3217

REPORT ON MAGNETOMETER & INDUCED POLARIZATION SURVEYS TAM CLAIM GROUP GERMANSEN LANDING AREA, BRITISH COLUMBIA ON BEHALF OF DOLMAGE CAMPBELL AND ASSOCIATES LTD.

93N/5E 4 4W

by

Peter J. Fominoff, B.A.Sc.

and

Richard O. Crosby, B.Sc., P.Eng.

August 3, 1971

CLAIMS:

Name
TAM 3 - 8 (inclusive)
TAM 16
TAM 18

LOCATION:

About 40 miles Northwest of Germansen Landing, B. C.
Omineca Mining Division
125° 55° NW

DATES:

July 5 to July 7, 1971

TABLE OF CONTENTS

SUMMARY

The present reconnaissance induced polarization survey has not revealed any anomalous chargeability responses.

It is concluded therefore that there is little possibility that a large tonnage, low grade deposit of sulphide mineralization of economic significance may lie within about 300 feet of the ground surface in the area covered by this survey.

REPORT ON
MAGNETOMETER & INDUCED POLARIZATION SURVEYS
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DOLMAGE CAMPBELL AND ASSOCIATES LTD.

INTRODUCTION

During the period July 5 to July 7, 1971, a geophysical field party under the direction of Mr. Mauro Berretta executed an induced polarization survey in the Germansen Landing area, British Columbia on behalf of Dolmage Campbell and Associates Ltd.

As shown on Plate 1, on the scale of 1 inch = 4 miles, the property lies approximately 40 miles northwest of Germansen Landing, British Columbia. The topography of the area surrounding the property may be described as mountainous with the survey grid lying in a border region between alpine meadows and tree growth. Access was by helicopter.

The claims covered by the present survey are listed on the cover page of this report and are shown on Plate 2, on the scale of 1 inch = 400 feet.

Seigel Mk VII time domain (pulse-type) induced polarization equipment has been employed on this property. The transmitting unit had a rating of 2.5 kilowatts and equal on and off times of 2.0 seconds. The receiving unit was a remote, ground-pulse type triggered by the rising and falling primary voltages set up in the ground by the transmitter. The integration of the transient polarization voltages takes place for 0.65 seconds after a 0.45 second delay time following the termination of the current-on pulse.

The purpose of an induced polarization survey is to map the subsurface distribution of metallically conducting mineralization beneath

the grids covered. In the present area such mineralization could include pyrite, chalcopyrite and other metallic sulphide minerals. As well, minerals such as magnetite, sericite, chlorite and others may contribute to chargeability responses and may not always be distinguishable from responses due to sulphides.

The three electrode array, with electrode spacings of 200 feet and 400 feet was employed for reconnaissance purposes. Station intervals were 200 feet. For additional detail one line was also surveyed with the three electrode array employing a 600 foot electrode separation and 400 foot station intervals.

The survey grid consisted of a baseline oriented N 20° E and three tie lines perpendicular thereto at 800 foot intervals. The total length of line surveyed was about 1.5 line miles.

GEOLOGY

Detailed geology over the survey area is not available, however from the few outcrops present, it is known that the grid is underlain mainly by syenite, and possibly in some areas by monzonite.

Disseminated copper sulphides occur on Line 0 S in an 80 foot wide zone assaying 0.58 percent copper.

The target of the present survey was a large tonnage low grade type of copper sulphide deposit which may have been the source of the known outcrop.

The data from a magnetic survey run along the induced polarization grid lines by Dolmage Campbell and Associates Ltd. personnel has been made available to the writers and is incorporated in this report.

DISCUSSION OF RESULTS

Plate 2, on the scale of 1 inch = 400 feet shows the grid layout, claim locations and geophysical profiles. The geophysical profiles consist of chargeability (the induced polarization characteristic of the rock), resistivity and magnetometer data. The vertical scales for these profiles are 1 inch = 10.0 milliseconds for chargeability, and 2 inches = 1 logarithmic cycle with baseline taken as 1000 ohm-meters for resistivity. The magnetometer scale is 1 inch = 1000 gammas.

The chargeability profiles indicate that the chargeability range is from 3.0 to a maximum of 8.0 milliseconds, a normal response range for acidic intrusive rocks as are believed to underlie the present property. With this background a subsurface distribution of 1 percent by volume of metallically conducting mineralization would be expected to add approximately 10.0 milliseconds to the background level.

