

186

ELECTROMAGNETIC SURVEY

for

WESTERN COPPERADA MINING CORPORATION

COPPERADO PROPERTY

Merritt, B. C.

by

Shield Mining Surveys Limited.

February 28,
1957.

Ottawa,
Ontario.

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1380-82

INDEX

	<u>Page</u>
Introduction.....	1
Location and Access.....	1
Purpose of the Survey.....	2
Method of Survey.....	2
Discussion of Results.....	2
Significant Anomalies.....	4
Recommendations.....	5
Total Number of Pages.....	5

Plan showing Electromagnetic readings
and results..in pocket at back of re-
port.

#2 Plan of mineral claim in
vicinity of
" = 1,000 ft

#3 Plan of mineral claim
Location adjoining Lot 4841
Tussock M.C. Range
District and base lines for
see mineral survey
" = "Set"

ELECTROMAGNETIC SURVEY

for

WESTERN COPPERADA MINING CORPORATION

COPPERADO PROPERTY

Merritt, B. C.

Introduction-

The Copperado Property is comprised of one Crown granted mineral claim known as the Tarlight and further described as Lot No. 4841 in the Kamloops Land Division, and all the mineral rights on 31 surrounding mineral claims and 14 fractional mineral claims totalling approximately 1,600 acres, more fully described as follows: Claims Nos. J-4 to J-9 inclusive; R-56 to R59 inclusive; R68 to R71; P-60 to P-67 inclusive; A-1 to A-12 inclusive; Fractional Mineral Claims Nos. B-1 to B-14 inclusive. All claims were surveyed, with the exception of R-68 to R-71 inclusive, J-9, Fractions B-9 to B-12 inclusive, 1/2 of P-66 and 2/3 of J-5 and J-6.

Location and Access-

The Copperado Property is situated 11.5 miles north-east of Merritt, B.C. in the Nicola Mining Division. Merritt is served by a branch line of the Canadian Pacific Railroad, and by a first class highway from Vancouver, a distance of 233 miles. The property is easily accessible by highway from Merritt to Nicola and by secondary road from Nicola.

Purpose of the Survey-

The purpose of the survey was to detect sub-surface conductors of electricity on the claims listed above. Examples of such conductors are wet or mineralized shears, graphites, and sulphides.

Method of Survey-

In the present survey a vertical-loop, single phase electromagnetic unit was used. For this system of grid lines a conductor exists when the readings change from west to east angles while proceeding from the west. This change in the direction of the readings is known as a 'right-way cross-over', and this lies above the axis of the conductor. In the case of parallel conductors, the effect of one may overshadow the effect of another, resulting in a 'cross-over' over one and only a 'dip' or 'rise' in the magnitude of the readings in the vicinity of the other.

Points above the various conductors detected are indicated on the map by a solid heavy bar. In cases where there is doubt as to the existence of a conductor, a series of heavy dots is shown. Where these points appear to lie on a common conductor, they are joined by a dashed line which constitutes the conductor axis. If the presence of the conductor axis is much in doubt, question marks are shown.

Discussion of Results+

The results of the survey show that there are many conducting zones present on the Copperado Property, most of which are short contiguous and parallel conductors.

3

As is always the case with a multitude of short contiguous and parallel conductors, there is a superposition of effects from each making the exact location of the cross-over points hard to establish, and consequently it is difficult to establish a strike pattern. In this case, it is felt that the cross-over points are located with a reasonable degree of accuracy considering the nature of the problem. Also, underground geology established that the strike of the mineralized zones is approximately north 40 degrees west, corresponding closely to most of the conductor axes as shown on the accompanying map. Dips of the structures in the vicinity of the shaft are steeply to the northeast, and it would seem reasonable to assume that generally the dips would be high-angle.

With regard to the nature of the conductors, little that is definite can be said. Generally, the indications are those of weak conductors, but this by no means excludes the possibility that the conductors consist of commercial sulphides, such as is known to be the case in the shaft area. Furthermore, the structural implications of the survey would suggest that there is a good possibility that many of the conductors may resemble the ore bearing structure of the shaft area. In addition, several of the conductors coincide with topographical features which strongly imply shear zones, also found with the ore zone at the shaft.

