

32D12SW0087 2.17403 HARKER

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**2 . 174 03**

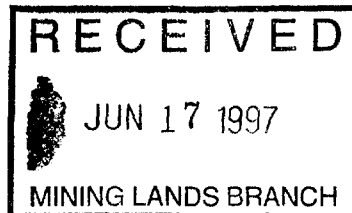


**BARRICK GOLD CORPORATION**  
(Eastern Canada Exploration)

**HOLT McDERMOTT Project**

**WEST BLOCK**

**Report on Induced Polarization surveys**



Rouyn-Noranda, Québec

December 13, 1996

*Call # 2.11295*  
Gérard Lambert, P.Eng.

Consulting Geophysicist

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32D12SW0087 2.17403 HARKER

## **Introduction**

In July 1996, ground geophysical investigations, consisting namely of Induced Polarization (I.P.) surveys, were carried out the **Holt-McDermott (WEST Block)** project, for **Barrick Gold Corp.**

The purpose of these surveys was to provide additional geoscientific information about the underlying lithologies and to map with a better accuracy the distribution of disseminated and stringer sulfides in the bedrock, these sulfides being potentially of economic interest if they are found to carry significant concentrations of precious metals. Considering the close proximity of the WEST Block to the **Holt-McDermott** mine and the paucity of bedrock exposure as well as the incomplete I.P. survey coverage from previous work, the present I.P. surveys were also meant to complement the geophysical compilation of the project.

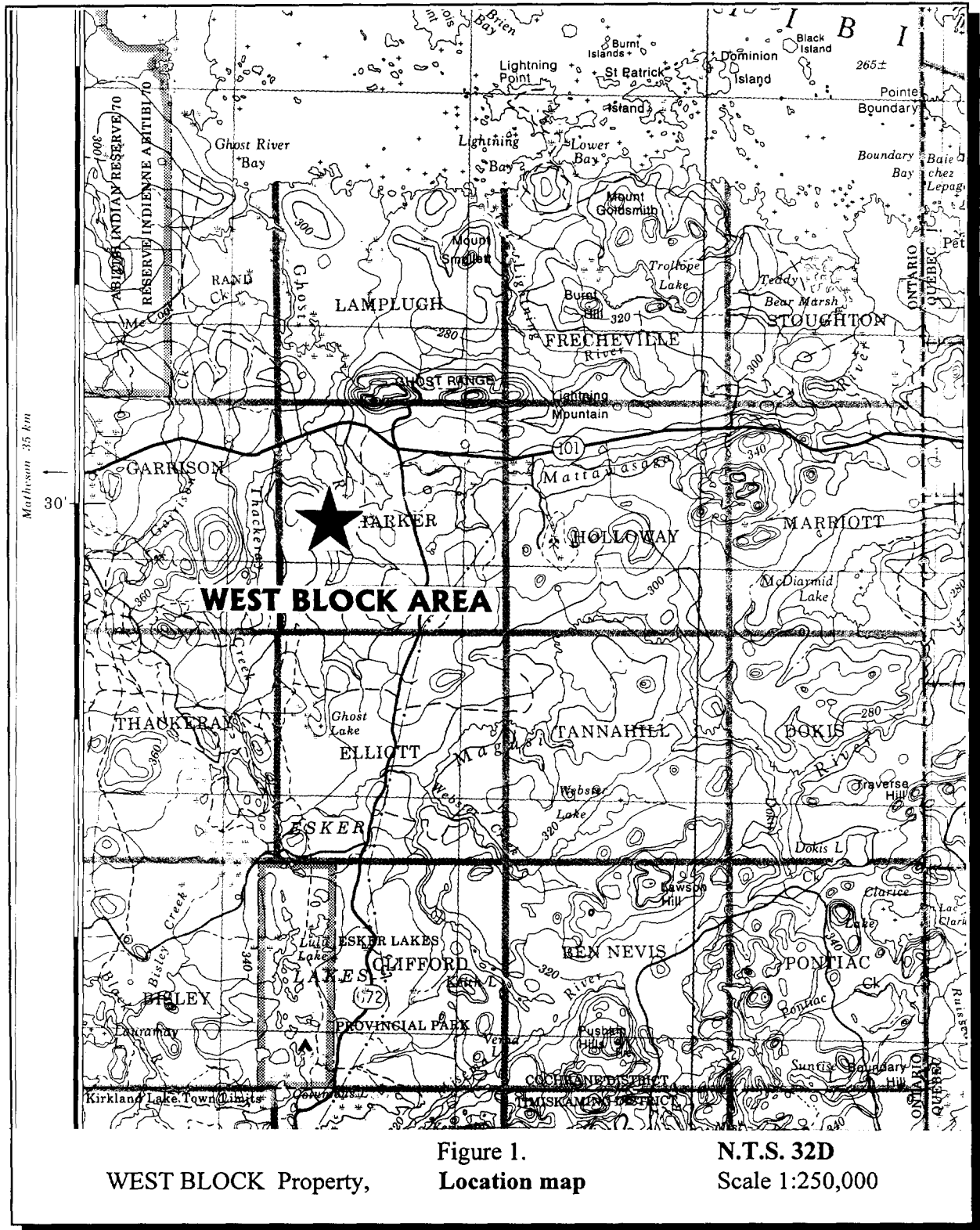
This report describes the work done, discusses the results obtained as well as the interpretation of the data. Recommendations for any future work are presented in the conclusion.

The I.P. survey was carried out by crews of Rémy Bélanger Geophysics, of Rouyn-Noranda, Québec.

## **Property description, location and access**

The **WEST** Block is located in the west-central part of **Harker** township, in northeastern Ontario, approximately 42 km to the NNE of Kirkland Lake and 67 km northwest of Rouyn-Noranda (N.T.S. 32D).

The survey area is easily accessible by vehicle, as highway 101 passes just to the north, and the gravel road leading south toward **Esker Park** passes at about 1.6 km east of the eastern limit of the block. A number of secondary roads lead west from this gravel road, to the claim block. Please refer to Figure 1., showing a location map of the property at 1:250,000 scale.



WEST BLOCK Property,

Figure 1.  
Location map

N.T.S. 32D  
Scale 1:250,000



The **WEST** block consists of twenty-seven (27) patented, 16-hectare claims, staked in the west-central portion of Harker Twp. The Induced Polarization surveys covered the entire Block. The geophysical maps at 1:5,000 scale appended to this report show the claim lines and the claim numbers.

The **Holt-McDermott Mine** is located about 8 kilometers along strike to the east of the **WEST** Block.

### **Description of the I.P. surveys**

The Induced Polarization survey was carried out along previously cut survey lines, oriented at 000°, spaced every 100 meters and chained/picketed every 25 meters. A base line (B.L. 0+00N), striking at 090°, was used to set off the grid. The survey lines go from L17+00mW to L11+00mE. Tie lines 9+00N, 2+50S and 9+00S were cut to control the grid lines.

The **I.P. survey** was conducted between lines 17+00mW and 11+00mE, using a dipole-dipole electrode configuration. The dipole dimension was 50 meters and successive separations at multiples of  $n=1$ ,  $n=2$ ,  $n=3$ ,  $n=4$ ,  $n=5$  and  $n=6$  times the dipole dimensions were used, in order to investigate at depth.

A total of approximately **31.8 line-km** of I.P. data was thus gathered by Rémy Bélanger of Rouyn-Noranda.

The I.P. equipment consisted of 1° a **Phoenix IPT-1** transmitter operating at 1.0 Hz, powered by a 1 kW MG-1 motor generator. The phase angle (in milliradians) between the transmitted current and the received voltage was measured by 2° a **Phoenix Turbo V-5** phase I.P. receiver, measuring also the apparent resistivity of the earth at each "n". The phase angle is a direct measure of the polarization of the underlying earth.

The results of the I.P. surveys are presented in the appendix, namely in the form of pseudo-sections of the apparent resistivities and of the measured phase angle, at the scale 1:5,000 and also on plan maps at 1:5,000, showing the **contours of the apparent resistivity** at  $n=1$  and the **contours of the polarization** at  $n=1$ , both with the interpretation of the I.P. anomalies superimposed, using symbols whose meanings are explained in the accompanying legend.

### **Results and interpretation**

The Induced Polarization method is probably the best geophysical prospecting tool when investigating for base or precious metals in geological and structural environments such as the Holt-McDermott area. Indeed, the I.P. technique is capable of mapping most types of metallic sulfides, even when they do not conduct, which is often the case with structure-hosted gold mineralization associated with disseminated and stringer sulfides in fractures. Furthermore, the I.P. technique can also discriminate between "poor" conductors associated with electrolytic conductivity such as porous shear zones and overburden depressions, and "poor" conductors caused by low-conductivity metallic mineralization, such as stringer sulfides or sphalerite-enriched sulfides. Its performance is occasionally hampered by conductive cover such as lacustrine clays and by resistive glacial sand cover (eskers), when present.

In this particular case a 50-meter dipole dimension was chosen because of its penetration capability and for outlining potentially deep and wide pyrrhotite-pyrite-chalcopyrite mineralized zones having a significant depth extent. With the n=6 expanders, and considering the generally low noise levels and the resistive cover within the survey area, this I.P. survey should be able to successfully detect widespread metallic sulphide mineralization in the bedrock to depths in excess of 100 meters.

· ***Resistivity***

The resistivity relief, as contoured on the 1:5,000 colour plan map (see appendix), provides a quite faithful image of the overburden's cover and of the bedrock surface's relief. About half of the survey area is characterized by relatively high apparent resistivities (> 1,000 ohm-meters). These higher resistivity areas are confined to the western and eastern portions of the grid, indicating that thinner overburden conditions are prevailing over these areas. It might be advisable to visit these high-resistivity zones in the field, as there could be some chance that new bedrock outcrops might be discovered. Very often also, high resistivity zones occur over hydrothermally-altered lithologies and structures enriched with silica and carbonates, an excellent tracer tool for gold-hosting environments.

Of particular interest on the resistivity contour map are a number of narrow NNW-SSE-trending linear low-resistivity trends in the western half of the block. They could very well be caused by porous open faults and structures.

Also the central portion of the survey area is characterized by low-resistivity values, in part caused by an increased overburden thickness and wet surface conditions due to the presence of the north-south Ghost River passing through that area. It is also quite probable that a major north-south fault or multiple faults have developed through that area.

· **Polarization (I.P.)**

The I.P. measurements show the presence of four clusters of anomalous polarization within the survey area. Referring to the I.P. **pseudo-sections** and the N=1 phase **I.P. contour map** and its accompanying legend, the I.P. anomalies were classified according to their "strength" (i.e. the probable "massiveness" of the causative metallic material) and their degree of definition (a well-defined I.P. anomaly is one which displays a clear, unambiguous *triangular* shape on a pseudo-section), as well as according to the behavior of the apparent resistivity.

Conductive, semi-massive and massive metallic mineralization (graphite and/or massive sulfides) will typically cause a decrease in the resistivity in addition to a strong I.P. anomaly. So will a mineralized shear corridor carrying disseminated or stringer sulfides. The symbols used in the interpretation of the I.P. survey are explained on the compilation maps and on the pseudo-sections.

The majority of the responses are situated in the **northwest** portion of the grid where a topographic high, associated with a resistivity increase, cause higher background levels in the phase I.P. measurements of that area. Through this higher background, two discrete anomalous I.P. trends can be identified. They strike east-west and are situated at shallow depths.

The same type of signature was also recognized in the east, in the vicinity of line 700E to line 900E near the base line, where a small cluster of three I.P. anomalies was delineated.

These groups of I.P. anomalies probably indicate the presence of metallic mineralization in the bedrock in the form of disseminated sulfides within a resistive host (silica-carbonate enriched?)

In addition, there is one horizon in the south which carries **conductive** metallic mineralization, as evidenced by relatively strong I.P. anomalies with coincident resistivity lows. This east-west trend was mapped almost continuously between lines 1500W (near 900S) and 300W (near 650S), and it indicates the presence of semi-massive to massive sulfides or graphite in the bedrock at depths not exceeding 25 meters. A formational graphitic unit is a very possible cause to this anomaly but it nevertheless warrants a substantiation by means of diamond drilling.

### **Conclusion and recommendations**

The Induced Polarization surveys which were recently completed on the **WEST** block of the Holt-McDermott project, for **Barrick Gold Corp.** have successfully defined a number of resistive regions interpreted to be possibly indicative of hydrothermally-altered structures, as well as a wide north-south low-resistivity lineament which could indicate the presence of a major structural corridor.

Four groups of I.P. anomalies were delineated, and those three groups situated in high resistivity environments should be investigated by stripping/trenching or by short drill holes. The long I.P. trend in the south, possibly caused by a graphitic unit, will necessitate drilling in order to be properly explained.

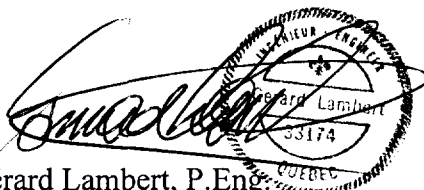
Depending on the knowledge of the property's geology from compilation of past exploration work, some of the I.P. anomalies presented here may be readily written off as having been properly explained. However those which have not been yet accounted for should definitely be investigated further.

It is difficult, *from a geophysical point of view alone*, to rate the I.P. anomalies in terms of their economic potential, especially when one is exploring for gold. But it is expected that the "strongest" I.P. anomalies (particularly those identified with black and thick-walled squares on the maps) will be caused by semi-massive to massive *metallic* mineralization such as graphite or pyrite (with possibly accessory pyrrhotite or sphalerite) in the bedrock, at depths not exceeding 50 meters below ground surface.

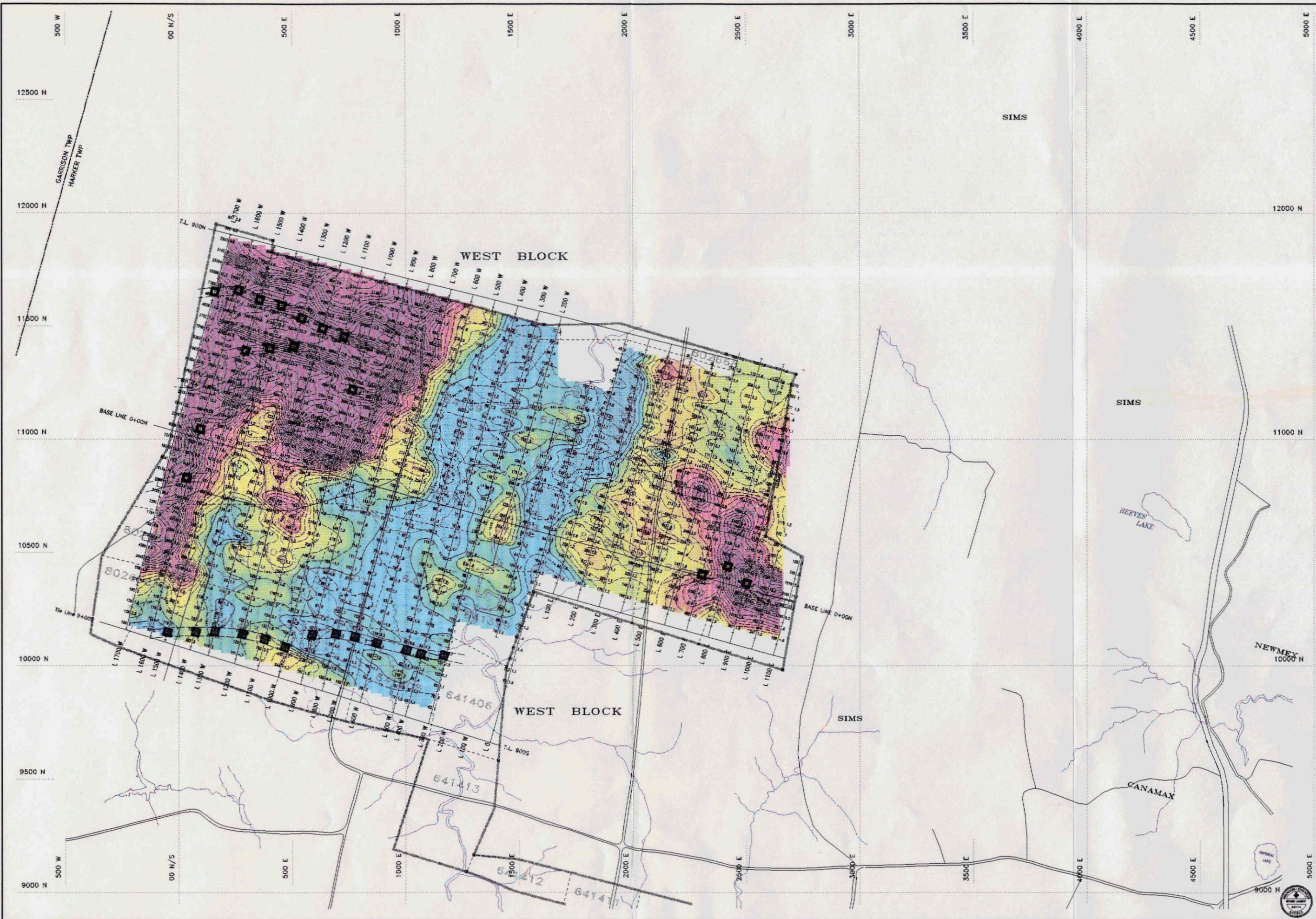
From a strictly geophysical standpoint, all the interpreted I.P. responses certainly deserve further investigation by means of diamond drilling, aiming at intersecting the mineralized units at 60 to 80 meters below ground surface. The causative sources appear to be sub-vertical, so the direction of drilling is not critical.

