

GEOPHYSICAL REPORT ON
the Royal Group
of
ROYAL CANADIAN VENTURES LTD.
at Calling Lake, 50° 121° SE
by
G.E. White

Nov. 30th, 1966

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INDUCED POLARIZATION REPORT

ON PROPERTY OF

ROYAL CANADIAN VENTURES LIMITED

KAMLOOPS MINING DIVISION

SPENCES BRIDGE

PROVINCE OF BRITISH COLUMBIA

SULMAC EXPLORATION SERVICES LIMITED

NOVEMBER 30, 1966

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In Pocket:	
Map of Apparent Chargeability # 7	
Map of Apparent Resistivity # 5	
(Scale: One Inch = Four Hundred Feet)	

SUMMARY AND RECOMMENDATIONS

An induced polarization survey was carried out on claims held by Royal Canadian Ventures Limited in the Kamloops Mining Division, British Columbia.

Two anomalous zones of possible interest, designated "Area A" and "B", were located, and may be caused by sulphide mineralization.

It is recommended that both anomalous areas be tested by a minimum amount of diamond drilling to determine their causative sources. Further investigation would depend on the results obtained from the initial test holes.

INTRODUCTION

During the period October 9th to October 31st, 1966, Sulmac Exploration Services Limited conducted an induced polarization survey over a group of claims held by Royal Canadian Ventures Limited near Spences Bridge, Kamloops Mining Division, Province of British Columbia.

PROPERTY LOCATION AND ACCESS

The property of Royal Canadian Ventures Limited discussed in this report is located in the Highland valley region of the Kamloops Mining Division,

approximately six miles S 20° W of an operating copper-molybdenum mine owned by Bethlehem Copper Corporation Limited, and some three miles N 65° W of Gnawed Mountain.

The area surveyed consists of 19 contiguous mining claims listed as follows:

Cana 1 Fr.	-	34431
Cana 2 Fr.	-	34432
Cana 2	-	34418
Cana 9 & 10	-	34425 & 34426
Royal 2	-	34820
Royal 4	-	34822
Royal 6	-	34824
Royal	-	34826
Royal 10	-	34828
Royal 12	-	34830
Royal 13 to 20 inclusive	-	34831 to 34838 inclusive
Royal "A" Fr.	-	59221

Access is by secondary road from either

Ashcroft or Merritt, British Columbia.

METHOD OF SURVEY AND INSTRUMENT DATA

I.P. Electrode Array

The data were obtained using the "three electrode" array. This array consists of one current (C_1) and two potential electrodes (P_1 and P_2), which are moved together along the survey line. The second current electrode (C_2) is fixed at "infinity". A basic electrode spacing of 200 feet was used for the survey. Readings were taken at 100 foot intervals along the traverse lines.

I.P. Instrument

The instrument used was of the pulse-type and is similar in design and operation to that described by R.W. Baldwin in "A Decade of Development in Overvoltage Survey", A.I.M.E. Transactions, Vol. 214, 1959. Power for the unit is obtained from a Briggs and Stratton 4 H.P. motor coupled to a 400 d.p.s. generator, which provides a maximum of 1,200 watts d.c. to the ground. The cycling rate is 1.5 seconds current on and 0.5 seconds current off, the pulses reversing continuously in polarity. The data collected consist of measurement of the current (I) flowing through C_1 and C_2 and of the primary voltage (V_p) between P_1 and P_2 during the 'current on' period. During the 'current off' period the overvoltage appearing between P_1 and P_2 is measured. This gives a measurement of the polarization (V_s) in milliseconds. The "apparent chargeability" in milliseconds is calculated by dividing the polarization (V_s) by the primary voltage (V_p). The "apparent resistivity" in ohm-meters is obtained by dividing the primary voltage V_p by the current I , and multiplying by a proportionality factor, which depends on the geometry of the array used.