Several of the conductors are worthy of investigation and are listed below. They were determined by the magnitude of

4

the associated readings and their persistences, which are about the only criteria usable in this case. It should be kept in mind that the magnitude of the readings for any conductor is dependent upon the distance between the transmitting and receiving coils, their positions relative to the conductor, the latter's depth and conductivity, and the presence of nearby zones. For example, one would expect larger readings for any particular conductor (of uniform depth and conductivity) along the line 1200 feet from the transmitting coil, rather than along the line 300 feet from the latter coil. On a relative basis for the area, a 10 degree reading on the 300 foot line would suggest a better (or more shallow) conductor than such a reading on the 1200 foot line.

Significant Anomalies Worthy of Investigation

- | | | | |
|------|-------------------------------------|---------------------|----------------|
| (1) | 33+00N, 5.50E to 45+00N, 7.75E - | Maximum readings at | 36+00N, 5+00E |
| | | | 39+00N, 6+00E |
| (2) | 21+00N, 1.80E to 45+00N, 2.80E - | " " " | 39+00N, 1+75 E |
| (3) | 42+00N, 4.25E to 45+00N, 5.80E - | " " " | 42+00N, 4+30E |
| (4) | 27+00N, 6.25E to 45+00N, 13.00E - | " " " | 27+00N, 6+25E |
| (5) | 0+00N, 19.00E to 21+00N, 10.75E - | " " " | 21+00N, 10+75E |
| | | | 6+00N, 17+50E |
| (6) | 30+00N, 13.80W to 51+00N, 8.75W - | " " " | 42+00N, 11+00W |
| (7) | 75+00N, 8.00W to 84+00N, 8.75W - | " " " | 81+00N, 8+75W |
| (8) | 69+00N, 17.50W to 75+00N, 19.25W - | " " " | 69+00N, 17+50W |
| (9) | 29+00N, 29.50E to 102+00N, 34.75E - | " " " | 87+00N, 30+50E |
| | | | 64+00N, 30+50E |
| (10) | 9+00N, 4.75E to 18+00N, 3.50E - | " " " | 18+00N, 3+50E |

5

It should be kept in mind that the anomalies above are but a few of the total number of anomalies found, but they are the most interesting at present and, therefore, work should commence on them. However, during the course of exploration, information relative to these anomalies and the electromagnetic results will be forthcoming, and this information can then be used as an aid in determining the probable worth of the other anomalies.

From the interpretation of the results of the present survey, it is tentatively estimated that there are 31 conducting zones on the property, and if each zone is continuously conductive, the approximate total length of conductor would be 33,000 feet. (See map).

Recommendations-

It is recommended that exploration work on the anomalies listed above be commenced. This work should include geological mapping, stripping and trenching, and diamond drilling, and should be started near the points of maximum readings (also listed above). Geochemical soil analysis at these points might also be useful.

Inasmuch as the structure appears to be dipping to the northeast, drill holes should be collared striking in a westerly direction, varying somewhat to be kept perpendicular to the strike of the anomaly being drilled.

SHIELD MINING SURVEYS LIMITED

John E. Betz
John E. Betz, M.A.
Geophysicist.

William L. Young
William L. Young, Ph. D.
Geologist.

C E R T I F I C A T E

I, William Lee Young, of Ottawa in the Province of Ontario, certify:

1. THAT I am a geologist and maintain an office at Ottawa, Ontario.
2. THAT I am a graduate of McGill University, Ph. D. 1953, and that I have been practising my profession as a geologist for four years.
3. THAT I have no direct or indirect interest whatsoever in the Mineral Claims covered thereby and referred to herein in the accompanying report on the Electromagnetic Survey for Western Copperada Mining Corporation, Copperado Property, Merritt, B. C., dated this 28th day of February, 1957, or expect any interest in the securities of the company that owns or may own this Mineral Claim Group
4. THAT the accompanying report is based on a survey conducted by personnel of Shield Mining Surveys Limited, interpretation of the results by Mr. John Betz, M. A., consulting geophysicist, and on a personal observation made during an 11 day visit to the property in January, 1957.

