglomerates of the Burrell Creek Formation. The Depot Creek units form the prominent Tolmer Plateau, and the contact appears to dip on average 15° east to northeast.
The units of the Burrell Creek crop out only along or very near the escarpment. Further to the west all rock types are covered by Quaternary sediments. Below this cover, Cambrian mudstones and siltstones overlie the metasediments and granites of the Litchfield Complex. The tin bearing pegmatites that intrude the Burrell Creek Formation emanates from these granites. These pegmatites often follow shear zones, faults and fold axes and are found paralleling the strike of the country rocks.

EL 2807 occurs within what Walpole termed the West Arm/ Mt. Finnis / Fletcher Gully zone. This zone comprises a belt of country, nearly 200 kilometres long and up to 16 kilometres wide, and contains a large number of tin and tantalite bearing greisans and pegmatites. Most of the production at the Mt. Tolmer tin mine came from a group of greisans or altered pegmatite dykes up to 10 metres wide. Workings in 1889 were reported to include two shafts, 20 metres and 10 metres deep, shallow pits and open cuts, but the area was abandoned in 1894. Since then, the area has been worked on a small scale on several occasions, and total recorded production is 75 tonnes of tin concentrate, of which at least 45 tonnes were won before 1891.

3. WORK DONE AND RESULTS

During the year the majority of the work carried out was on the adjoining licence EL 4193 (Fig 2.). (See Annual Report 1984, EL 4193). This area was mapped, the old workings visited and sampled. Two pegmatites were followed south for a short distance into EL 2807 (Fig 2.) Several small pits were visited where tin mineralisation was visible in the tailings. The width and strike length of these two dykes is unknown but they may continue south to the Reynolds River.

Several consultants, company directors and the Exploration
Manager visited the area during the year.

4. CONCLUSIONS AND RECOMMENDATIONS

The Mt. Tolmer are has good potential for a small tin mining operation. The two pegmatites in EL 2807 requirecosteanning and sampling to determine grade and width. If economic, these will be worked during the programme planned for EL 4193.

Under this programme, R. Townsend of Welltree Station will process the eluvials and alluvials in the Mt. Tolmer area under tribute. His small plant will be used to assess the hardrock potential of all pegmatites and if grades are significant, ore will be transported to the company's operating mine at Walkers Creek.

The estimated expenditure for the 1984/85 period is $3,000.00. A Statement of Expenditure for 1983/84 is given below:

STATEMENT OF EXPENDITURE - EL 2807
SEPTEMBER 1983 - SEPTEMBER 1984

$ 1,700.00

WAGES AND SALARIES 500.00
CONSULTANT FEES 200.00
LOGISTICS 200.00
AIRCARES & ACCOMMODATION 500.00
ADMINISTRATION 300.00