I.P. Data

A linegrid was established throughout the property prior to the commencement of the I.P. survey. The relative location of the grid lines with respect to the claims is shown on the accompanying map. The lines were cut in a north-south direction from an east-west base line. Picket stations were established at 100 foot intervals along these lines.

A total of 11.9 miles of I.P. surveying was conducted.

The results obtained accompany this report in the form of contour maps of chargeability and resistivity at a scale of 400 feet to one inch.

DISCUSSION OF RESULTS

The induced polarization results obtained during the survey have been carefully correlated with a Royal Canadian Ventures geologic plan of the area.

The resistivity values obtained show moderate variations which may be attributed to changes in overburden thickness and in the overburden and bedrock resistivities.

The chargeability background value is approximately one millisecond for the surveyed area. These values increase or decrease slightly as the resistivity increases or decreases.

Two anomalous areas of possible interest designated "A" and "B" on the chargeability map, and several sporadic peaks were detected by the reconnaissance survey. A minor amount of detailing using an electrode spacing of 400 feet was conducted over "Area A", and continued northward on lines 30+00W and 34+00E to examine erratic anomalous values obtained during the reconnaissance survey.

Correlation and interpretation of the results did not reveal any zones, which warrant further investigation, other than the original "Area A" and "B".

The sporadic chargeability highs indicated by the survey are thought to be caused by overburden conditions and local disturbances around the electrodes. Consequently no further work is suggested in such locations.

It is thought that the anomalous results obtained in "Area A" and "B" may be caused by finely disseminated sulphides, or by small fissures containing sulphide mineralization. Such anomalies can, however, also be the effect of graphite, some of the clay minerals and claybeds.

It is recommended that "Area A" be tested by one borehole on line 34+00E, and "Area B" by another hole on line 66+00E. Further work could be laid out, if warranted on the basis of results obtained from initial diamond drilling.

Respectfully submitted,
SULMAC EXPLORATION SERVICES LIMITED



G.E. White, B. Sc.,
Geophysicist.

TORONTO, Ontario,
November 30, 1966.

CERTIFICATION

TO WHOM IT MAY CONCERN:

I, GLEN ELMO WHITE, of the City of Vancouver in the Province of British Columbia, hereby certify:

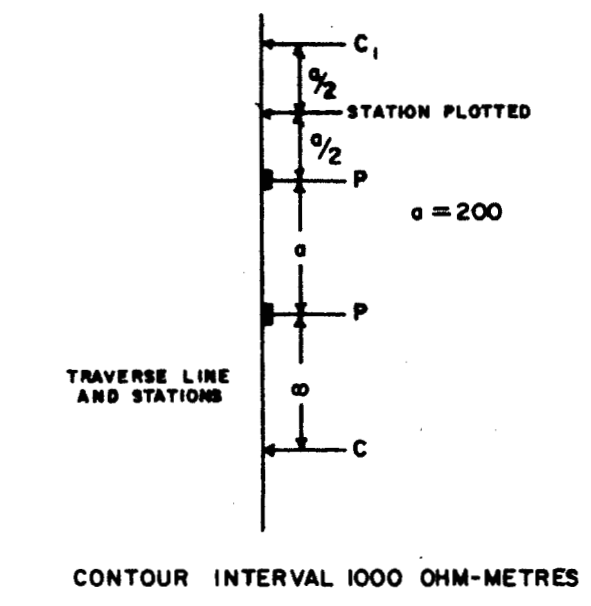
1. That I am a Geophysicist and Geologist and reside at 2390 West 7th Ave., Vancouver 9, B. C.
2. That I studied Geophysics and Geology and graduated from the University of British Columbia in 1966 with the degree of B.Sc.
3. That I have been engaged in Mining Exploration for five years.
4. That I do not have nor do I expect to receive either directly or indirectly, any interest in the above property, or in the securities of Royal Canadian Ventures Limited.
5. That the information contained in this report is based on Geological and Geophysical data provided by Royal Canadian Ventures and Sulmac Exploration Services Limited.