DATED this twenty-eighth day of February, A.D. 1957.




William Lee Young, Ph. D.
Geologist.

C E R T I F I C A T E

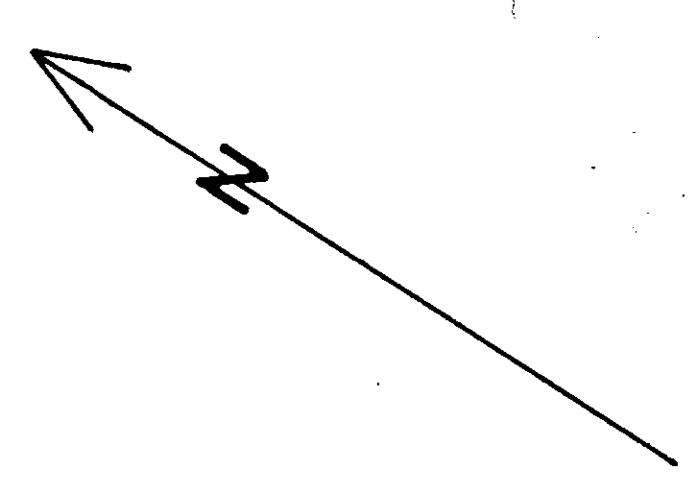
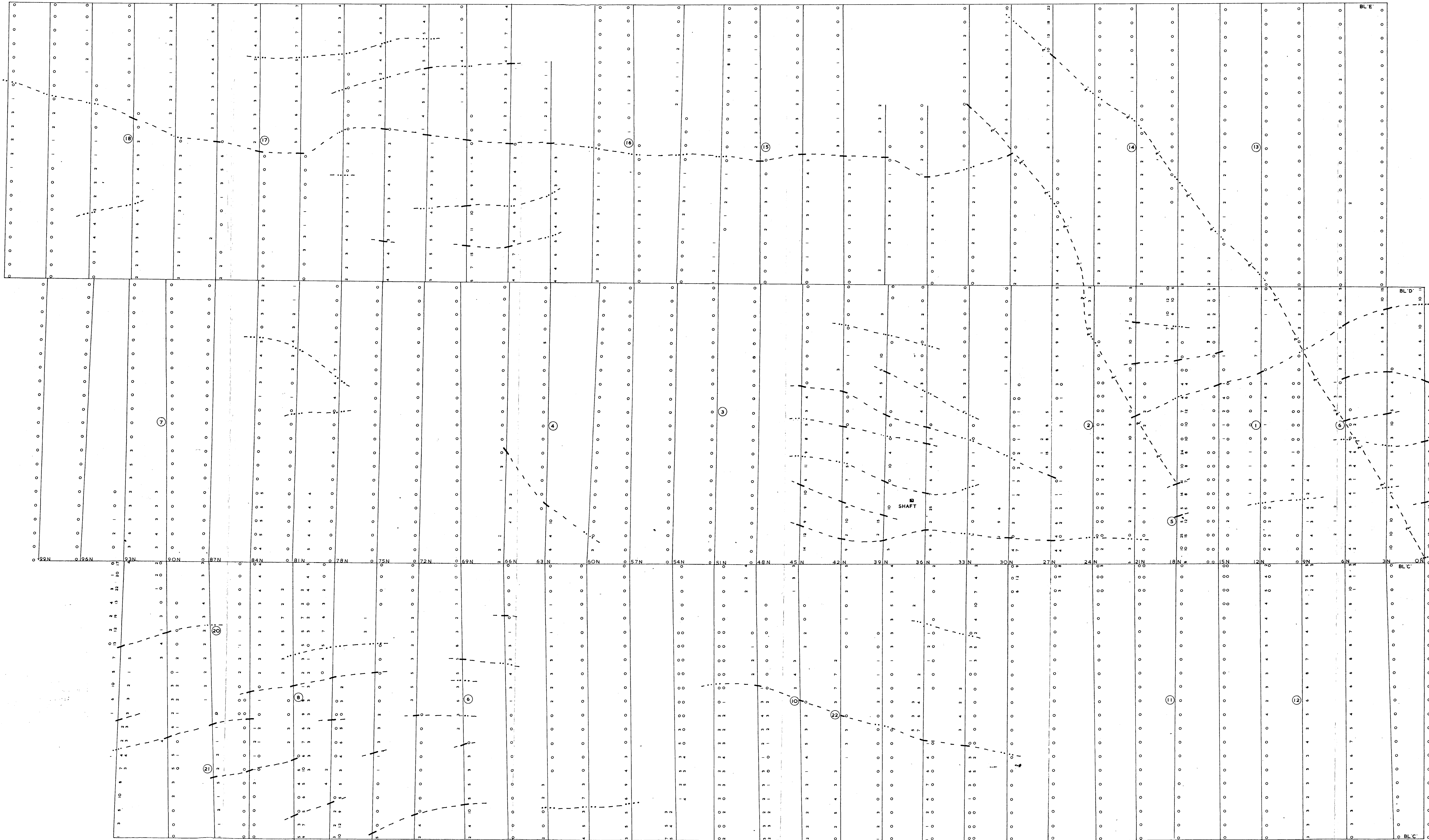
I, John E. Betz, of Chibougamau in the Province of Quebec, certify:

