TR11-13-15

2. BLUFF RIVER TIN DEPOSITS

by A. J. Noldart and D. J. Jennings

INTRODUCTION

On the 18th and 19th January, 1966, a brief reconnaissance of the Bluff River tin deposits (Fig. 2) was carried out by Senior Geologist A. J. Noldart and Geologist D. J. Jennings to establish the nature of the deposits and assess the mineral potential of the area.

A helicopter was used for access to the area and a camp established on the plateau approximately 20 chains above the upper workings. Examinations were made of the old workings and contour traverses carried out laterally from the workings.

LOCATION AND ACCESS

The workings are situated on the upper slope of the N flank of the Bluff River valley approximately 2½ miles SW of Mt Inglis, and immediately adjoining the western boundary of the Cradle Mountain Scenic Reserve.

Ground access from Waldheim is by a good walking track to Lake Will, approximately 8 miles on the Cradle Mountain-Lake St Clair track; westerly on Innes's old Lake Will-Tullah Track for 4 miles and overland for approximately 2 miles. Access from Tullah on Innes's Track is approximately 16 miles to the turnoff.

The plateau above the workings is suitable for helicopter requirements and an old camp site by the lower workings could easily be cleared for a pad.

The workings are located at national grid co-ordinate reference, 385857 and are discernible on the following aerial photographs:— Murchison, Run 1, No. 42838, and Pieman, Run 7, No. T318-110.

HISTORY OF WORKINGS

The deposits were first recorded in 1910 when reward lease 4869M was granted to W. A. Aylett. The deposits were then held semi-continuously by a succession of owners until 1928. No further record of the deposits is known until March, 1944 when Geologist Q. J. Henderson of the Mines Department examined the deposits then called "Crawns Tin Show" and a report and plan of the workings was compiled. The plan is incorporated here with minor modifications but copies of the report are no longer available.

Active mining of the deposits was only recorded during the period 1910-1921 when a limited amount of ground sluicing was carried out and a small quantity of cassiterite recovered. However, vegetation regrowth over the workings suggest two periods of activity separated by an extensive time period and it is probable that a limited amount of unrecorded work was done about the 1943-45 period.

THE WORKINGS

The workings consist of a number of small, shallow, ground sluiced areas perched on the upper slopes of the N flank of the Bluff River valley. The hillside is steep and heavily wooded with the lower section falling abruptly into a steep gorge to the Bluff River. Mining activity appears to have been restricted to enriched sections resulting in a pattern of small lobes on a central drainage channel. Except in areas which have been sluiced to bedrock the only indication of mining is piles of washed boulders to the sides and bottom of each lobe and along the main drainage. In most cases it is difficult to differentiate worked areas as distinct from "tailings" areas.

Water supplies were obtained from a main water race, headed on the plateau several chains from the plateau edge, and carried down the hillside to the upper workings. A series of short races diverted from the main race into each lobe. For the lower workings a short pipe line diverted water from the main water channel at a point immediately below the upper workings. Water pressures would be seasonal and highly variable and attempts have been made to augment supplies by tapping minor drainage on the hillside.

Attempts to locate the western workings and shafts shown on Henderson's plan were unsuccessful from both ground and air searches, but several small prospecting pits and costeens were located to the W of the lower workings.

GEOLOGY AND MINERALOGY

Precambrian quartzite outcrops in the extreme N (upper) workings and extends northward across the plateau area. The balance of the area examined is underlain by granite believed to be intrusive into the quartzite but the actual contact is obscure and indeterminate. A helicopter reconnaissance of the area suggests that the granite is in the form of a small cupola-type body intrusive into the quartzite.

The bedrock where exposed in the workings is composed of a weathered, medium-grained, muscovite granite. It contains a series of small quartz tourmaline veins up to ¼ inch in width and narrow greisen veins striking northerly parallel to the long axes of the lobes. Cassiterite is occasionally visible in these veins indicating the source of the mineralization. Boulders in the "tailing" stacks in many instances are also tin bearing but no mineralization was found in the Precambrian quartzite or in quartzite scree in the workings. Overburden is widespread away from the sluiced areas and the limits of the granite cannot be determined.