The choice of drilling priorities will however require some input from other sources of geoscientific information, such as compilations of past work, presence of nearby gold showings and mineralized intersections, as well as an analysis of the magnetic map in conjunction with the regional geological compilation.

Rouyn-Noranda, Québec  
December 13, 1996

  
Gérard Lambert, P.Eng.  
Consulting Geophysicist



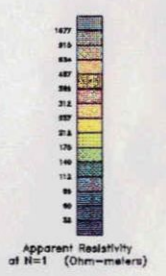


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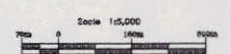
**INTERPRETATION**

- High resistivity zone (e.g. massive sulfide)
- Low resistivity zone (e.g. graphite)
- Low resistivity zone (e.g. graphite)

Relativity (Ohm-meters)	Polarization (mV/demens)
251.58	
216.42	
271.18	
416.61	
487.61	
472.05	



Scale 1:15,500



**WEST BLOCK**

**BARRICK** BARRICK GOLD CORPORATION  
(Eastern Canada Region)

**HOLT McDERMOTT PROJECT**  
Induced Polarization Survey

Survey of the apparent resistivity

Site processing and interpretation by: **LANEY GEOPHYSICS LTD.**

Project No. 012

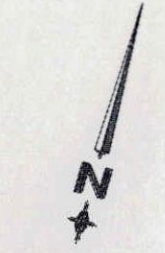
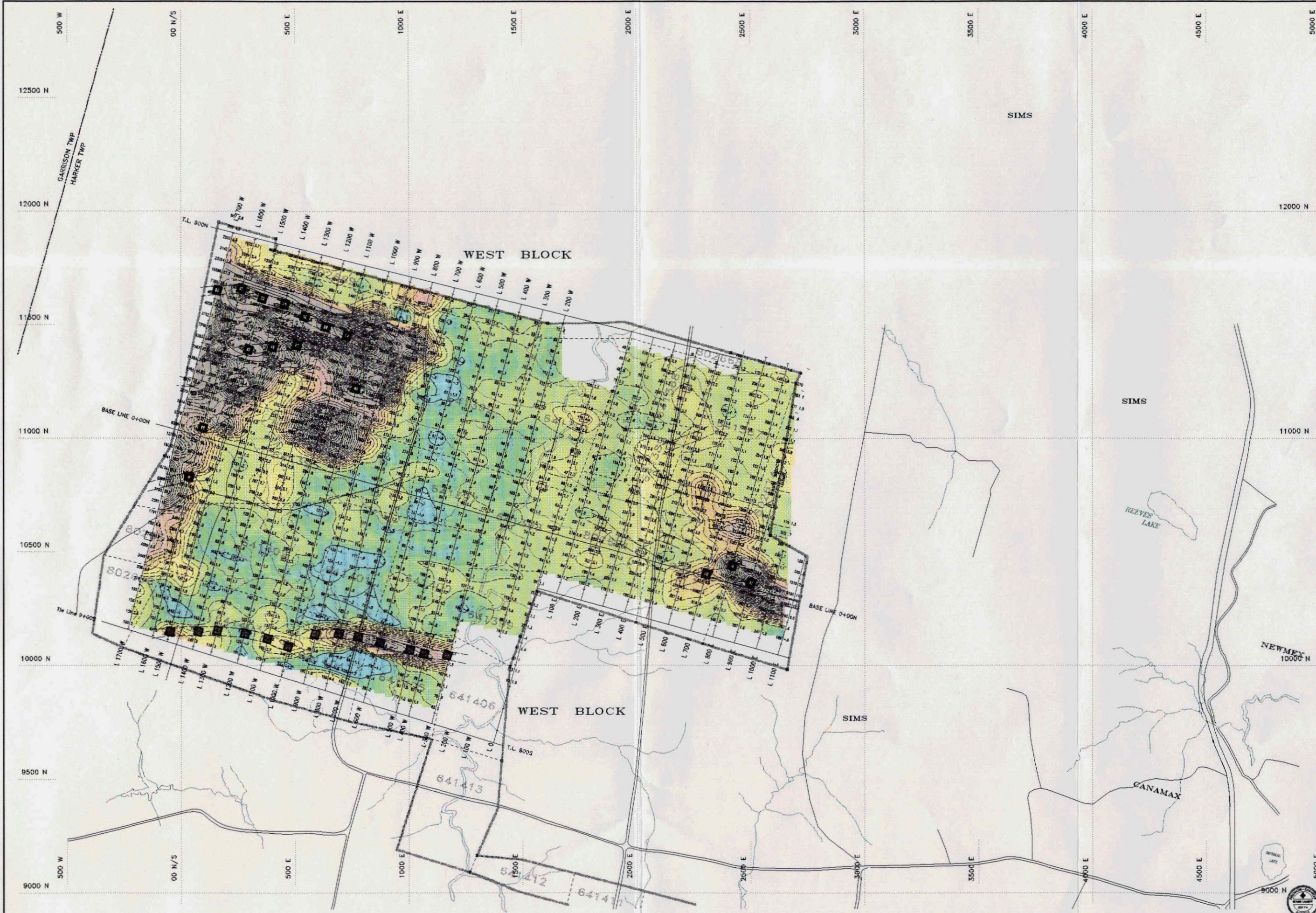
Approved by: **BARRICK**

Author: **BARRICK & HOLT McDERMOTT**

Scale: 1:15,500

August 1988



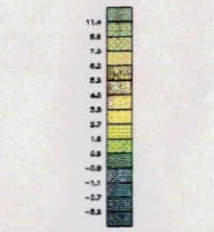


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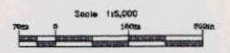
**INTERPRETATION**

- Interpretation of the induced polarization survey
- Interpretation of the resistivity survey
- Interpretation of the topographic map

Relativity (Ohm-metres)	Polarization (millivolt)
271.8	271.8
276.42	276.42
481.01	481.01
492.05	492.05



Scale 1:15,500



**WEST BLOCK**

**BARRICK GOLD CORPORATION**  
(Traded: Canada Exchange)

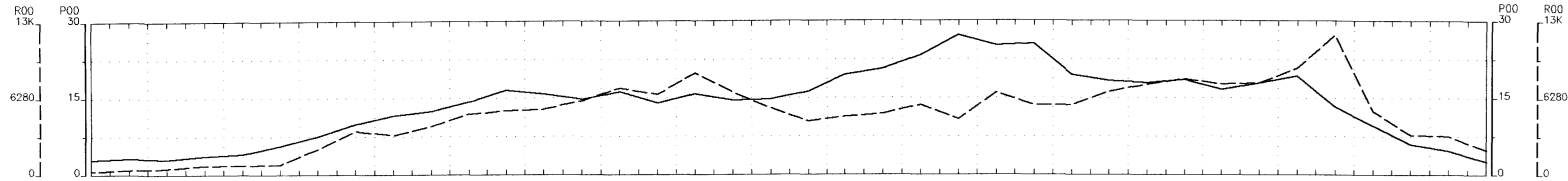
**HOLT McDERMOTT PROJECT**  
INDUCED POLARIZATION SURVEY  
Continuation of the phase (I.P. effect)

Data processing and interpretation by: **LAURENT GEOPHYSICAL LTD.**

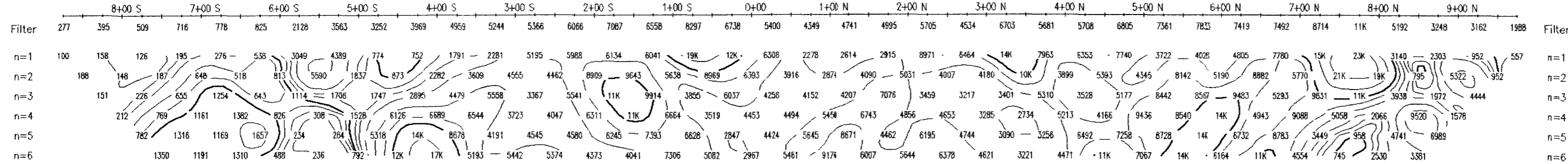
PROJECT NO. 512  
MAPS BY: **HUBER & SOUZA INC.**  
N.S.A. **H.S.A. & S.P.T.**

August 1996



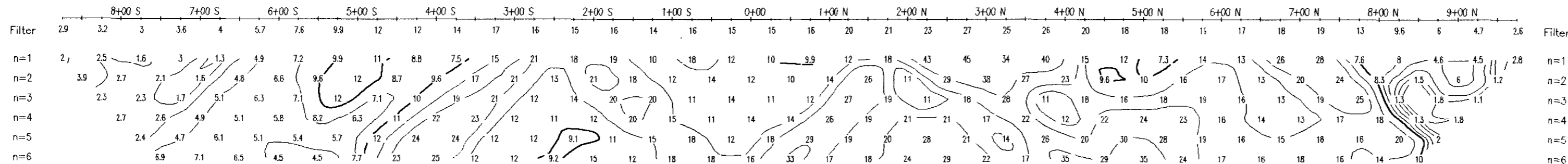


RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

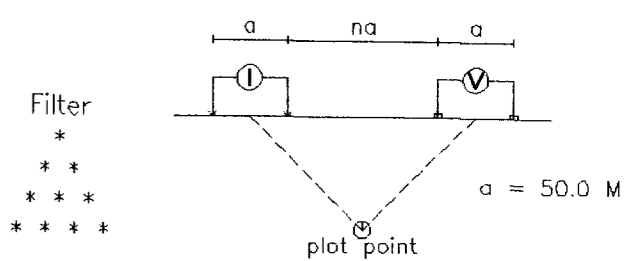
PHASE  
MRAD



PHASE  
MRAD

### Line 1700 W

Dipole-Dipole Array



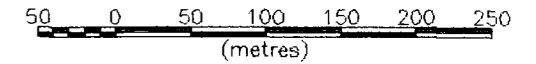
Filter  
\*  
\* \*  
\* \* \*  
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Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

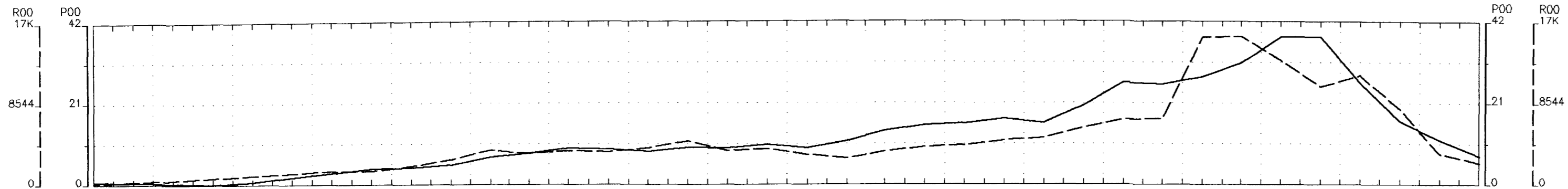


**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

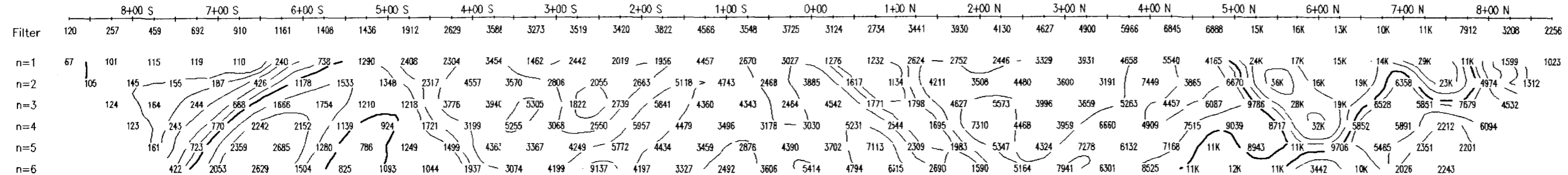
Date: 96/06/02  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



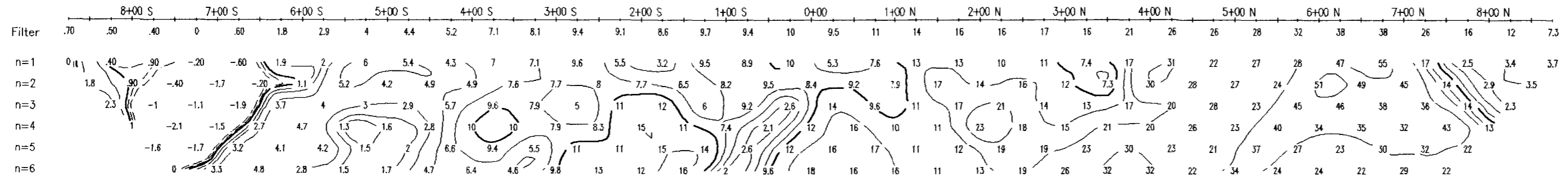
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS



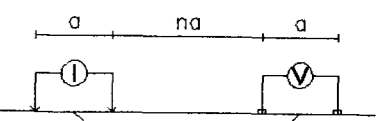
PHASE  
MRAD

PHASE  
MRAD



### Line 1600 W

Dipole-Dipole Array



Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

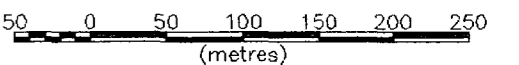
a = 50.0 M

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

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Scale 1:5000

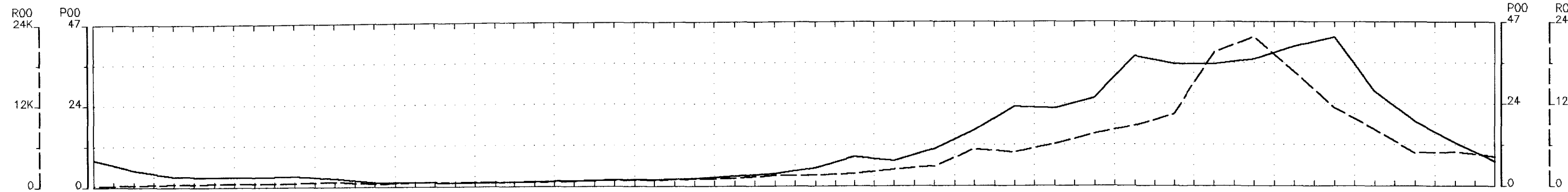


**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

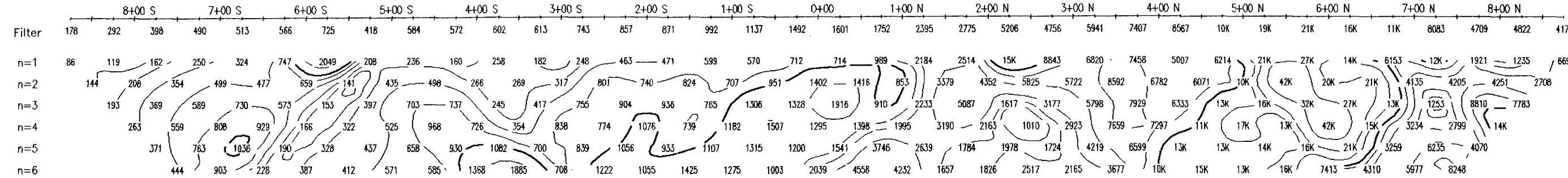
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Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



RESISTIVITY  
OHM-METERS

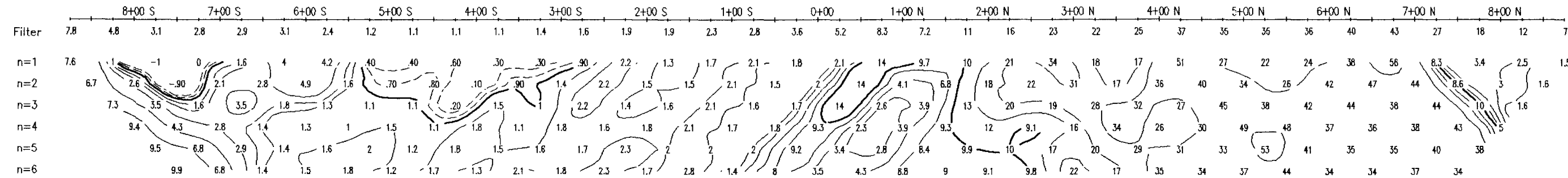
RESISTIVITY  
OHM-METERS



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n=4  
n=5  
n=6

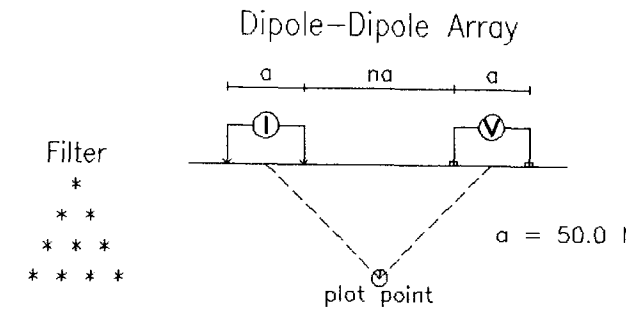
PHASE  
MRAD

PHASE  
MRAD



Filter  
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n=6

### Line 1500 W

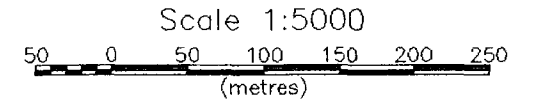


Filter  
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Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

