SUMMARY REPORT

ON

GEOPHYSICAL SURVEYS

ON

THE POWER PROJECT

Allendale Lake Area,
Osoyocs and Greenwood M.D.'s, BC

for

Yukon Minerals Corporation
525 - 625 Howe Street
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by

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PART 1 OF 2

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TABLE OF CONTENTS

GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,132
PART 1 OF 2

SUMMARY REPORT
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ON
THE POWER PROJECT

Allendale Lake Area,
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INTRODUCTION AND GENERAL REMARKS

This report is a review of the past exploration geophysics carried out on the property as well as test geophysics carried out recently by Geotronics. The results of previous work that were available to the writer were two IP/resistivity surveys as well as one large magnetic survey. Also available were three different geological reports.

The geophysics testing that Geotronics carried out consisted of IP and resistivity surveys along three lines as well as VLF-EM and MaxMin EM along one of these lines.

Known mineralization is briefly described by Vulimiri as follows:

> "Mineralization on the Power Property consists of chalcopyrite, bornite and pyrite with significant gold values. The mineralization was observed to be present in the fine grained feldspar porphyritic syenite. The mineralization is disseminated as well as occurs as fracture fillings. Assays up to 15% Cu were obtained on the property. Malachite and azurite staining occurs in places close to the surface.
>
> "Copper mineralization is intimately associated with intense k-feldspar and quartz-sericite-pyrite alteration. The finer grained feldspar porphyry is intensely altered with complete destruction of the mafic minerals. Secondary biotite occurs as clots in an intensely altered matrix.
>
> "The coarse grained feldspar syenite is relatively unaltered, with only a few one to two centimetre wide k-feldspar fracture fillings and veinlets, in the

vicinity of the intensely altered finer grained feldspar porphyries. The unaltered syenite dominates the property.

Two different exploration models had been formulated for this property.

1. A large low-grade porphyry-type copper-silver deposit carrying possible gold values. Perhaps the nearby Brenda copper-moly deposit has been used as a model. All past exploration has been designed to look for such a deposit. Vulimiri, who has examined the property, has continued with this model in his conclusions and recommendations.

2. An epithermal vein-type gold-silver deposit with copper values. This model was formulated by Smith after he had examined the geological reports as well as the IP/resistivity results from the Geotronics' surveying.

PREVIOUS GEOPHYSICS

Previous geophysical surveys are reviewed and discussed as follows:

1. <u>IP and resistivity surveying carried out in 1971 by Seigel Associates Ltd., a division of Scintrex Limited</u>. The results were discussed in a report by Laurie E. Reed, P.Eng., Chief Geophysicist with Selco Mining Corporation Limited, a company optioning the property at that time. The type of equipment used was time domain with the amount of ground surveyed consisting of 11.1 km (6.9 miles). The array used was pole-dipole with two different electrode spacings, one at 400 feet (120 m) and one at 800 feet (240 m). The pole dipole separation was kept at n=1. Readings were taken every 400 feet. A small area was also detailed twice with reduced electrode spacings of 100 feet (30 m) and 200 feet (60 m), respectively. The reading interval was 200 feet.

   The purpose of the work was to locate a large, low-grade copper deposit which should respond as a broad IP high usually correlating with a resistivity low. The nearby Brenda copper-moly deposit, for example, responded as low amplitude IP highs with mixed resistivity correlations.

   The results of the survey were moderate IP highs having values of 10 to 13 milliseconds out of a background of 3 to 4 milliseconds. These correlated, for the most part, with the edges of resistivity highs, indicating perhaps that sulphide mineralization as reflected by IP highs are related to intrusives as reflected by resistivity highs.

Also, the detailing revealed a small chargeable body (probably sulphides) that lies close to the surface. The 400-foot electrode spacing plan map shows this anomaly to strike northeasterly, being open to the northeast.

This survey, as mentioned above, was designed with the array and two large electrode spacings chosen to locate a large porphyry copper-type deposit. The electrode spacings at 400 feet and 800 feet are too large for locating epithermal deposits. It is possible therefore that the causative sources are smaller sulphide deposits such as epithermal deposits. The IP/resistivity surveys with large electrode spacings therefore would average the anomalous response of a small causative source over a wider area. There is some indication of this in the Selco survey since the detail anomalous readings are much higher than the non-detail anomalous readings.