The chargeability responses for both the 200 foot and 400 foot electrode spacings are very similar in amplitude indicating shallow overburden. The responses obtained with the 600 foot electrode spacings are up to 40 percent greater than for the other two spacings indicating an increase in polarizability with depth. However, maximum chargeability responses do not exceed 8.0 milliseconds.

The resistivity responses range from about 300 to 2500 ohm-meters and average about 600 ohm-meters. On Lines 8 S and 16 S there is a resistivity gradient increasing from about 300 ohm-meters in the east to about 1000 ohm-meters in the west.

Both resistivity and chargeability responses from the narrower electrode spacings are lower on the east end of Line 16 S possibly

indicating thicker overburden cover than over the rest of the grid.

The magnetometer survey results show a level shift at about 11 W on Line 8 S which may indicate a magnetic contact, with higher susceptibility rock to the west, however the 800 foot interline spacing does not allow reliable line to line correlation or source interpretation. Two small, shallow magnetic features are present on Line 0 S one at 5 E and one at 9 E, but there is no definite chargeability correlation.

CONCLUSIONS AND RECOMMENDATIONS

The present induced polarization survey has not revealed any anomalous chargeability responses. It is concluded therefore that there is little possibility that a large tonnage, low grade deposit of sulphide mineralization of economic significance may lie within about 300 feet of the ground surface in the area covered by this survey.

It is possible that small near surface bodies have not been detected by the 200 foot electrode spacings used. If the detection of such bodies should become necessary, further induced polarization with narrower electrode spacings may be recommended.

The magnetometer survey data has revealed a possible magnetic contact, however magnetometer data on much more closely spaced lines, say 200 feet apart, is required for a more meaningful interpretation.