The deposits occur as scree accumulations located in areas where the hillside profile shallows slightly giving a semi-bench effect, i.e., where scree creep is more retarded, and consequently are limited in extent. Below the lower workings both to the S and SW the slope becomes excessive and any mineral shed in these areas would be carried to the Bluff River. Similar conditions exist E of the workings and economic accumulations could not be expected.

CONCLUSIONS

The remoteness of the deposits, the topography and heavy rain forest vegetation of the area, and the seasonal water supply would make any attempt at further mining very difficult and costly.

The quantity and apparent grade of the reserves in the known deposits could not be economically worked.

The only area where potentially economic deposits could exist has been widely prospected, apparently without success, and any deposits existing would necessarily be too small to warrant the expense of a systematic prospecting programme intensive enough to outline such deposits.

It is recommended that no further investigations be made of these deposits.

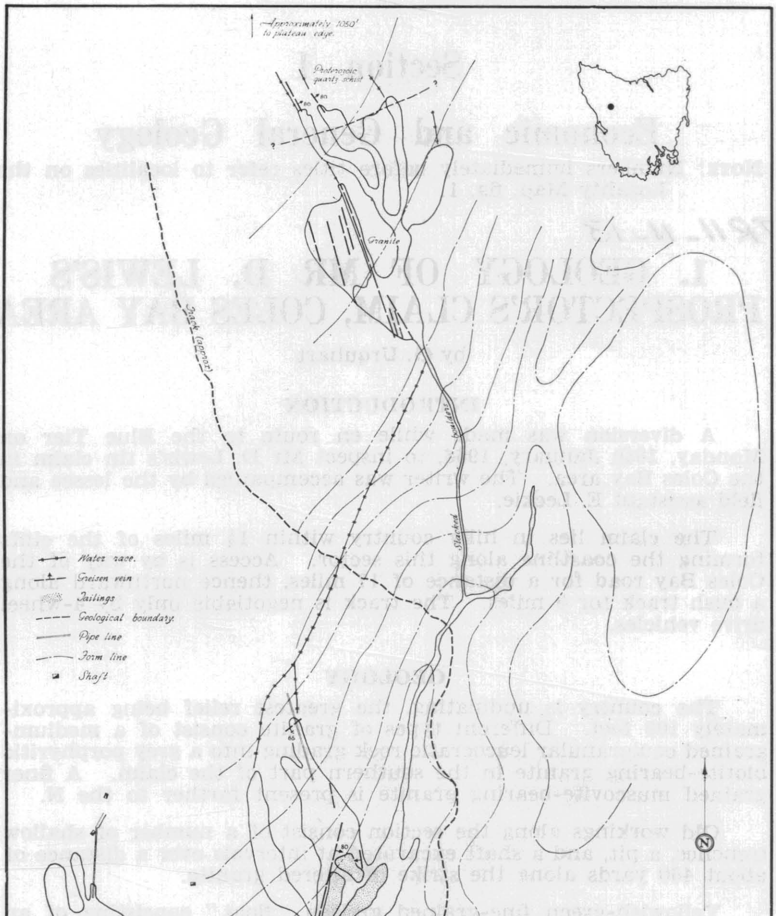
Approximately 1050' to plateau edge.
Proterozoic quartz schist
Granite
Track (approx)
Boulders
Stacked
Water race.
Greisen vein
Tailings
Geological boundary.
Pipe line
Form line
Shaft
Not located Jan. 1966.
Creek
To Bluff River
Hut
Potential Helicopter Pad
N
DEPARTMENT OF MINES — TASMANIA
TIN DEPOSITS
BLUFF RIVER AREA
DATE March 1944
GEOLOGIST D. J. Henderson
DRAUGHTSMAN P. Nankivell
REVISIONS A. J. Noldart, & D. Jennings - Jan. 1966
SCALE OF FEET
0 50 100 150
MAP SHEET & No Murchison 51
FILE No
2947

FIGURE 2

5 cm