2. Magnetic survey carried out by Kerr Dawson and Associates Limited in the summer of 1983. The survey was carried out with a proton precession magnetometer measuring the total field. Readings were taken every 50 m on lines 100 m apart over an area of 2,000 m by 2,000 m. The line spacing was increased to a spacing of 500 m over a much wider area.

The map given to the writer had a contour interval of 1,000 gammas. The writer had that reduced to 500 gammas. The intensity of the magnetic field varies from a low of 52,330 gammas to a high of 69,930 gammas to give a range of 17,600 gammas. This range is very high and indicates the underlying rock-types to have a highly variable content of magnetite. This is indicative of young intrusives/extrusives which is what the Tertiary Coryell syenites are, which apparently underly most of the property.

Most of the magnetic highs correlate with topographic highs (ridges and hilltops). This is probably due to the magnetic highs reflecting relatively unaltered rock-types (probably the coarse-grained syenite) where the magnetite is not destroyed.

A northerly trend is seen in the magnetic highs and lows in the reconnaissance area where the line separation is 500 m. Much of this is due to the grid bias of 10 times in a northerly direction. However, where the line spacing is 100 metres resulting in a northerly grid bias of only 2 times, the northerly trend of the anomalies is greatly reduced. Nevertheless, there is still a northerly trend to some of the anomalies. Magnetic lows trending in this direction indicate geological structure striking in a northerly direction.

Another prominent direction in the trend of magnetic lows is northeasterly. This is especially seen in a broad magnetic low that runs from 2N to 13N just west of the baseline. This low may reflect alteration within one of the syenite intrusives, or perhaps a different rock-type such as a gneiss or schist of the Shuswap Complex.

To the immediate northwest of this broad low is a strong lineation of magnetic lows which strikes N30E, which is a similar direction to the strike of the broad magnetic low. The causative source of the lineation is probably a fault. To the immediate northwest is a second lineation striking closer to north-northeasterly. It also likely reflects a fault.

A broad magnetic low also occurs over the swamp area at the south central end of the survey. As will be mentioned below, this swampy area is of strong exploration interest. The cause of the magnetic low may be alteration, cross-faulting, and/or a different rock-type.

3. <u>An induced polarization and resistivity survey carried out in late September and early October of 1983</u>. The survey was completed by Phoenix Geophysics Limited for Allendale Resources Corporation using frequency domain equipment. The array used was dipole-dipole and the dipole length, 50 m, read to four separations with a reading interval of 50 m.

Cartwright, in his discussion of the results, indicated the survey revealed five different anomalous zones. The survey area is similar to that of the previous IP/resistivity survey. Though the writer cannot correlate the two surveys directly, the anomalies of both surveys are probably the same.

The purpose of this survey was also to locate a large low grade porphyry copper type deposit. The anomalies that this survey located could well be reflecting such a deposit. However, as mentioned above for the previous survey, the anomalies could be reflecting smaller causative sources than the results would indicate.

PRESENT GEOPHYSICS

The following was carried out by Geotronics Surveys under the direction of the writer.

1. Induced polarization and resistivity survey testing. The readings were taken in the time domain mode using the dipole-dipole array. The readings were taken along three lines as follows:

L5N from 3+00E to 0+30W with a dipole length of 30 m and dipole separations of 1 to 5.

L10N from 0+30E to 3+90 W with a dipole length of 30 m and dipole separations of 1 to 6.

Test line of 180 m length centered across the road showing with a dipole length of 15 m and dipole separations of 1 to 4.

The results are discussed as follows:

On line 5N, the IP chargeability results show low amplitude highs of 10 to 20 milliseconds against a background of 10 to 11 milliseconds. These highs for the most part correlate with resistivity highs which are probably caused by syenite intrusive phases. The low amplitude IP anomalies therefore may be caused by background sulphides within these intrusives.

A relatively narrow lineal-shaped resistivity low that sub-outcrops at 2+10E and dips to the west is probably reflecting a fault or shear zone. A second lineal resistivity low sub-outcrops at 0+60E and dips to the east. It may also be caused by geological structure.

On line 10N the IP revealed anomalous results of up to 27 milliseconds against a background averaging about 7 milliseconds. The best anomaly occurs at the east end of the line and correlates with a resistivity low. This anomaly is open to the east.

The causative source of the IP high is likely sulphides and that of the resistivity low, alteration or fracturing which is often associated with sulphide mineralization. The magnetic low is probably due to alteration of the magnetite. The anomaly also correlates with a topographic low which is undoubtedly the result of weathering of a not-so-resistant rock-type.