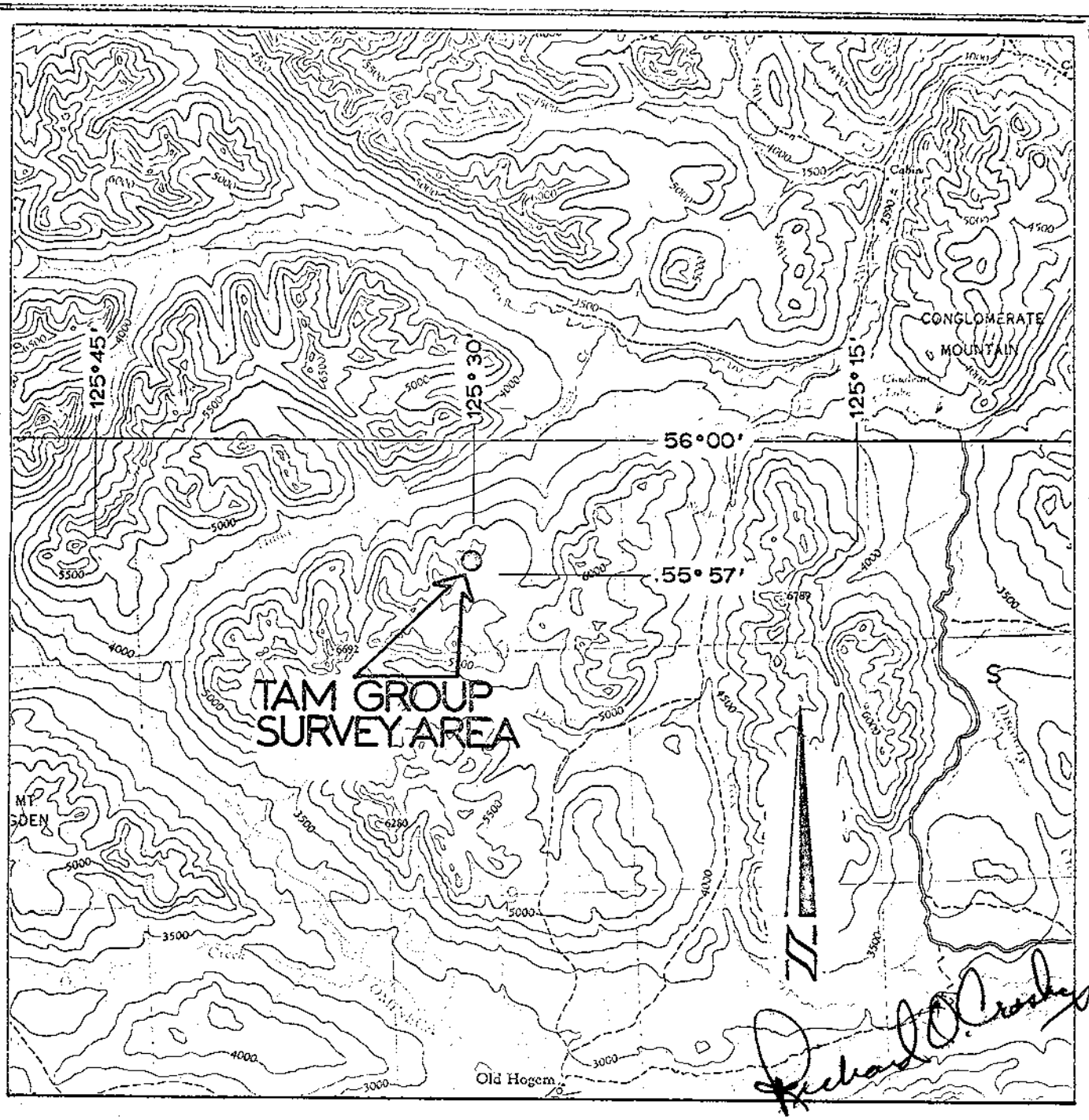
Respectfully submitted,

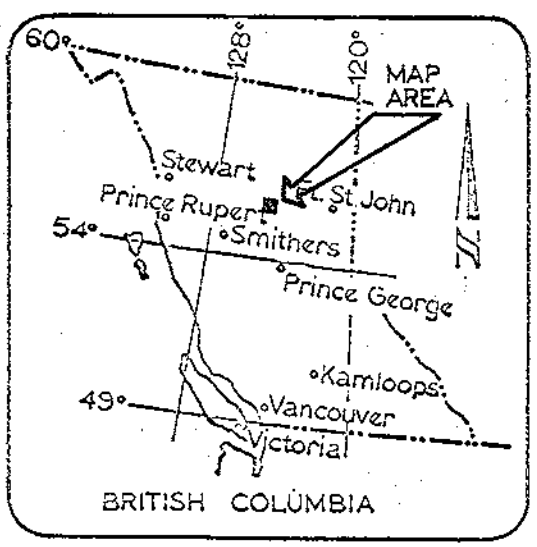
SEIGEL ASSOCIATES LIMITED

Peter J. Fominoff, B.A.Sc.
Geophysicist

for Richard O. Crosby, B.Sc., P.Eng.
Geophysicist

Vancouver, B. C.
August 3, 1971





DOLMAGE CAMPBELL & ASSOCIATES LIMITED

LOCATION MAP

TAM GROUP

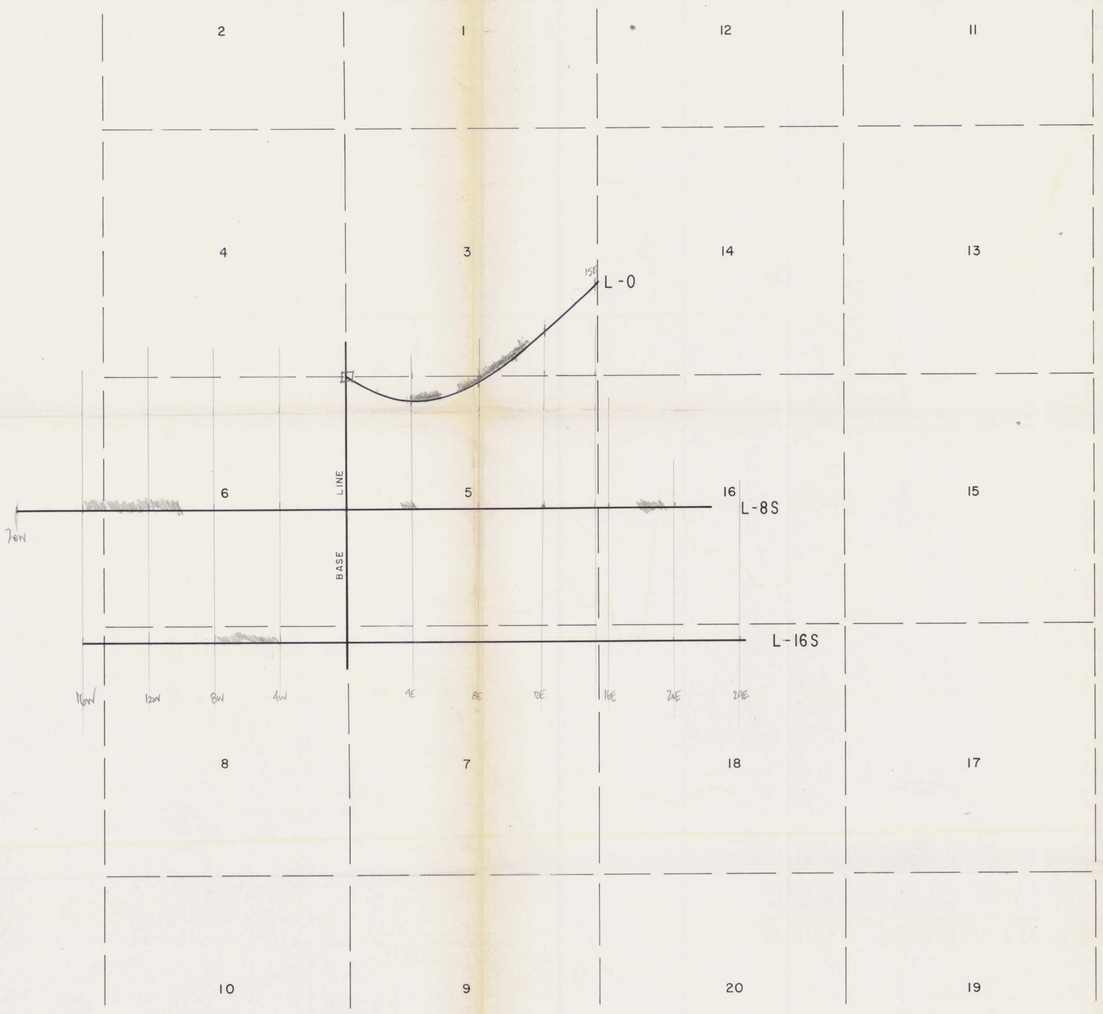
GERMANSEN LANDING AREA - BRITISH COLUMBIA

SCALE 1 : 250,000

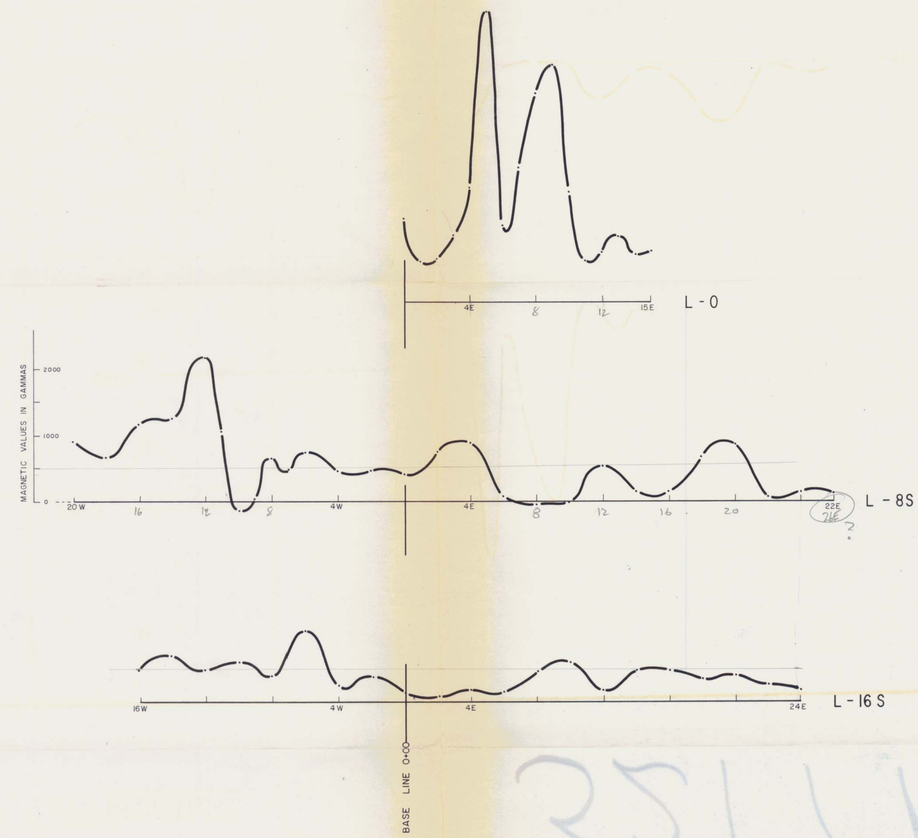
4 miles 0 4 miles

Survey by
SEIGEL ASSOCIATES LIMITED