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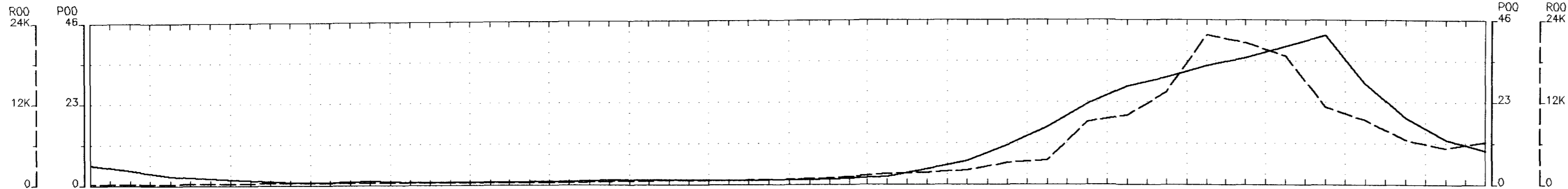


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

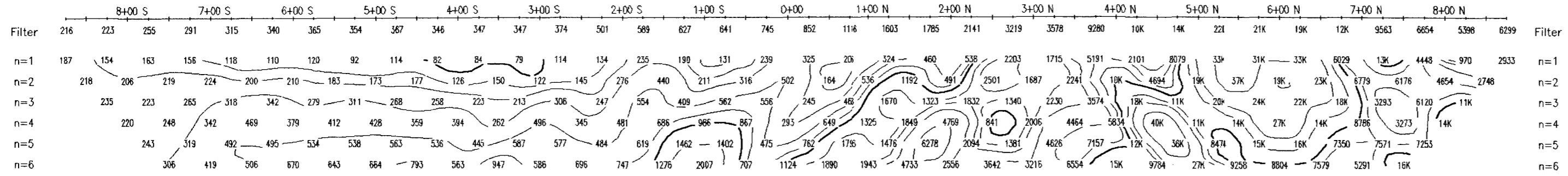
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Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



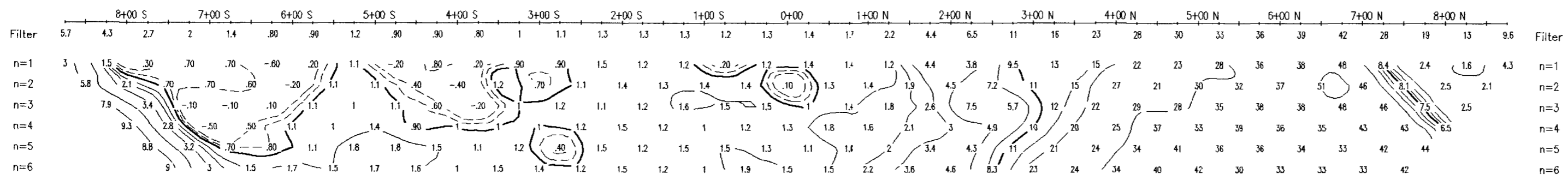
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

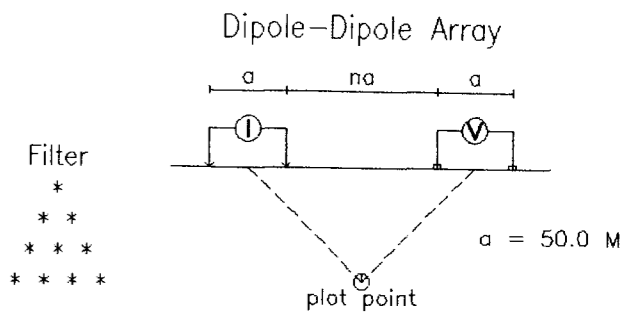


PHASE  
MRAD

PHASE  
MRAD



### Line 1400 W

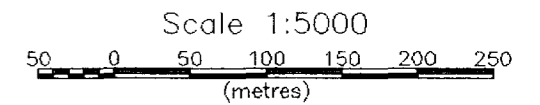


Filter \*  
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\* \* \* \*

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

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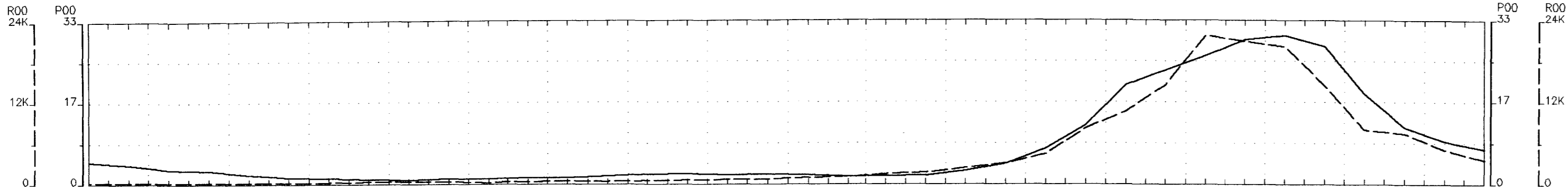


**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

Date: 96/06/03  
Interpretation: GERARD LAMBERT

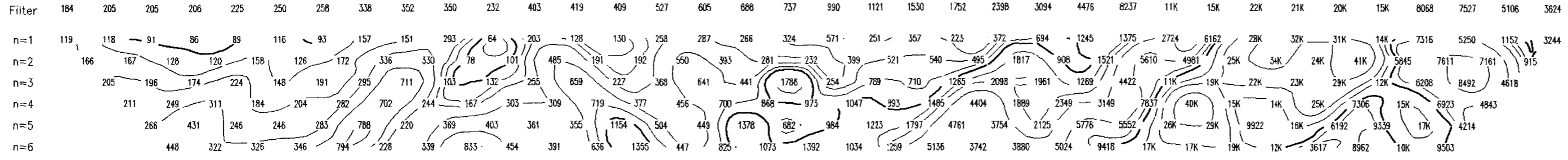
**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

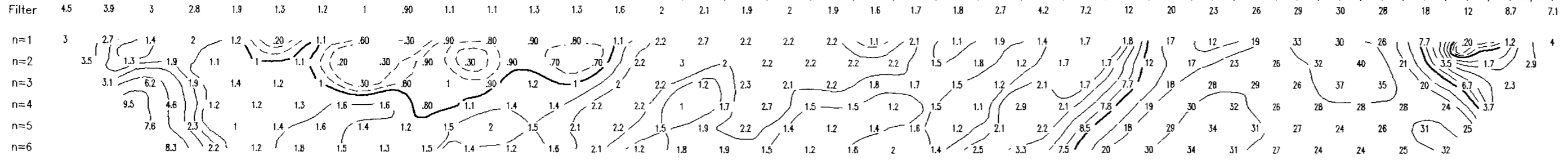
8+00 S 7+00 S 6+00 S 5+00 S 4+00 S 3+00 S 2+00 S 1+00 S 0+00 1+00 N 2+00 N 3+00 N 4+00 N 5+00 N 6+00 N 7+00 N 8+00 N



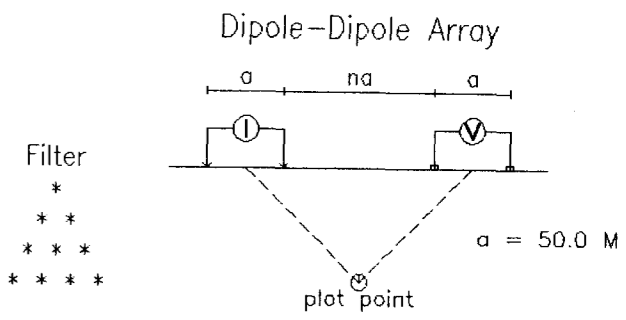
PHASE  
MRAD

PHASE  
MRAD

8+00 S 7+00 S 6+00 S 5+00 S 4+00 S 3+00 S 2+00 S 1+00 S 0+00 1+00 N 2+00 N 3+00 N 4+00 N 5+00 N 6+00 N 7+00 N 8+00 N



### Line 1300 W



Filter  
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\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

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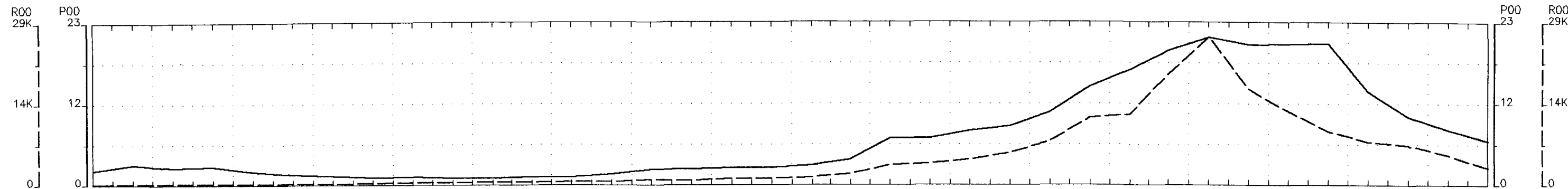
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(metres)

**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

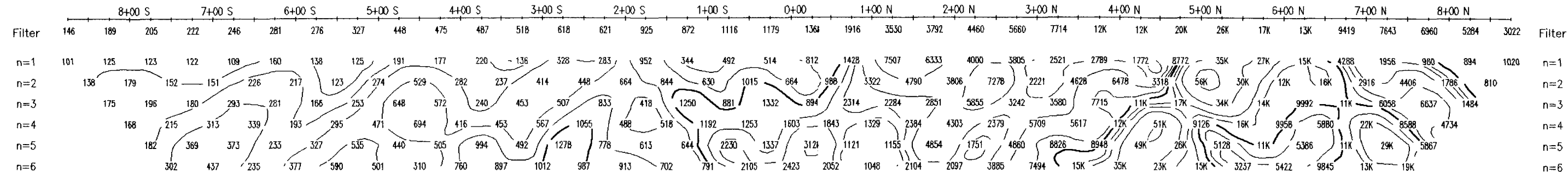
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Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



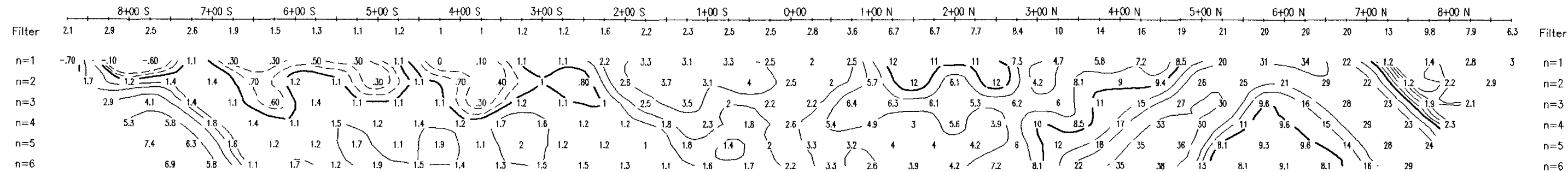
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS



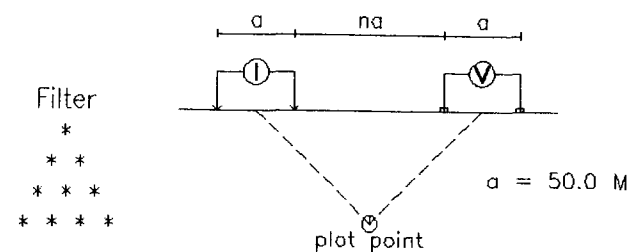
PHASE  
MRAD

PHASE  
MRAD



### Line 1200 W

Dipole-Dipole Array



Filter

\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

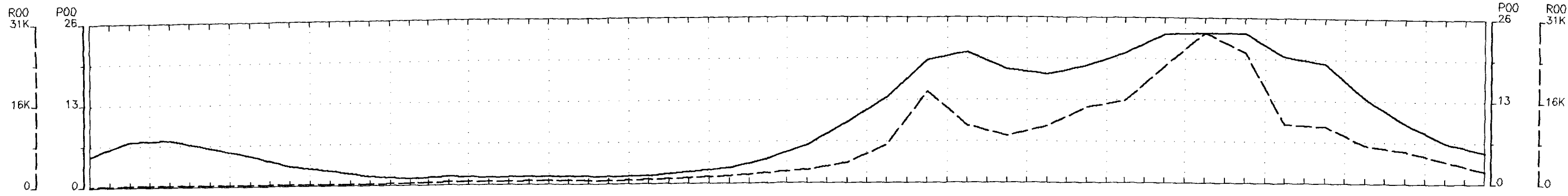


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

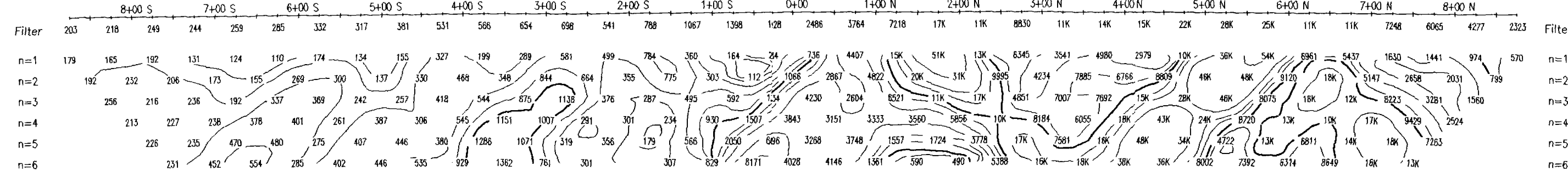
Date: 96/06/03  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



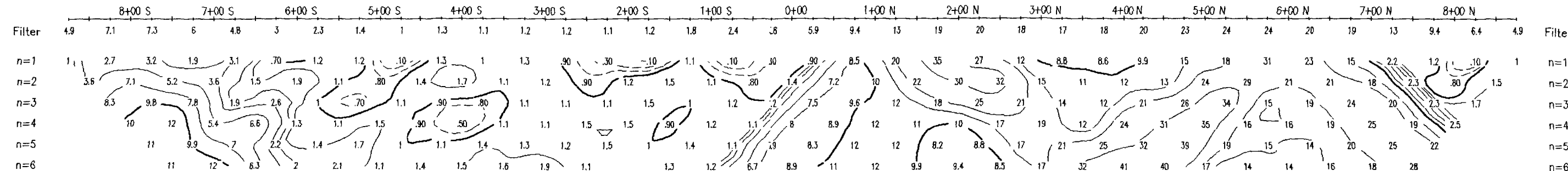
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

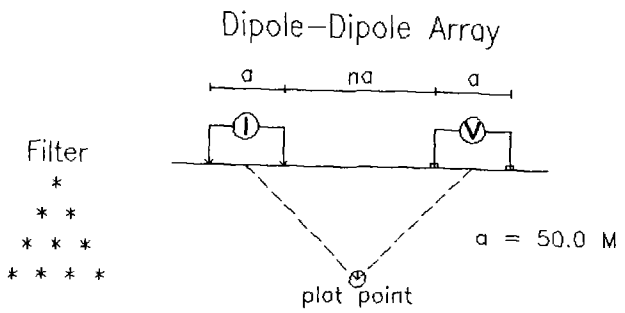


PHASE  
MRAD

PHASE  
MRAD



### Line 1100 W

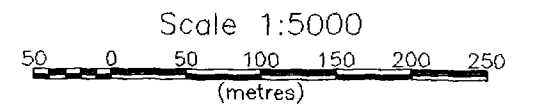


Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

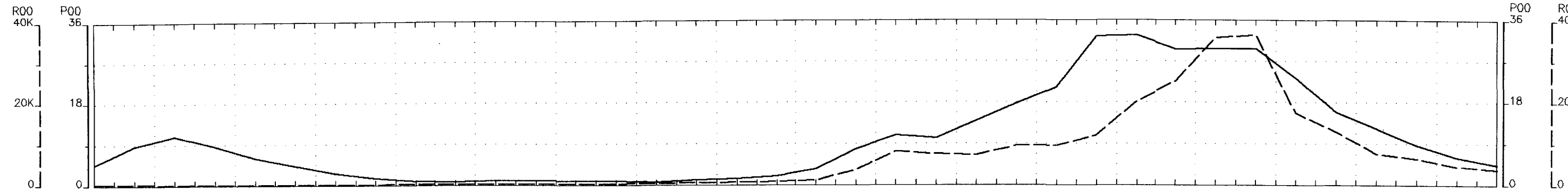


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

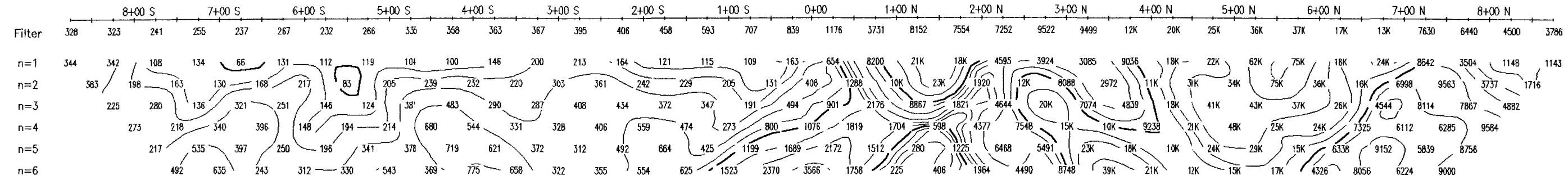
Date: 96/06/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



