

825592

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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In Pocket:	
Map of Chargeability	
Map of Resistivity	
	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 50	- 16455 to 16460 inclusive;
	and
CACHE FR. 1	- 15735.

17 to 24

15727 to 15734 incl.

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 Hunttec 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.

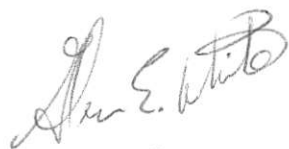
The chargeabilities over the surveyed area are fairly uniform with a background of 2.3 milliseconds. Two zones with values slightly higher than background were detected. One on line 4N at 11E with a high of 3.7 milliseconds and the other on 12N at 38E with a high of 3.85

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,

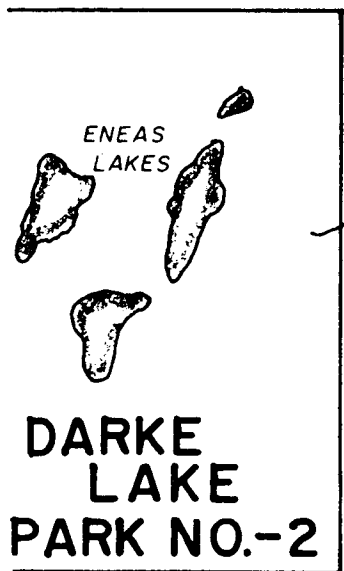
SULMAC EXPLORATION SERVICES LIMITED



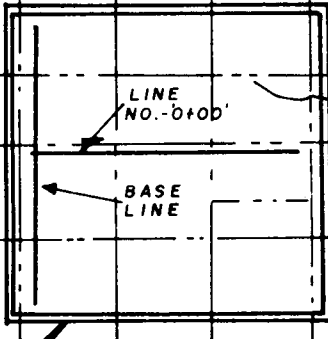
G. E. White, B.Sc.,
Geophysicist

TORONTO, Ontario

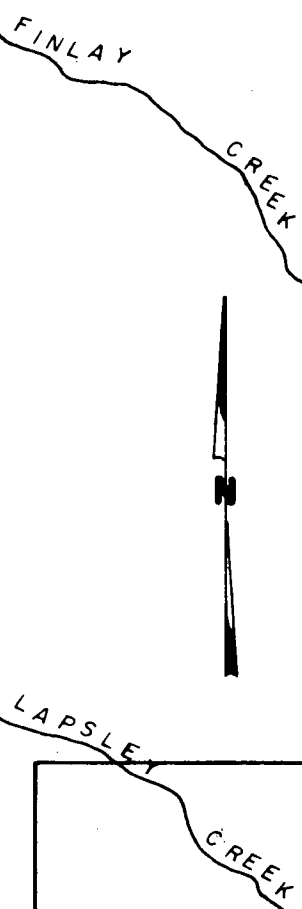
October 20, 1966



CACHE 32	CACHE 34	CACHE 36	CACHE 38	CACHE 40
CACHE 31	CACHE 33	CACHE 35	CACHE 37	CACHE 39
CACHE 21	CACHE 22	CACHE 23	CACHE 24	CACHE 30
CACHE 17	CACHE 18	CACHE 19	CACHE 20	CACHE 29
CACHE 16				CACHE 28
CACHE 15				CACHE 27
CACHE 14				CACHE 26
CACHE 13				CACHE 25



