

GEOPHYSICAL REPORT

ON

MAXMIN EM, INDUCED POLARIZATION & RESISTIVITY SURVEYS

ON THE

CONGRESS PROPERTY

GOLD BRIDGE AREA

LILLOOET MINING DIVISION

BRITISH COLUMBIA

PROPERTY : Center is 6 km N30°E of Gold Bridge, B.C., on the north side of Carpenter Lake
: 50° 54' North Latitude
: 122° 47' West Longitude
: N.T.S. 92J/15W

OWNED BY : LEVON RESOURCES LTD.
‡1040-609 Granville Street
Vancouver, B.C., V7Y 1G5

WRITTEN FOR : CONGRESS OPERATING CORPORATION
‡1200-625 Howe Street
Vancouver, B.C., V6C 2T

WRITTEN BY : David G. Mark, Geophysi
GEOTRONICS SURVEYS LTD.
‡403-750 West Pender St
Vancouver, B.C., V6C 2T

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GEOTRONICS SURVEYS LTD.
Engineering & Mining Geophysicists
VANCOUVER, CANADA

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~~GEOLOGICAL BRANCH~~
ASSESSMENT REPORT

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SUMMARY

The MaxMin EM (horizontal loop), induced polarization and resistivity methods were tested across three mineral zones within the Congress property in April and May of 1985. The property is located 7 km N30°E of Gold Bridge, British Columbia, on the north side of Carpenter Lake. Access to much of the property is easily gained by a two-wheel drive vehicle. The terrain consists of gentle to moderate slopes forested with moderately dense coniferous trees. The purpose of the testing was to determine the feasibility of using these geophysical methods for locating zones of gold-antimony mineralization in areas of deep overburden.

The property is mostly underlain by late Paleozoic to early Mesozoic Bridge River group cherts, argillites and basalts that have been intruded by early Tertiary feldspar porphyry dykes along northeast to northwest-trending, steeply dipping shear zones. These have been altered by quartz and ankerite and mineralized with pyrite, arsenopyrite, stibnite and tetrahedrite containing gold values.

The IP and resistivity surveying was done with a dipole length of 25 m and with a dipole separation of up to 250 m. Some detailing was done with a dipole length of 12.5 m and with a dipole separation up to 62.5 m. The MaxMin EM was carried out with a receiver-transmitter separation of 100 m reading 5 different frequencies varying from 222 Hz to 3555 Hz. The IP and resistivity data have been presented in pseudo-section form and the EM data in profile form.

CONCLUSIONS

1. The induced polarization and resistivity methods seemed to respond to the three mineral zones tested, namely the Lou, Howard and Extension. The geophysics signature, in general, appeared to be a chargeability high that was probably reflecting sulphides correlating with a resistivity low that was probably reflecting alteration and shearing. In addition, the resistivity appeared to be reflecting, as a high, a porphyry dyke adjacent to each zone.

The MaxMin EM appeared to directly reflect only the Howard mineral zone.

2. The above described signature was not always clearcut in defining the zones. For example, the resistivity and IP profiles across the Howard zone were somewhat complex, and thus the dip of the zone was difficult to ascertain.
3. The detail profiles across the Lou zone defined the zone more accurately than the larger profiles. This was especially true of the resistivity profiles where the larger one did not respond to the porphyry dyke and yet the detail one did. If any further work is to be done, it may be preferable to use the smaller dipole length. It's problem, however, is a shallow depth extent.
4. A strong IP high and resistivity low on L-10+00N appears to be reflecting the southern extension of the Hangtree zone.
5. The surveys have located a few new zones that could be mineralized. As for the test zones, the geophysics signature

consists of an IP high with a resistivity low often correlating with MaxMin EM conductor. The ones of stronger potential are sub-outcropping at:

- a) 1+00W on the Extension test line and dipping east.
 - b) 0+65E on the Howard test line and dipping east.
 - c) 7+25E on L-10+00E and dipping east.
6. Many of the resistivity highs can be correlated to mapped porphyry dykes thus indicating that most of the highs are probably reflecting these dykes.
7. Almost all EM conductors correlate with a resistivity low.

RECOMMENDATIONS

It is in the writers opinion that IP-resistivity surveying is the best geophysical tool that can be used on the Congress property where deep overburden exists. However, there can be interpretation difficulties. This can be partly, and maybe mostly, overcome by careful geological mapping in detail along the profiles. It is therefore recommended to do this if it has not already been done, especially along line 10+00N.

It is also recommended to drill test the potential mineral zones mentioned under Conclusions, (#5), but not before any geological mapping has been done.

GEOPHYSICAL REPORT
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INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of horizontal loop MaxMin electromagnetic (EM), induced polarization (IP) and resistivity surveys carried out over the Congress property, April 27th to May 24th, 1985.

The surveys were carried out by Geotronics Surveys Ltd. under the field supervision of Andrew Rybaltowski, geophysicist, and assisted by Alain Charest, geophysical technician and Dan Cosgrove, helper.

The purpose of the work was to test the effectiveness of the above-named geophysical methods in responding to the mineralization as is known in three different zones.

On the Congress property the combination of VLF-EM and soil geochemical surveying has successfully indicated targets on which

subsequent trenching has exposed gold-silver-antimony mineralization in bedrock. However, these methods are effective only where shallow overburden exists and much of the property is covered by deep overburden. The horizontal loop EM, IP and resistivity methods can be used in deep overburden.

The mineralization on the Congress property occurs in north-south striking steeply dipping shear zones which are up to 15 m wide by 1,200 m strike length. These contain quartz veining in part and are mineralized in part by pyrite with gold, antimony, arsenic, copper, lead and zinc minerals.

PROPERTY AND OWNERSHIP

The property is situated in the Lillooet Mining Division and consists of Crown Grants, reverted Crown Grants grouped into mineral leases, and staked claims. The number of units total 79. The claims are shown on Map 2 and are described as follows:

<u>Claim Name</u>	<u>No Units</u>	<u>Record No</u>	<u>Claim Type</u>	<u>Expiry Date</u>
			M.L. #3	
Turner X 4	1	7247	Rev. C.G.	Dec. 18, 1985
Turner 2	1	7246	Rev. C.G.	Dec. 18, 1985
Turner 3	1	7245	Rev. C.G.	Dec. 18, 1985
Turner Fr.	1	7248	Rev. C.G.	Dec. 18, 1985
Ramsden 2	1	7252	Rev. C.G.	Dec. 18, 1985
Ramsden 1	1	7251	Rev. C.G.	Dec. 18, 1985
El Dorado	1	6618	Rev. C.G.	Dec. 18, 1985
			M.L. #8	
Doris	1	7240	Rev. C.G.	Oct. 26, 1985
Turner X 6 Fr.	1	7249	Rev. C.G.	Oct. 26, 1985
			M.L. #67	
R.R. 2	1	7250	Rev. C.G.	Sept. 23, 1985
Mac Fr.	1	7253	Rev. C.G.	Sept. 23, 1985
Mac 1 Fr.	1	7254	Rev. C.G.	Sept. 23, 1985
R.E. Fr.	1	7255	Rev. C.G.	Sept. 23, 1985
Stibnite 1	1	7236	Crown Grant	July 2, 1985
Stibnite 2	1	7237	Crown Grant	July 2, 1985
Stibnite 3	1	7238	Crown Grant	July 2, 1985
Stibnite 4	1	7239	Crown Grant	July 2, 1985

<u>Claim Name</u>	<u>No Units</u>	<u>Record No</u>	<u>Claim Type</u>	<u>Expiry Date</u>
David Fr.	1	7241	Crown Grant	July 2, 1985
Robert Fr.	1	7242	Crown Grant	July 2, 1985
Snowflake Fr.	1	7243	Crown Grant	July 2, 1985
Turner X 1 Fr.	1	7244	Crown Grant	July 2, 1985
Nap 1	16	98	Staked	May 30, 1993
Nap 3	1	100	Staked	May 30, 1993
Nap 4	1	101	Staked	June 9, 1993
Nap 5	6	1423	Staked	Aug. 25, 1993
Nap 6	1	1424	Staked	Aug. 25, 1993
Nap 7	4	1630	Staked	Nov. 28, 1993
Nap 8	4	1641	Staked	Dec. 22, 1993
Nap 9	4	1686	Staked	Mar. 11, 1993
Nap 10 Fr.	1	1687	Staked	Mar. 11, 1993
Nap 11 Fr.	1	1783	Staked	May 26, 1993
Poppy	1	2189	Staked	Nov. 12, 1993
Minto Ext.	4	2720	Staked	Feb. 14, 1993
Ace 16 Fr	1	21792D	Staked	Apr. 25, 1993
Ace 17	1	21793D	Staked	Apr. 25, 1993
Ace 18	1	21794D	Staked	Apr. 25, 1993
Ace 19 Fr.	1	21795D	Staked	Apr. 25, 1993
Ace 20	1	21796D	Staked	Apr. 25, 1993
Ace 22	1	22024M	Staked	Sept. 14, 1993
Ace 23	1	22025M	Staked	Sept. 14, 1993
Ace 24	1	22026M	Staked	Sept. 14, 1993
Ace 25 Fr.	1	22027M	Staked	Sept. 14, 1993
Ace 26 Fr.	1	22028M	Staked	Sept. 14, 1993
Ace 27 Fr.	1	22029M	Staked	Sept. 14, 1993
Ace 28	1	22030M	Staked	Sept. 14, 1993
Pot Fr.	1	2223	Staked	June 6, 1993
Kettle Fr.	1	2223	Staked	June 6, 1993

This report will be submitted for assessment credits but none of the expiry dates take into account the report as being accepted for assessment credits.

The property is owned by Levon Resources Ltd. who is optioning 50% of it to Veronex Resources Ltd. Both companies are of Vancouver, British Columbia.

LOCATION AND ACCESS

The property is located on the north side of Carpenter Lake, the center of which is 6 km N30°E of Gold Bridge, B.C., at 50° 54' north latitude and 122° 48' west longitude.

The property occurs on the Gold Bridge/Lillooet road about 7 km from Gold Bridge and 93 km from Lillooet. In addition, access roads occur throughout the property where 4-wheel drive is recommended.

PHYSIOGRAPHY

The Gold Bridge area is situated in the Pacific Ranges, a physiographic unit of the Coast Mountains, which reach elevations of 2,400 to 2,800 m a.s.l.

The property itself lies on the north side of the Carpenter Lake valley. Terrain is gentle to moderate with relief of only 380 m from 653 m at Carpenter Lake to 1,033 m on a hill within the center of the property.

The main water source is Carpenter Lake. Other sources are the two Plateau Ponds, the Pearson Pond, Gun Creek flowing southeasterly through the property, and Lajoie Creek which is a tributary of Gun Creek flowing northeasterly through the northern part of the property.

Forest cover is moderately dense, consisting of Douglas fir, spruce and hemlock. Underbrush is quite light.

HISTORY

The following is quoted from Cooke's April, 1985 report on the property.

"Originally staked in 1913, the Congress prospect was relocated in 1915, an 85 foot adit was driven and 800 tons of antimony ore were shipped for metallurgical testing. From 1934 to 1937, Congress Gold Mines Ltd. developed the No. 1, 2 and 3 adits on the Congress vein and shipped 500 tons of gold ore for metallurgical testing. Between 1945 and 1947, Sheep Creek Gold Mines Ltd. sank an inclined shaft and developed the No. 4, 5 and 6 levels and by 1950 had extended No. 3 level to the Hangingwall vein.

"The discovery of the Howard vein in 1959 prompted Bralorne-Pioneer Mines Ltd. to work the property from 1960 to 1963, resulting in the discovery of the Paul, Silver, Footwall and Bluff veins and the development of two raises in the Congress workings. In 1965, Metal Mines Ltd. and Rayrock Mines Ltd. explored the Paul zone after which the property fell dormant until New Congress Resources Ltd. discovered and explored the New and Howard veins between 1977 and 1980 developing the Howard adit. Veronex Resources Ltd. currently hold an option agreement with Levon Resources Ltd. whereby they must spend \$1,000,000 in exploration to earn a 47.5% net interest in the Congress property."