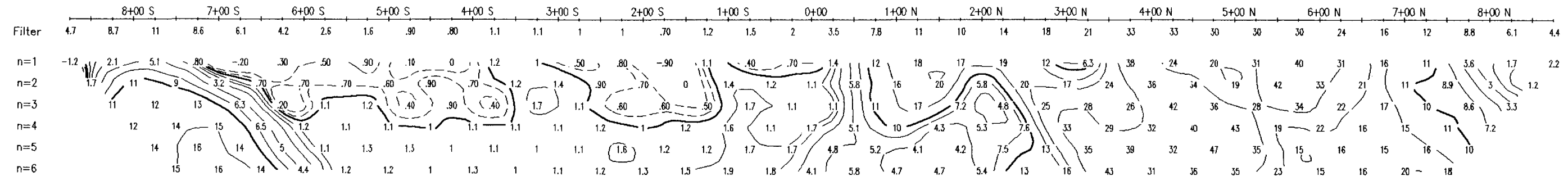
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

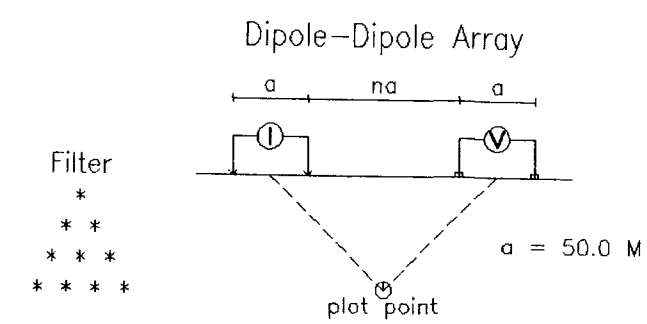


PHASE  
MRAD

PHASE  
MRAD



### Line 1000 W



Filter  
\*  
\*\*  
\*\*\*  
\*\*\*\*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000  
50 0 50 100 150 200 250  
(metres)

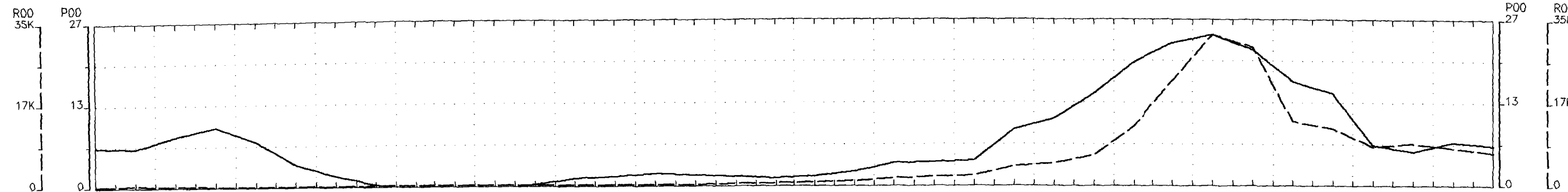
**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

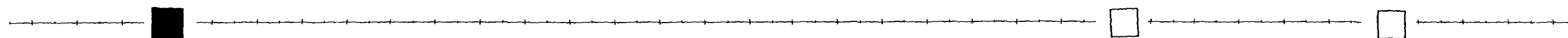
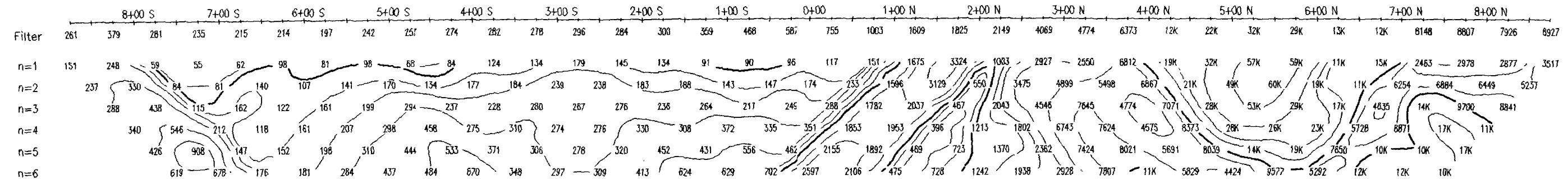
Date: 96/06/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

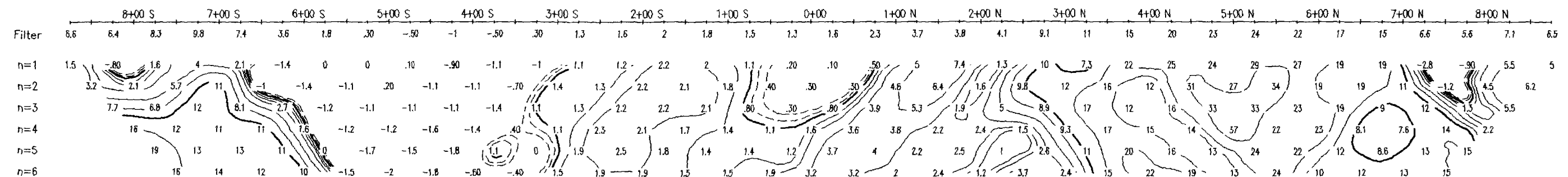




RESISTIVITY  
OHM-METERS

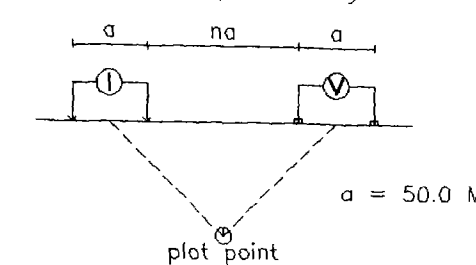


PHASE  
MRAD



### Line 0900 W

Dipole-Dipole Array



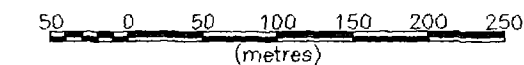
Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

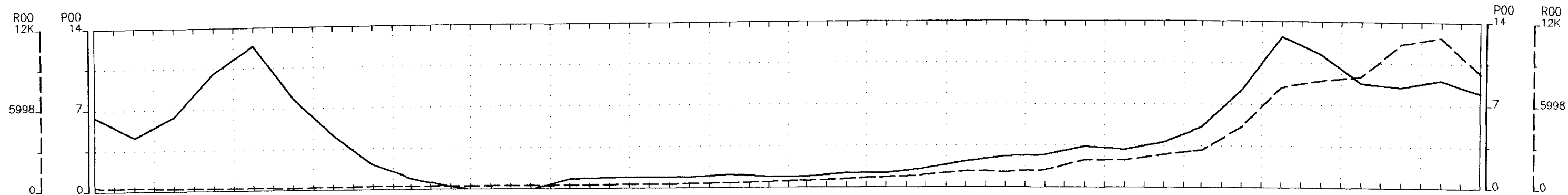


**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO

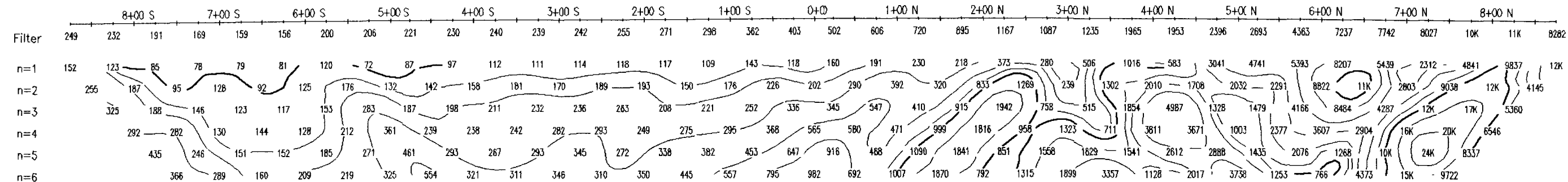
Date: 96/06/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



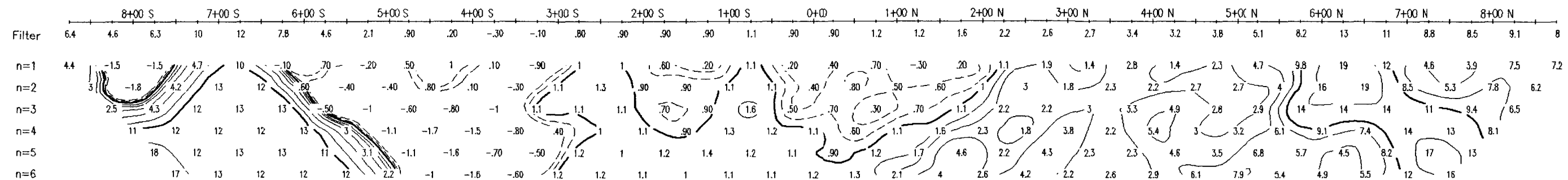
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

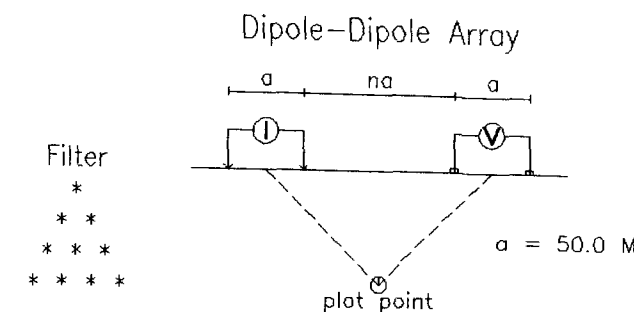


PHASE  
MRAD

PHASE  
MRAD



### Line 0800 W



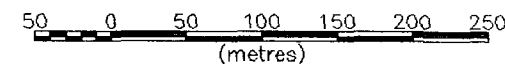
Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

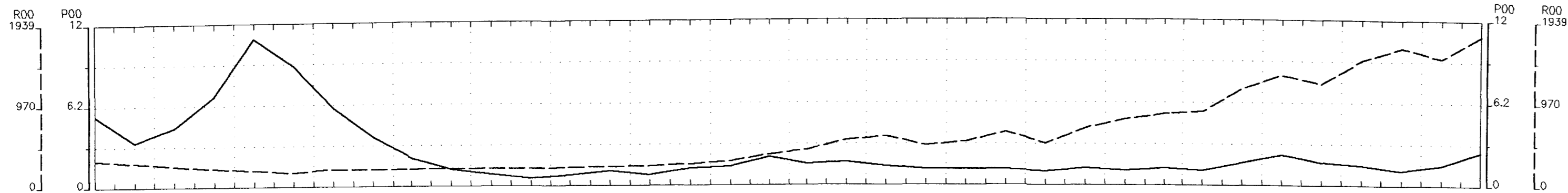


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

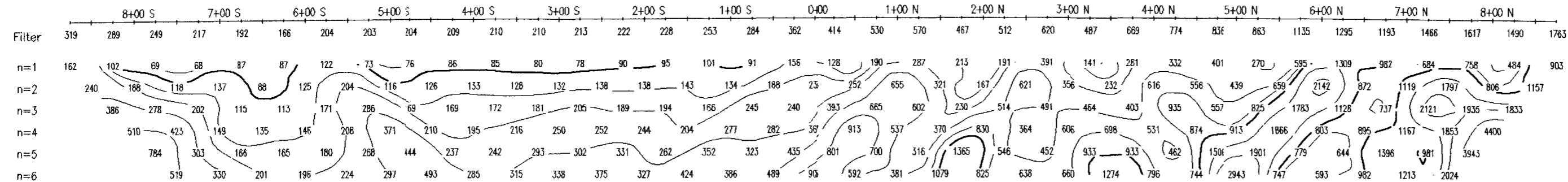
Date: 96/06/05  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



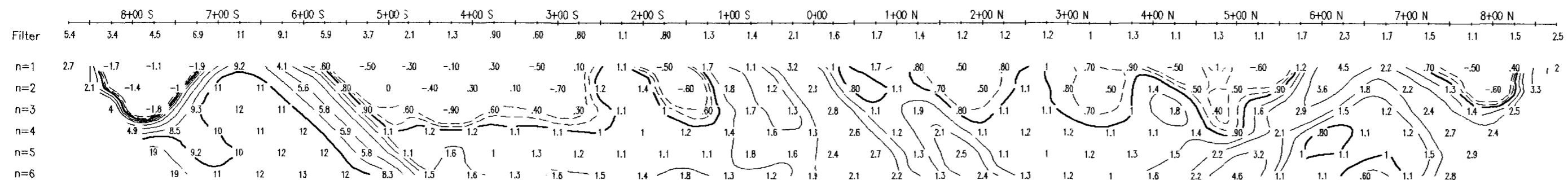
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

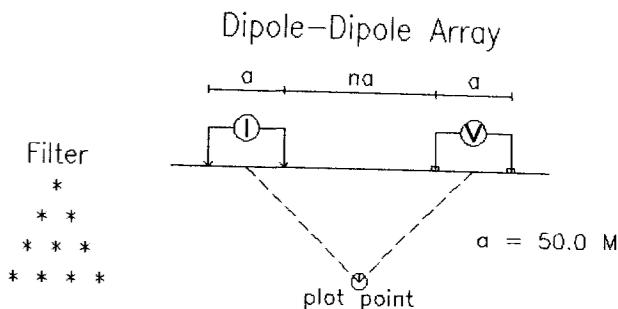


PHASE  
MRAD

PHASE  
MRAD



### Line 0700 W



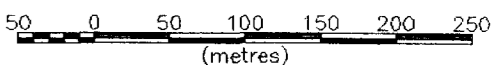
Filter \* \* \* \* \*

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

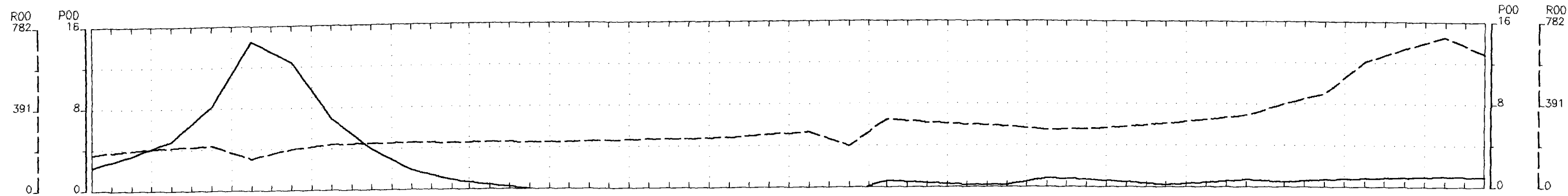


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

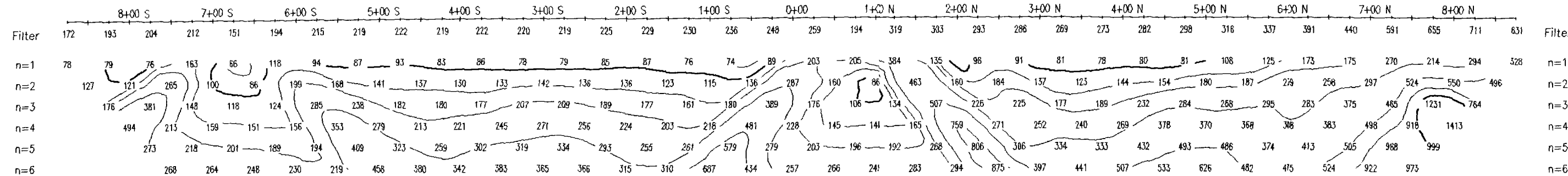
Date: 96/06/05  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



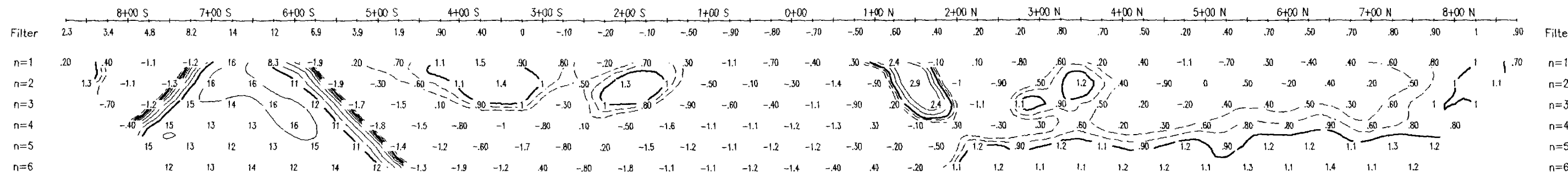
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS



