

Copy for 1966 Assessment work on  
Cache Claims  
(Brenda Area)

INDUCED POLARIZATION SURVEY

Claims: Cache 1-12 and Cache Fr. 1

49° 120° N.W.

Owner: Kerr Addison Mines Limited

Author: G. E. White

Work done: Sept. 26 - October 11, 1966

02 E 1/2, 3 W



REPORT ON  
INDUCED POLARIZATION SURVEY  
ON PROPERTY OF

KERR ADDISON MINES LIMITED  
OSOYOOS MINING DIVISION  
SUMMERLAND, B. C.

SULMAC EXPLORATION SERVICES LIMITED  
OCTOBER 20, 1966

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Claim Location Map (Index Sketch)	Scale: 1" = 3,000' #1
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### In Pocket:

Map of Chargeability	# 2
Map of Resistivity	# 3
Scale: 1" = 200'	

## SUMMARY AND RECOMMENDATIONS

An induced polarization survey was conducted over a portion of a property held by Kerr Addison Mines Limited, in the Osoyoos Mining Division of British Columbia.

The survey indicated two moderate zones, which are not of sufficient intensity to be considered actual anomalies, although a minor amount of weak mineralization may be present. They are located on line 4N at 11E and on line 12N at 38E.

It is thought that the slightly stronger response is likelier due to a minor increase in the number of fractures containing mineralization per given area than an increase in the concentration of mineralization itself. Therefore it is recommended that no further work be carried out on the ground covered by this survey.

## INTRODUCTION

During the period September 26th to October 11th, 1966, Sulmac Exploration Services Limited conducted an induced polarization (I.P.) survey over a portion of a claim group held by Kerr Addison Mines Limited, in the Osoyoos Mining Division, Province of British Columbia.

### PROPERTY LOCATION AND ACCESS

The property of Kerr Addison Mines Limited discussed in this report is located between Darke Park # 1 and # 2, some 15 miles south west of Summerland, British Columbia.

It consists of forty contiguous mining claims and one fractional claim numbered as follows:

CACHE 1 to 4	- 13211 to 13214 inclusive;
CACHE 5	- 13608;
CACHE 6 and 7	- 13605 and 13606;
CACHE 8, 9, and 10	- 13609, 13607, and 13610;
CACHE 11 to 16	- 14069 to 14074 inclusive;
CACHE 25 to 28	- 15747 to 15750 inclusive;
CACHE 29 and 30	- 16002 and 16003;
CACHE 31 to 34	- 16451 to 16454 inclusive;
CACHE 35 to 40	- 16455 to 16460 inclusive;
	and
CACHE FR. 1	- 15735.

The survey was confined to thirteen claims, as shown on the accompanying maps. The relative location of all claims and of the grid in relation to the claims is indicated on the index sketch.

Access is by means of a good secondary road.

### METHOD OF SURVEY AND INSTRUMENT DATA

#### 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 spacings between these three electrodes being fixed. The second current electrode ( $C_3$ ) is placed at "infinity".

Basic electrode spacings of 200 and 400 feet were used for the survey, each on separate portions of the grid. Readings were taken at 200 foot station intervals in both instances.

#### I.P. INSTRUMENT

The equipment used on this survey was the Hunter pulse-type unit. Power was obtained from a JLO motor, coupled to a 2.5 kw 400 cycle three-phase generator, providing a maximum of 2.5 kw 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. Power was transmitted to the ground through two current electrodes  $C_1$  and  $C_2$ , and measurements taken across two potential electrodes,  $P_1$  and  $P_2$ .

The data recorded in the field consist of careful measurements of the current ( $I$ ) in amperes flowing through electrodes  $C_1$  and  $C_2$ , the primary voltage ( $V_p$ ) appearing between electrodes  $P_1$  and  $P_2$  during the "current on" part of the cycle, and the secondary voltage ( $V_s$ ) appearing between electrodes  $P_1$  and  $P_2$  during the "current off" part of the cycle.

The apparent chargeability ( $M_a$ ), in milliseconds, is calculated by dividing the secondary voltage by the primary voltage and multiplying by 400, which is the sampling time in milliseconds of the receiver unit.