Dated this 30th day of November, 1966

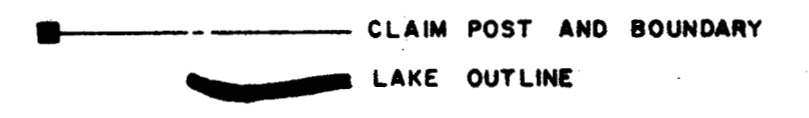

G. E. White, B.Sc.

LEGEND

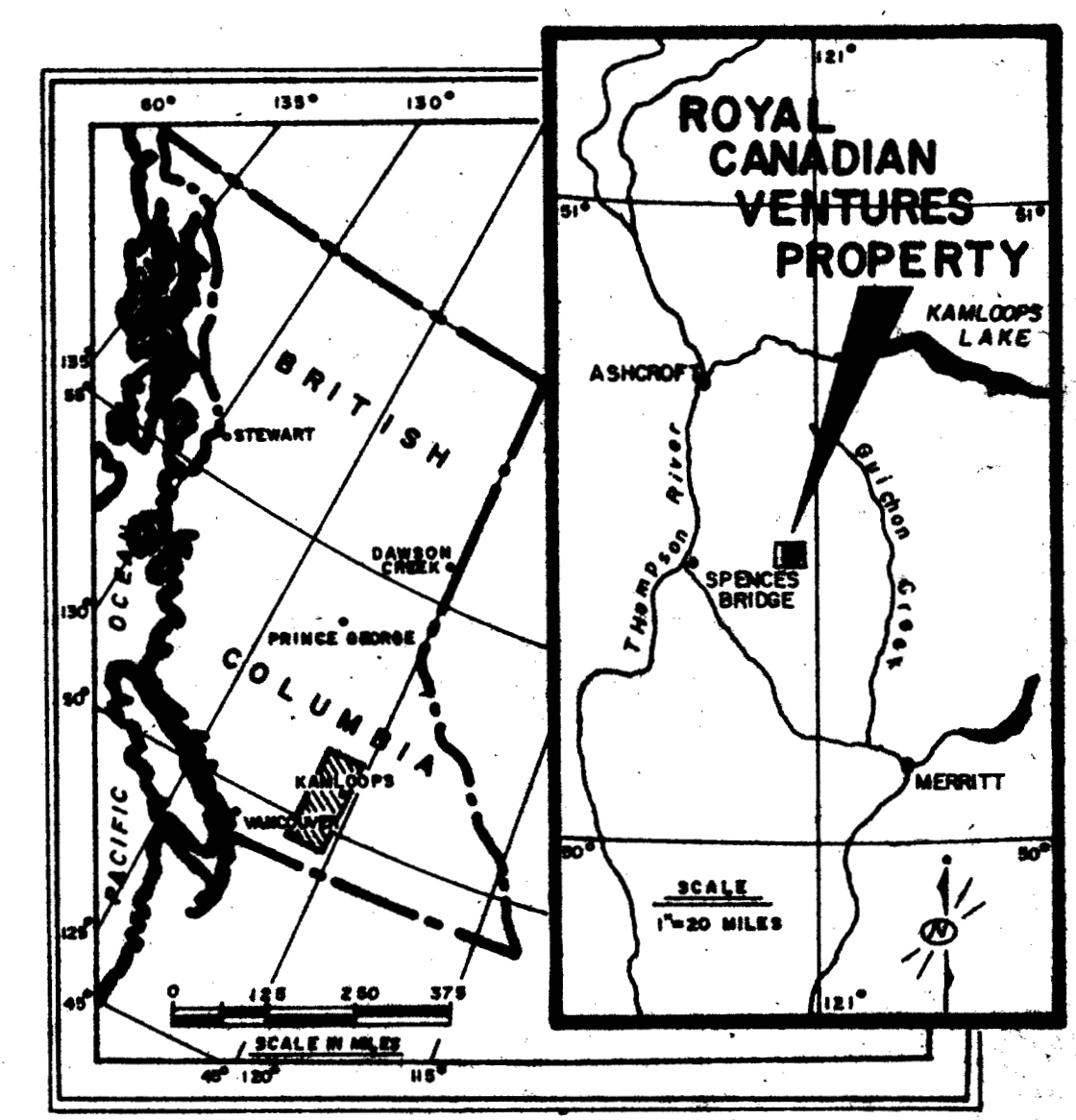
INDUCED POLARIZATION SURVEY



MAP SYMBOLS



LOCATION MAP



TO ACCOMPANY REPORT BY GLEN WHITE, DATED NOV. 30, 1966

ROYAL CANADIAN VENTURES LTD.

