

REPORT ON EXAMINATION
OF
LITTLE ROCKY CREEK AREA

28 April 1968

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To: Mr. G.F. Hudspeth.

REPORT ON EXAMINATION OF LITTLE ROCKY CREEK AREADates of Examination: 8th to 17th January, 1958 inclusive.Party Leader: Ian S. Gregory.Personnel Employed: S. Gunton, D. Watson.Man Days in the Field: 20Location of Base Camp: Little Rocky Creek.Means of Transport & Supply: Helicopter.General Topography of the Area

The coastal topography consists of beaches (with some sand dunes) and rocky headlands. Inland there are higher level button grass plains with well incised rivers and creeks.

Geological Investigation and Findings

The aim of the examination was to map the relation of Dundas rocks to the Low Rocky Granite and the Pre-Cambrian rocks on the eastern margin of the area. An area of approximately 4 miles N-S by three miles E-W centred on the mouth of Little Rocky River and truncated on the south-western side by the coast was examined.

On the extreme eastern border Pre-Cambrian quartzite/conglomerates have been faulted up against the Little Rocky River Granite mass which has been sheared for a distance of $\frac{1}{2}$ - $\frac{3}{4}$ miles westward from the contact as a consequence. To the westward of this zone and in the Little Rocky Creek vicinity, irregular outcrops of granite intrude from the southward into

Dundas rocks. To the westward smaller outcrops of granite were noted in the coastal sector only until the main body of Low Rocky Head Granite was encountered near Elliott Cove. The two Granite masses are intrusive in nature but differ in grain size and composition. The eastern (Little Rocky Creek) granite is finer grained, showing aplitic phases, and richer in orthoclase, than the western (Low Rocky Head) granite which is porphyritic in plagioclase feldspar. The latter granite is locally gneissic from where it has been altered by faulting at the Dundas contact. Contact metamorphic features are very rare - one slight silification of Dundas sediments took place.

The Dundas Group comprises well sheared agglomerates and tuffs. The shearing direction is generally N-S and dips at approximately 60° to the westward. Two major north trending faults were observed in the Group - one located centrally and the other at the western (Low Rocky Head) granite contact.

Mineralisation: Abundant quartz mineralisation in this was noted. Quartz chlorite mineralisation identical with the Mount Black type mineralisation at Rosebery is also present and two outcrops of this type carried traces of chalcopyrite and pyrite. One outcrop is on the coast (in granite) and has been previously noted. The second is at the northern limit of the area, near the Lewis River, where a quartz blow has been tested (over a length of 300 feet) by three small trenches and a 6 foot shaft.

} Q20
} see also
} Q49

General Conclusions

Well sheared Dundas Rocks of a favourable type for ore emplacement exist in the area in association with major structural features which could provide feeders for mineralisation. In addition trace mineralisation in

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copper was noted on the coast and again at the northern end of the area near the Lewis River. Thus the area could be considered a favourable one for the possible location of an economic orebody.

Stan S. Gregory