The apparent resistivity, in ohm-meters, is proportional to the ratio of the primary voltage to the measured current, the proportionality factor depending on the geometry of the electrode array used. The chargeability and resistivity obtained are called "apparent" as they are values which that portion of the earth sampled by the array would have if it were homogeneous. As the earth sampled is usually inhomogeneous, the calculated apparent chargeability and apparent resistivity are functions of the actual chargeabilities and resistivities of the rocks sampled and of the geometry of these rocks.

#### I.P. DATA

Linecutting was commenced prior to the arrival of the I.P. crew and completed during the course of the survey. The relative location of the grid lines with respect to the claims is shown on the accompanying maps. The lines were laid out in an east west direction every 400 feet from a north south baseline. Pickets were placed at 100 foot station intervals along these lines.

In all a total of 8.3 miles of I.P. survey was conducted using 200 and 400 foot electrode spacings. The results of the survey are shown in contour form of "chargeability" and "resistivity" on the accompanying maps

at a scale of 400 feet to the inch. The solid and broken line contours represent the 200 and 400 foot electrode spacings respectively.

#### DISCUSSION OF RESULTS

The property, on which the survey was carried out, is located some ten miles S 22° E of the known ore deposits of Brenda Mines Limited. Here the ore occurs in a closely spaced fracture system in the Nelson granitics. The mineralization on the Kerr Addison property is in a similar fracture system in the Valhalla plutonics.

Analysis of the results consists of a careful examination of the individual resistivity and chargeability contour maps.

The resistivity in the area shows moderate variations, which, it is considered, reflect the gradation from overburden to bedrock and changes in overburden and bedrock resistivities.

The chargeabilities over the surveyed area are fairly uniform with a background of 2.3 milliseconds. Two zones with values slightly higher than background were detected. One on line 4N at 11E with a high of 3.7 milliseconds and the other on 12N at 38E with a high of 3.85



milliseconds. However, both are located in areas of high resistivity, which minimizes the significance of the increased chargeability values. Correlation of the surveys with the 200 foot and the 400 foot electrode spacing does not show a greater response with depth.

In conclusion then, it is thought that the area surrounding 4N at 11E and 12N at 38E may contain a slight increase in mineralization. It is, however, not considered to be sufficient to warrant further investigation.

Respectfully submitted,  
SULMAC EXPLORATION SERVICES LIMITED

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


TORONTO, Ontario,  
October 20, 1966.

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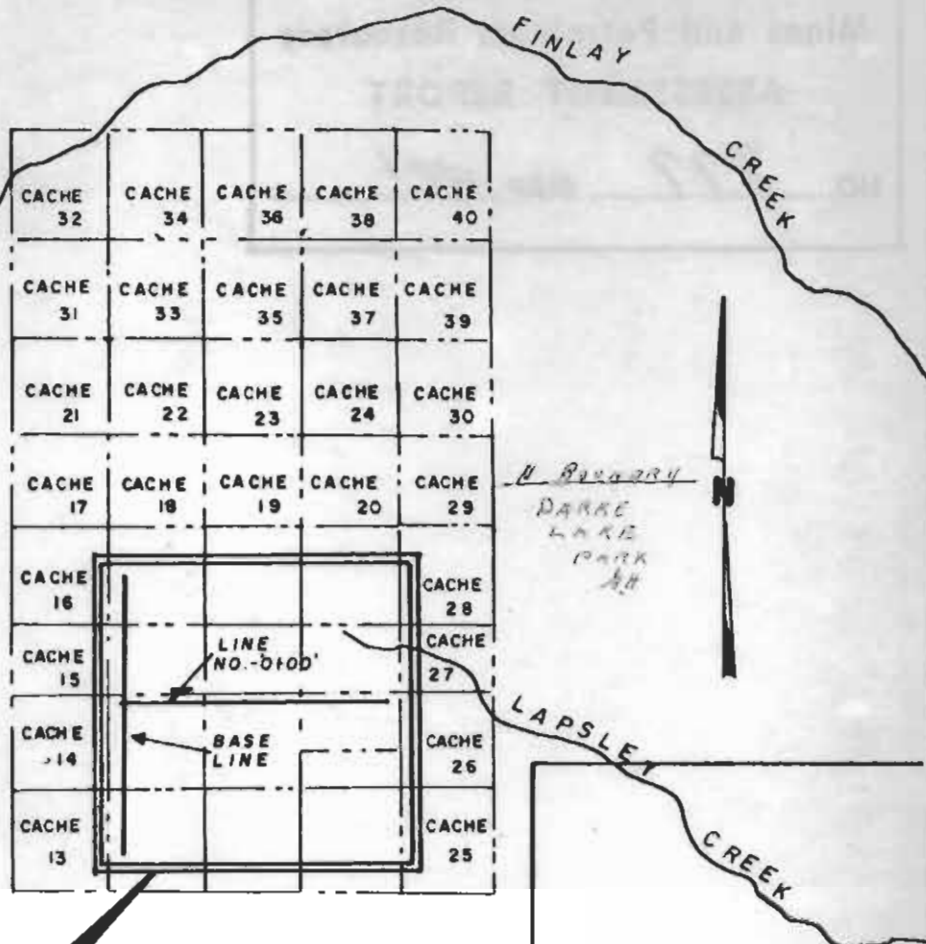
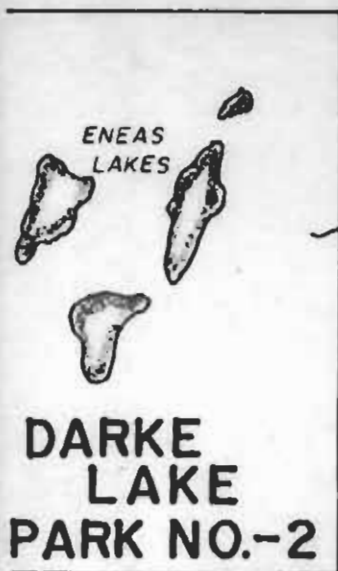
SULMAC EXPLORATION SERVICES LIMITED