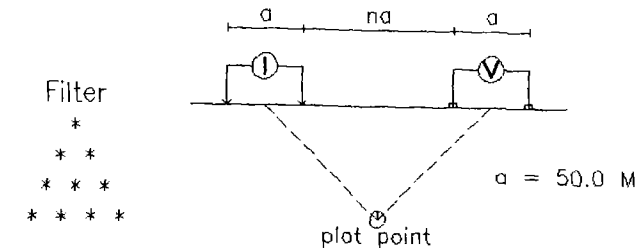
PHASE  
MRAD

PHASE  
MRAD



### Line 0600 W

Dipole-Dipole Array



Filter  
\*  
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\* \* \*  
\* \* \* \*

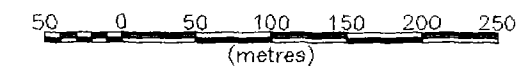
a = 50.0 M

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

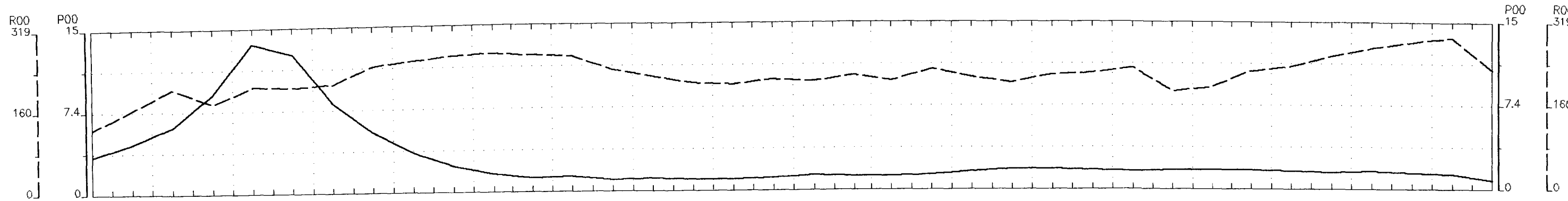


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

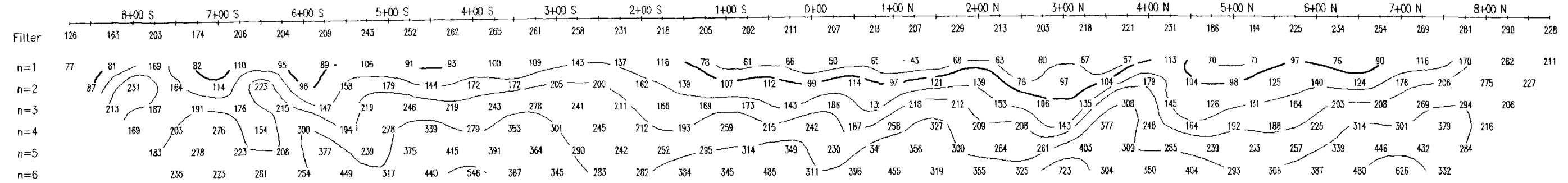
Date: 96/06/05  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



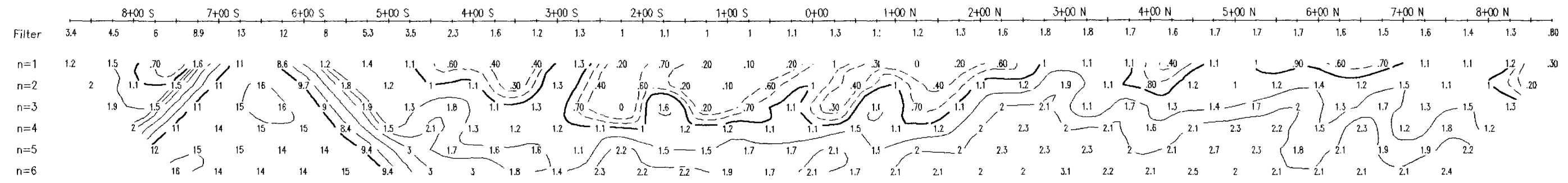
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

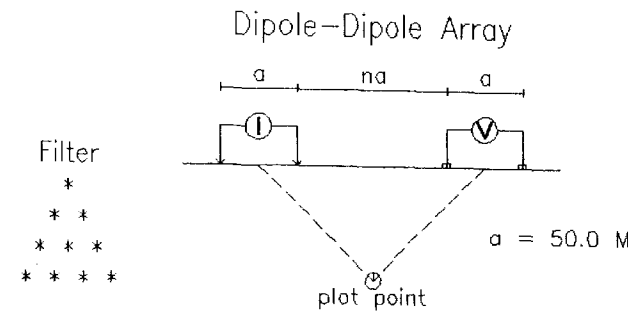


PHASE  
MRAD

PHASE  
MRAD



### Line 0500 W



Filter \* \* \* \* \*  
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

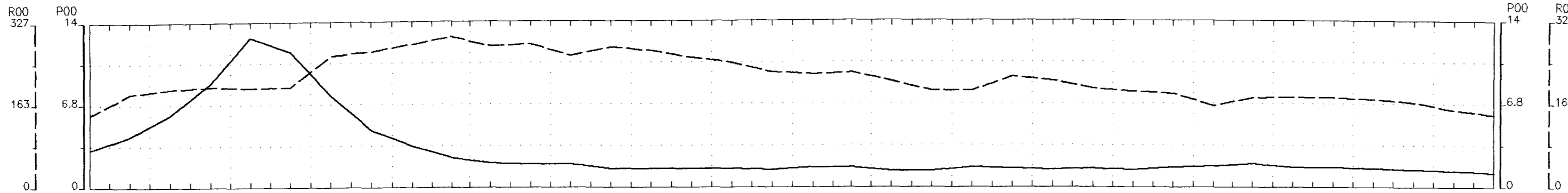
Scale 1:5000  
50 0 50 100 150 200 250 (metres)

**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

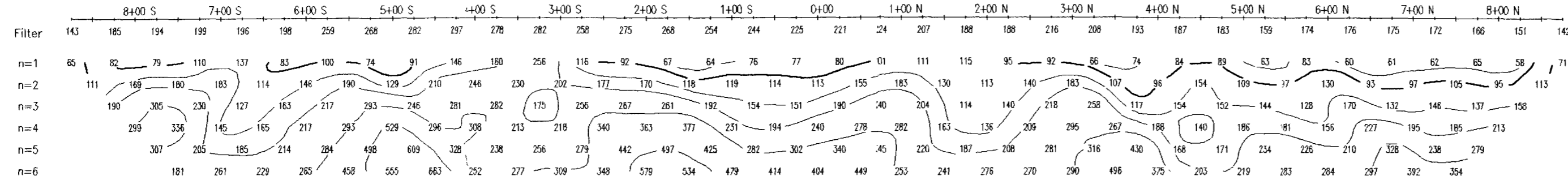
Date: 96/07/03  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



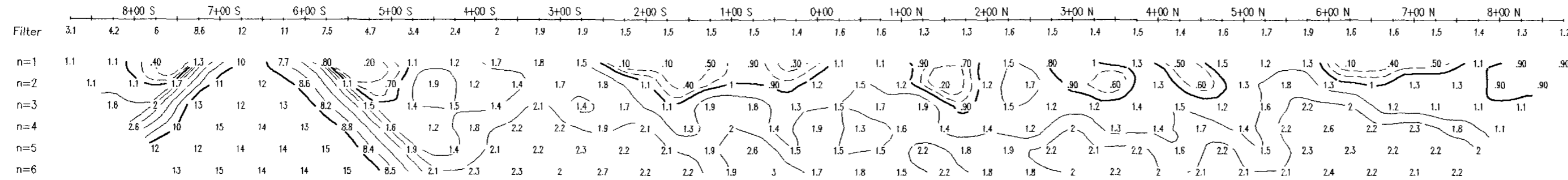
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

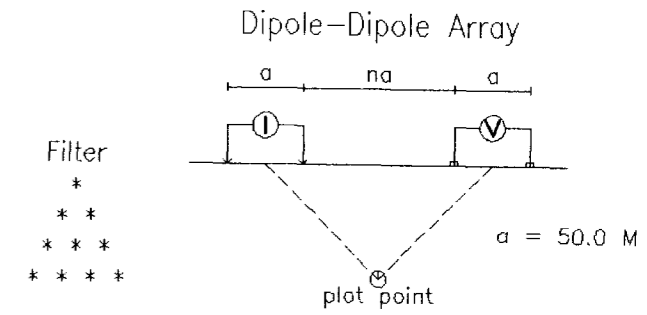


PHASE  
MRAD

PHASE  
MRAD



### Line 0400 W



Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

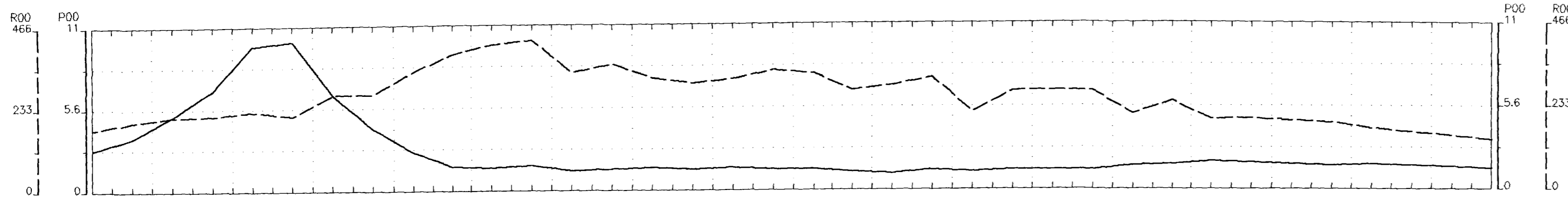
Scale 1:5000  
50 0 50 100 150 200 250  
(metres)

**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

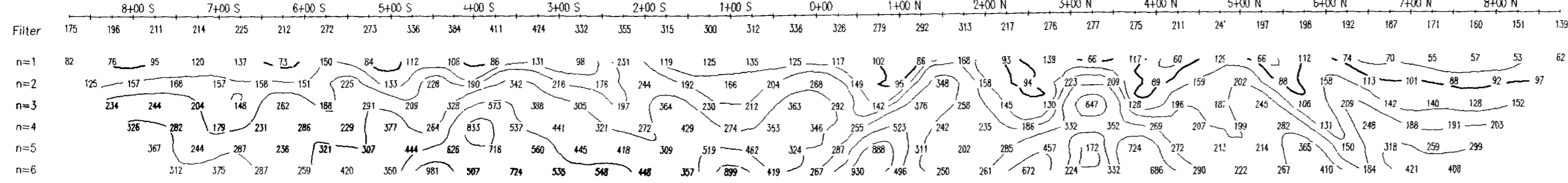
Date: 96/07/03  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



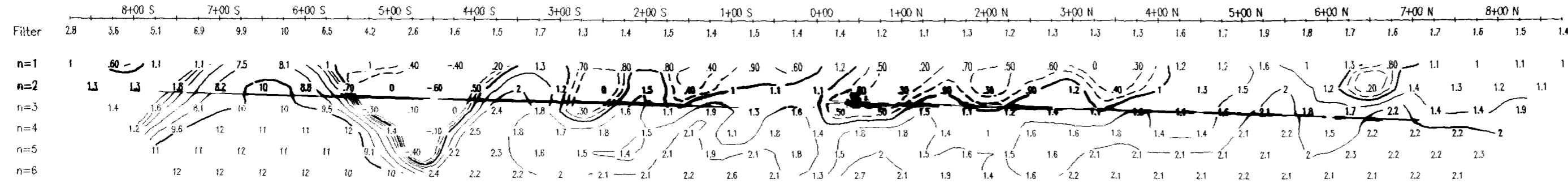
RESISTIVITY  
OHM-METERS

RESISTIVITY  
OHM-METERS

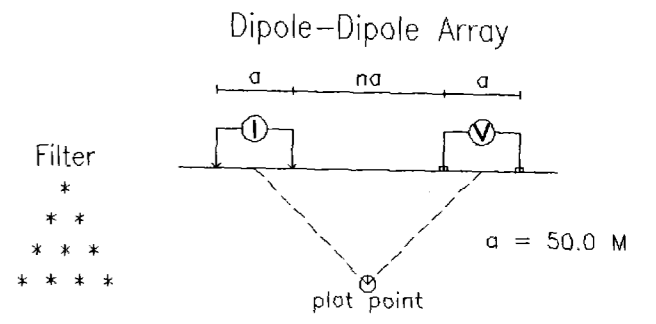


PHASE  
MRAD

PHASE  
MRAD



### Line 0300 W



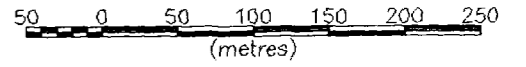
Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

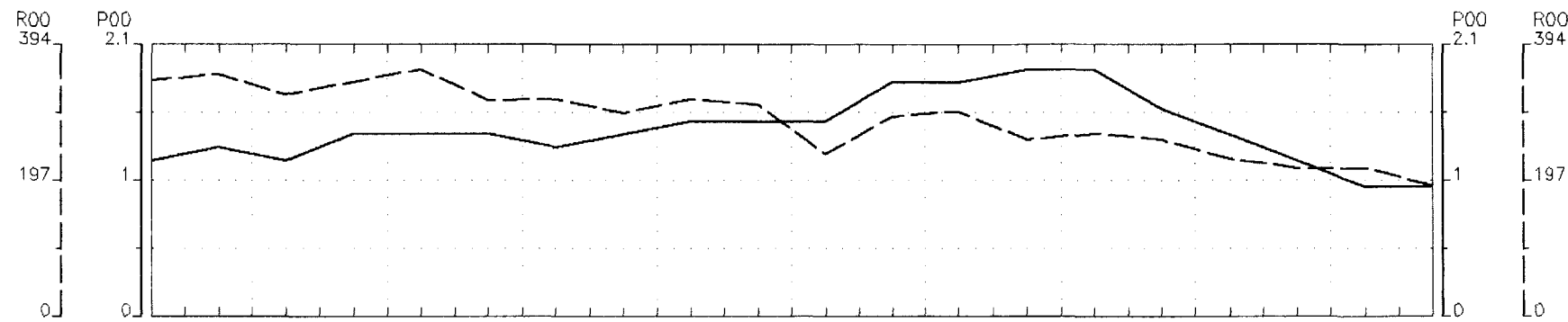


**BARRICK GOLD CORPORATION**

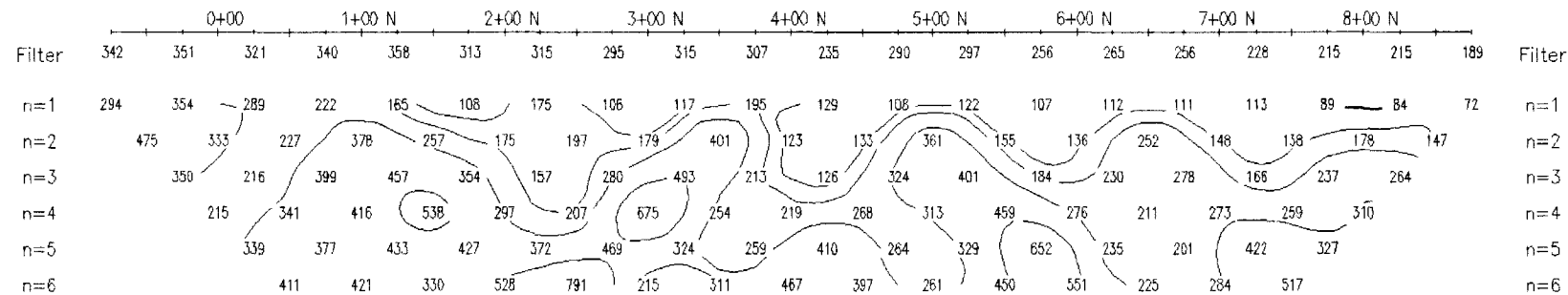
**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO**

Date: 96/07/03  
Interpretation: GERARD LAMBERT

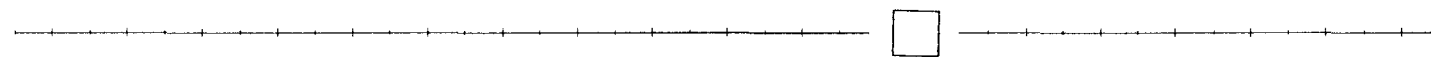
**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



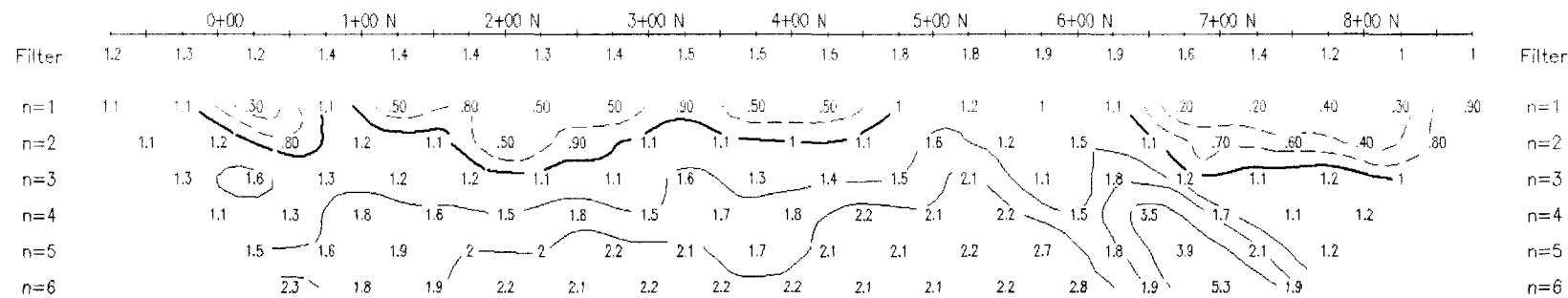
RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

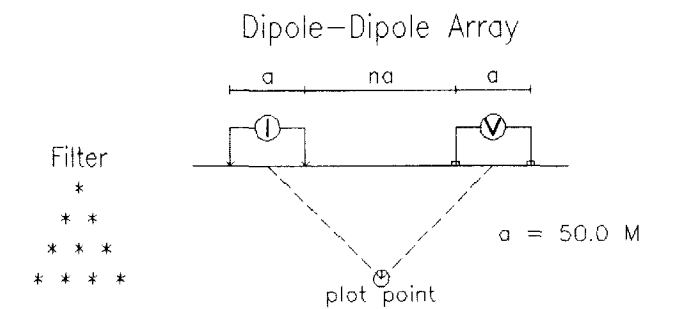


PHASE  
MRAD



PHASE  
MRAD

### Line 0200 W



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.