Recent work has consisted of soil sampling, geological mapping, VLF-EM surveying and magnetic surveying as well as diamond drilling and extensive trenching. This work has extended much of the known mineralization as well as making a significant new discovery known as the Lou Zone.

GEOLOGY

The following is quoted from Cooke's April, 1985 report.

(A) Regional Geology

"The Bridge River District lies at the western margin of the Intermontaine Belt of volcanic and sedimentary rocks where it abuts against the Coast Plutonic Complex of plutonic and metamorphic rocks (Table 2). Triassic oceanic sediments and eugeoclinal volcanics (Bridge River and Cadwallader Groups) are intruded by pre-tectonic plutons of intermediate composition (Bralorne Intrusions) and faulted against ophiolitic ultramafic intrusions (President Intrusions).

"Jurassic and Cretaceous miogeoclinal sediments and volcanics (unnamed, Taylor Creek and Kingsvale Groups are successively intruded by Cretaceous and Tertiary syn- to post-tectonic plutons of felsic composition (Coast Range, porphyry dikes and Bendor intrusions) and finally overlain by Tertiary intermediate and mafic volcanics (Rexmount porphyry and Plateau basalt).

(B) Property

"Congress property is underlain by cherty sediments and basaltic volcanics of the Mississippian to Triassic Bridge River Group, intruded by Tertiary feldspar porphyry dikes and crosscut by numerous shear zones that carry gold, silver and antimony mineralization (Table 2). Lithologies include bedded grey chert, with minor sheared black argillite, green siltstone, grey limestone and rusty serpentinite, and pillowed green basalts, with minor purple basalt, green tuff and massive green gabbro.

"Late dikes are feldspar porphyries with minor feldspar-horn-

blende porphyry and fine grained aplite. Three main fault sets can be identified; 1) early, Triassic? thrust faults within the Bridge River Group, 2) mineralized, Tertiary? shear zones crosscutting the Bridge River Group, and 3) late, Tertiary? strike-slip faults extending regionally through the Bridge River area.

(C) Mineralization

"The strata strike north to northwest and dip steeply west, crosscut by northeast- to northeast-trending, west-dipping shear zones up to 45 ft. wide (average 15 ft. wide). Narrow quartz veins up to 1 ft. wide (average 1 in. wide) follow the shears and carry disseminated to banded pyrite, arsenopyrite, tetrahedrite and stibnite assaying high grade gold (1.0 oz/ton Au).

"Quartz-ankerite alteration and disseminated sulfide mineralization surround the shears up to 30 ft. wide (average 10 ft. wide) and run ore grade gold (0.3 oz/ton Au). Massive stibnite-quartz veins, with disseminated tetrahedrite and kermesite, crosscut other veins and replacements and carry low grade gold (0.1 oz/ton Au) but moderate grade silver (1.0 oz/ton Ag) and high grade antimony (1% Sb)."

MAXMIN ELECTROMAGNETIC SURVEY

(A) Instrumentation and Theory

A MaxMin II portable 2-man electromagnetometer, manufactured by Apex Parametrics Ltd. of Toronto, Ontario was used for this survey. This instrument is designed for measuring the electromagnetic field which results from a conductive body; that is a structure which conducts electricity better than barren rock-types do. This particular instrument has the advantage of flexibility over most other EM units in that it can operate with dif-

ferent modes and frequencies as well as having a variety of distances between transmitter and receiver. Five frequencies can be used (222, 444, 888, 1777 and 3555 Hertz) and six different coil separations (25, 50, 100, 150, 200 and 250 meters).

In all electromagnetic prospecting, a transmitter induces an alternating magnetic field (called the primary field) by having a strong alternating current move through a coil of wire. This primary field travels through any medium and if a conductive mass such as a sulphide body is present, the primary field induces a secondary alternating current in the conductor and this current in turn induces a secondary magnetic field. The receiver picks up the primary field and, if a conductor is present, the secondary field. The fields are expressed as a vector which has two components, the in-phase (or real) component and the out-of-phase (or quadrature) component. The results are expressed as the percent deviation of each component from what the values would be if no secondary field (and therefore no conductor) was present.

Since the fields lose strength proportionally with the distance they travel, a distant conductor has less of an effect than a close conductor. Also, the lower the frequency of the primary field, the further the field can travel and therefore the greater the depth penetration.

The MaxMin II EM unit can vary the strength of the primary field and so use different separations between transmitter and receiver coils, change the frequency of the primary field for varying depth penetrations, and use three different ways of orienting the coils to duplicate the survey in three styles so that more accuracy is possible in the interpretation of the data.

The use of the MaxMin II electromagnetometer allows for better

discrimination between low conductive structures such as clay beds and barren shear zones and more conductive bodies like massive sulphide mineralization. It also gives several different types of data over a given area so that statistical analysis can result in less error in the interpretation.

(B) Survey Procedure

The separation between the transmitter and receiver was 100 m. Since the survey area was quite hilly, the station interval was corrected so that the slope distance between transmitter and receiver was measured to an accuracy of $100 \text{ m} \pm 0.3 \text{ m}$. Readings were taken every 25 m, except where the EM field changed rapidly, then the readings were taken every 12.5 m.

The receiver operator read and recorded the in-phase and out-of-phase responses. Also, calibration and phase mixing tests were conducted three times a day and the appropriate corrections made when necessary.

Two frequencies were read by the receiver operator, a low frequency of 222 Hz and a high frequency of 1777 Hz. Where anomalous readings were encountered all five frequencies were read (222, 444, 888, 1777, and 3555 Hz).

A total of 1.44 km of electromagnetic survey was carried out.

(C) Compilation of Data

The in-phase data and the out-of-phase data of two frequencies, 222 Hz and 1777 Hz were profiled on Map 3 at a horizontal scale of 1:2,500. The plotting point is taken at the mid-point between the transmitter and the receiver. The vertical scale used for both the in-phase and out-of-phase data was $1 \text{ cm} = 5\%$.

Quantitative interpretation was carried out wherever anomalous readings (and thus, conductors) were encountered. In these areas, all 5 frequencies were plotted at an exaggerated vertical scale in order to facilitate comparison and curve matching with type-curves. These plots were strictly working copies and therefore are not given as part of this report. Type-curves are produced either by computer models or actual scale models tested under laboratory conditions. The type-curves used were those published by the Geological Survey of Finland. The quantitative interpretation included:

- (1) the location of the top of the conductor,
- (2) the depth to the top of the conductor,
- (3) the dip of the conductor, and
- (4) the conductivity-thickness of the conductor.

Conductivity-thickness is always described as a product since a poorly conductive, thick conductor can give the same EM profile as a highly conductive, thin conductor.

The EM-mapped conductors have been divided into two classes, definite conductors, and possible conductors. Often, very little quantitative information can be interpreted from the possible conductors, usually because of noise problems.

(D) Interpretation Pitfalls

One of the main problem with EM surveying is conductive overburden which, however, is minimal on the Congress property. If the overburden thickness is uniform, then the problem is minimized. The conductive overburden (or conductive host rock) causes the in-phase and out-of-phase profiles to separate from each other and away from the zero line as well as alters the amplitude of the negative peak for both the in-phase and out-of-phase. One

therefore moves the zero line to correlate with the background reading of the in-phase profile and/or the out-of-phase profile and then uses special quantitative interpretation procedures.

More difficult problems are produced, however, if the thickness of the conductive overburden undulates, or if there exists a buried bedrock trough, or ridge. This can produce an EM profile similar in shape to that over a normal conductor. However, this feature will become minimal at lower frequencies, and, therefore, this type of "false conductor" can be sorted out.

The dip of the conductor is probably the most difficult piece of information to interpret from the EM profiles. The major cause is non-uniform conductive overburden which tends to affect the shape (from which the dip is taken) of the EM profile over a conductor. Another cause of the problem is 2 closely spaced conductors so that one affects the shape of the other.

Another problem is geological noise which is produced from such features as faults, fracture zones, contacts, and graphitic horizons. This can also affect the shape of the EM profile over a conductor.

INDUCED POLARIZATION-RESISTIVITY SURVEY

(A) Instrumentation

The transmitter used for the induced polarization-resistivity work was a Model IPT-1, manufactured by Phoenix Geophysics Limited of Willowdale, Ontario. It was powered by a 2.0 km motor generator, Model MG-2, also manufactured by Phoenix.

The receiver used was the Hunttec Mark IV. This is state-of-the-art equipment, with software-controlled functions, programmable

through the front panel.

The system is capable of measuring I.P. in the time domain and frequency domain.

(B) Induced Polarization Theory

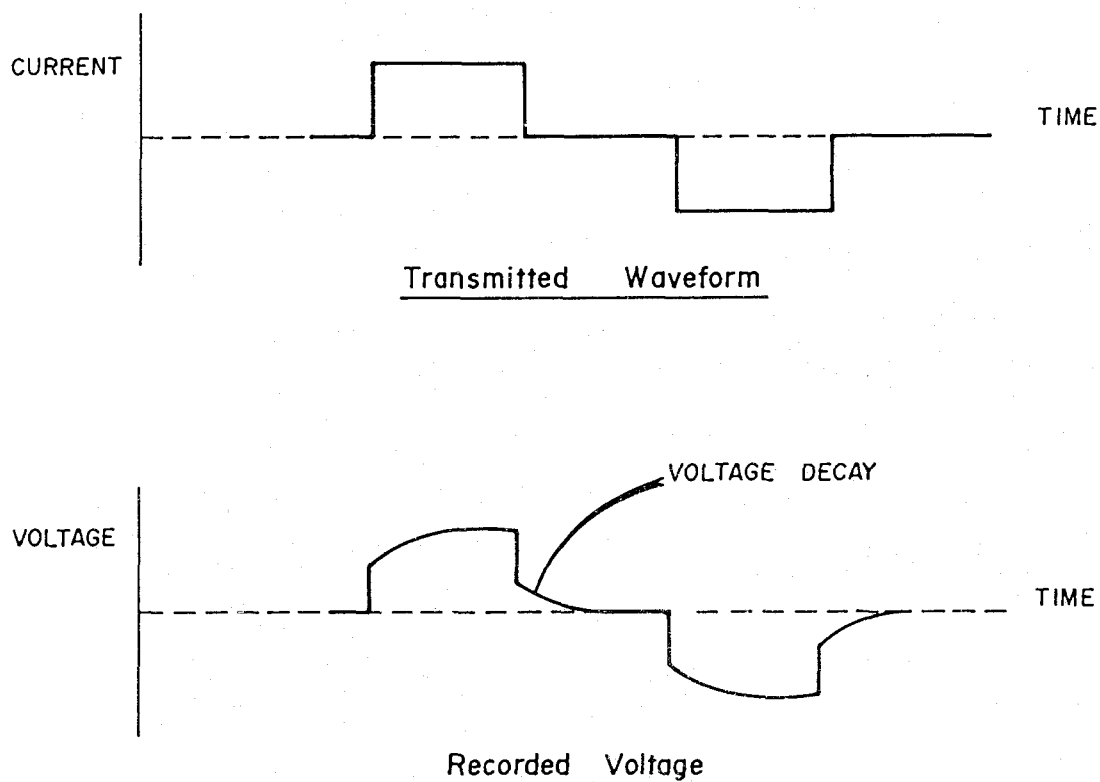
When a voltage is applied to the ground, electrical current flows, mainly in the electrolyte-filled capillaries within the rock. If the capillaries also contain certain mineral particles that transport current by electrons (most sulphides, some oxides and graphite), then the ionic charges build up at the particle-electrolyte interface, positive ones where the current enters the particle and negative ones where it leaves. This accumulation of charge creates a voltage that tends to oppose the current flow across the interface. When the current is switched off, the created voltage slowly decreases as the accumulated ions diffuse back into the electrolyte. This type of induced polarization phenomena is known as electrode polarization.

A similar effect occurs if clay particles are present in the conducting medium. Charged clay particles attract oppositely-charged ions from the surrounding electrolyte; when the current stops, the ions slowly diffuse back to their equilibrium state. This process is known as membrane polarization and gives rise to induced polarization effects even in the absence of metallic-type conductors.