1. THAT I am a geophysicist and maintain an office at Chibougamau, Quebec.
2. THAT I am a graduate of the University of Toronto, B.A. (Physics and Geology), 1952, M.A. (Physics), 1954, and that I have been practising my profession as a geophysicist for ~~five~~ ^{7 1/2} years.
3. THAT I have no direct or indirect interest whatsoever in the Mineral Claims covered thereby and referred to herein the accompanying report on the Electromagnetic Survey for Western Copperado Mining Corporation, Copperado Property, Merritt, B. C., dated this 28th day of February, 1957, or expect any interest in the securities of the company that owns or may own this Mineral Claim Group.
4. THAT the accompanying report is based on field work done by personnel of Shield Mining Surveys Limited, whom I know to be competent, and my own interpretation of the results.

DATED this twenty-eighth day of February,
A. D. 1957.


John E. Betz, M. A.
Geophysicist.

WESTERN COPPERADA MINING CORPORATION
COPPERADO PROPERTY MERRITT B. C.



LEGEND

- ⊙ TRANSMITTER LOCATIONS
- CONDUCTOR AXIS
- - - POTENTIAL CONDUCTOR AXIS
- ↑ EAST ANGLES NORTH OF LINE
- ↓ WEST ANGLES SOUTH OF LINE