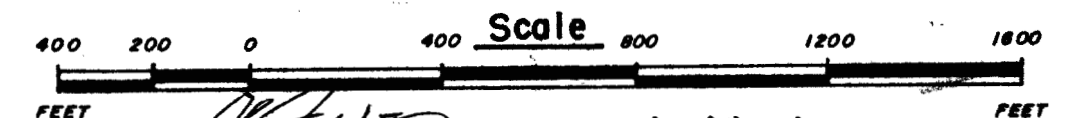
SPENCES BRIDGE, BRITISH COLUMBIA
KAMLOOPS MINING DIVISION

**APPARENT RESISTIVITY
INDUCED POLARIZATION
SURVEY**

854

854

SULMAC EXPLORATION SERVICES LIMITED
OCT.-NOV.-1966

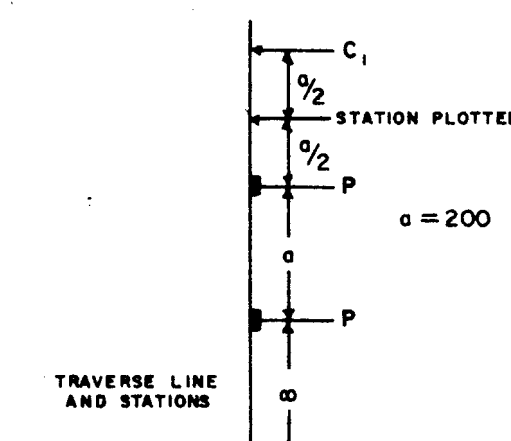


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DRAWN BY G.A. BRANT