AREA COVERED BY SURVEY



DARKE LAKE PARK NO.-1

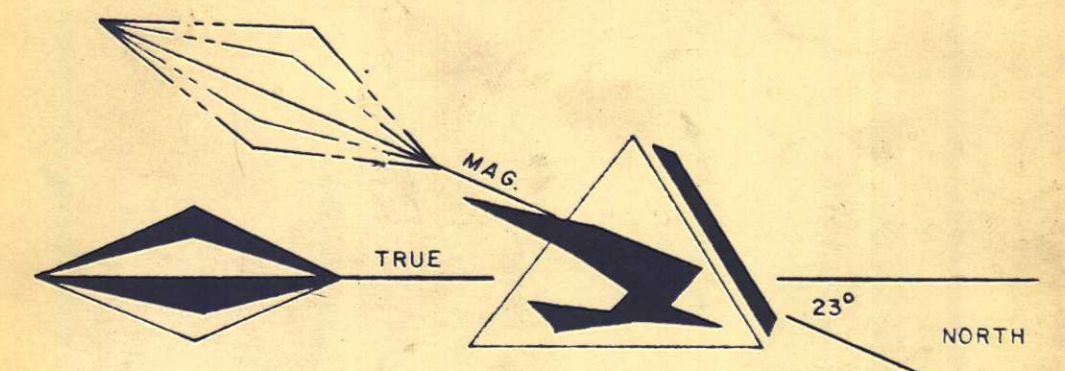
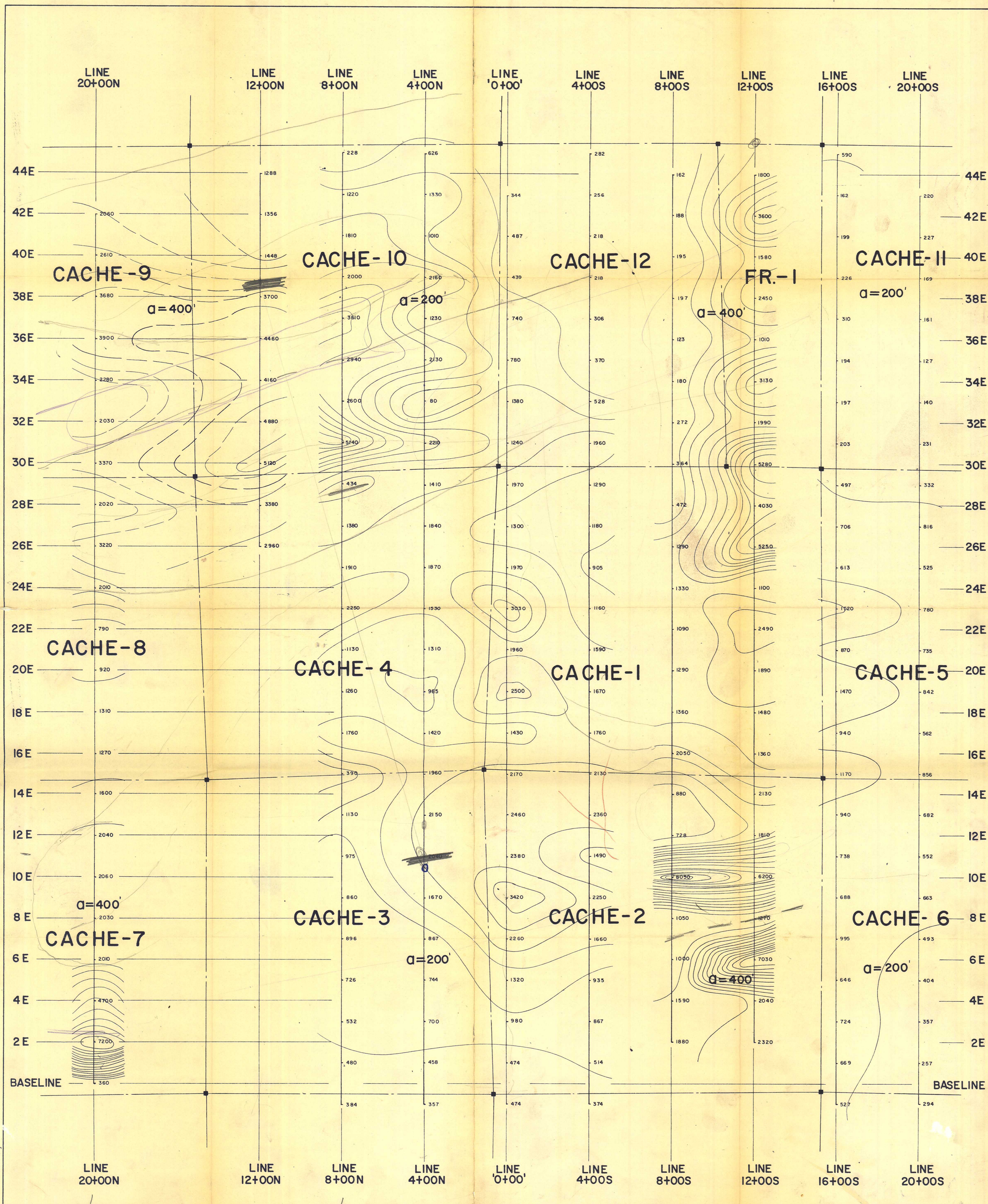


