I GEOPHYSICAL REPORT
II BETA GROUP, 2½ MILES SOUTH OF KAINS LAKE, 50°, 127° NW
III J. M. BLACK, P.ENG.
IV WESTERN CANADA STEEL LTD.
V JUNE 16, 24, 27, 30; AUGUST 22-24

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GEOPHYSICAL REPORT ON BETA GROUP

by J. M. Black, P.Eng.

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BETA GROUP

INTRODUCTION

This group is 2½ miles south of Kains Lake and is reached by following a tagged line southward for about 2 miles from a logging access road on a branch of Dick Booth Creek. The area is gently sloping and parts of it are open and without trees and shrubs because of poor drainage.

This group has been reported on in Geophysical Report #651.

An electromagnetic survey was made, using a minigun type 1681 #24 made by ABEM. It operates at a frequency of 3520 cycles per second. They oscillator and receiver are connected with a 200' cable. The receiver gives in-phase and out of phase components in percentages, more or less than the norm established at a neutral background. One man carried the oscillator and the other the receiver and read it. The locations shown for the readings on Figure 1 is the mid point of the cable - 100' from the receive r.

Traverses were made along blazed and tagged lines and by pace and compass from such lines.

ELECTROMAGNETIC RESULTS

Reconnaissance surveys were run along the northeast boundary of the group, along most of the location line for #3 Fractional Claim and Beta Claims #1 and #2 and across the Beta #1 Claim. An area in the northern part of Beta #3 Fractional Claim, previously found to be magnetically anomalous, was also surveyed.

The traverse along the northeast boundary had several in-phase readings below 100 - some as much as 7% below - but these are accompanied by out of phase readings of only 2% or 3% (less than background). Where both readings are below background, as here, a conductor is indicated but where they are so general and so weak, no well defined conductor is indicated.

The survey of the north part of #3 Fractional Claim is marked by in-phase readings as much as 13% above normal, accompanied by out of phase readings of as much as 7% below normal. These latter indicate a conductor. The higher than normal in-phase readings, where magnetite is present, can be caused by the magnetic effect nullifying the magnetic response and this is probably true here. It may be concluded that the electromagnetic results tend to confirm the presence of magnetite and, because the response generally is weak, the magnetite probably is in small bodies or is fairly deeply covered. The zone in which these readings occur has a southward trend.

The recce along the location line did not encounter significant readings except near the ends of it. At the east end, what appears to be a continuation of the zone described above, is present.

Near the west end of this traverse, high in-phase readings accompanied by low out of phase readings were found in a area previously found to be magnetic.

Similar readings with in-phase of more than 60% above normal and out of phase of 12% below normal were found slightly north of the location line and all these readings can be interpreted as caused by a conductive mass which owes some and possibly all of its conductivity to magnetite. The general outline of this anomalous area is shown on the accompanying figure. The intensity of these readings suggests that part of the causative body is fairly close to the surface.

The traverse across the Beta #1 Claim started with the readings referred to in last paragraph. In the middle of this traverse, two points with both in-phase and out of phase readings less than background were found. These indicate a conductor below but they are relatively weak and not evidence of a strong conductor.

At the north end of this traverse are readings similar to those caused by a magnetic conductor. This is not known to be in an area underlain by magnetite so these re adings may be without significance. More probably, magnetite also occurs here and this may be part of a zone that joins up with the zone outlined on #3 Fractional Claim.

GENERAL INTERPRETATION

Only weak conductors are indicated here except in areas known to be magnetic. In these magnetic areas, conductivity is greater but may be the result of magnetite alone, though sulphides such as pyrrhotite may be present.

EMPLOYMENT

The field work was done by J. M. Black and an assistant and the office work by J. M. Black. The work was done on the following dates: June 16, June 24 ½ day, June 27, June 30 ½ day and the office work on August 22, 23 and half of August 24.