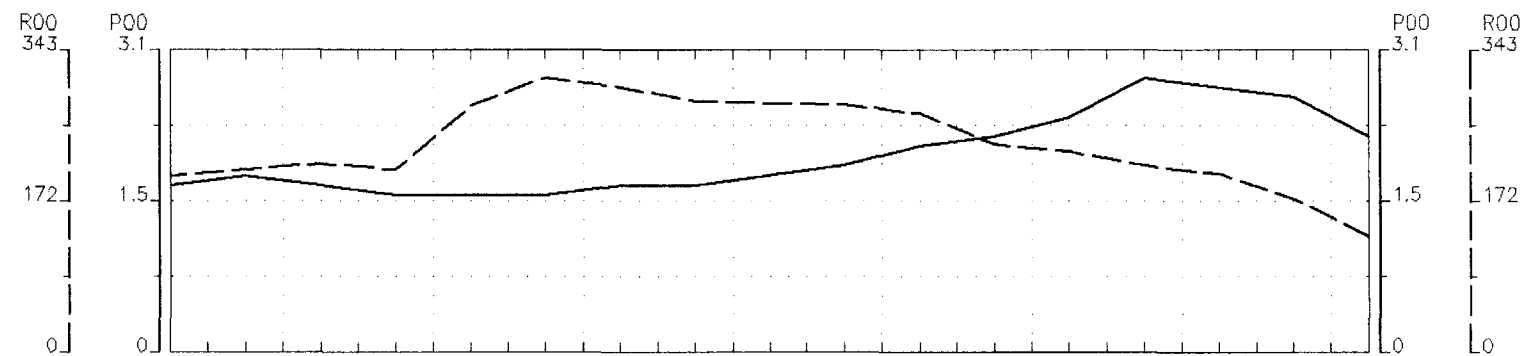
**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO

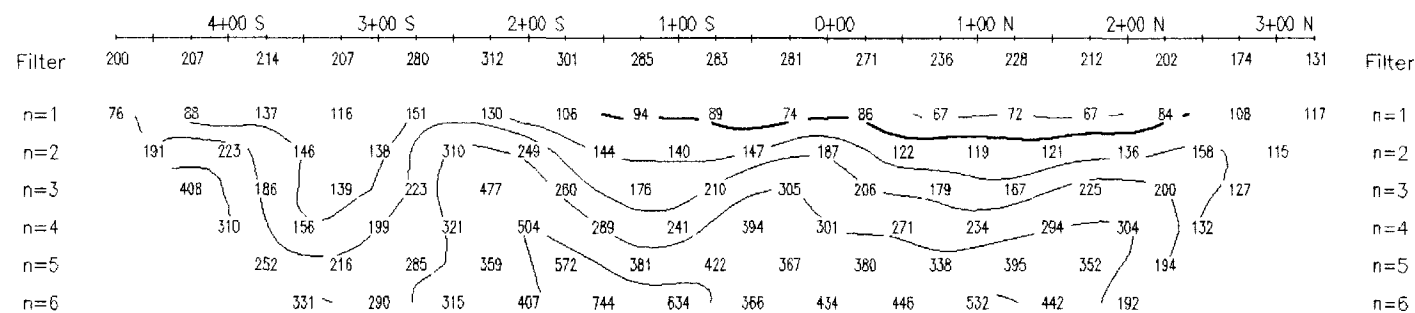
Date: 96/07/03  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



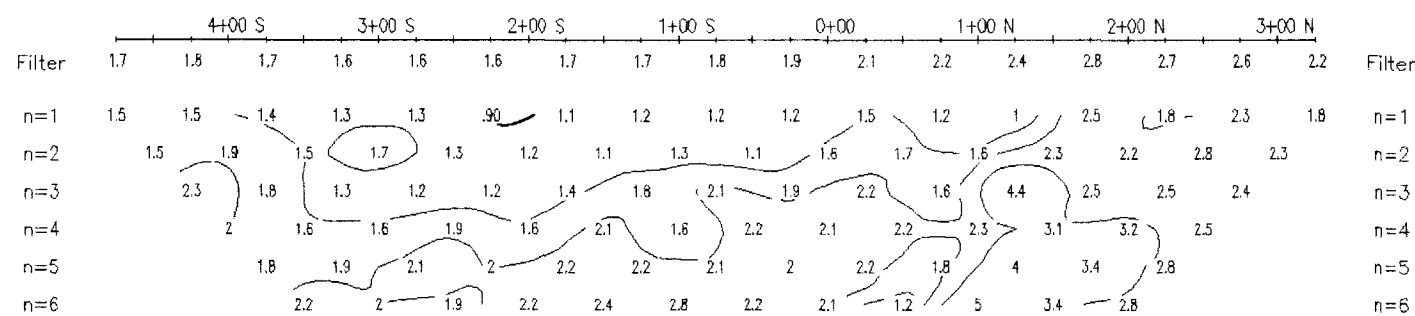


RESISTIVITY  
OHM-METERS



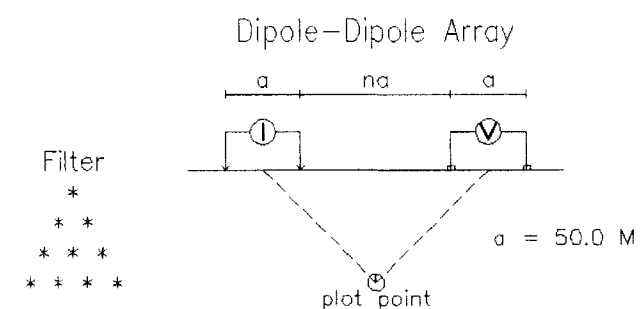
RESISTIVITY  
OHM-METERS

PHASE  
MRAD



PHASE  
MRAD

### Line 0100 W

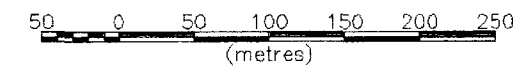


Filter \*  
\* \*  
\* \* \*  
\* \* \* \*  
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

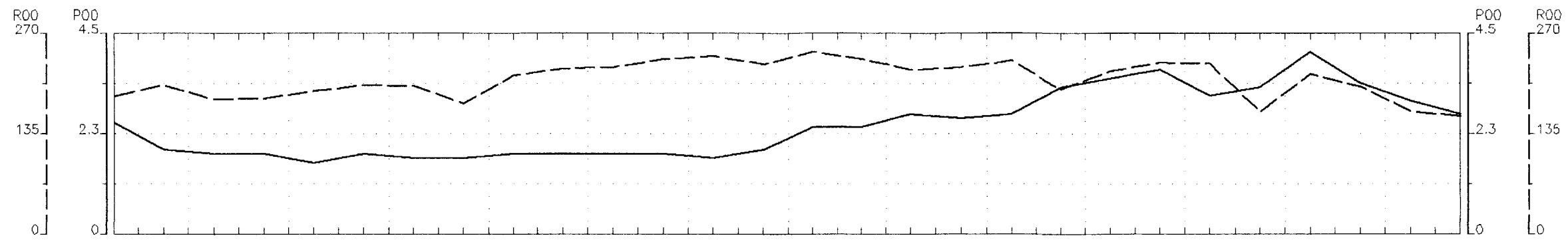


**BARRICK GOLD CORPORATION**

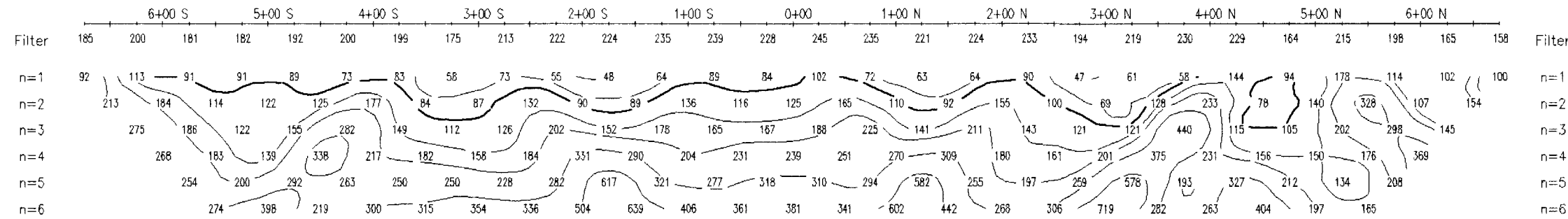
INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

Date: 96/07/06  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

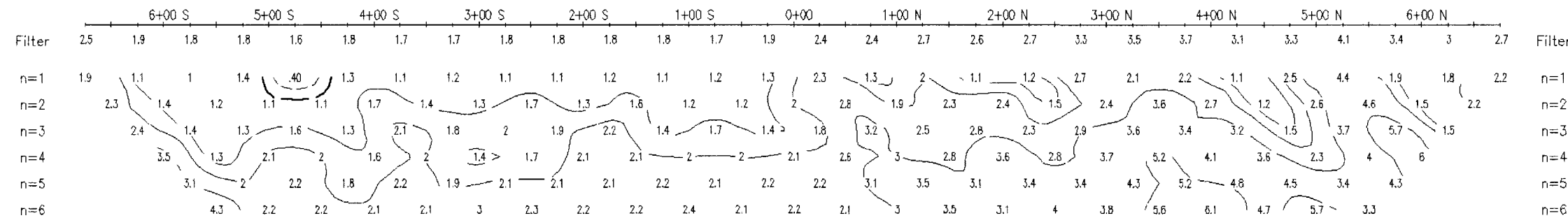


RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

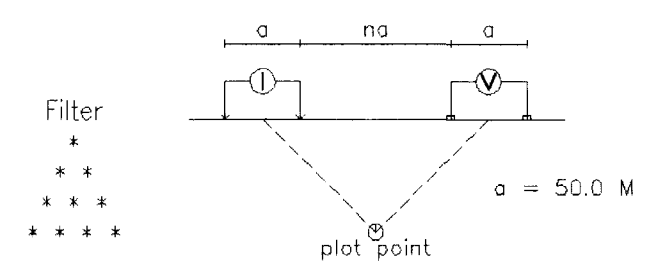
PHASE  
MRAD



PHASE  
MRAD

### Line 0000 E

Dipole-Dipole Array



Filter  
\*  
\*  
\* \* \*  
\* \* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

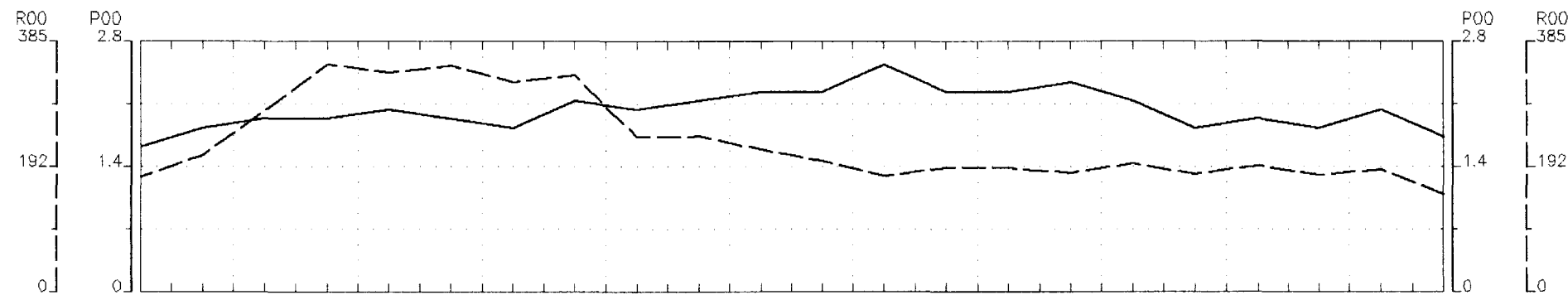
Scale 1:5000  
50 0 50 100 150 200 250  
(metres)

**BARRICK GOLD CORPORATION**

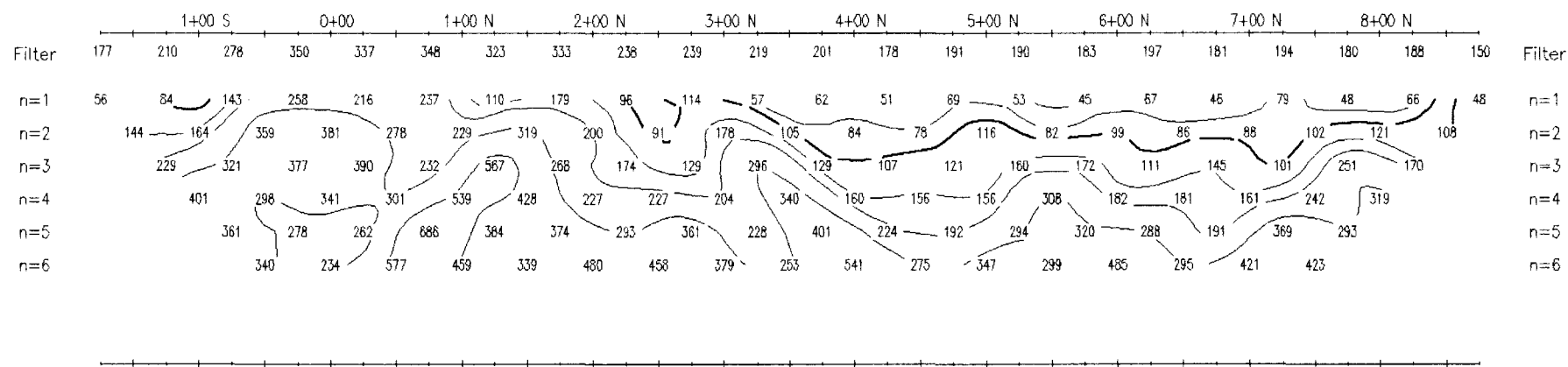
**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO**