On this profile, the most obvious feature is the very strong resistivity high centered at about 0+80W. It also correlates with a magnetic high and a low amplitude IP high. The causative source is likely an intrusive phase of the syenite, probably the coarse-grained feldspar syenite that is relatively unaltered. The anomalous IP is likley due to sulphides within the intrusive.

A very interesting feature for exploration purposes is a rather broad resistivity low extending from 2+10W to 3+00W and dipping to the west. Because of its shape as well as the shapes of the resistivity high to the east on the footwall, and of the high to the west on the hanging wall, it is strongly suggestive of epithermal alteration. The epithermal vein would be located close to the footwall dipping to the west as well. A smaller electrode spacing may be able to map the vein. Also of interest is the corresponding topographic low since epithermal alteration zones often weather low due to the alteration as well as the structure along which the mineralizing fluids have travelled. The resistivity low also correlates with a magnetic low which may be due to alteration of magnetite.

At depth below the above-mentioned low is a second adjacent low which may be the top of a second epithermal system.

A lineal-shaped resitivity low to the immediate west of the strong resistivity high is strongly indicative of a west-dipping fault.

The <u>test line</u> across the road showing, where the electrode spacing has been reduced to 15m from 30m, reflects the mineralization as a relatively strong IP high dipping to the north. It also correlates with a resistivity contact due to a resistivity high to the south and a resistivity low to the north. It is therefore apparent that the mineralization is associated with a lithological contact with the resistivity high probably reflecting an intrusive and the low possibly reflecting Shuswap Complex metamorphic rocks. It is also possible that the low may be reflecting alteration, possibly epithermal alteration. However, the evidence is more strongly supportive of the low being caused by a rock-type.

It is interesting to note that the 15m electrode spacing defines the anomaly quite well with a relatively strong anomaly. This supports the possiblity mentioned earlier that the broad, lower amplitude anomalies mapped by large electrode spacings may be due to small chargeable sources such as occurs at the road showing.

2. VLF-EM and Max Min Test Line across the road showing. The VLF-EM was read every 15m using the Seattle transmitter at 24.8 KHz. The Max Min was read every 15m also using all 5 frequencies (222,444,888,1777 and 3535 KHz).

   The EM response for both surveys across the road showing was quite flat indicating the showing has little conductivity.

CONCLUSIONS AND RECOMMENDATIONS

There is good evidence from both geology and geophysics suggesting the occurrence of either of the 2 modes of mineralization that may occur on the property. It is therefore important to establish which of the two types of deposit is more likely to occur.

It is expected that both types of deposit will weather low topographically. As a result, much of the evidence as to which occurs on the property is concealed by overburden. One of the most interesting areas for exploration is the large swamp occuring at the south central part of the property and correlating with a magnetic low as mentioned earlier. The swamp may be due to alteration and fracturing associated with a porphyry copper deposit, or it may be due to epithermal alteration. Because of the physical difficulties, no IP or any other type of work has been done across the swamp.

The swamp could be tested by waiting until winter when the ground is frozen. At this time, IP and resistivity surveying could be run across the swamp with the goal of looking for sulphides with the IP, and looking for alteration with the resistivity. If possible, though it is not likely, excavator trenching could also be done with the purpose of testing for alteration.

The following recommendations are also made:

1. The property should be geologically mapped with the purpose of checking for epithermal mineralization since all past mapping and exploration was carried out with the goal of looking for porphyry copper-type mineralization. It is highly recommended to use a geologist who is knowledgeable of epithermal mineralization.

2. Carry out trenching, preferably excavator over low areas where outcrop is lacking and where there is evidence of the possiblity of mineralization. One of the areas is the swamp as mentioned above, and another is the resistivity low occuring on line 10N from 2+10W to 3+00W.

3. The IP and resistivity surveying should be redone with a smaller electrode spacing, perhaps 15 m, but no greater than 30 m. The results of the previous surveys are not adequate for present exploration purposes since the exploration goal was only to locate a large low-grade deposit. The problems of the previous surveys are too large electrode spacings, wrong array used, and inadequate instrumentation (for example, the fairly strong eastern IP anomaly on line 10N was not seen on the Phoenix survey).