Most IP surveys are carried out by taking measurements in the "time-domain" or the "frequency-domain".

Time-domain measurements involve sampling the waveform at intervals after the current is switched off, to derive a dimensionless parameter, the chargeability, "M" which is a measure of the

strength of the induced polarization effect. Measurements in the frequency-domain are based on the fact that the resistance produced at the electrolyte-charged particle interface decreases with increasing frequency. The difference between apparent resistivity readings at a high and low frequency is expressed as the percentage frequency effect, "PFE".



(C) Resistivity Theory

The quantity, apparent resistivity, , computed from electrical survey results is only the true earth resistivity in a homogenous sub-surface. When vertical (and lateral) variations in electrical properties occur, as they always will in the real world, the apparent resistivity will be influenced by the various layers, depending on their depth relative to the electrode spacing. A single reading cannot therefore be attributed to a particular depth.

The ability of the ground to transmit electricity is, in the absence of metallic-type conductors, almost completely depending on the volume, nature and content of the pore space. Empirical relationships can be derived linking the formation resistivity to the pore water resistivity, as a function of porosity. Such a formula is Archie's Law, which states (assuming complete saturation) in clean formations:

$$\frac{R_o}{R_w} = \phi^{-2}$$

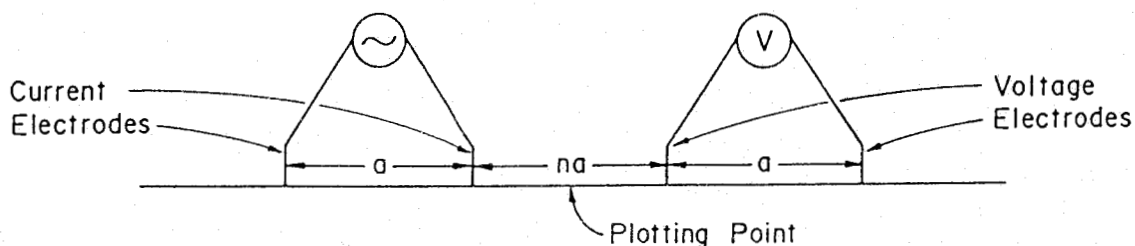
Where: R_o is formation resistivity
 R_w is pore water resistivity
 ϕ is porosity

(D) Survey Procedure

The IP and resistivity measurements were taken in the time-domain mode using an 8-second square wave charge cycle (2-seconds positive charge, 2-seconds off, 2-seconds negative charge, 2-seconds off). The delay time used after the charge shuts off was 450 milliseconds and the integration time used was 600 milliseconds divided into 10 windows.

The configuration used in the field was the dipole-dipole array shown as follows:

DIPOLE-DIPOLE ARRAY



The survey parameters varied from line to line and thus they are given in table form as follows:

Line	Dipole Length (a)	na	Dipole Separation	Depth Penetration
Lou	25 m	1 to 10	25 to 250 m	150 m
Lou (detail)	12.5 m	1 to 5	12.5 to 62.5 m	35 m
Extension	25 m	1 to 10	25 to 250 m	150 m
Howard	25 m	1 to 9	25 to 225 m	120 m
10+00N	30 m	1 to 3	30 to 90 m	65 m

This depth penetration is theoretical and depends not only on the 'na' spacing but also on the ground resistivity.

The dipole-dipole array was chosen because of its symmetry. Non-symmetrical arrays such as pole-dipole present interpretational difficulties.

Stainless steel stakes were used for current electrodes. The potential electrodes were comprised of metallic copper in a copper sulphate solution, in non-polarizing, unglazed, porcelain pots. In order to ensure that the current stakes had a good electrical contact with the ground, the 1-meter ash layer that occurs throughout the Gold Bridge area often had to be dug through.

(E) Compilation of Data

The chargeability values are read directly from the instrument and no data processing is therefore required prior to plotting. The resistivity values are derived from current and voltage readings taken in the field. These values are combined with the

geometrical factor appropriate for the dipole-dipole array, to compute the apparent resistivities. This was done in the field with an HP-45C memory calculator as the survey was progressing.

The resistivity data were plotted in pseudosection form along the five plotted topographical profiles on map nos. 4 to 8, respectively, at a scale of 1:1,000. They were plotted at a 45° angle from the location of the current dipole and the potential dipole and in such a way as to minimize topographical effects. The resistivity data were contoured at a 100 ohm-meter contour interval up to the 1,000 ohm-meter level from whence it was contoured at a 500 ohm-meter interval.

The chargeability data were plotted and contoured on the same topographic profiles and in the same manner as that for the resistivity data as shown on maps 4 to 8, respectively, and subsequently contoured at a 2 or 5 millisecond interval.

A plan showing the location of the survey lines at a scale of 1:25,000 has been drawn on Map #3.

MAGNETIC SURVEY

Magnetic testing was carried out on the test lines as well to determine the effectiveness of the vertical gradient method. A Scintrex MP-2 proton magnetometer was used. It was decided not to give the data in this report since the magnetic field was quite flat across the different zones. That is, the vertical gradient method was not effective at all in responding to the mineral zones and/or the Tertiary porphyry dykes associated with them.

DISCUSSION OF RESULTS

(A) General Comments

The MaxMin EM has definitely responded to various conductive zones but the best that can be said about them is that they are possible conductors. This is more a definition of how strong the conductor is and how well the EM responds to it than whether a conductor actually exists. This is confirmed by the fact that in almost all cases the possible conductor correlates very well with a resistivity low, thus verifying its existence.

Because the EM responses are somewhat weak, very little quantitative interpretation, such as depth to top and dip of the conductors, was gained from the curves.

(B) Lou Test Line

The detail profile (dipole length - 12.5 m) shows a correlating IP high and resistivity high that sub-outcrops at 0+30W and dips to the east, perhaps at 45°. It would appear that the resistivity high is reflecting the Tertiary porphyry dykes and that the IP high is reflecting sulphides within the dyke.

The IP results on the main profile (dipole length - 25 m) verifies the detail profile but shows a greater depth extent weakening at about 100 m depth. The resistivity results on the main profile do not show the high because of the larger dipole length and the low contrast of the high with the adjacent low values.

A resistivity low occurs east of the IP high/resistivity high and is thus undoubtedly a response to the shear zone and mineralization. The detail profile, however, does not appear to show much depth extent (30 m) but this is rather inconclusive since

the detail profile does not extend enough to depth.

The main resistivity profile, however, shows the low extending horizontally from 0+50W to 0+50E and then to depth dipping to the east about 45°. An EM conductor correlates with that part of the low going to depth at 0+50E. The depth extent of the low where it is horizontal is inconclusive since it grades into a high with depth.

It is difficult to say what the causative source of the broad resistivity low is but the evident suggests that there is more than one. As mentioned above, the low around 0+00 is probably caused by the mineralization (probably mostly the alteration and shear zone associated with it). The low around 0+50E, partly because of the EM correlation, appears to be caused by a separate shear zone, fault and/or the lithological contact between chert sediments to the east and basalt volcanics to the west.

The MaxMin results also show a conductor at about 1+25E. The IP-resistivity work did not extend far enough east to verify this.

On the extreme west end of the resistivity profile occurs another correlating IP high and resistivity high. It appears to sub-outcrop at 1+75W but the resistivity results suggest the possibility of it sub-outcropping as far east as 1+00W.

(C) Howard Test Line

The resistivity and IP profiles across this test line are quite complex suggesting the geology is also complex. The contouring of the data on both profiles suggest the various geological features are dipping to the east but there also is evidence that some dip to the west.

The IP response across the whole profile is quite strong suggesting wide-spread pyritization. The only real background levels occur at surface from 0+25E to 1+00E. Further profiling to the east and to the west may have reached background levels further away from the mineral zone.

The Howard zone is reflected by an IP high correlating with a resistivity low and a MaxMin EM conductor. The IP and resistivity data at surface suggests that the zone dips to the west. But at depth the picture is somewhat conflicting. The dip may continue to the west or it may change to the east.

Another interesting feature is the occurrence of a conductor at 0+75E. On the surface the resistivity data shows a high, and the IP, a low, therefore suggesting, perhaps, a capping of Tertiary volcanics. However, at about a 50 m depth, exists a resistivity low and correlating IP high that correlates directly with the EM conductor. Also the MaxMin EM data shows an increased conductivity-thickness product with depth. Taking all data into consideration, it appears the causative source strikes easterly. Considering the close similarity of this geophysics signature with that over the Howard zone, there is a strong possibility that it represents a previously undiscovered mineral zone.

An IP high and correlating resistivity high exists on the western edge of the profile. The causative source is likely a dyke mineralized with sulphides. It appears that it sub-outcrops at about 1+15W and dips to the east. However, the resistivity profile also suggests a dyke sub-outcrops at 0+60W and dips to the west. Possibly this is associated with the Howard zone. Further work to the west would help clarify the interpretation.

(D) Extension Test Line

The main mineral zone appears to be reflected by a resistivity low dipping to the west. There is some correlation with the IP

results, especially at depth below 0+50W. Both profiles suggest it sub-outcrops between 0+00 and 0+25E.

A much stronger resistivity low correlating with a strong IP high sub-outcrops between 0+75W and 1+00W and dips to the east. It appears this zone crosses the Extension zone. The MaxMin EM shows a conductor at 0+50W which thus may be reflecting the same zone, but at depth.

Sub-outcropping at 0+25E is a resistivity high dipping to the east. It is probably reflecting a Tertiary volcanic dyke.

To the immediate east is a resistivity low correlating with an EM conductor and dipping to the east. The causative source could easily be a mineralized shear zone.

(E) Line 10+00N

The strongest feature on this profile is a strong IP high correlating with a resistivity low and an EM conductor. The dip of the causative source is to the west. The indication is that it is the southern extension of the Hangtree zone.

To the immediate east is a resistivity high that is probably reflecting a porphyry dyke.

The center of two IP highs correlating with resistivity lows and MaxMin EM conductors on the third level below 2+35E and 3+25E. Further profiling to depth could increase the exploration potential of these two geophysical features.

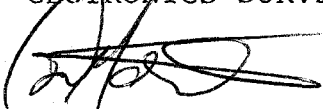
A strong resistivity high correlating with a moderate IP high centers at 4+90E and dips to the west. This geophysical signature is undoubtedly caused by a mapped Tertiary porphyry dyke

that is probably unaltered. Another mapped porphyry dyke at about 3+25E is reflected by a moderate resistivity high. This suggests other resistivity highs are reflecting porphyry dykes, such as are located at 1+15E, 3+85E and 6+70E.

To the immediate east of the resistivity high at 6+70E is a fairly strong low that correlates with a MaxMin EM conductor and at depth with an IP high. The geophysics signature strongly suggests the possibility that the causative sources is a mineral zone.

The MaxMin EM revealed two other conductors that are not mentioned above and that correlate with a resistivity low either at the second or third level. They are located at 3+70E and 4+90E.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.



David G. Mark,
Geophysicist

July 4, 1985

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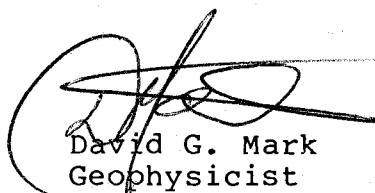
GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices located at #403-750 West Pender Street, Vancouver, British Columbia.

I further certify:

1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
2. I have been practising my profession for the past 17 years and have been active in the mining industry for the past 20 years.
3. I am an active member of the Society of Exploration Geophysicists and a member of the European Association for Exploration Geophysicists.
4. This report is compiled from data obtained from MaxMin EM and induced polarization-resistivity surveys carried out by a crew of Geotronics Surveys Ltd., under my supervision during the period of April 27th to May 4th, 1985.
5. I do not hold any interest in Levon Resources Ltd., in Veronex Resources Ltd. nor in any of their properties nor do I expect to receive any interest as a result of writing this report.