JULY 1971

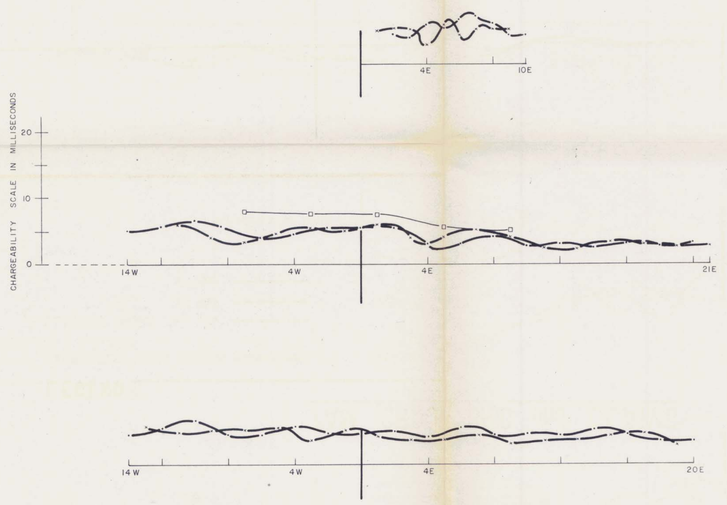
PLATE 1



TAM GROUP GRID and CLAIMS

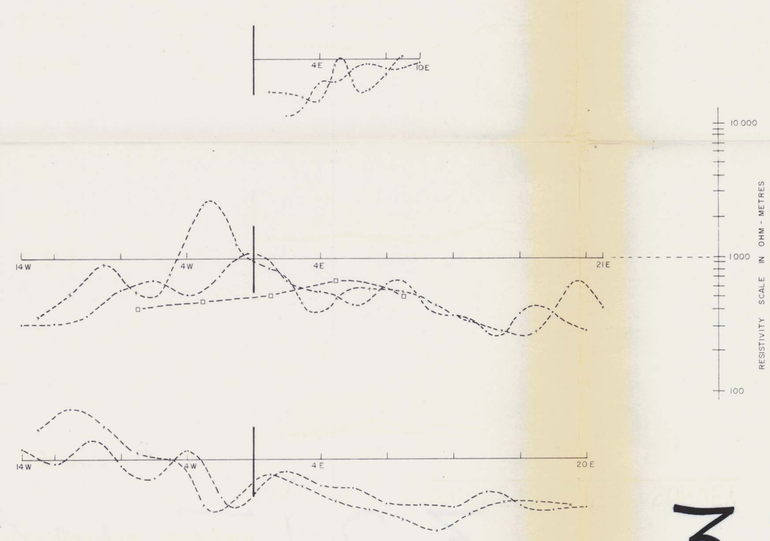


MAGNETOMETER SURVEY



CHARGEABILITY

INDUCED POLARIZATION SURVEY



RESISTIVITY

3217 M-2

LEGEND

CHARGEABILITY SCALE: 1 inch = 10 MILLISECONDS

ELECTRODE SPACING a = 200' a = 400' a = 600'

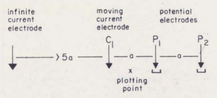
RESISTIVITY SCALE: 2 inches = 1 LOGARITHMIC CYCLE WITH LINETRACE TAKEN AS 1000 OHM-METRES

ELECTRODE SPACING a = 200' a = 400' a = 600'

MAGNETOMETER SCALE: 1 inch = 1000 GAMMAS

NOTES

SCINTREX MK VII INDUCED POLARIZATION INSTRUMENTATION
THREE ELECTRODE ARRAY



TO ACCOMPANY A GEOPHYSICAL REPORT BY P.J. FOMINOFF and R.O. CROSBY AUGUST 4, 1971

PLATE 2

DOLMAGE CAMPBELL & ASSOCIATES LIMITED

TAM GROUP

GERMANSEN LANDING AREA, BRITISH COLUMBIA

INDUCED POLARIZATION SURVEY

MAGNETOMETER SURVEY

SCALE: 1 inch = 400 feet

400 feet 0 400 feet

INDUCED POLARIZATION SURVEY BY SEIGEL ASSOCIATES LIMITED JULY 1971

MAGNETOMETER SURVEY BY DOLMAGE CAMPBELL & ASSOCIATES LIMITED JULY 1971

Richard O Crosby