CLAIM LOCATION MAP

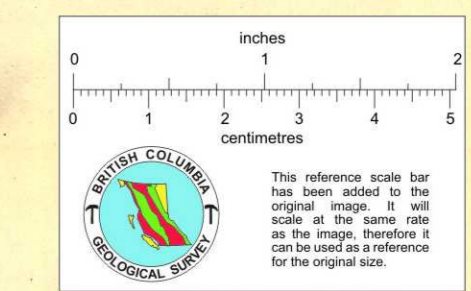
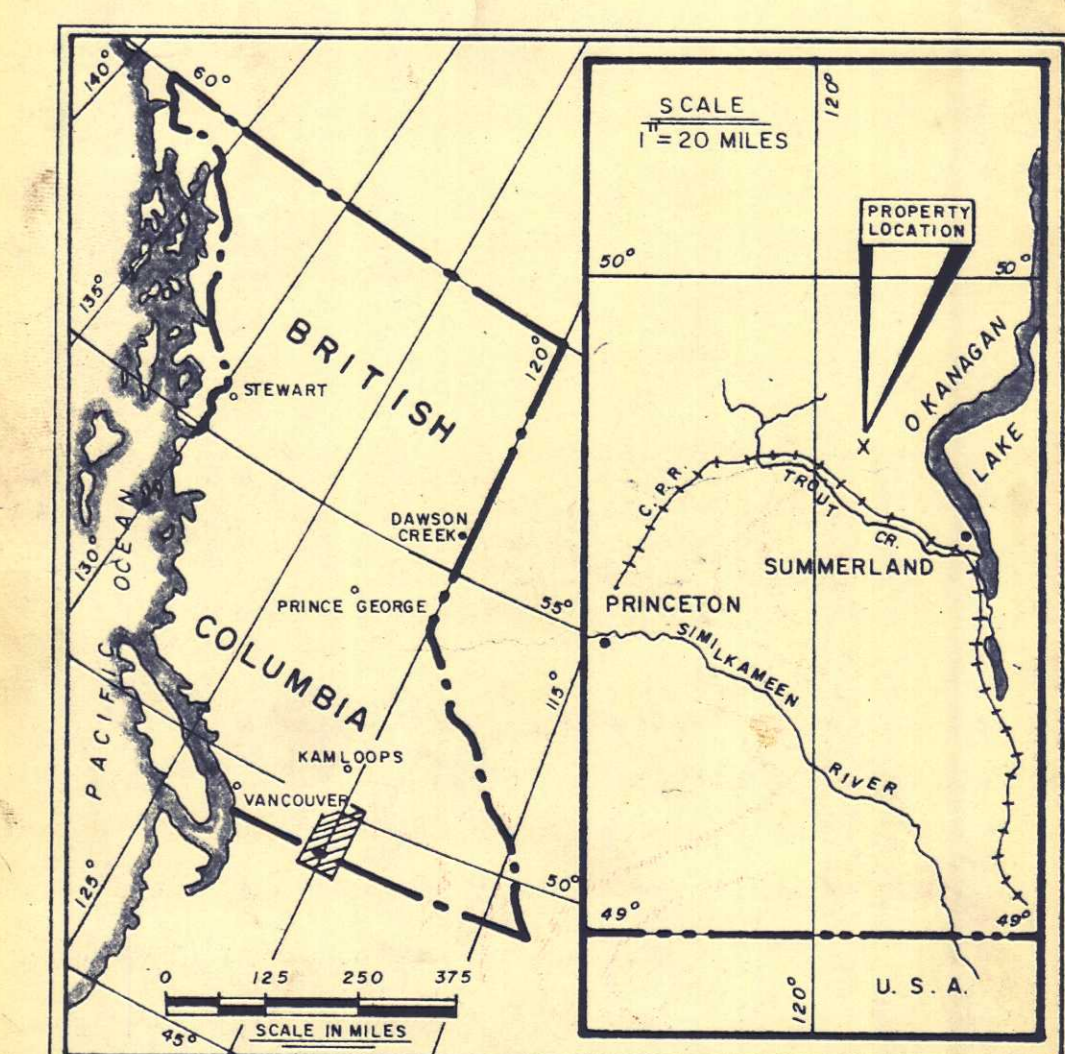
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BRITISH COLUMBIA - CANADA