   It is preferable to do the IP/resistivity surveying in stages since to carry out the whole survey as recommended above would be quite expensive. It would be desirable, for example, to be sure of the type of mineralization one is looking for. Therefore the amount of IP/resistivity work done will be dependent on geological mapping and trenching results as well as, perhaps, diamond drilling results. At this point, however, it is recommended to carry out IP/resistivity work across the swamp as well as further work on and around the road showing and line 10N.

4. Diamond drilling is recommended and is not dependent on the above recommendations to be carried out since there are already targets. These are as follows:

   (a) the resistivity low at (L10N, 2+10W to 3+00W) - collar at 2+70W with the hole angled to the east at -60° to a depth of at least 60 m (however, 80 to 100 m would test the underlying resistivity low as well). This hole should be drilled after the trenching has been done;

   (b) the road showing - collar at 30 m north of the showing with the hole angled to the south at -60° to a depth of 40 m.

   The IP high at the eastern end of line 10N should also be drilled but only after further IP/resistivity work has been carried out.

It is also likely that trenching cannot be done in the swamp area and therefore the only way to test for alteration may be through drilling. However, again the priority is to carry out the IP/resistivity surveying first.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.

David G. Mark, Geophysicist
Manager

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11/89

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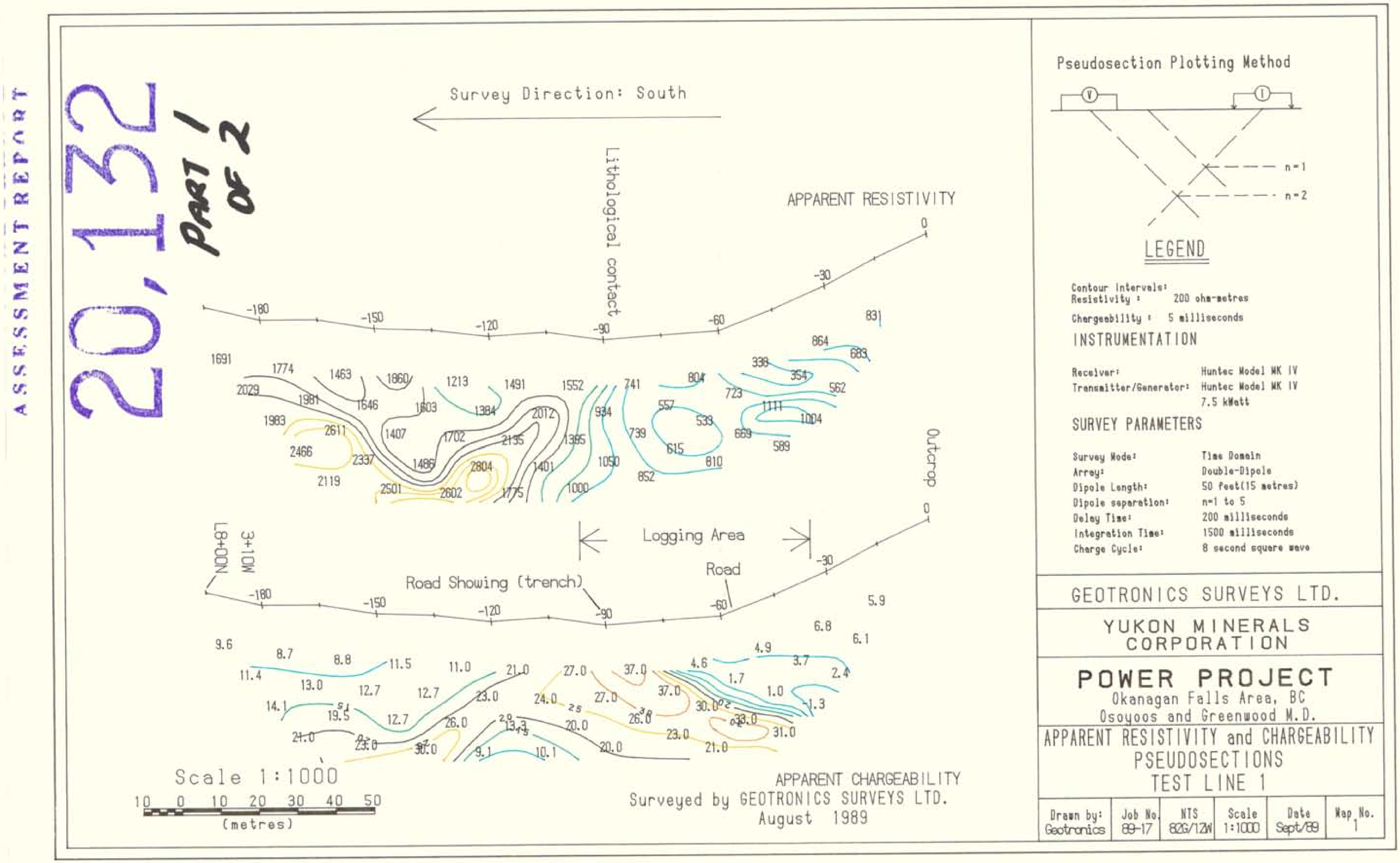
ASSESSMENT REPORT
20,132
PART 1 OF 2
Survey Direction: South
Lithological contact
APPARENT RESISTIVITY
Outcrop
Logging Area
Road
Road Showing (trench)
L8+00N
3+10W
APPARENT CHARGEABILITY
Scale 1:1000
(metres)
Surveyed by GEOTRONICS SURVEYS LTD.
August 1989
Pseudosection Plotting Method
n=1
n=2
LEGEND
Contour Intervals:
Resistivity : 200 ohm-metres
Chargeability : 5 milliseconds
INSTRUMENTATION
Receiver: Huntec Model MK IV
Transmitter/Generator: Huntec Model MK IV
7.5 kWatt
SURVEY PARAMETERS
Survey Mode: Time Domain
Array: Double-Dipole
Dipole Length: 50 feet(15 metres)
Dipole separation: n=1 to 5
Delay Time: 200 milliseconds
Integration Time: 1500 milliseconds
Charge Cycle: 8 second square wave
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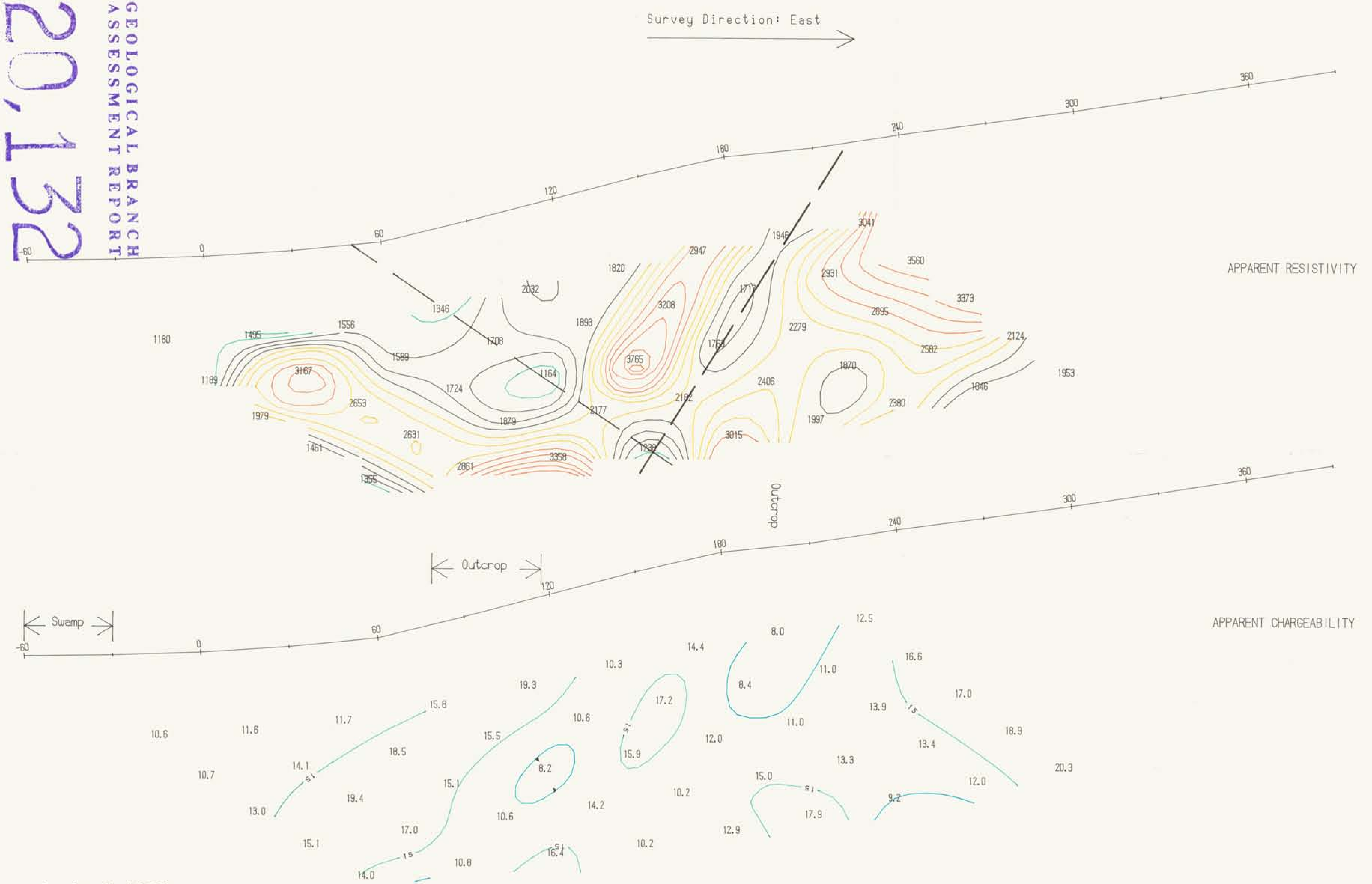
POWER PROJECT
Okanagan Falls Area, BC
Osoyoos and Greenwood M.D.
APPARENT RESISTIVITY and CHARGEABILITY PSEUDOSECTIONS
TEST LINE 1
Drawn by: Geotronics
Job No. 89-17
NTS 82G/12W
Scale 1:1000
Date Sept/89
Map No. 1

GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,132
PART 1 OF 2



Scale 1:1000

10 0 10 20 30 40 50

(metres)

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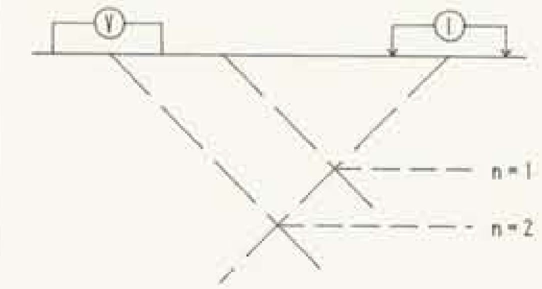
August 1989

Pseudosection Plotting Method



LEGEND

Contour Intervals:
Resistivity : 200 ohm-metres
Chargeability : 5 milliseconds

INSTRUMENTATION

Receiver:	Huntec Model MK IV
Transmitter/Generator:	Phoenix Model IPT-1 2.5 kWatt

SURVEY PARAMETERS

Survey Mode:	Time Domain
Array:	Double-Dipole
Dipole Length:	100 feet(30 metres)
Dipole separation:	n=1 to 5
Delay Time:	200 milliseconds
Integration Time:	1500 milliseconds
Charge Cycle:	8 second square wave