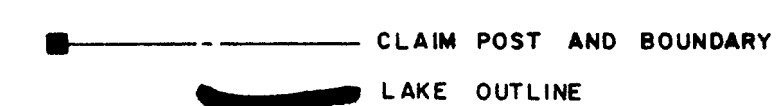
L E G E N D

INDUCED POLARIZATION SURVEY

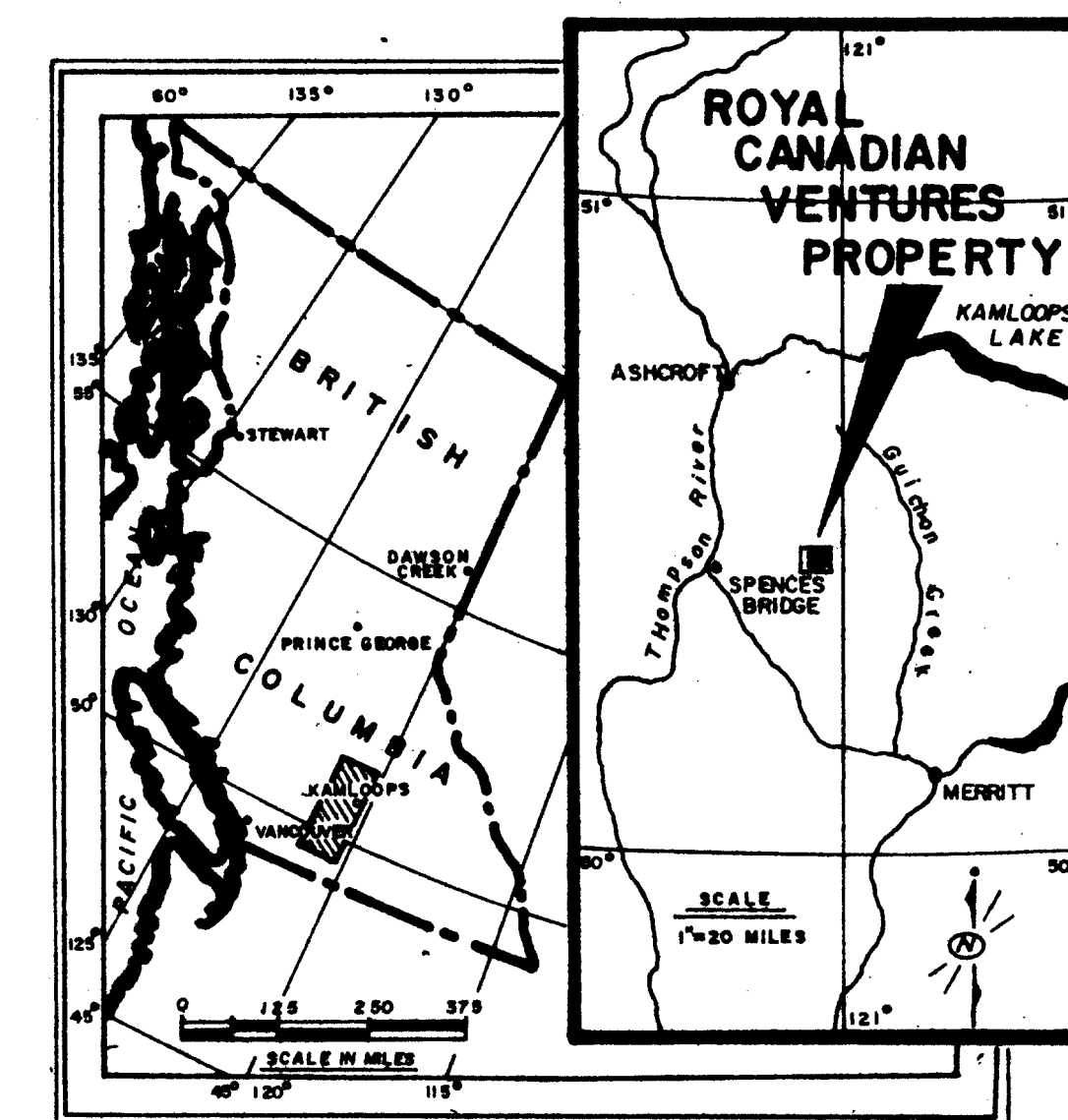


CONTOUR INTERVAL 1.0 MILLISECONDS
 [Symbol] AREA OF INTEREST

MAP SYMBOLS



LOCATION MAP



TO ACCOMPANY REPORT BY GLEN WHITE, DATED NOV. 30, 1966

ROYAL CANADIAN VENTURES LTD.