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

TORONTO, Ontario

October 20, 1966



**AREA COVERED BY SURVEY**

**DARKE LAKE PARK NO.-1**



CLAIM LOCATION MAP

**KERR ADDISON MINES LIMITED**

BRITISH COLUMBIA - CANADA

SCALE - 1" = 3000'



STATEMENT OF COST

to \*KERR ADDISON MINES LIMITED\*  
RE: Property in Osoyoos Mining  
Division, British Columbia

I.P. Crew and Equipment

period September 26 - October 11/66 \$ 3,250.00  
13 days at \$250/day

Transportation and Travelling

period September 26 - October 11/66 356.90

Board and Miscellaneous  
Expenses

period September 26 - October 11/66 206.22

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\$ 3,813.12

The above was invoiced and paid \*KERR ADDISON MINES LIMITED\*

A P P E N D I X

I.P. Assistants

D. Brown September 26 - October 11, 1966

L. Roos September 26 - October 11, 1966

I.P. Operator

R. Mikulik September 26 - October 11, 1966

Geologist

C.T. Pasieka September 26, October 2, 5, 11, 1966

Geophysicist

G.E. White October 18, 19, 1966

Field Manager

R.C. Wilkenloh October 1 - 11, 1966

Draftsman

D.A. Grant October 2, 3, 4, 6, 7, 9, 11, 1966

Typist

J.A. Henry October 20, 1966

INDUCED POLARIZATION SURVEY  
ON A GROUP OF CLAIMS  
FOR

\*KERR AADDISON MINES LIMITED\*

Claims surveyed:

CACHE 1 to 4	-	13211 to 13214 inclusive;
CACHE 5	-	13608;
CACHE 6 and 7	-	13605 and 13606;
CACHE 8, 9, and 10	-	13609, 13607, and 13610;
CACHE 11 to 16	-	14069 to 14074 inclusive;
CACHE 25 to 28	-	15747 to 15750 inclusive;
CACHE 29 and 30	-	16002 and 16003;
CACHE 31 to 34	-	16451 to 16454 inclusive;
CACHE 35 to 40	-	16455 to 16460 inclusive;
	and	
CACHE		
FR. 1	-	15735

which are located in the Osoyoos Mining Division of the Province of British Columbia; Latitude  $49^{\circ}45'N$ , and Longitude  $120^{\circ}W$ .

The survey was conducted during the period of September 26th to October 11th, 1966.

The report is written by G.E. White, B. Sc., Geophysicist..