J. M. Black, P.Eng.
August 24, 1967

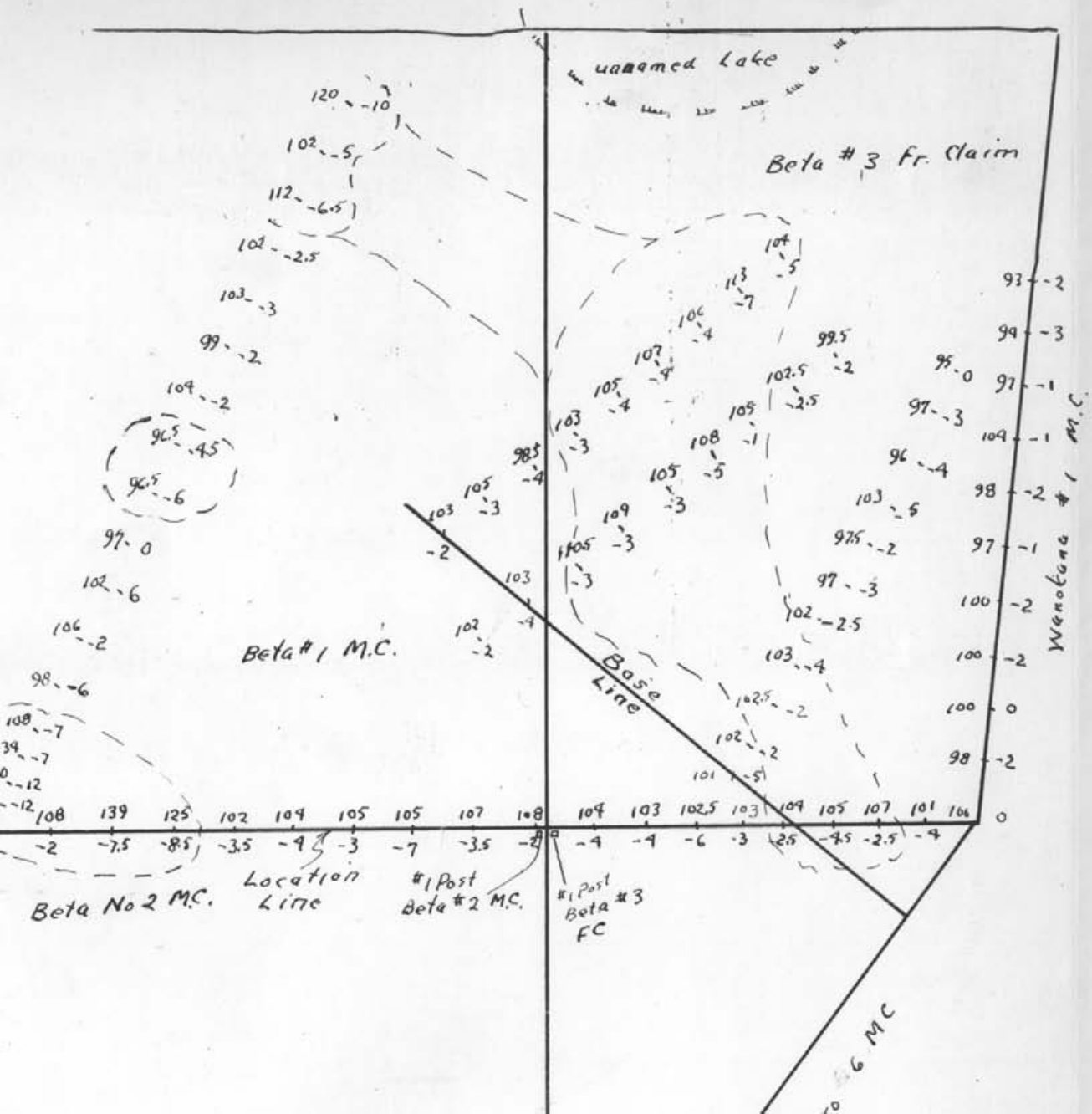

Figure 1.

To accompany geophysical report by J.M. BLACK P.Eng on Beta group 2½ miles south of Kains Lake in Nanaimo M.D. dated Aug 29, 1967

Scale 1" = 300 ft

Electromagnetic Readings

in phase

102 -2.5 96 -9

105 -3

out of phase

True north.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of Beba group claims Beba #1, Beba #2, Beba #3, Beba #4

SUB - MINING RECORDER
RECEIVED
AUG 25 1967
M.R. # ..... $ .....
VANCOUVER, B.C.

I, James Murray Black

of 6030 Carnarvon St Vancouver 13

in the Province of British Columbia, do solemnly declare that the following costs were incurred in making a ~~geological~~ geophysical survey and report on the Beba group, Nanaimo Mining Division.

Salary. J M Black in field 3 days @ 50 - 150
in office 9½ " @ 50 125 $ 275

Salary R. Nicholson 1 day 14.70
S. Rainard ½ " 10.
R. Smith 1 3/8 " 23.10 47.80

Rental of ABEM minigem 3 days @ 31.24 93.72

$ 416.52

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 25 day of August 1967, A.D.

J M Black

Jill Turner.

A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-Mining Recorder

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