SCALE - 1" = 3000'

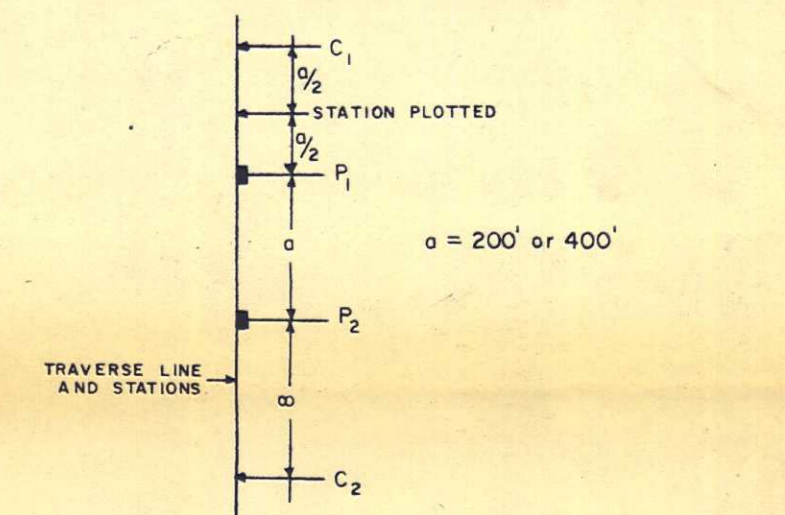


LOCATION MAP



LEGEND

INDUCED POLARIZATION SURVEY



CONTOUR INTERVAL 500 OHM-METRES

MAP SYMBOLS