David G. Mark
Geophysicist

July 4, 1985

AFFIDAVIT OF EXPENSES

This is to certify that I have caused a MaxMin II EM (horizontal loop) survey and an induced polarization-resistivity survey (from April 27th to May 4th, 1985) to be done over a portion of the Congress Property located on the north side of Carpenter Lake, 6 km N30°E of the village of Gold Bridge within the Lillooet Mining Division to the value of the following:

FIELD: (including mob - demob)

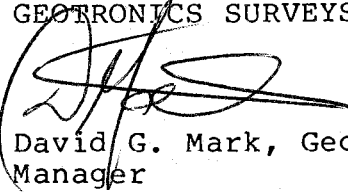
3-man crew, including geophysicist, 8 days at \$800/day	\$ 6,400
Room and board	1,355
IP-Resistivity instrument rental, 8 days at \$300/day	2,400
MaxMin EM instrument rental, 8 days at \$60/day	480
4X4 truck rental, 8 days at \$110/day	880
Survey supplies	50
	<u>\$ 11,565</u>

OFFICE:

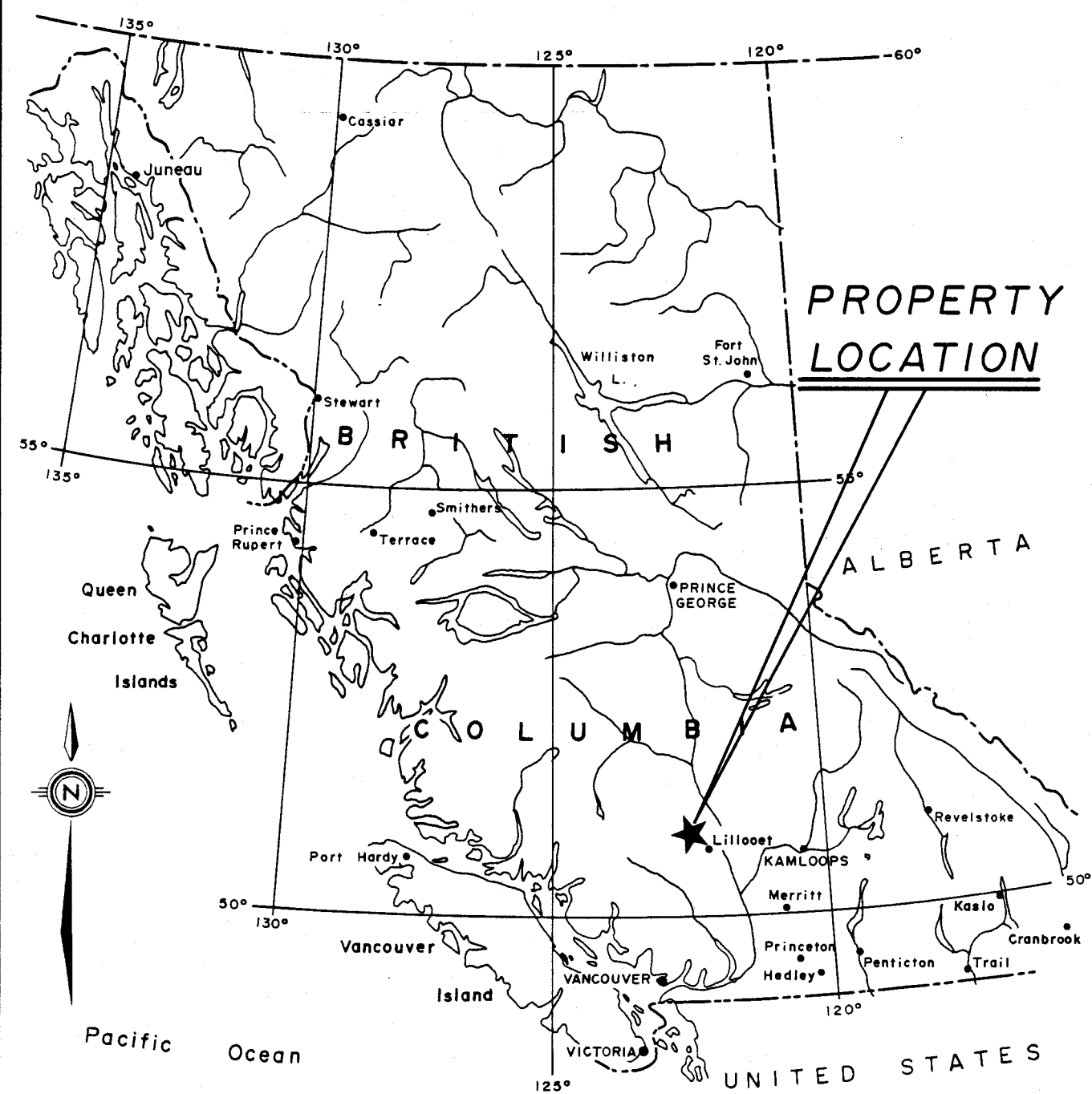
Senior Geophysicist, 20 hours at \$40/hour	\$ 800
Junior Geophysicist, 20 hours at \$30/hour	600
Geophysical technician, 15 hours at \$25/hour	250
Drafting and printing	500
Typing, compilation and photocopying	200
	<u>\$ 2,350</u>

Grand Total	<u><u>\$ 13,915</u></u>
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Respectfully submitted,
GEOTRONICS SURVEYS LTD.