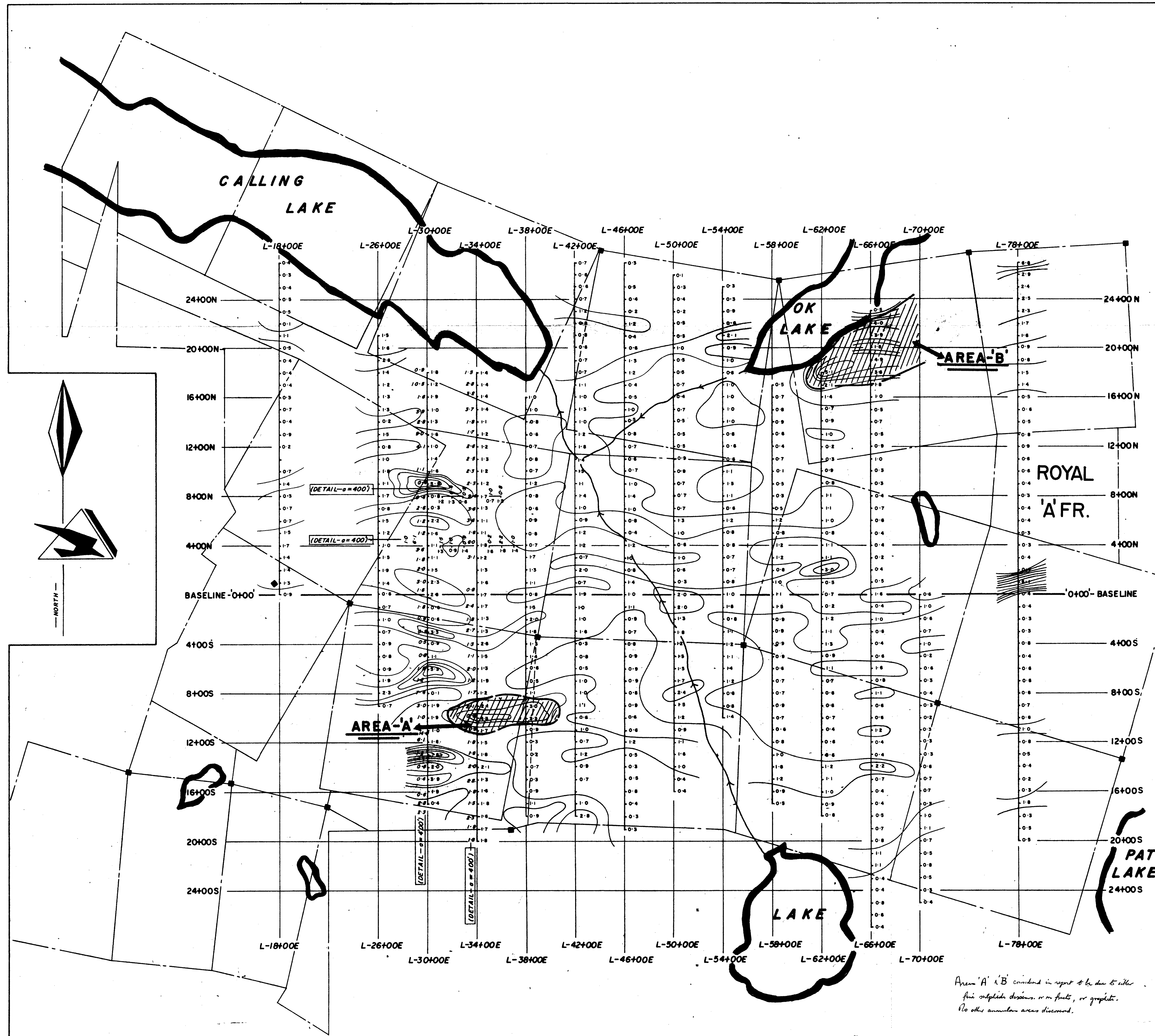
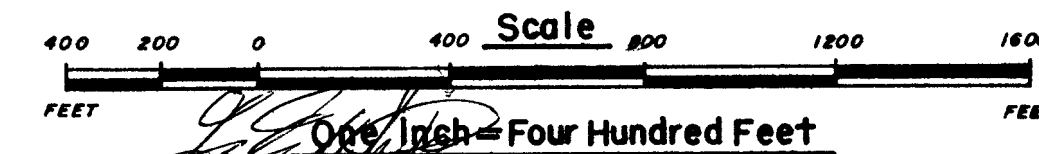
SPENCES BRIDGE, BRITISH COLUMBIA
 KAMLOOPS MINING DIVISION

**APPARENT CHARGEABILITY
 INDUCED POLARIZATION
 SURVEY**

8.54

#854
 map #4

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 OCT.-NOV.-1966



Areas 'A' & 'B' considered in report to be due to either
 fine outcrops, debris, or on faults, or graphite.
 No other anomalous areas discerned.

GEOPHYSICIST GLEN WHITE DRAWN BY D.A. GRANT