

I GEOLOGICAL & GEOPHYSICAL REPORT

II HEAD M.C., NAWHITTI LAKE,
50°, 127° NW

III J. M. BLACK, P.ENG.

IV WESTERN CANADA STEEL LIMITED

V JUNE 17, 18/67 & JANUARY 3, 4/68

924/12W

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INTRODUCTION

This claim was located several years ago when a dip needle survey found some anomalous readings near the location of an anomaly indicated on an airborne magnetometer map. The claim was mapped in June, 1967, using a Sharpe PMF3 magnetometer No. 40512. As traverses were run with the magnetometer, the geology was mapped.

The claim is south of the east end of Nawhitti Lake and is on a moderately steep slope that rises from about 600' at the No. 1 post to about 1,050' on a knoll near the south limit of the claim. The slope is cut into by many gullies, especially in the west. Also in the west, it is crossed by a bluff extending westward.

The claim is accessible from a forest access road that extends westward from the Port Hardy, Coal Harbour Road to beyond Nawhitti Lake. The location line is a few hundred feet south of the road.

Pace and compass traverses were run from the No. 1 and No. 2 posts and these traverses were closed by returning to the starting points.

GEOLOGY

The eastern part of the claim is devoid of outcrops. The western part has abundant outcrops, not all of which were examined. The outcrops seen are shown on the accompanying map.

Most of the outcrops comprise volcanic flows which are generally a dark shade of green. Some of them have porphyritic feldspar crystals. No primary structure was observed. These flows have not been correlated with either of the major volcanic units of the north end of the Island.

In outcrops in and near creeks these volcanics are shattered and sheared and many outcrops are cut by narrow veinlets of quartz. These strike northward or westward and dip steeply. Most of the veinlets are less than an inch wide and no mineralization was noted in them. The volcanics near some of them are rusty.

Bluffy outcrops are also volcanics but are not well-exposed. They appear to be more massive.

In the creek flowing eastward, a little north of the south limit of the claim, are outcrops of a fine-grained, light-colored, granitic or felsitic intrusive. The creek may mark the contact of the intrusive with the volcanic series with volcanics north of it and intrusives south of it. Dykes of similar light-colored, intrusive rock are exposed, cutting volcanics in the next creek to the west. Deformation accompanying the intrusive may have caused the fracturing of the volcanics. The intrusive may also have provided the quartz for the quartz veinlets.

MAGNETICS

Generally, the readings are characterized by considerable variations

within short distances, possibly reflecting different thicknesses of overburden.

Two zones with negative readings extend accross the northwest part of the claims. Within both of these, volcanics are exposed. The trend of these zones is northwest to west-northwest and is about parallel to the regional trend, which suggests that these zones are caused by groups of flows with less magnetism than the overlying and underlying flows. A third zone, south of the other two, is much shorter.

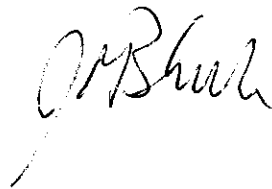
On the east end of the knoll, near the south limit of the claim, are irregular high readings, of which the highest is 7,700 gammas. The area with readings above 3,000 gammas is outlined as an anomaly. This is an area without outcrops and the cause of these high readings is not known. It is close to the intrusive contact referred to above. It appears to be in the contact zone, which may be characterized by many dykes and possibly magnetite replacement occurrences.

North of this anomaly are some negative readings. These are in an area almost 100' lower in elevation than the high readings. These low readings may be caused by being at a lower elevation than a strongly magnetic mass or else by the lower pole of such a mass.

At a few other points crossed on traverses, readings of over 3,000 gammas were obtained. A few readings near these, taken to the left and right of the traverse, showed that these anomalies are of limited extent. They may be caused by minor occurrences of magnetite in the flows.