David G. Mark, Geophysicist
Manager

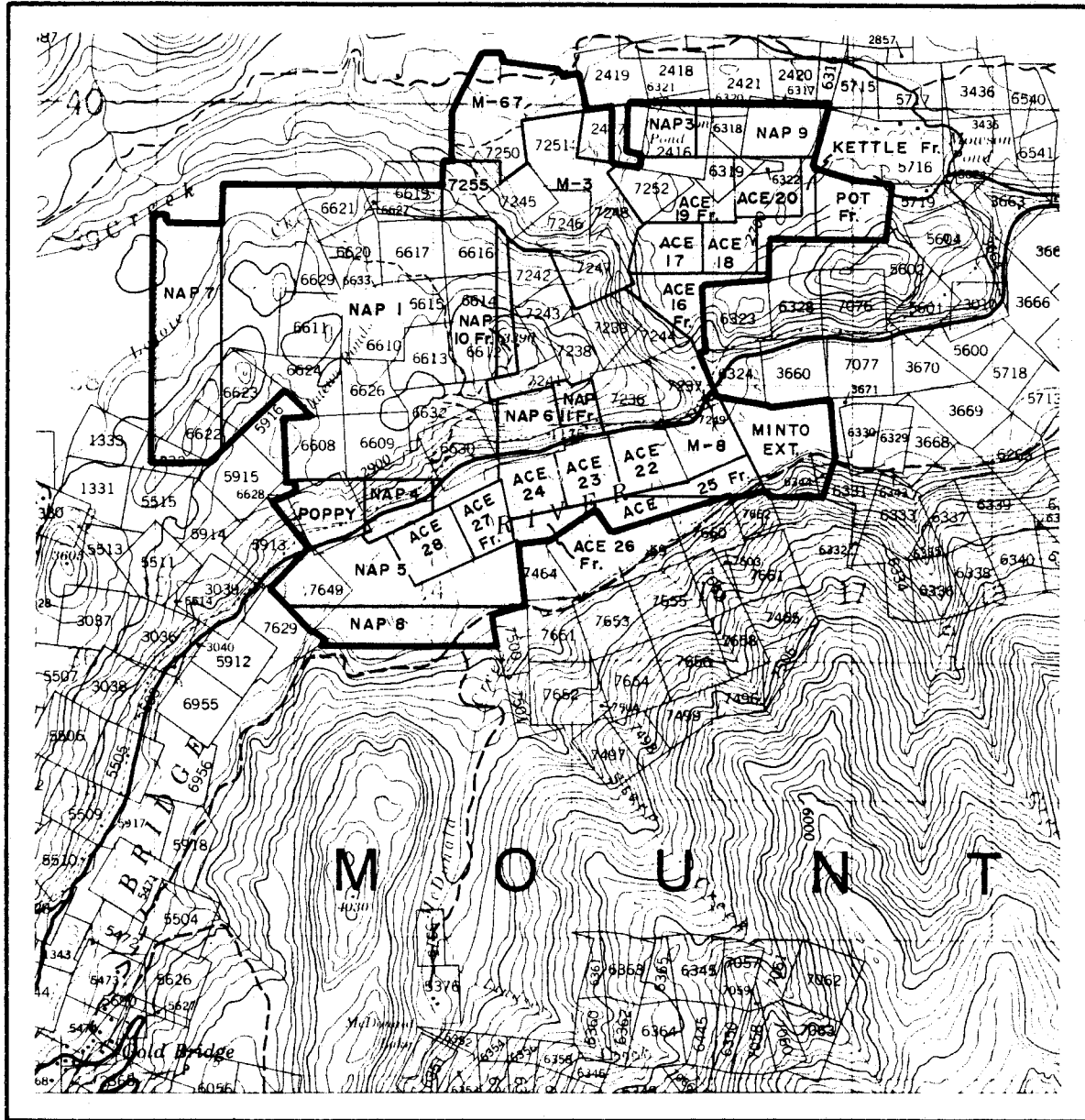
July 4, 1985



**PROPERTY
LOCATION**

CONGRESS PROPERTY

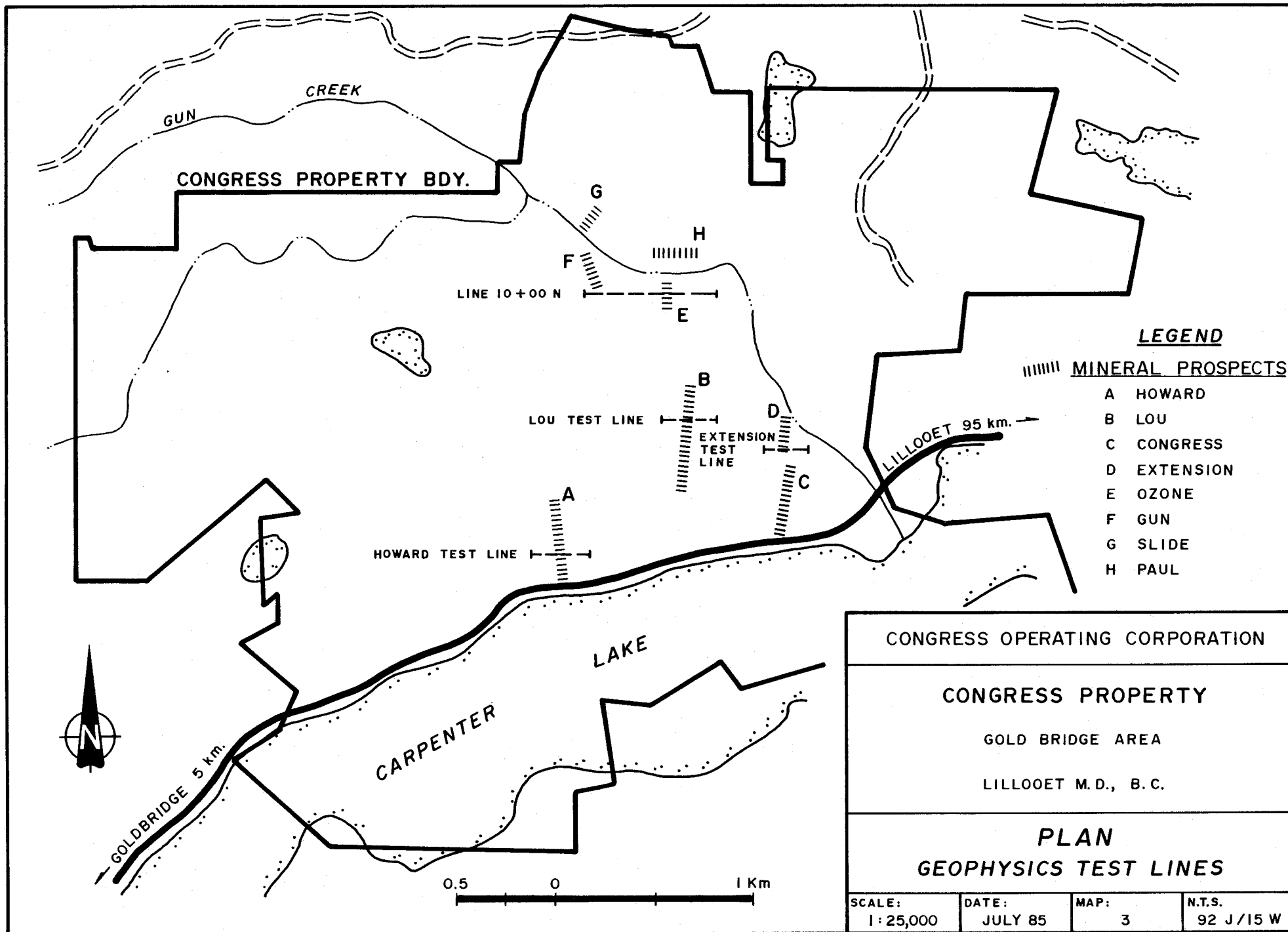
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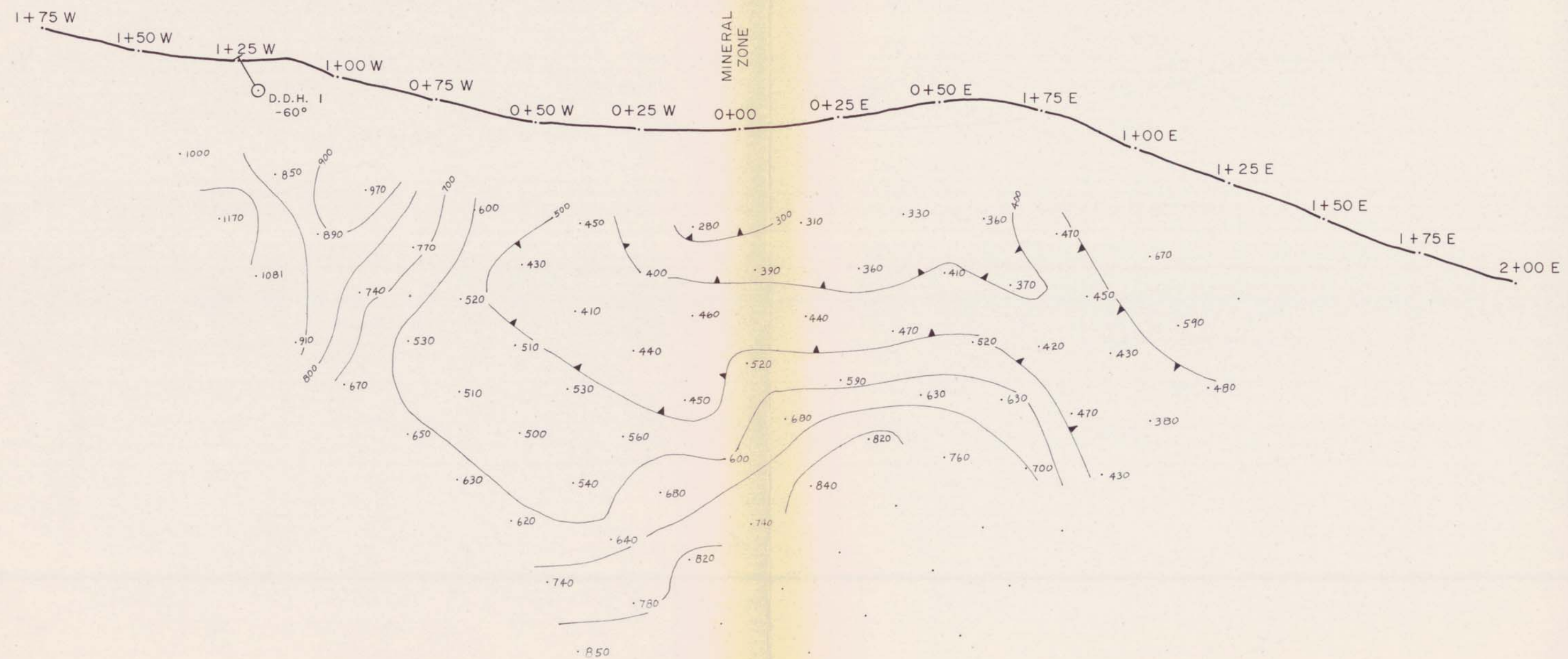
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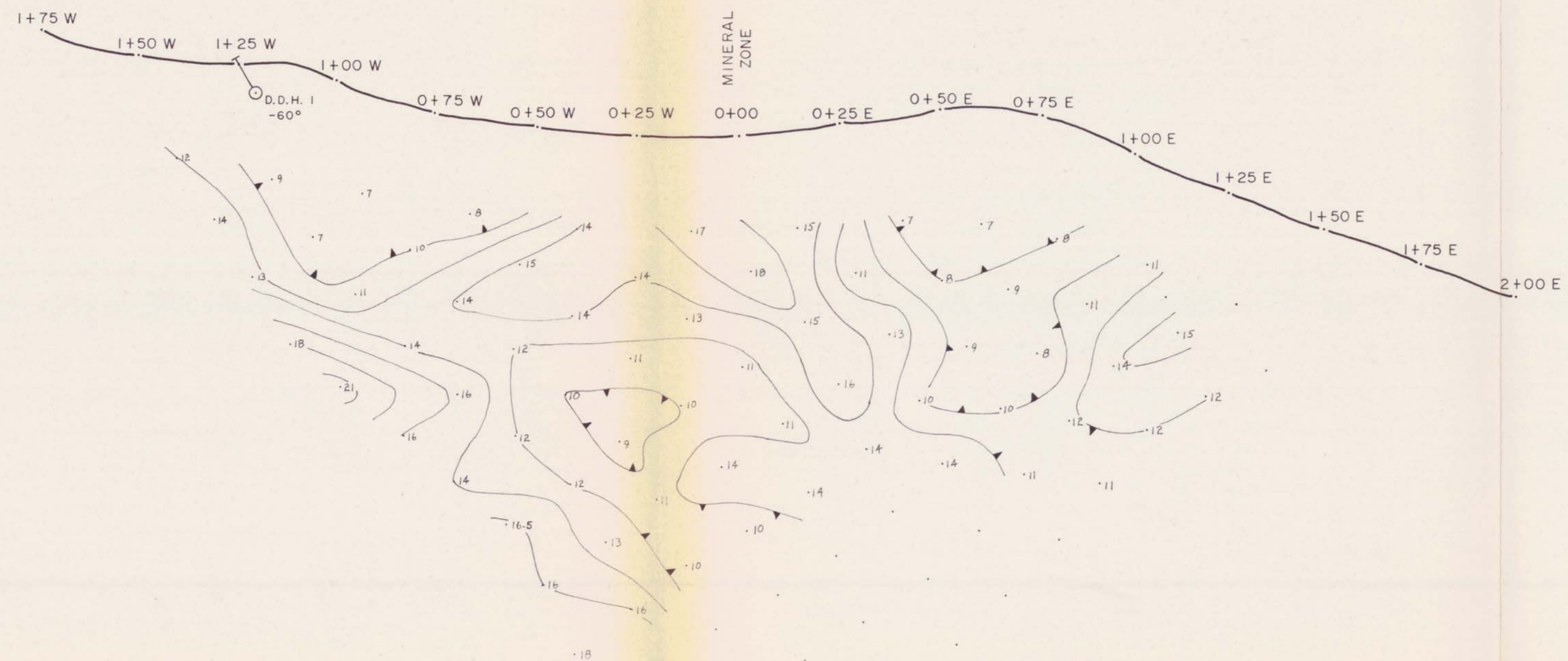
GEOTRONICS SURVEYS LTD.			
CONGRESS OPERATING CORPORATION			
CONGRESS PROPERTY			
GOLD BRIDGE AREA			
LILLOOET M.D., B.C.			
CLAIM MAP			
SCALE: 1: 50,000	DATE: June 85	MAP: 2	N.T.S. 92 J / 15 W



RESISTIVITY
(IN OHM-METRES)



CHARGEABILITY
(IN MILLISECONDS)



APPARENT RESISTIVITY
CONTOUR INTERVAL - 100 OHM-METERS
RESISTIVITY LOW
RESISTIVITY HIGH

APPARENT CHARGEABILITY
(Induced Polarization)
CONTOUR INTERVAL - 2 MSEC
CHARGEABILITY LOW

INSTRUMENTATION:
RECEIVER: HUNTEC MODEL MK. IV
TRANSMITTER: PHOENIX IPT - 1
GENERATOR: PHOENIX MG-2

SURVEY PARAMETERS:
SURVEY MODE: TIME DOMAIN
ARRAY: DIPOLE - DIPOLE
DIPOLE LENGTH: 25 metres
DIPOLE SEPARATION: 1 TO 10



TO ACCOMPANY GEOPHYSICAL REPORT BY DAVID G. MARK, GEOPHYSICIST.

GEOTRONICS SURVEYS LTD.

CONGRESS OPERATING CORPORATION
CONGRESS PROPERTY
GOLD BRIDGE AREA, LILLOOET M.D., B.C.

INDUCED POLARIZATION-RESISTIVITY SURVEY
PSEUDO SECTION
LOU TEST LINE

DRAWN BY: A.R.	DATE: MAY 85	JOB No: 85-26	SCALE: 1:1,000	MAP No: 5
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LOU TEST LINE