SULMAC EXPLORATION SERVICES LIMITED

OCTOBER 20th, 1966


C E R T I F I C A T I O N

TO WHOM IT MAY CONCERN:

I, GLEN ELMO WHITE, of the City of  
TORONTO, in the Province of Ontario, hereby certify:

1. THAT I am a Geophysicist and Geologist and reside  
at #1108 - 500 Dawes Road, TORONTO 13, Ontario.
2. THAT I studied Geophysics and Geology and graduated  
from the University of British Columbia in 1966,  
with the degree of Bachelor of Science.
3. THAT I have been engaged in Mining Exploration for  
five years and have been practising as an Explora-  
tion Geophysicist and Geologist for ten months.
4. THAT I do not have, nor do I expect to receive  
either directly or indirectly, any interest in  
the property, or in the securities of KERR ADDISON  
MINES LIMITED.
5. THAT the information contained in this report is  
based on Geophysical data provided by Sulmac  
Exploration Services Limited.

Dated this 20<sup>th</sup> day of October, 19 66

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

DOMINION OF CANADA:  
ONTARIO  
PROVINCE OF BRITISH COLUMBIA.

In the Matter of

FILING OF ASSESSMENT WORK  
ON THE KERR ADDISON MINES  
LIMITED PROPERTY IN THE  
OSOYOOS MINING DIVISION,  
BRITISH COLUMBIA.

To Wit:

EMANUAL AMENDOLAGINE,

of 602 West Hastings Street,  
VANCOUVER 2, British Columbia,

in the Province of British Columbia, do solemnly declare that the sum of \$3,813.12 was spent to complete an induced polarization survey consisting of 8.3 line miles on the KERR ADDISON MINES LIMITED property during the period of September 26 to October 11, 1966, made up as follows:

<u>I.P. Crew and Equipment</u>	
period September 26 - October 11, 1966 -	
13 days at \$250/day	\$ 3,250.00
<u>Transportation and Travelling</u>	
period September 26 - October 11, 1966	356.90
<u>Board and Miscellaneous Expenses</u>	
period September 26 - October 11, 1966	206.22
	<hr/>
	\$ 3,813.12