Date: 96/07/06  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

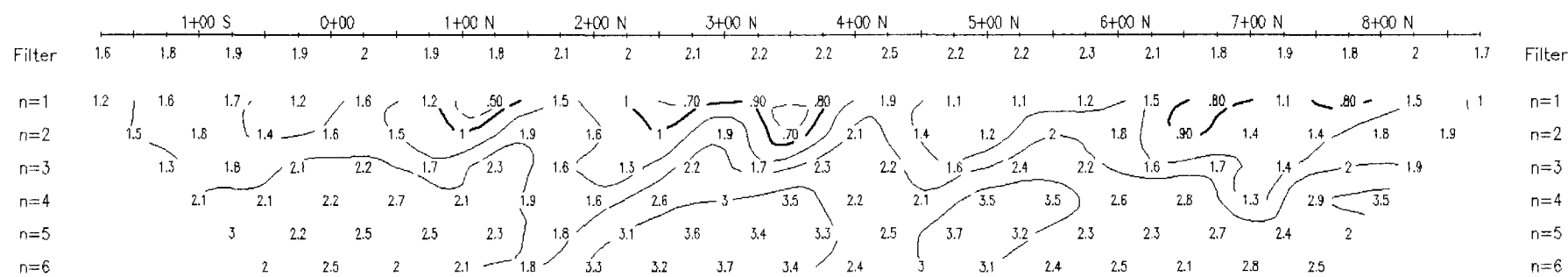


RESISTIVITY  
OHM-METERS



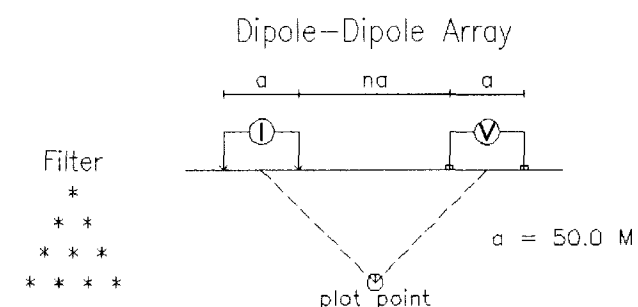
RESISTIVITY  
OHM-METERS

PHASE  
MRAD



PHASE  
MRAD

### Line 0100 E



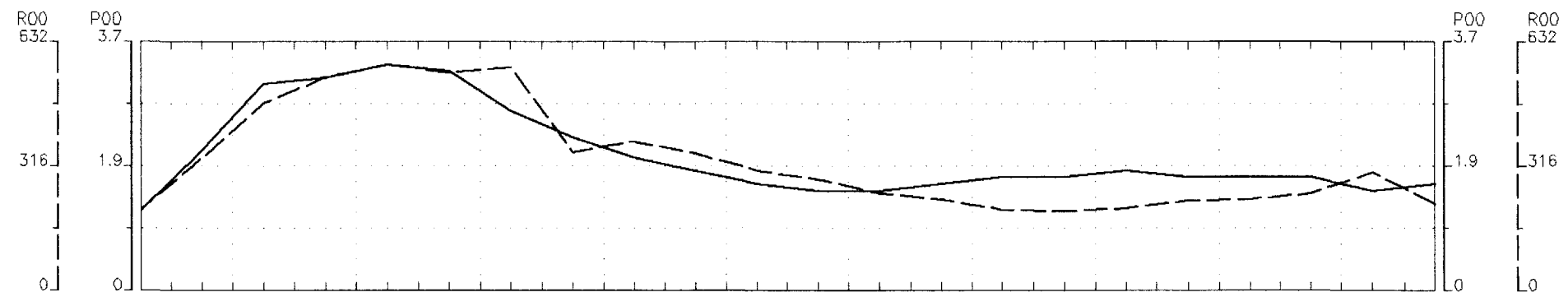
Filter \* \* \* \* \*  
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

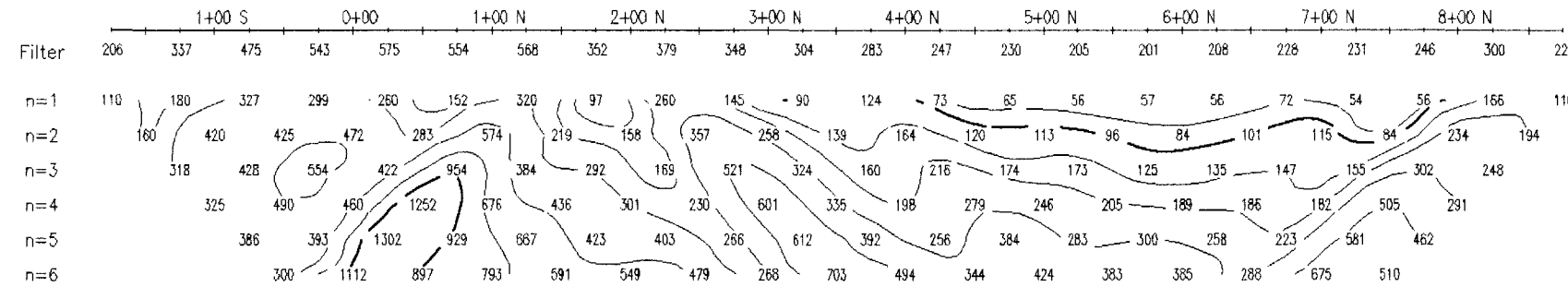
- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000  
50 0 50 100 150 200 250 (metres)

**BARRICK GOLD CORPORATION**  
INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO  
Date: 96/07/05  
Interpretation: GERARD LAMBERT  
**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

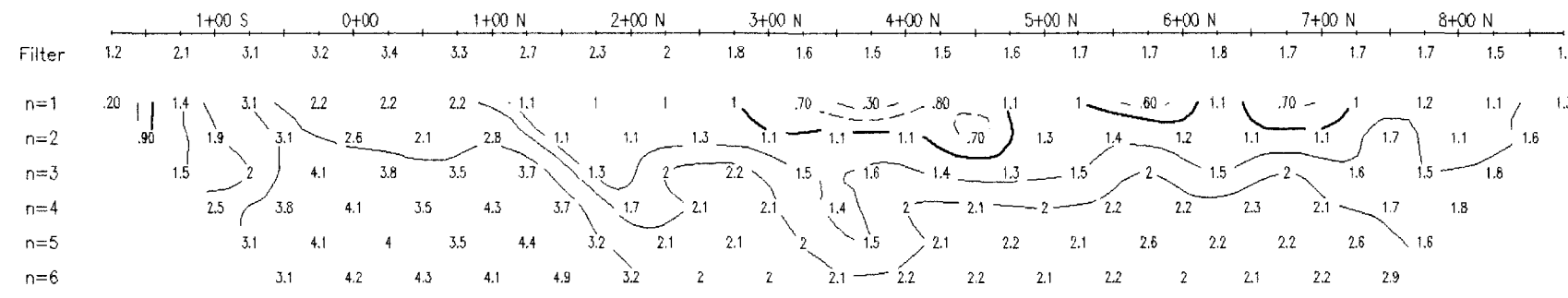


RESISTIVITY  
OHM-METERS



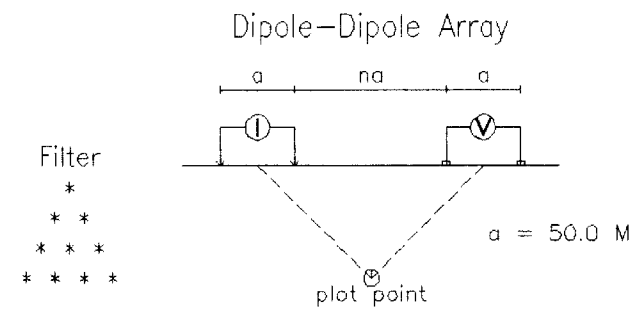
RESISTIVITY  
OHM-METERS

PHASE  
MRAD



PHASE  
MRAD

### Line 0200 E

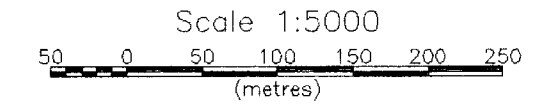


Filter \*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

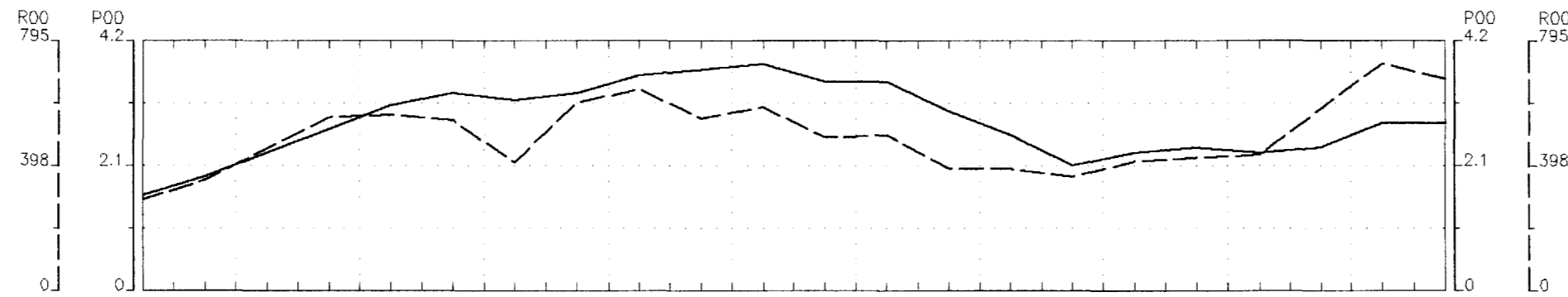


**BARRICK GOLD CORPORATION**

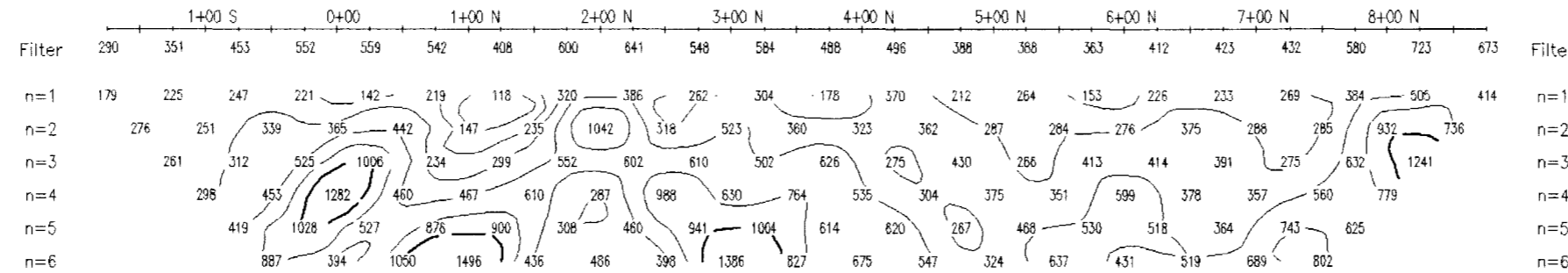
**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

Date: 96/07/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

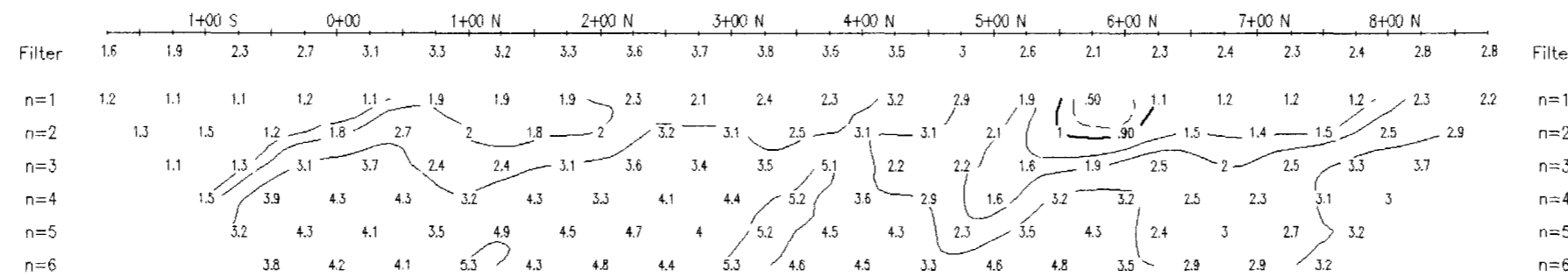


RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

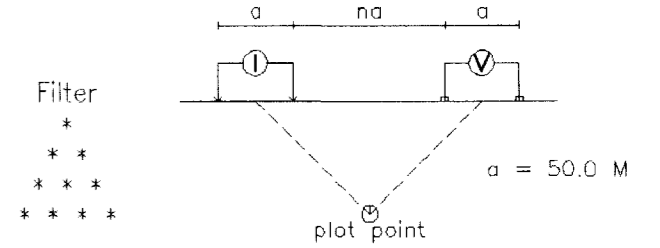
PHASE  
MRAD



PHASE  
MRAD

### Line 0300 E

Dipole-Dipole Array



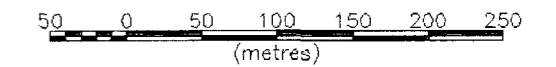
Filter  
\*  
\*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

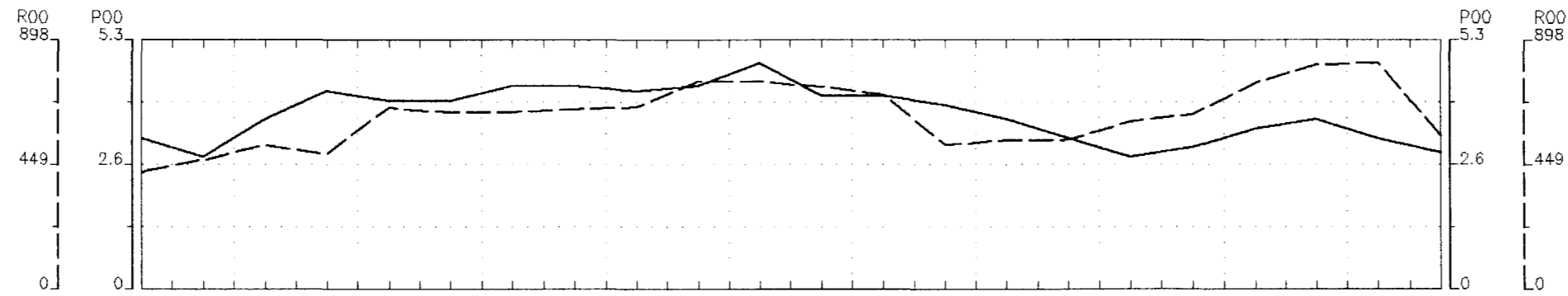


**BARRICK GOLD CORPORATION**

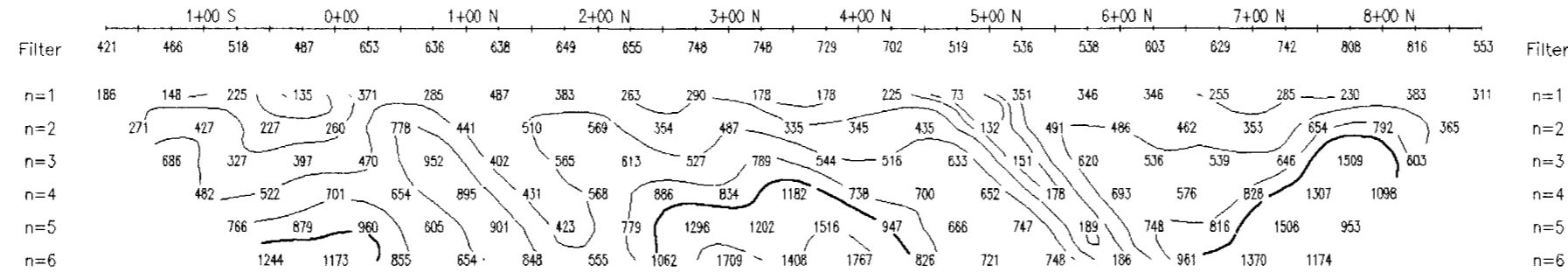
**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP — ONTARIO**

Date: 96/07/05  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

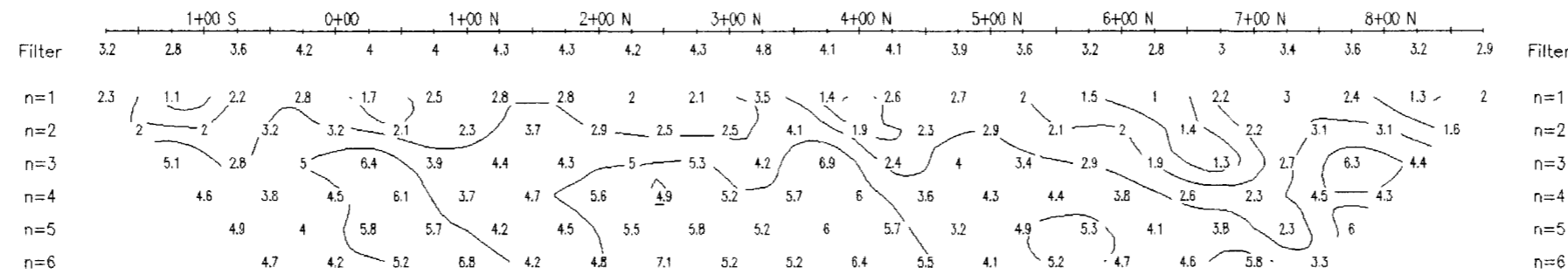


RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

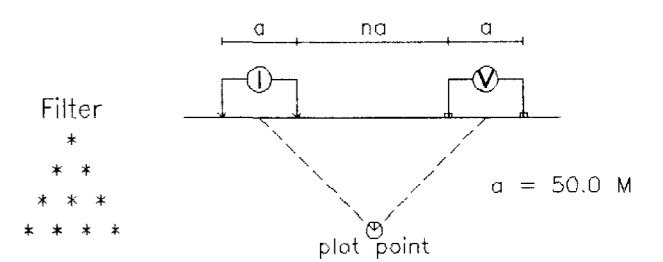
PHASE  
MRAD



PHASE  
MRAD

### Line 0400 E

Dipole-Dipole Array



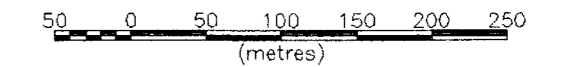
Filter  
\*  
\*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