EXTENSION TEST LINE

HOWARD TEST LINE

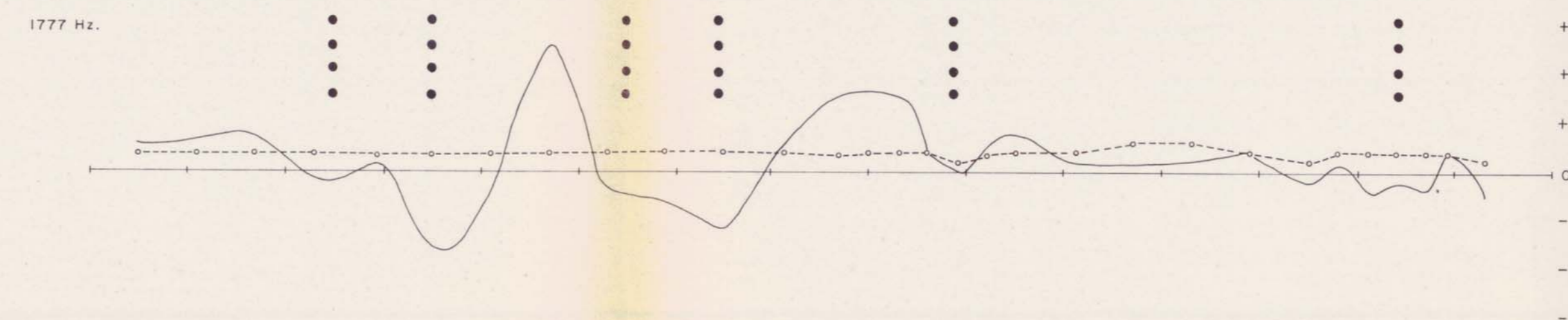
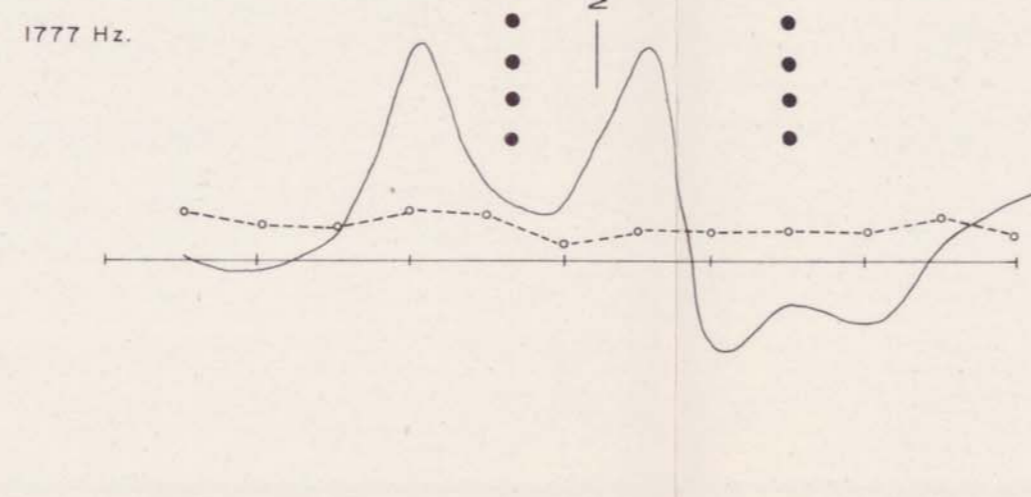
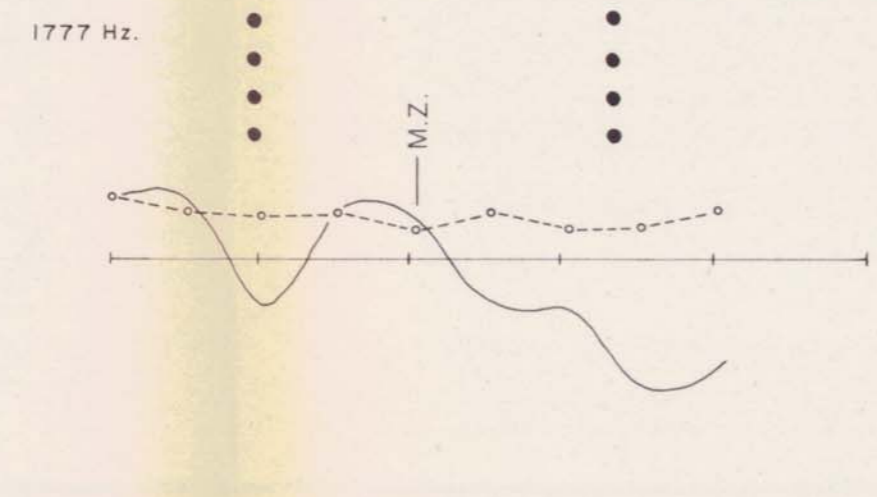
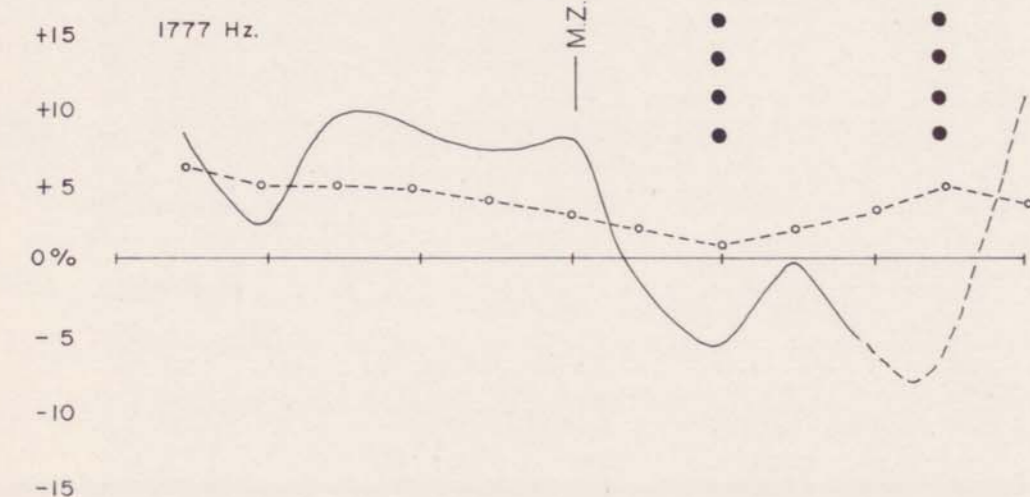
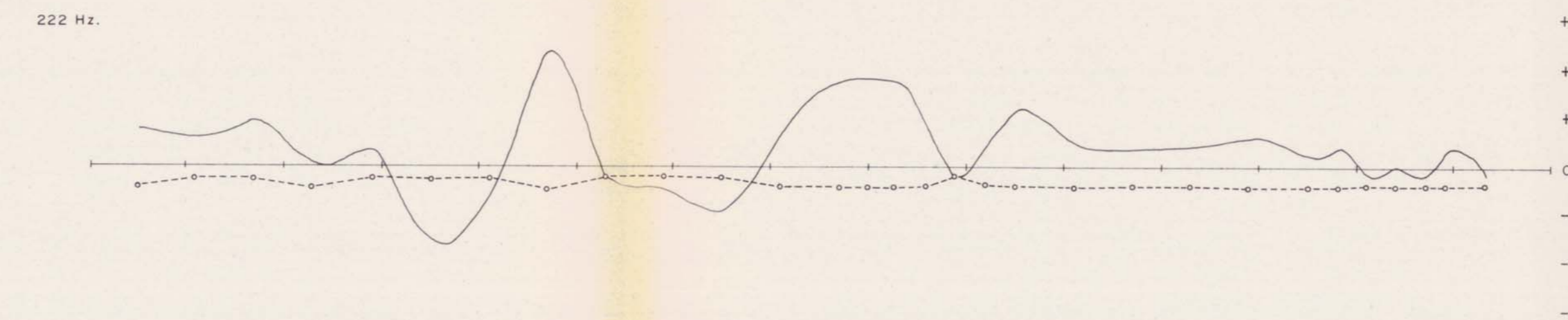
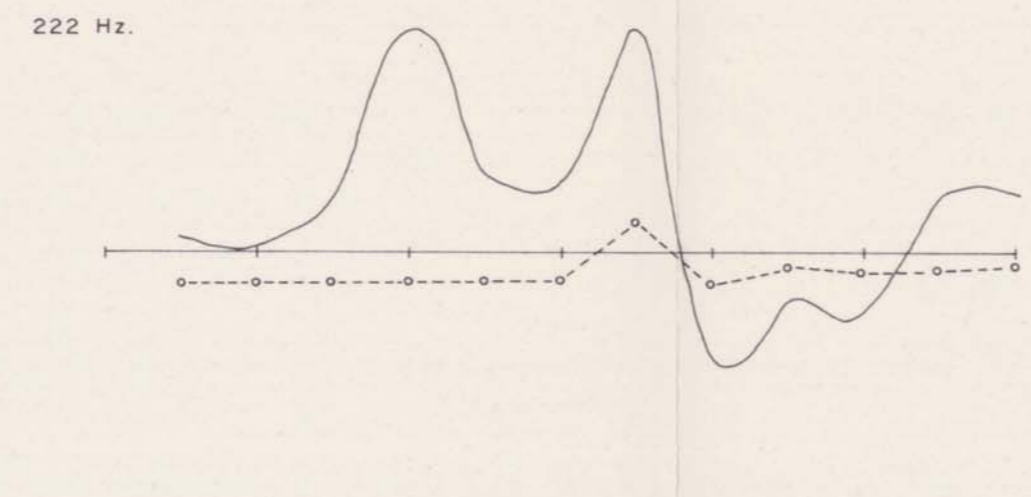
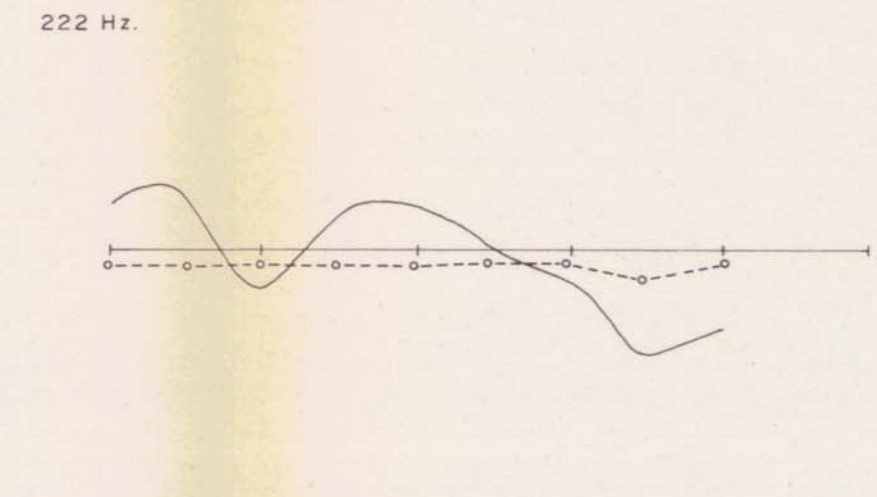
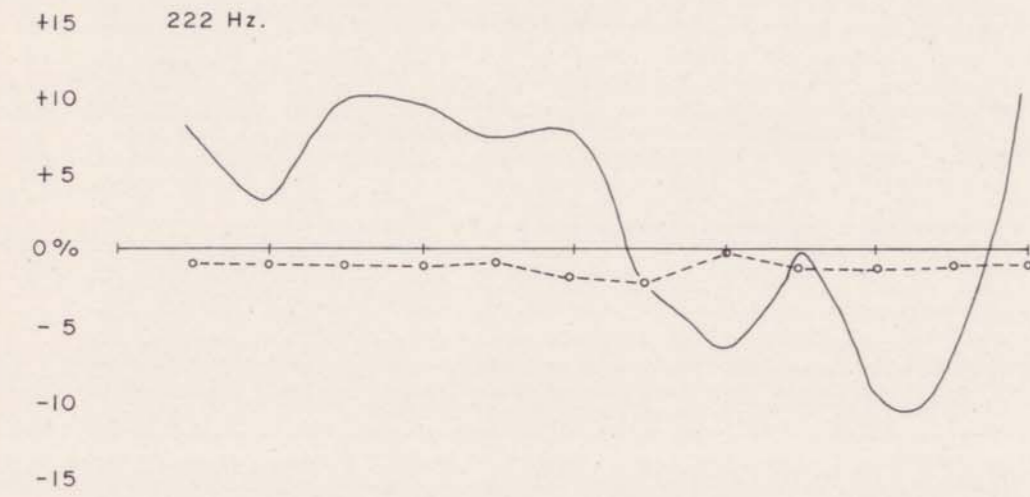
LINE 10 + 00 N

1+50W 1+00W 0+50W 0+00 0+50E 1+00E 1+50E

1+00W 0+50W 0+00 0+50E 1+00E 1+50E

1+00W 0+50W 0+00 0+50E 1+00E

1+00E 2+00E 3+00E 4+00E 5+00E 6+00E 7+00E 8+00E



••••• POSSIBLE CONDUCTOR
M.Z. MINERAL ZONE

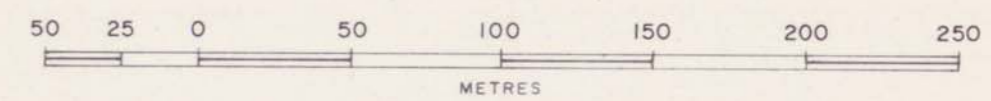
GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,880

— % IN PHASE
- - - - - % OUT OF PHASE

INSTRUMENTATION:
APEX PARAMETRICS MAX MIN II EM
COIL SPACING - 50 metres

NOTE: THE FIELD STRENGTH IS MEASURED AS THE PERCENT OF PRIMARY FIELD



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GEOTRONICS SURVEYS LTD.