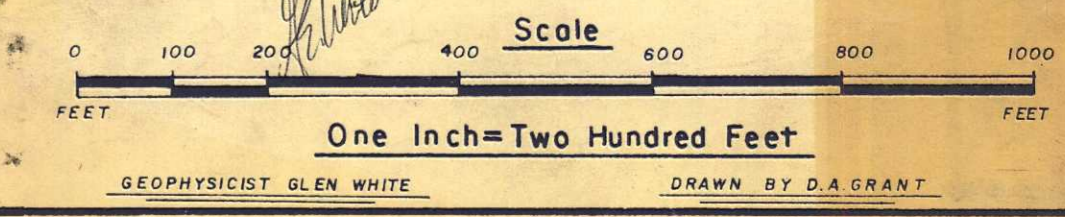
CLAIM POST AND BOUNDARY

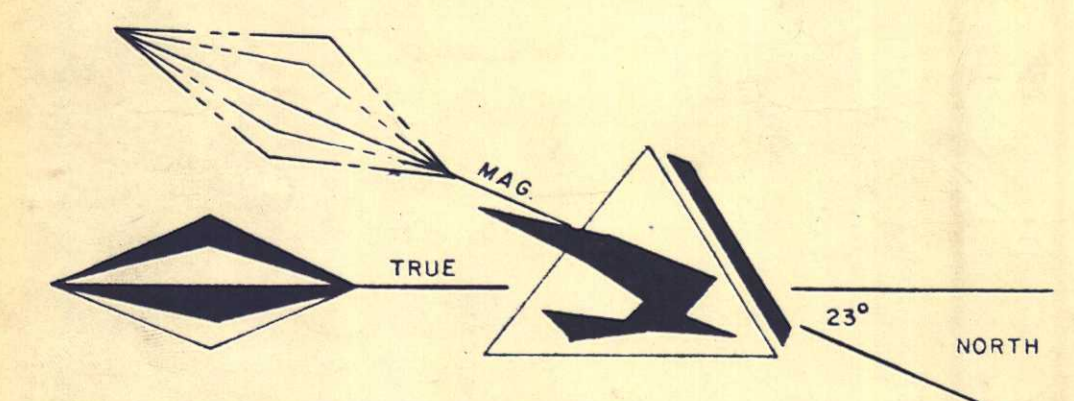
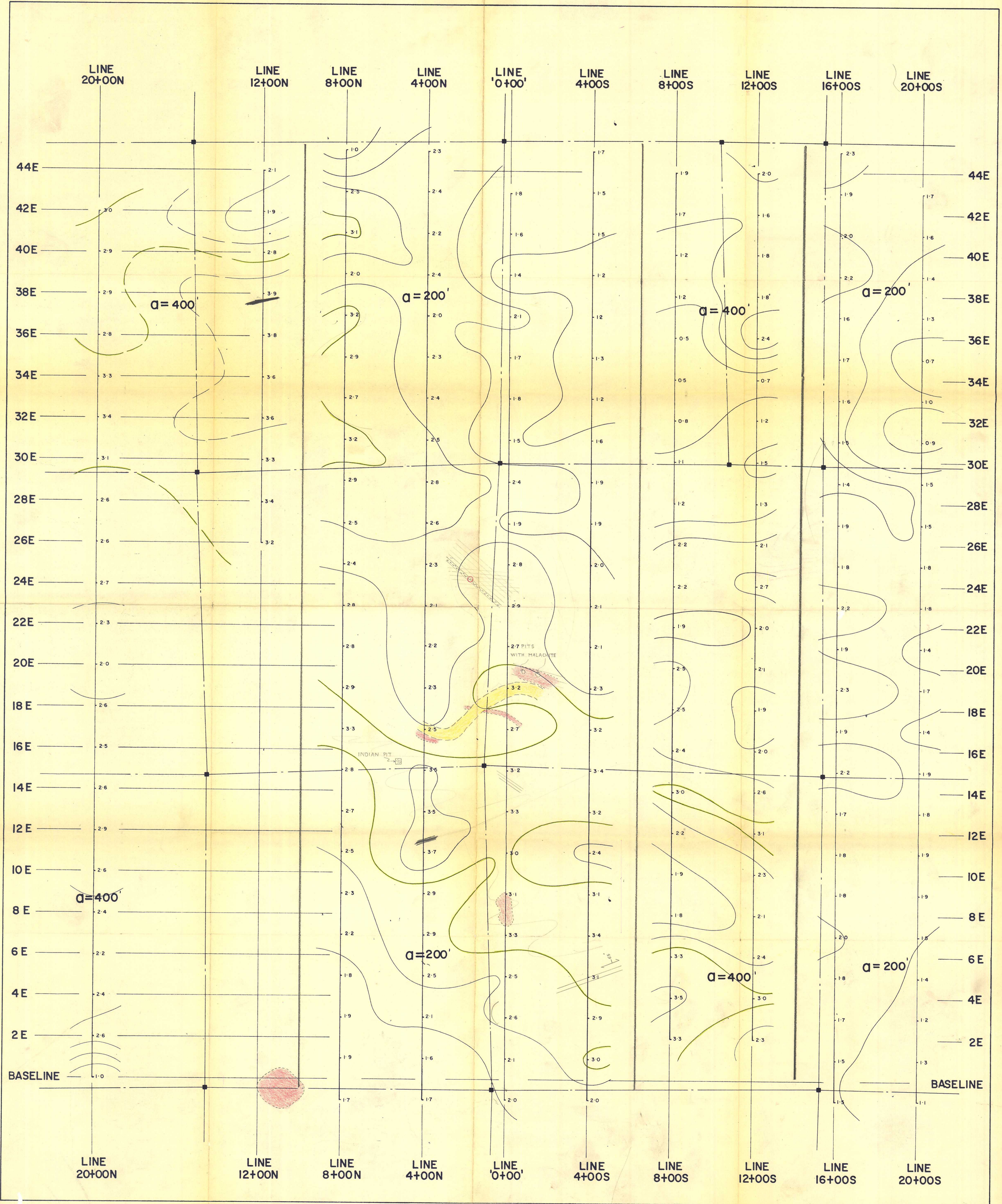
TO ACCOMPANY REPORT BY GLEN WHITE, DATED OCT. 20, 1966.