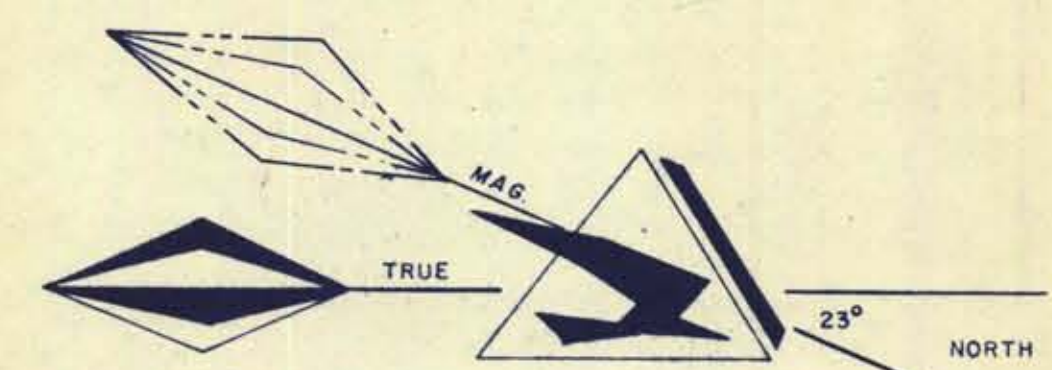
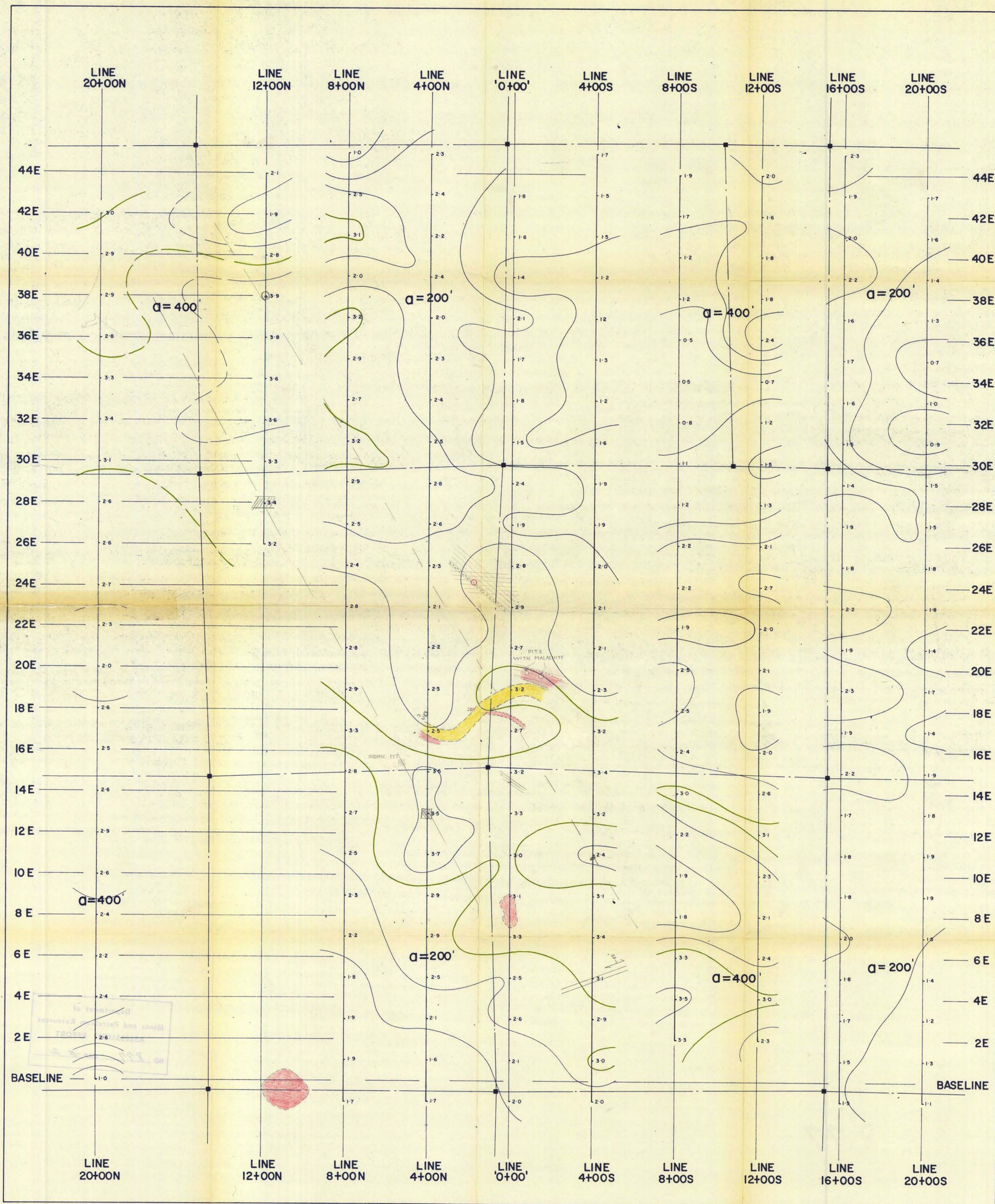
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Toronto, in the  
Province of Ontario, this 9th  
day of January, A.D. 1967