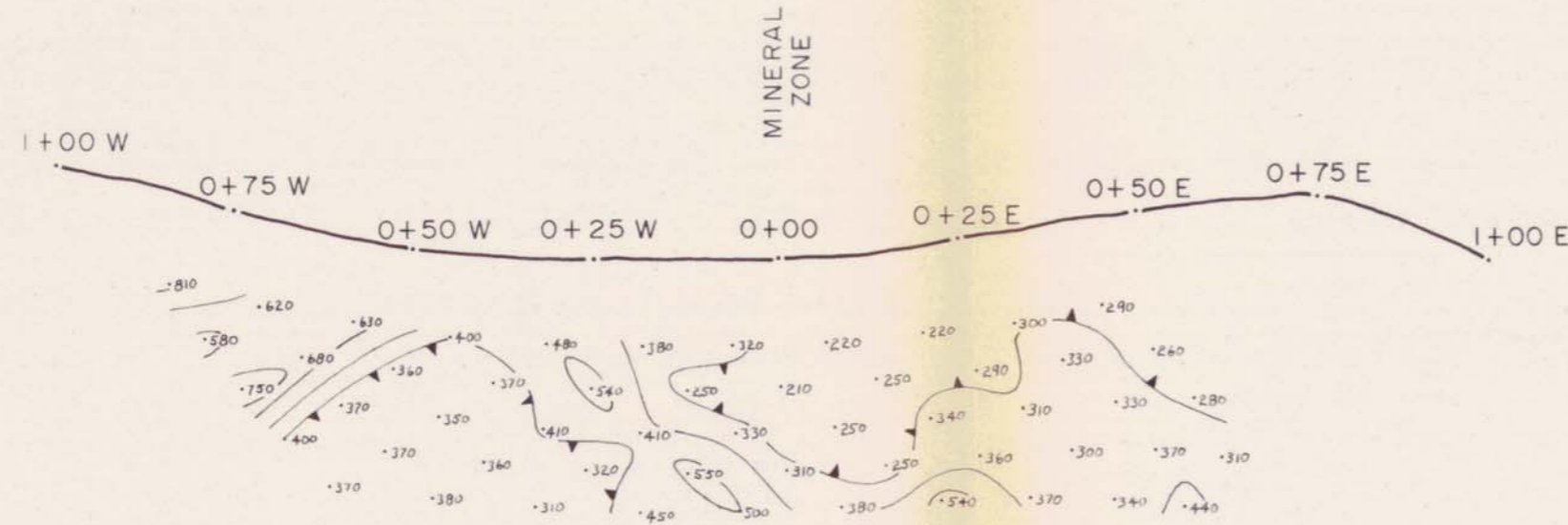
CONGRESS OPERATING CORPORATION
CONGRESS PROPERTY
GOLD BRIDGE AREA, LILLOOET M.D., B.C.

MAX MIN II EM
222 Hz & 1777 Hz.
PROFILES

DRAWN BY: A.R.	DATE: MAY 85	JOB No: 85-26	SCALE: 1:2500	MAP No: 4
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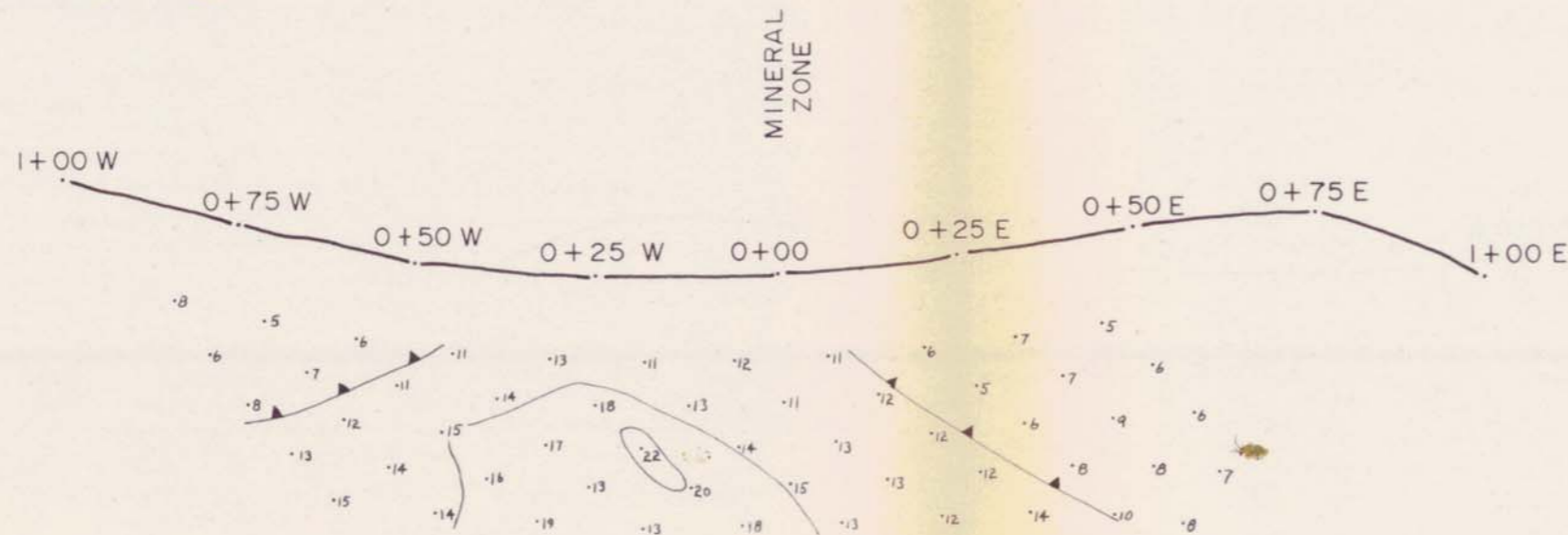
RESISTIVITY

(IN OHM-METRES)



CHARGEABILITY

(IN MILLISECONDS)



APPARENT RESISTIVITY

CONTOUR INTERVAL - 100 OHM-METERS

RESISTIVITY LOW
RESISTIVITY HIGH

APPARENT CHARGEABILITY

(Induced Polarization)

CONTOUR INTERVAL - 5 MSECS

CHARGEABILITY LOW

INSTRUMENTATION:

RECEIVER: HUNTEC MODEL MK. IV

TRANSMITTER: PHOENIX IPT - 1

GENERATOR: PHOENIX MG-2

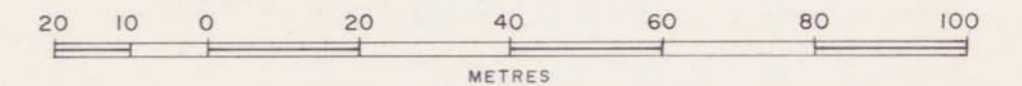
SURVEY PARAMETERS:

SURVEY MODE: TIME DOMAIN

ARRAY: DIPOLE - DIPOLE

DIPOLE LENGTH: 12.5 metres

DIPOLE SEPARATION: 1 TO 5



TO ACCOMPANY GEOPHYSICAL REPORT BY DAVID G. MARK, GEOPHYSICIST.

GEOTRONICS SURVEYS LTD.

CONGRESS OPERATING CORPORATION

CONGRESS PROPERTY

GOLD BRIDGE AREA, LILLOOET M.D., B.C.

INDUCED POLARIZATION-RESISTIVITY SURVEY

PSEUDO SECTION

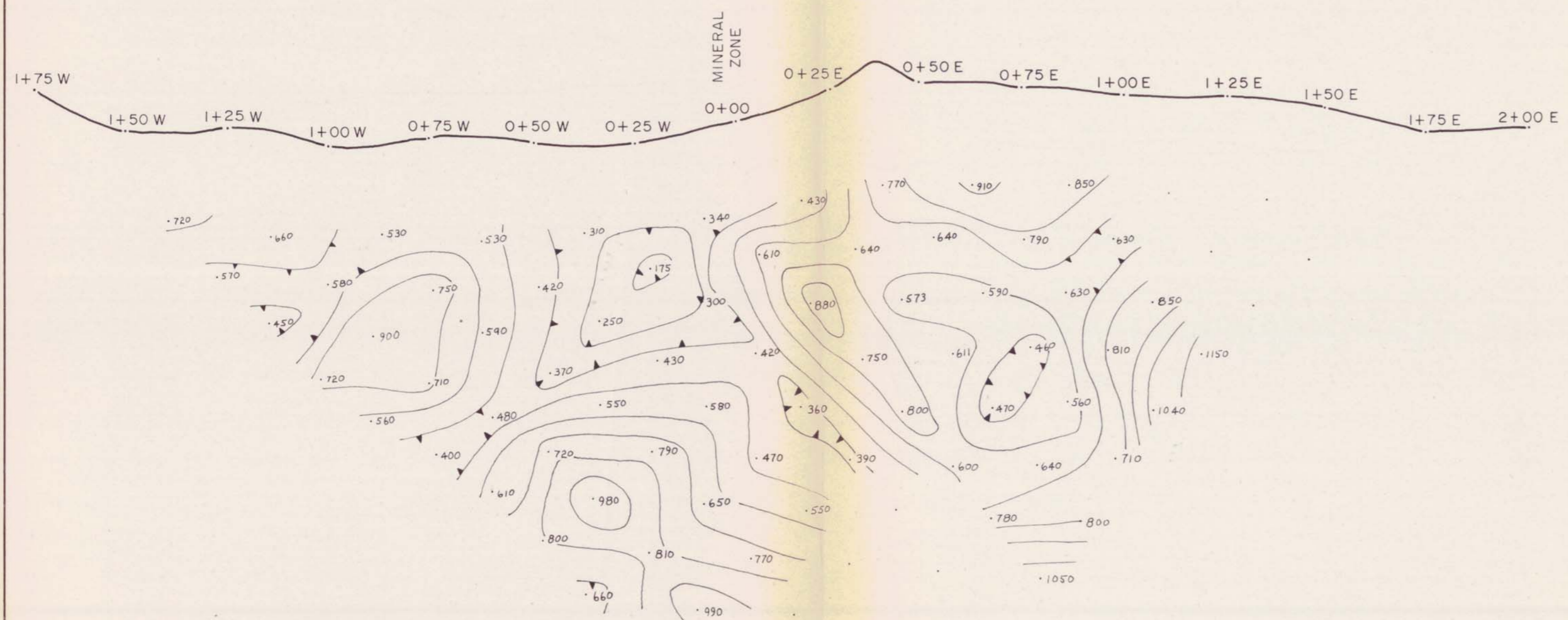
LOU TEST LINE - DETAIL

DRAWN BY: A. R.	DATE: MAY 85	JOB No: 85-26	SCALE: 1:1,000	MAP No: 6
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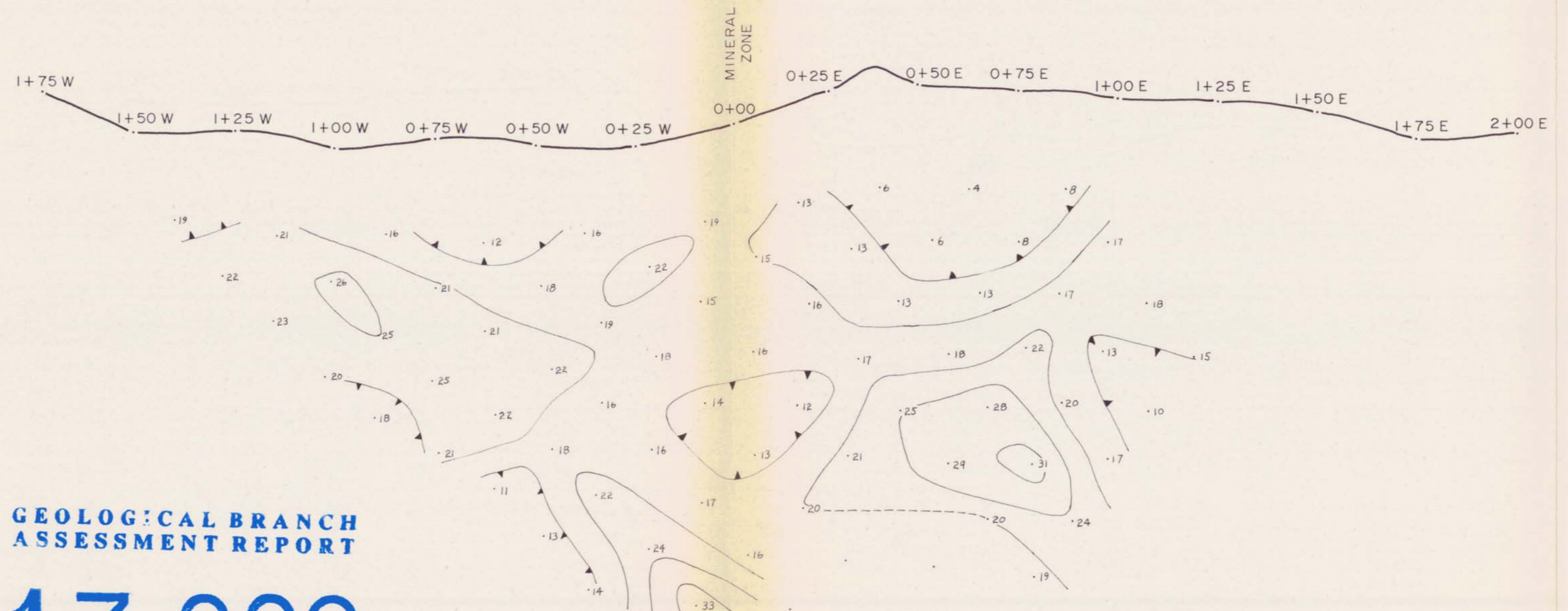
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,880