SCALE 1 INCH = 200 FEET
DATE FEBRUARY 27, 1957

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 186 #1

William C. Young, Ph.D.
Geologist
John E. Ross, M.A.
Geophysicist

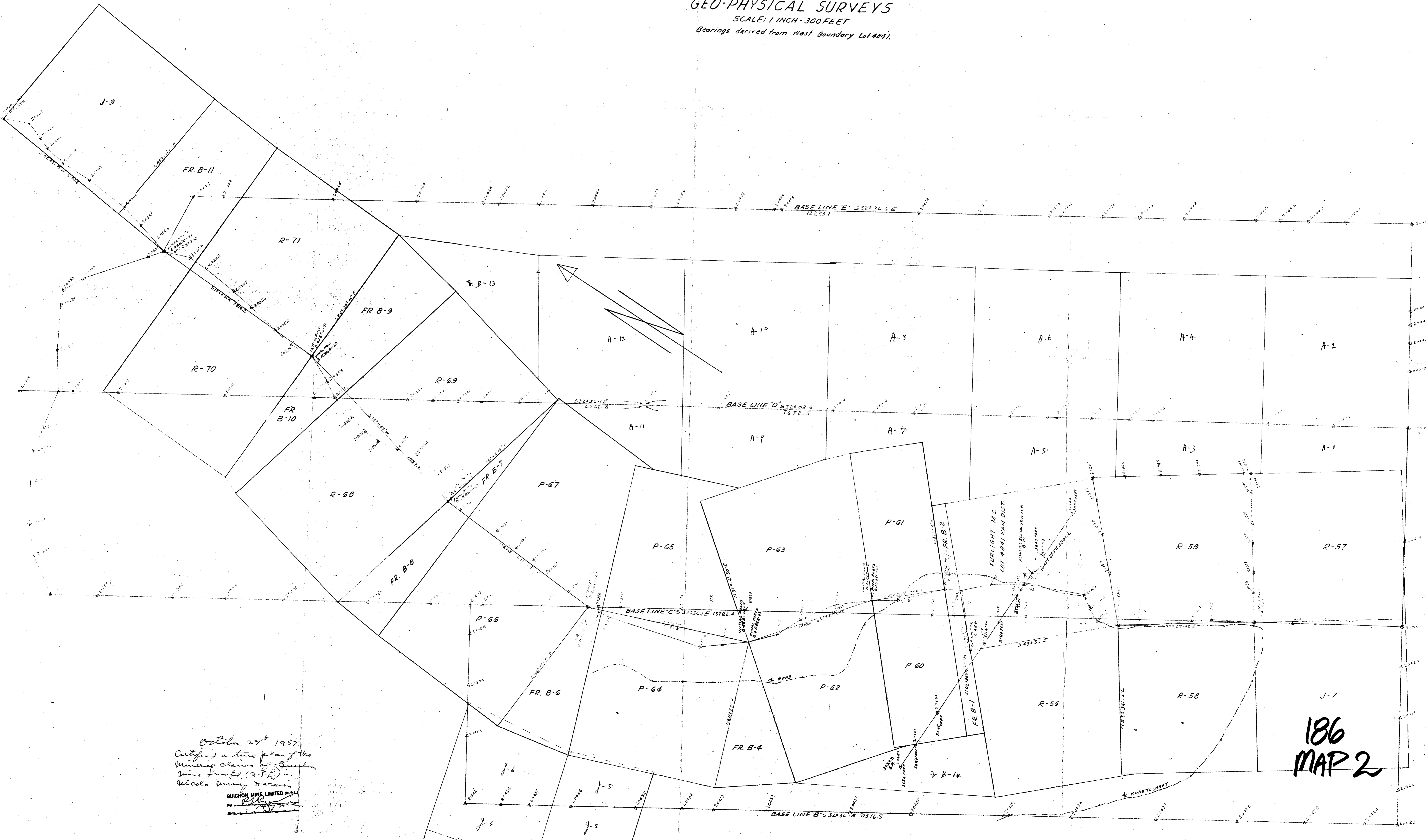
ELECTROMAGNETIC SURVEY
BY
SHIELD MINING SURVEYS LIMITED

7/53
T.K.

186
MAP 1

PLAN OF MINERAL CLAIM LOCATIONS
ADJOINING LOT 4841 TURLIGHT M.C.
KAMLOOPS DISTRICT AND BASE LINES FOR
GEO-PHYSICAL SURVEYS

SCALE: 1 INCH = 300 FEET
Bearings derived from West Boundary Lot 4841.



October 27th 1957.
Certified a true plan of the
mineral claims by Guichon
Mines Limited (M.P.R.) in
Nicola Mining Area.
GUICHON MINES LIMITED (M.P.R.)
P.L.G.

186
MAP 2

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **186** MAP **#3**

MINERAL CLAIMS IN NICOLA MINING DISTRICT

Guichon Mine Limited (N.P.L.)

Operated by

Western Copperada Mining Corporation

October 28th, 1957
Certified correct

Guichon Mine Limited (N.P.L.)

Per *R. L. Ryan*
Secy-treas.

"E" Base Line Bearing N. 32° 36' W.

"D" Base Line Bearing N. 32° 36' W.

"C" Base Line

"B" Base Line Bearing 32° N. 36' W.

Bearing E. 32° 36' N.

Scale:
1 inch - 1000 ft

186 MAP 3