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

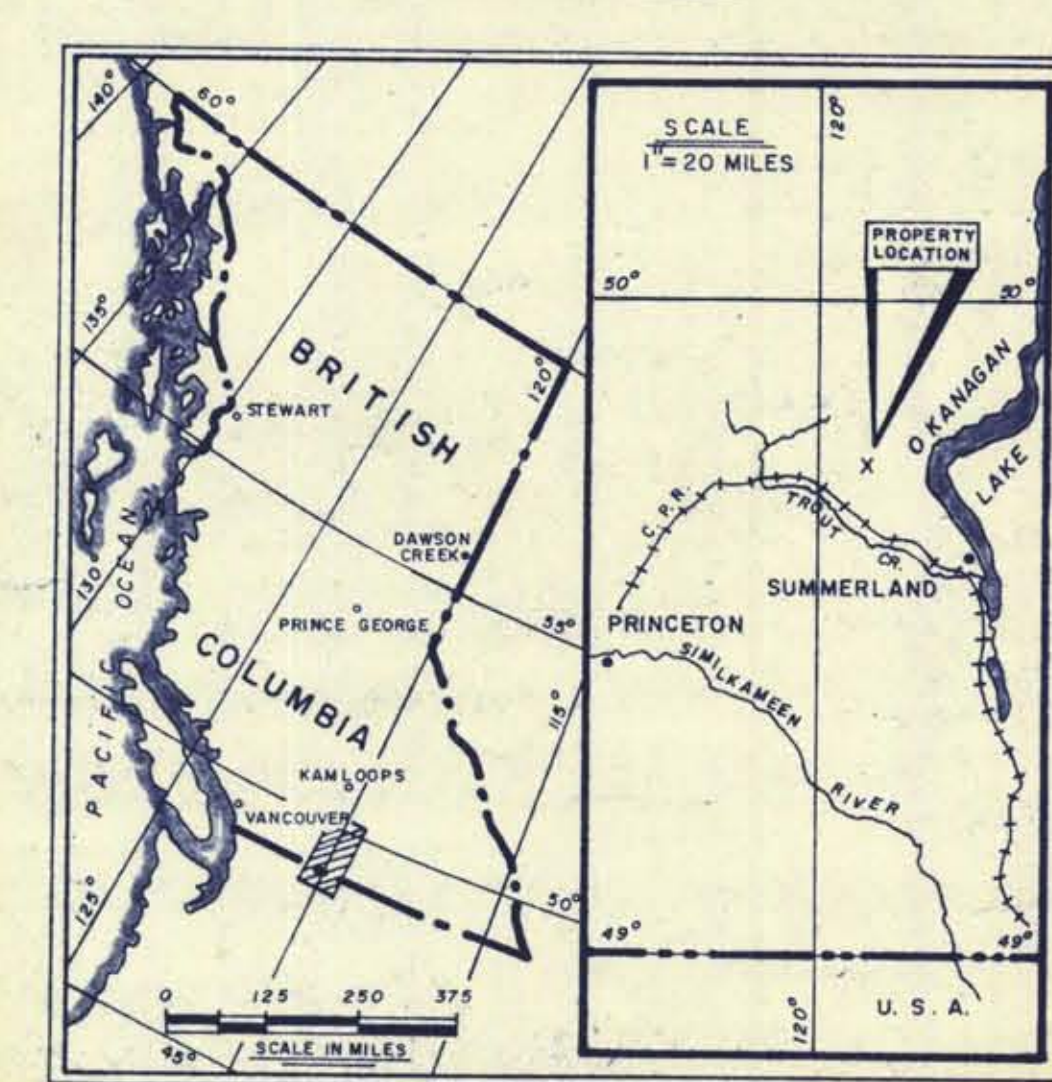




**GEOLOGY**

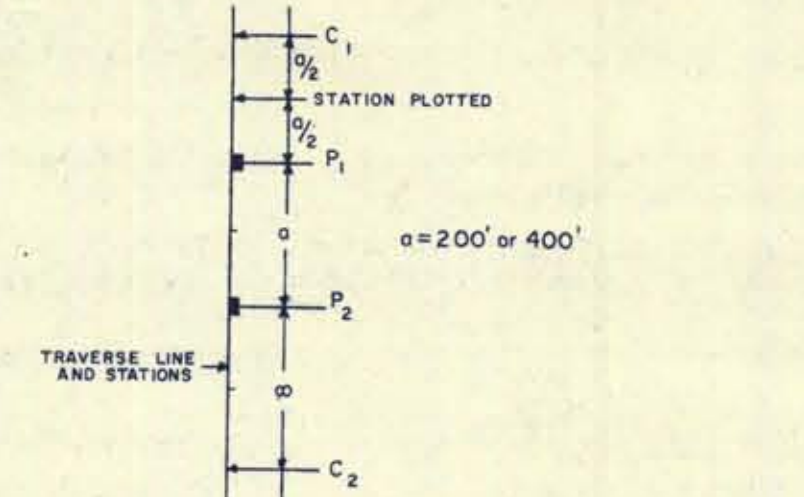
QUARTZ DIORITE	
QUARTZ MONZONITE PORPHYRY	
MAIN SHOWING	
13' CONTAINING:	0.90% Cu
	1.16% As
	0.05% Au
FRACTURE SYSTEMS	

**LOCATION MAP**



**LEGEND**

**INDUCED POLARIZATION SURVEY**



**MAP SYMBOLS**

CLAIM POST AND BOUNDARY

TO ACCOMPANY REPORT BY GLEN WHITE, DATED OCT. 20, 1966.

**KERR ADDISON MINES LIMITED**

BRENDA-OKANAGAN LAKES AREA, BRITISH COLUMBIA  
OSOYOOS MINING DIVISION

**INDUCED POLARIZATION SURVEY**  
**APPARENT CHARGEABILITY**

877

**SULMAC EXPLORATION SERVICES LIMITED**  
SEPT., OCT. - 1966