EMPLOYMENT

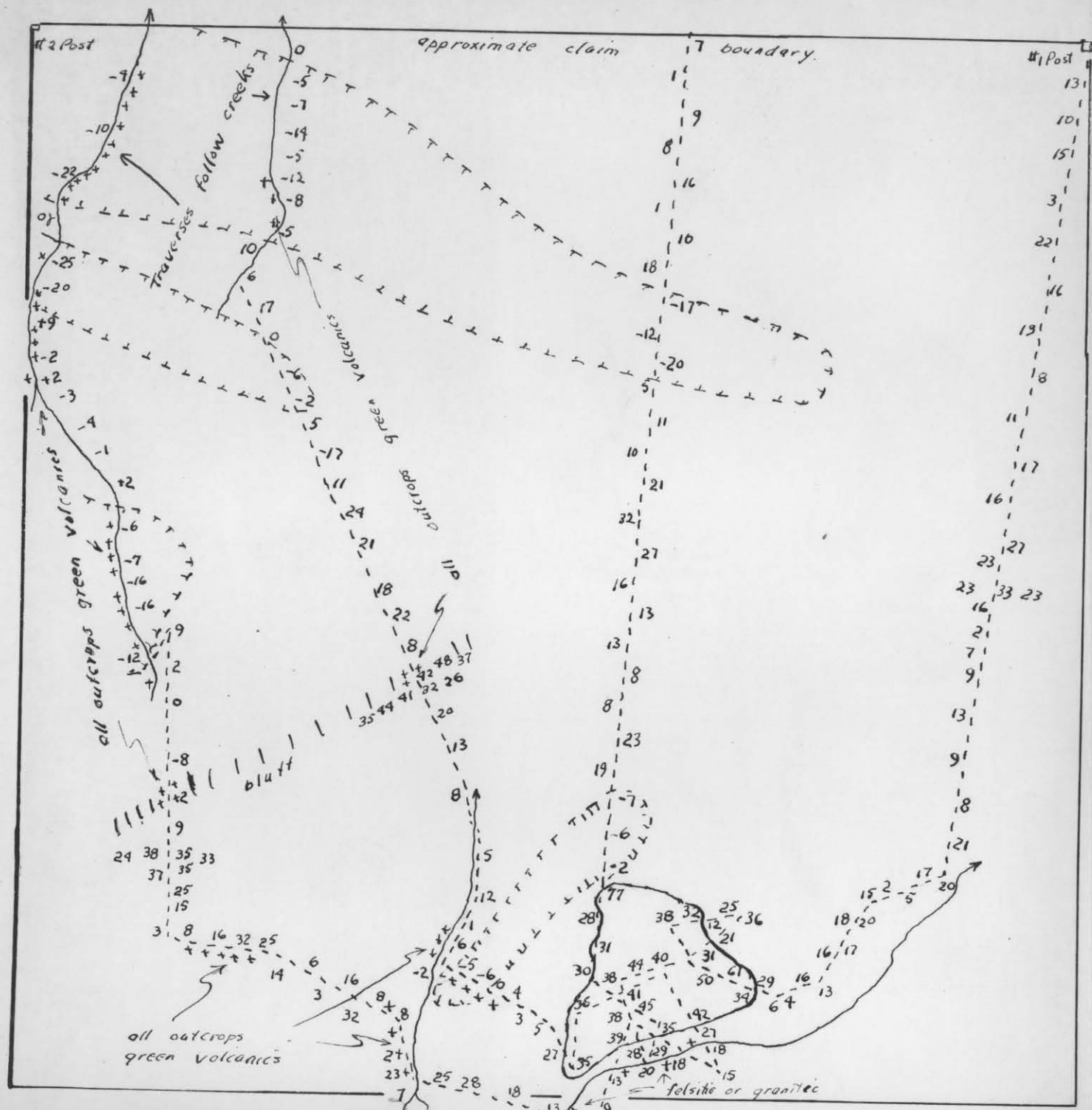
The field work was done by J. M. Black on June 17 and 18, 1967 and the office work was done January 3 and 4, 1968.



J. M. Black, P.Eng.
January 4, 1968

subsequently covered by RAS
102-5896

Figure 1
Head Mineral Claim
geological and magnetic map
Scale 1"=200' Jan 4, 1968
by JM Black P.Eng.



- line of traverse
- 35+ reading in gammas (hundreds)
- 16- reading in gammas (hundreds)
- positive anomalous area
- negative anomalous area
- + + rock outcrops all volcanics except in southern creek

Department of
Mineral and Petroleum Resources
ASSESSMENT REPORT
MAP 1

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P. Eng.