MINERAL EVALUATION STUDY OF THE CLUCKATA RIDGE AREA TASEKO LAKES MAP–AREA (92O/3)

By W. R. Smyth

INTRODUCTION

A half-day reconnaissance of the Cluckata Ridge (Fig. 29) area was made in August 1983 for land use assessment. The entire ridge, encompassing 1 995 hectares, was proposed by the Ministry of Lands, Parks and Housing as an Ecological Reserve to protect subalpine and alpine range land. If approved the area would be alienated from mineral exploration and mining. A large pyritic, limonitic capping, clearly visable from the air, occurs at the northeast end of the ridge. For this reason the mineral reserve request has been denied to allow time for a more detailed assessment of the mineral potential.

LOCATION AND ACCESS

Cluckata Ridge in Taseko Lakes map-area of south-central British Columbia forms part of the Chilcotin Ranges that occur between the Coast Mountains to the southwest and the Fraser Plateau to the northeast. Cluckata Ridge is bounded by U-shaped valleys occupied by Tosh Creek, Grant Creek, and Big Creek. There is no road access and the nearest helicopter bases are at Lillooet 100 kilometres to the east-southeast and Gold Bridge over 60 kilometres to the south.

REGIONAL GEOLGY AND PREVIOUS WORK

Cluckata Ridge is part of the Tyaughton Trough, a northwest-trending belt of Upper Jurassic to Upper Cretaceous rocks (Jeletzky and Tipper, 1967). The Taseko Lakes map-area (92O) was mapped at 1:250 000 scale by Tipper (1978) who showed Cluckata Ridge to be dissected by a splay of the Taseko fault. Rocks east of the fault were assigned to the Cretaceous Kingsvale Group and those to the west to the Pioneer Formation of the Upper Triassic Cadwallader Group. Cominco Ltd. carried out reconnaissance mapping in the area in 1973 and discovered a large capping at the northeast end of Cluckata Ridge, called the Comin Home showing. Cominco abandoned their claims in the area in 1975 and hence did not file an assessment report with the Ministry. In 1980, the Ministry released results of a stream sediment survey from Taseko Lakes map-area (BC RGS-3). Samples collected from Tosch Creek and Big Creek are weakly anomalous in arsenic, zinc, copper, and lead. Barrier Reef Resources Ltd. carried out a regional geochemical and geological prospecting program in the area in 1979 and staked claims at the northeast end of Cluckata Ridge. Their assessment reports include a brief description of the Comin Home showing. This mineral occurrence does not appear on the Ministry's Revised Mineral Inventory Map (92O), and its ex stence was not known to the Mineral Land Use Section until seen in the course of this fieldwork. Barrier Reef Resources surrendered their claims in 1982 and the entire study area is currently open to staking.

GEOLOGY AND MINERALIZATION

Cluckata Ridge is underlain by a sequence of gently dipping volcanic flows, tuffs, and breccias, with minor amounts of intercalated volcaniclastic rocks. No evidence was found to confirm that a splay of the Taseko fault dissects the ridge; the entire rock sequence is presumed to be part of the Kingsvale Group.

Most of the volcanic flows are andesitic to basaltic in composition. They are green, grey to purple, and generally rusty on weathered surfaces. The flows vary from fine grained to feldspar porphyritic and are commonly vesicular. Locally buff to white, rhyolitic, welded ash flow tuffs are intercalated with the volcanic flows. At the east end of Cluckata Ridge the volcanic rocks are cut by rare quartz feldspar porphyry dykes averaging 2 metres in thickness. The dykes are leached with pale broken surfaces but rusty weathered surfaces.

The map unit of economic interest is exposed on a steep north-facing slope at the east end of the ridge. It consists of a large, leached capping up to 600 metres in length. The rock is deeply weathered, white, fine-grained andesite (?) that has rusty limonite-weathered surfaces; it contains up to 5 per cent pyrite as disseminations and aggregates. The rock is highly porous suggesting some leaching of sulphides. Kaolinization, sericitization, and minor silicification are present. Dawson (1981) reported 'minor galena and pyrite on fracture planes and in narrow quartz stringers'. Cominco reported that material containing pyrite gave gold values up to 0.02 ounce per ton (0.69 gram per tonne) and 0.18 per cent copper; these results were confirmed by Barrier Reef Resources (Dawson, 1981).

No contacts were observed in this study between the leached capping and fresh unaltered andesite which occurs nearby to the west. The capping is similar to that associated with leached quartz feldspar porphyry dykes which cut volcanic rocks on the south side of the ridge 1 kilometre to the southwest. The mineralization is possibly related to subvolcanic intrusive activity which is manifested by the porphyry dykes.

RECOMMENDATION

The Ecological Reserve request has been denied. Despite the low gold and copper assays the results are considered to be encouraging in view of the highly leached character of the capping. It is hoped that private industry will carry out further studies to evaluate the potential of the mineralization at depth.

ACKNOWLEDGMENTS

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