RESISTIVITY
(IN OHM-METRES)



CHARGEABILITY
(IN MILLISECONDS)



APPARENT RESISTIVITY
CONTOUR INTERVAL - 100 OHM-METERS
RESISTIVITY LOW
RESISTIVITY HIGH

APPARENT CHARGEABILITY
(Induced Polarization)
CONTOUR INTERVAL - 5 MSEC.
CHARGEABILITY LOW

INSTRUMENTATION:
RECEIVER: HUNTEC MODEL MK. IV
TRANSMITTER: PHOENIX IPT - 1
GENERATOR: PHOENIX MG-2

SURVEY PARAMETERS:
SURVEY MODE: TIME DOMAIN
ARRAY: DIPOLE - DIPOLE
DIPOLE LENGTH: 25 metres
DIPOLE SEPARATION: 1 TO 9



TO ACCOMPANY GEOPHYSICAL REPORT BY DAVID G. MARK, GEOPHYSICIST.

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CONGRESS OPERATING CORPORATION
CONGRESS PROPERTY
GOLD BRIDGE AREA, LILLOOET M. D., B. C.

INDUCED POLARIZATION-RESISTIVITY SURVEY
PSEUDO SECTION
HOWARD TEST LINE

DRAWN BY: A. R.	DATE: MAY 85	JOB No: 85-26	SCALE: 1:1,000	MAP No: 7
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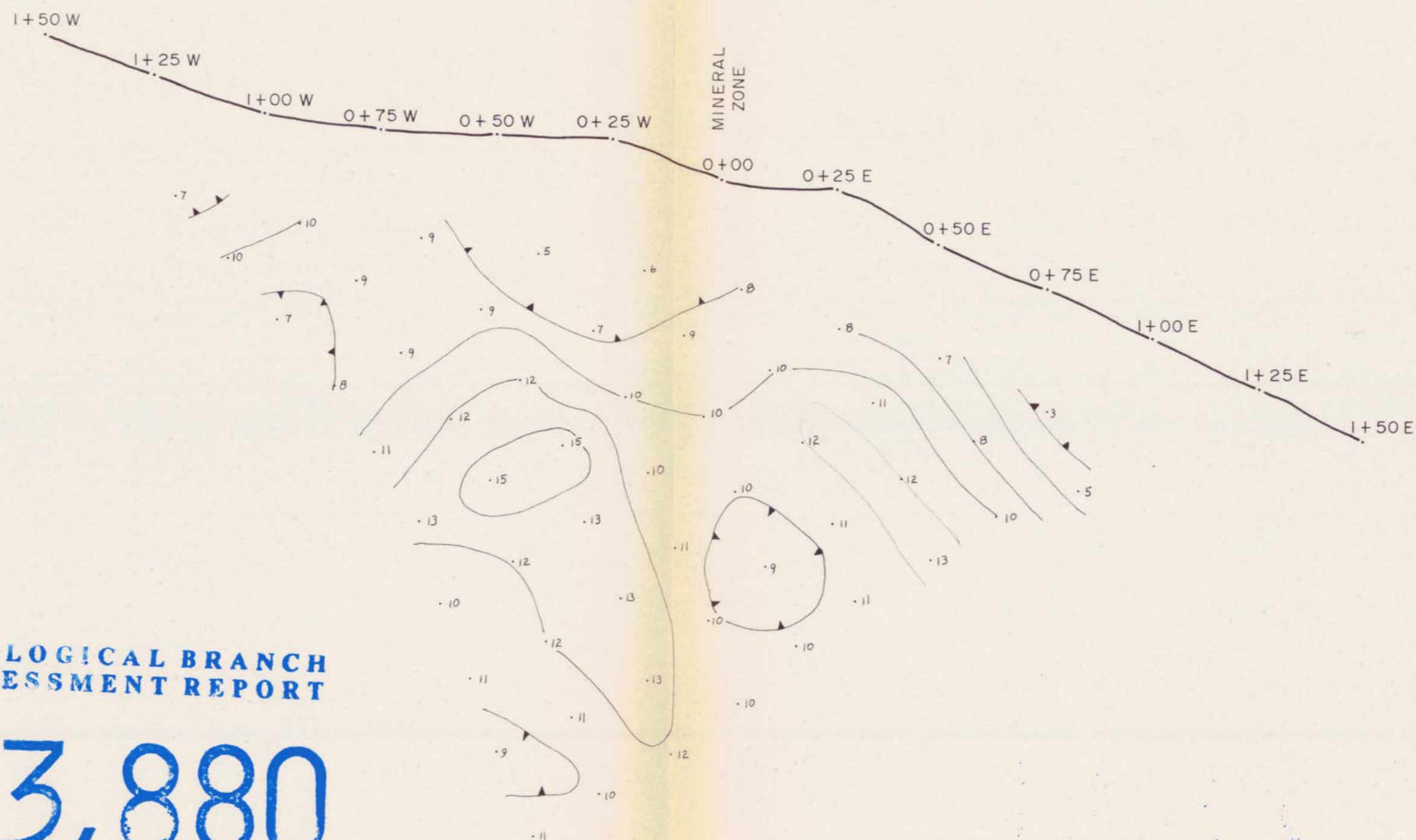
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,880

RESISTIVITY
(IN OHM-METRES)



CHARGEABILITY
(IN MILLISECONDS)



APPARENT RESISTIVITY
CONTOUR INTERVAL - 100 OHM-METERS
RESISTIVITY LOW
RESISTIVITY HIGH

APPARENT CHARGEABILITY
(Induced Polarization)
CONTOUR INTERVAL - 2 MSEC
CHARGEABILITY LOW

INSTRUMENTATION:

RECEIVER: HUNTEC MODEL MK. IV
TRANSMITTER: PHOENIX IPT - 1
GENERATOR: PHOENIX MG-2

SURVEY PARAMETERS:

SURVEY MODE: TIME DOMAIN
ARRAY: DIPOLE - DIPOLE
DIPOLE LENGTH: 25 metres
DIPOLE SEPARATION: 1 TO 10



TO ACCOMPANY GEOPHYSICAL REPORT BY DAVID G. MARK, GEOPHYSICIST.

GEOTRONICS SURVEYS LTD.

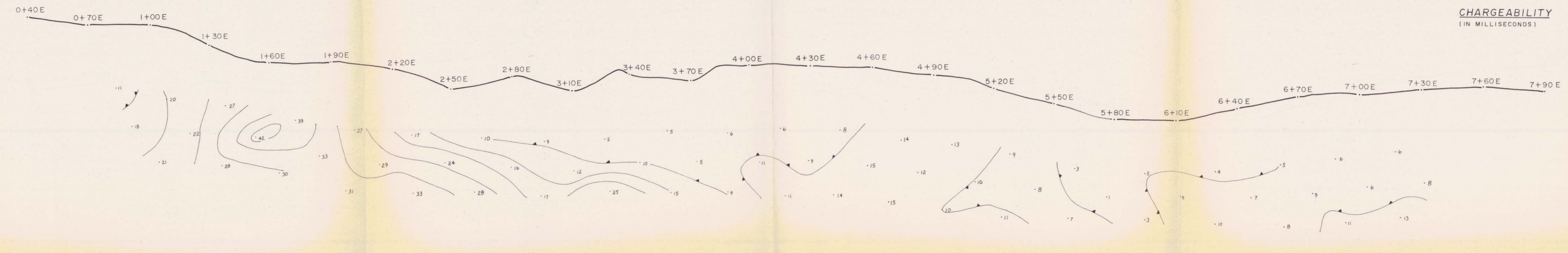
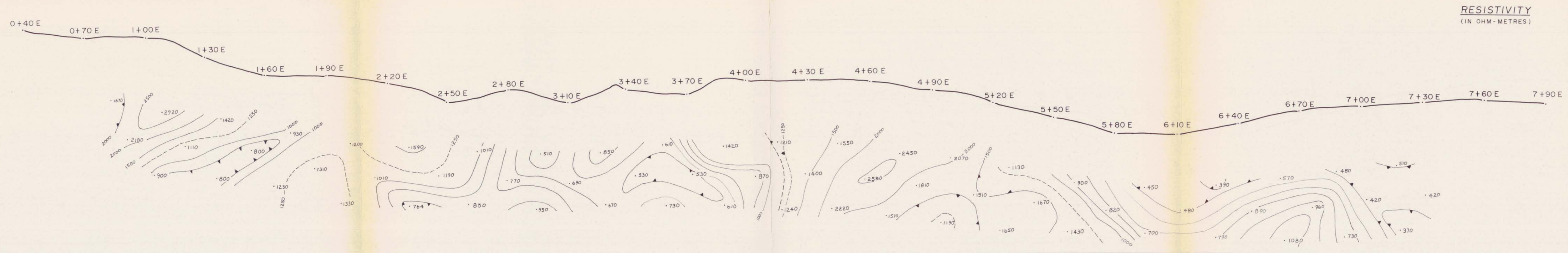
CONGRESS OPERATING CORPORATION
CONGRESS PROPERTY
GOLD BRIDGE AREA, LILLOOET M.D., B.C.

INDUCED POLARIZATION-RESISTIVITY SURVEY
PSEUDO SECTION
EXTENSION TEST LINE

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,880

DRAWN BY: A.R.	DATE: MAY 85	JOB No: 85-26	SCALE: 1:1,000	MAP No: 8
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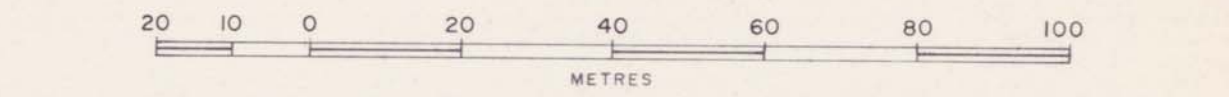
APPARENT RESISTIVITY
 CONTOUR INTERVAL - 100 OHM-METRES BELOW 1000 OHM-METRES
 - 500 OHM-METRES ABOVE 1000 OHM-METRES
 RESISTIVITY HIGH
 RESISTIVITY LOW
APPARENT CHARGEABILITY
 (Induced Polarization)
 CONTOUR INTERVAL - 5 MSEC
 CHARGEABILITY LOW

INSTRUMENTATION:
 RECEIVER: HUNTEC MODEL MK. IV
 TRANSMITTER: PHOENIX IPT-1
 GENERATOR: PHOENIX MG-2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

SURVEY MODE: TIME DOMAIN
 ARRANGEMENT: DIPOLE
 DIPOLE LENGTH: 30 metres
 DIPOLE SEPARATION: 1 TO 3

13,880



TO ACCOMPANY GEOPHYSICAL REPORT BY DAVID G. MARK, GEOPHYSICIST.

GEOLOGICAL BRANCH
 GEOTRONICS SURVEYS LTD.
 CONGRESS OPERATING CORPORATION
 CONGRESS PROPERTY
 GOLD BRIDGE AREA, LILLOOET M.D., B. C.

INDUCED POLARIZATION-RESISTIVITY SURVEY
PSEUDO SECTION
LINE 10 + 00 N

DRAWN BY: A. R.	DATE: MAY 85	JOB No.: 85-26	SCALE: 1:1,000	MAP No.: 9
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