KERR ADDISON MINES LIMITED

BRENDA-OKANAGAN LAKES AREA, BRITISH COLUMBIA
OSOYOOS MINING DIVISION

INDUCED POLARIZATION SURVEY
APPARENT RESISTIVITY

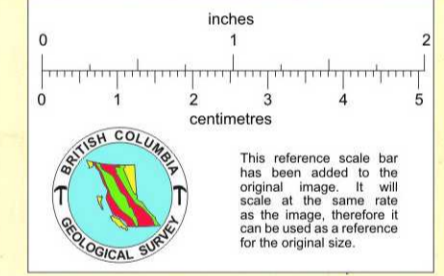
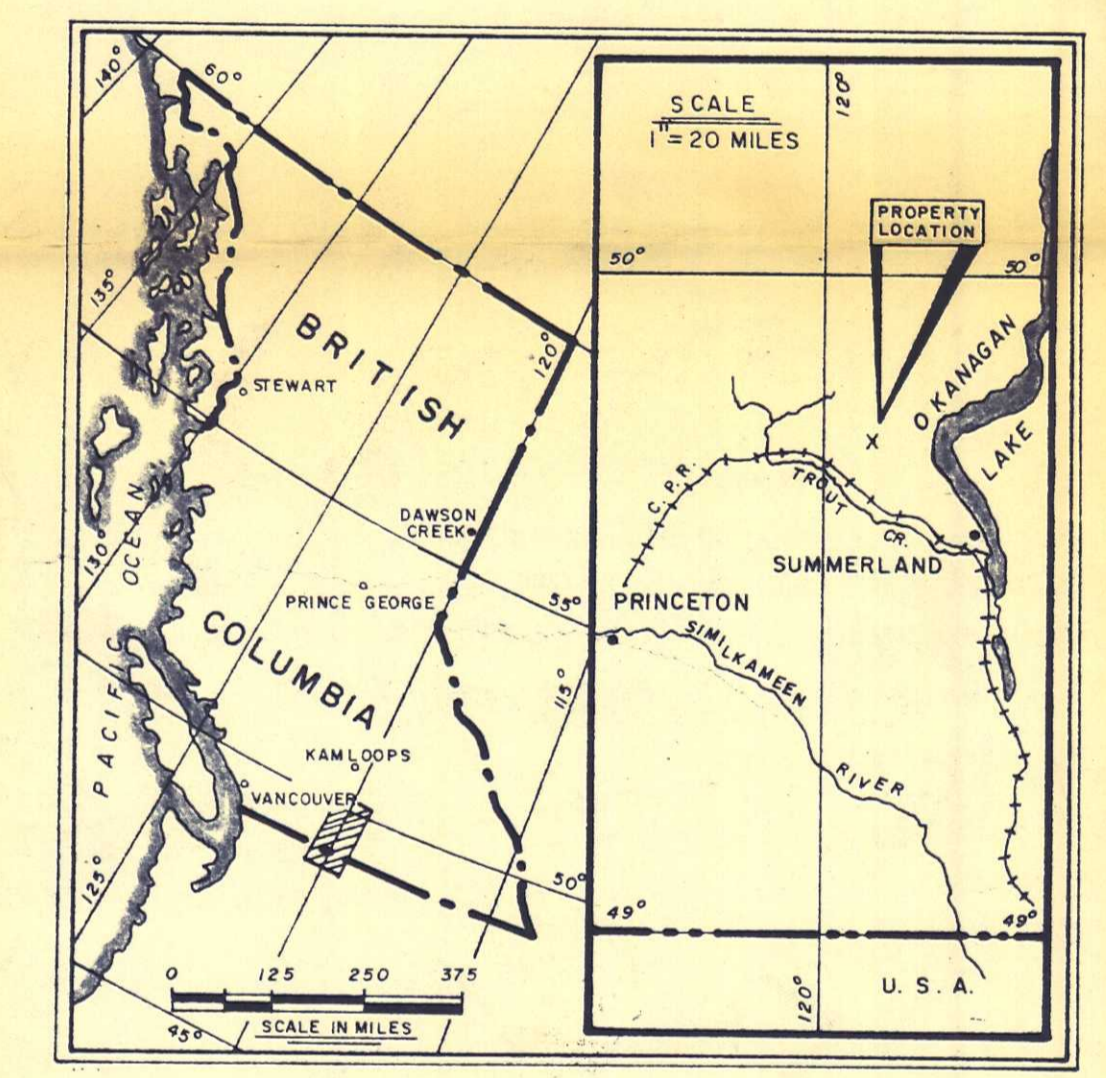