Lineation Suggestive of Faulting

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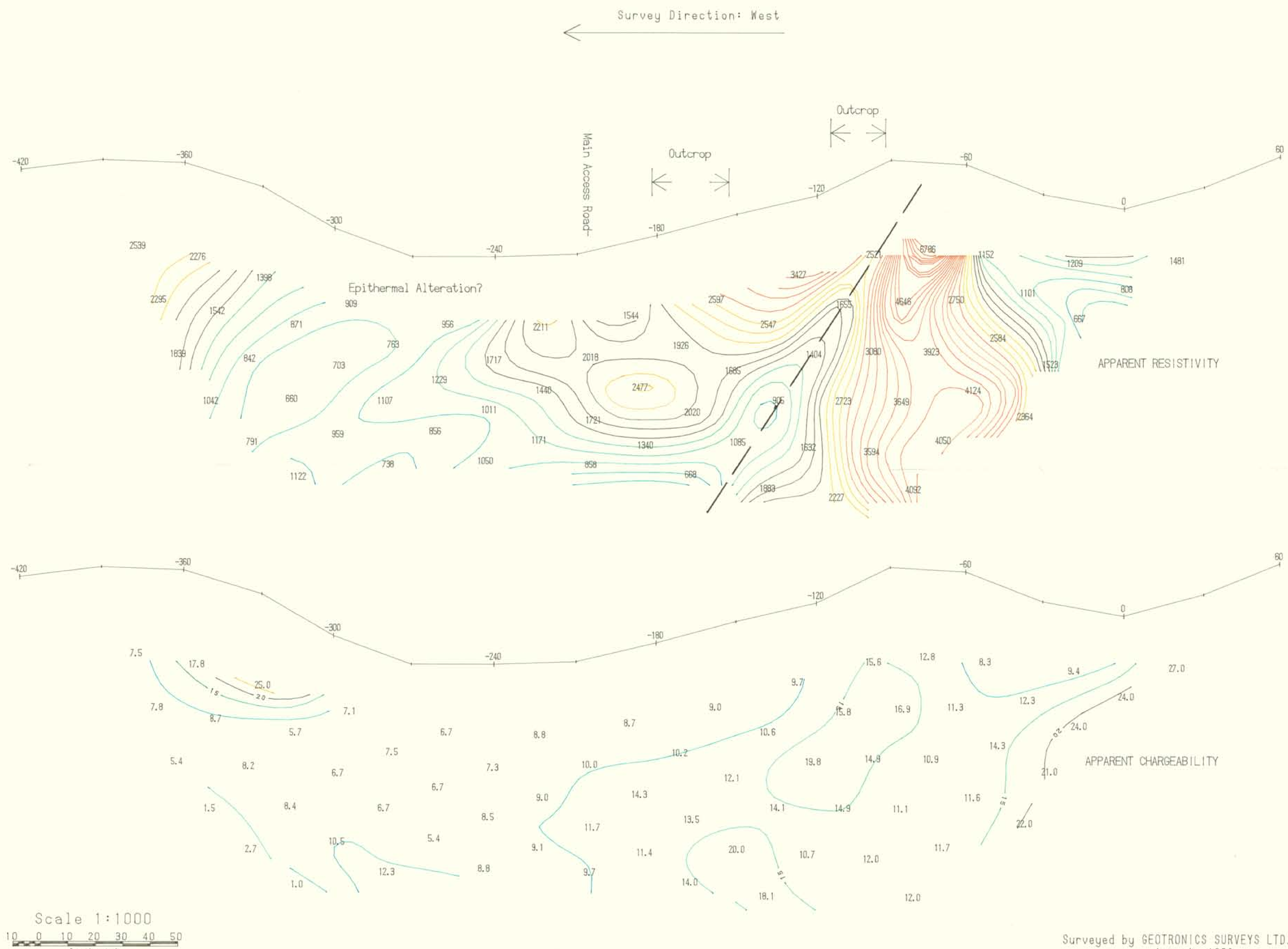
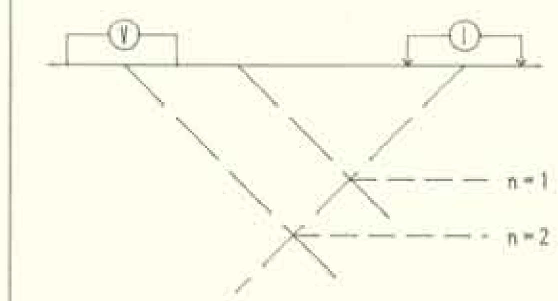
POWER PROJECT
Okanagan Falls Area, BC
Osoyoos and Greenwood M.D.

APPARENT RESISTIVITY and CHARGEABILITY PSEUDOSECTIONS
LINE 5N

Drawn by:	Job No.	NTS	Scale	Date	Map No.
Geotronics	89-17	82G/12W	1:1000	Sept/89	2





LEGEND

Contour Intervals:
Resistivity : 200 ohm-metres

Chargeability : 5 milliseconds

INSTRUMENTATION

Receiver:	Huntec Model MK IV
Transmitter/Generator:	Phoenix Model IPT-1 2.5 kWatt

SURVEY PARAMETERS

Survey Mode:	Time Domain
Array:	Double-Dipole
Dipole Length:	100 feet(30 metres)
Dipole separation:	n=1 to 6
Delay Time:	200 milliseconds
Integration Time:	1500 milliseconds
Charge Cycle:	8 second square wave

Lineation Suggestive of Faulting

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August 1989

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ASSESSMENT REPORT

20,132

PART 1
OF 2

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Okanagan Falls Area, BC
Osoyoos and Greenwood M.D.

APPARENT RESISTIVITY and CHARGEABILITY PSEUDOSECTIONS
LINE 10N

Drawn by:	Job No.	NTS	Scale	Date	Map No.
Geotronics	89-17	82E/12W	1:1000	Sept/89	3