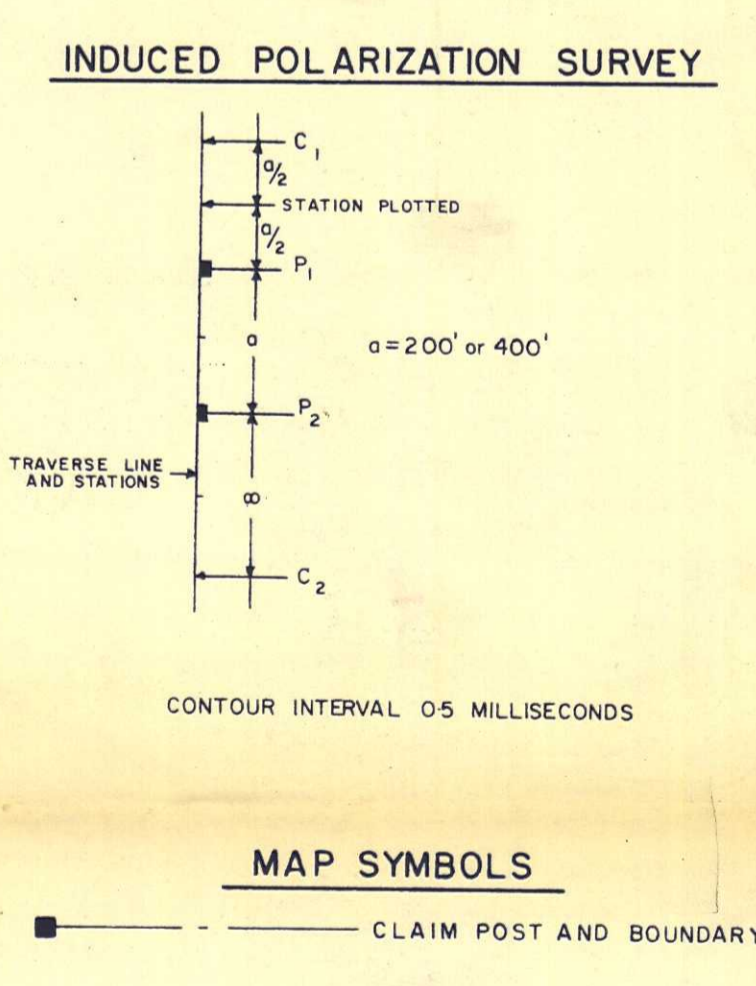
GEOLOGY

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

LOCATION MAP



LEGEND



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KERR ADDISON MINES LIMITED

BRENDA-OKANAGAN LAKES AREA, BRITISH COLUMBIA
OSOYOOS MINING DIVISION

INDUCED POLARIZATION SURVEY
APPARENT CHARGEABILITY