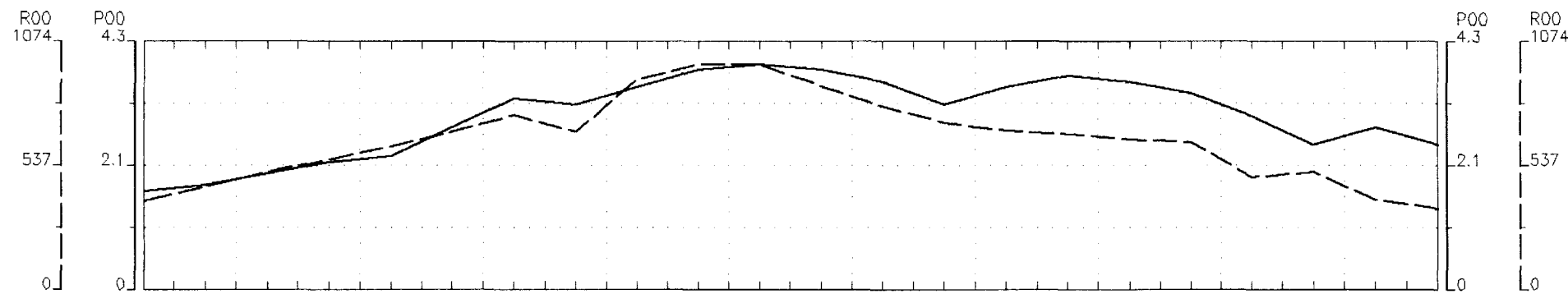


**BARRICK GOLD CORPORATION**

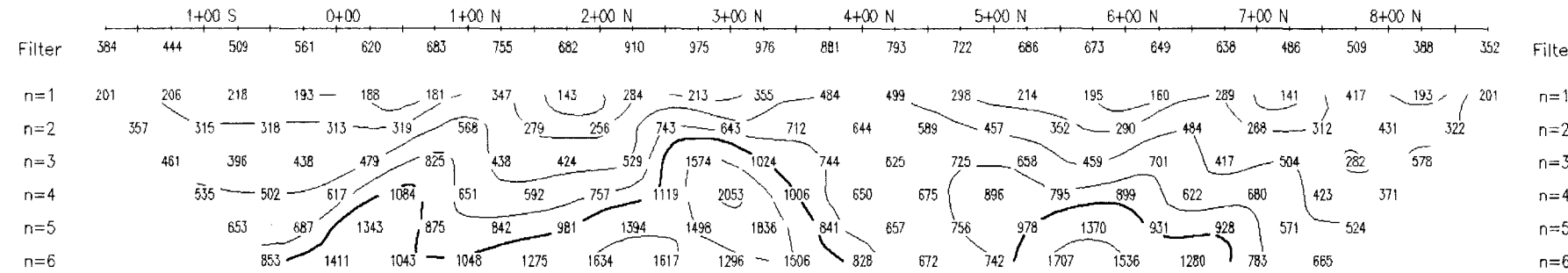
**INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO**

Date: 96/07/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

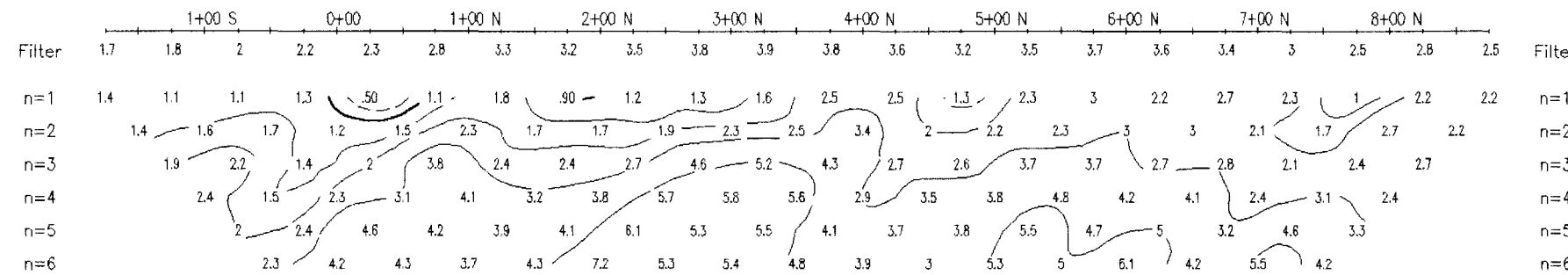


RESISTIVITY  
OHM-METERS



RESISTIVITY  
OHM-METERS

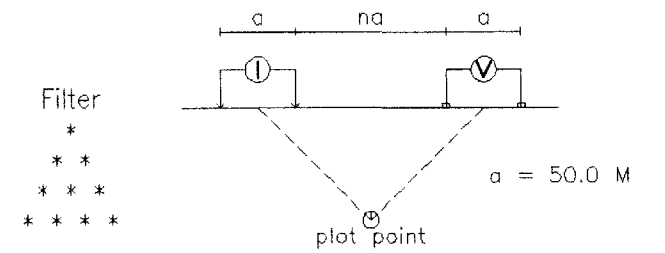
PHASE  
MRAD



PHASE  
MRAD

### Line 0500 E

Dipole-Dipole Array



Filter \*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

#### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

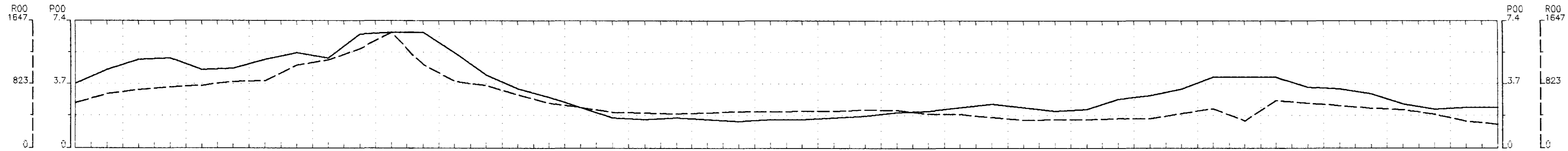
Scale 1:5000  
50 0 50 100 150 200 250  
(metres)

**BARRICK GOLD CORPORATION**

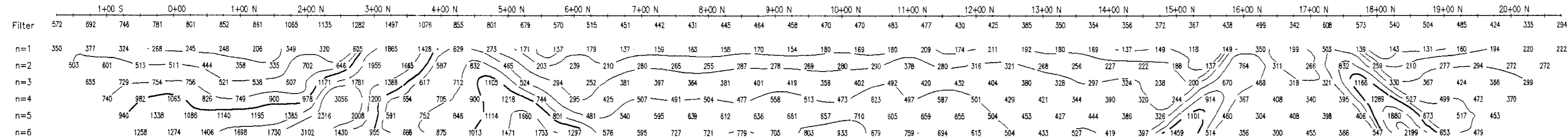
INDUCED POLARIZATION SURVEY  
WEST BLOCK  
HARKER TOWNSHIP - ONTARIO

Date: 96/07/04  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

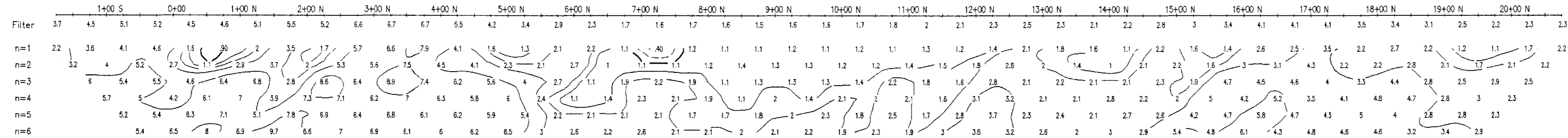


RESISTIVITY  
OHM-METERS



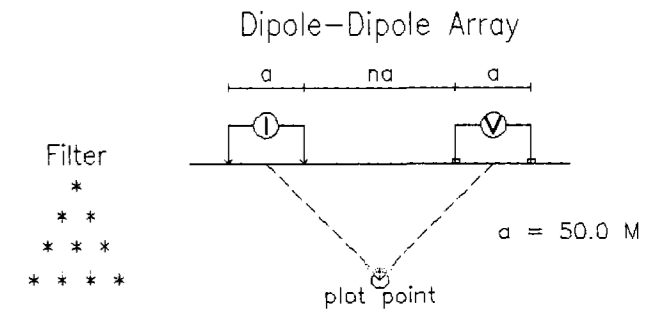
RESISTIVITY  
OHM-METERS

PHASE  
MRAD



PHASE  
MRAD

### Line 0600 E



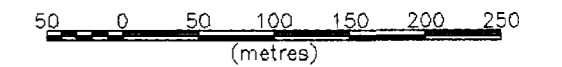
Filter  
\*  
\* \*  
\* \* \*  
\* \* \* \*

Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000



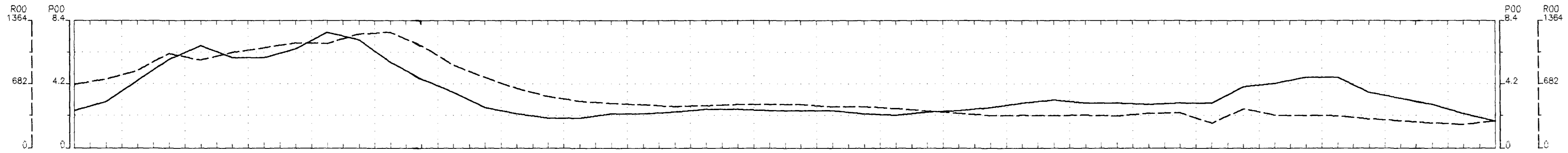
**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK - SIMS  
HARKER TOWNSHIP - ONTARIO**

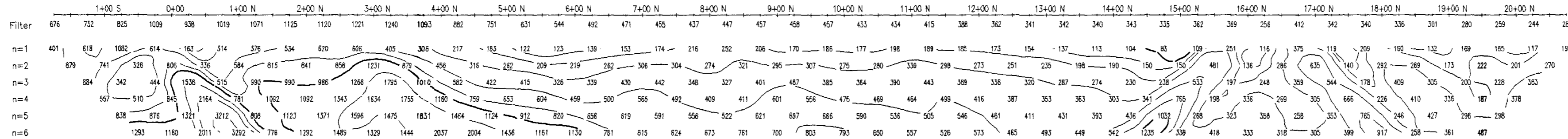
Date: 96/12/10  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

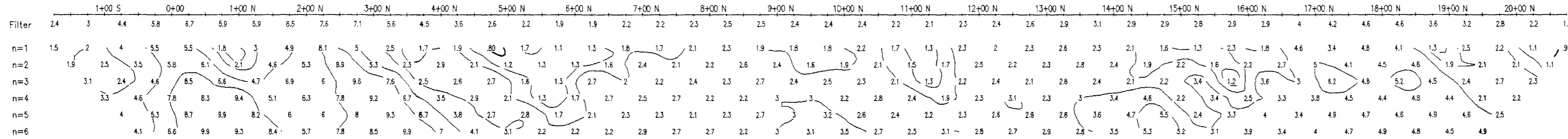




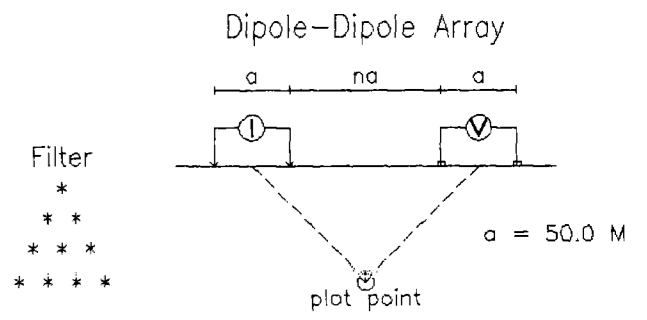
RESISTIVITY  
OHM-METERS



PHASE  
MRAD



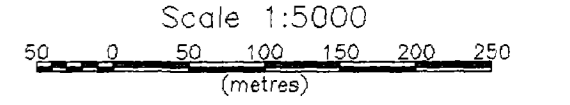
**Line 0700 E**



Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

**INTERPRETATION**

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

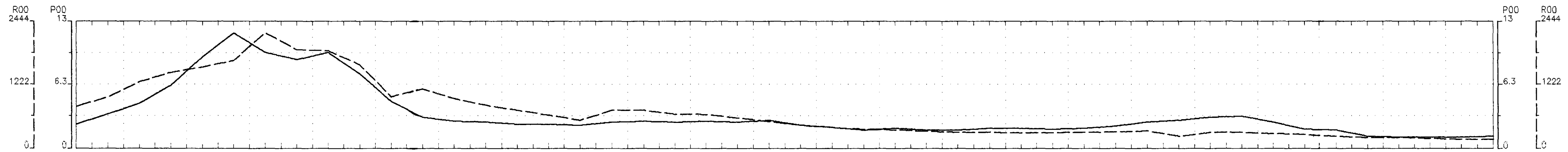


**BARRICK GOLD CORPORATION**

**INDUCED POLARIZATION SURVEY  
WEST BLOCK - SIMS  
HARKER TOWNSHIP - ONTARIO**

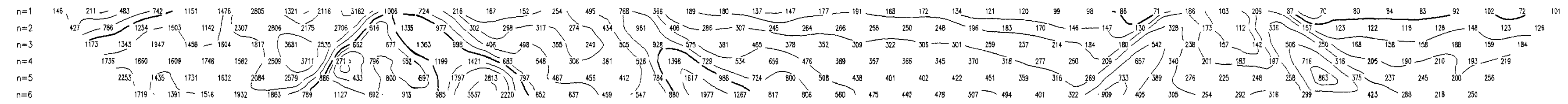
Date: 96/12/10  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



RESISTIVITY  
OHM-METERS

Filter 784 977 1267 1453 1555 1686 2222 1892 1874 1602 979 1133 941 809 714 621 523 715 717 643 635 566 498 427 380 346 334 311 289 286 277 278 288 295 315 209 263 263 264 241 210 182 180 172 149 152



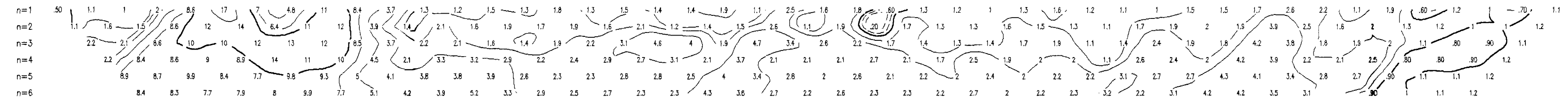
RESISTIVITY  
OHM-METERS

Filter

n=1  
n=2  
n=3  
n=4  
n=5  
n=6

PHASE  
MRAD

Filter 2.3 3.3 4.4 6.2 9.1 12 9.5 8.8 9.5 7.4 4.6 3 2.6 2.5 2.3 2.3 2.2 2.5 2.6 2.5 2.6 2.5 2.7 2.2 2 1.7 1.9 1.7 1.7 1.9 1.9 1.8 1.9 2.1 2.5 2.7 3 3.1 2.5 1.8 1.7 1.1 1 1 1 1.1

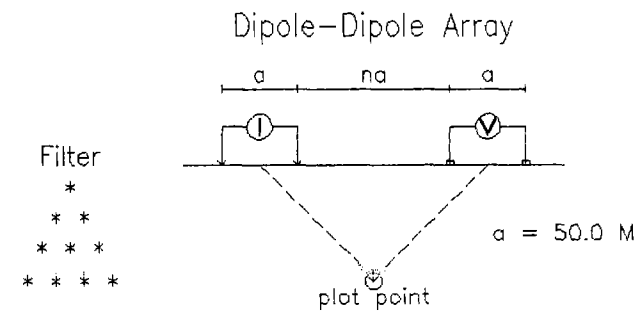


PHASE  
MRAD

Filter

n=1  
n=2  
n=3  
n=4  
n=5  
n=6

### Line 0800 E



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

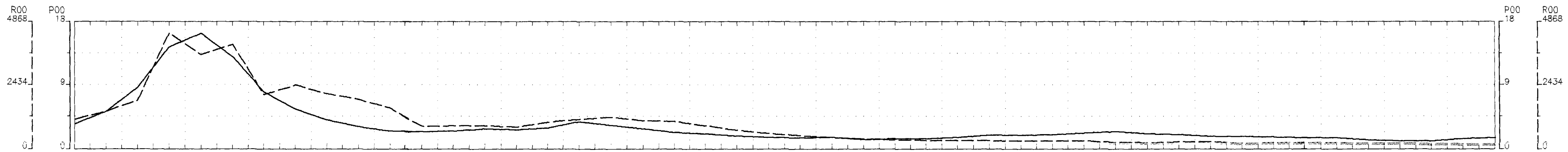
Scale 1:5000  
50 0 50 100 150 200 250 (metres)

**BARRICK GOLD CORPORATION**

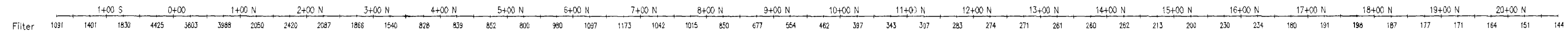
INDUCED POLARIZATION SURVEY  
WEST BLOCK - SIMS  
HARKER TOWNSHIP - ONTARIO

Date: 96/12/10  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**

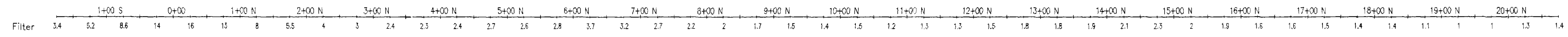


RESISTIVITY  
OHM-METERS



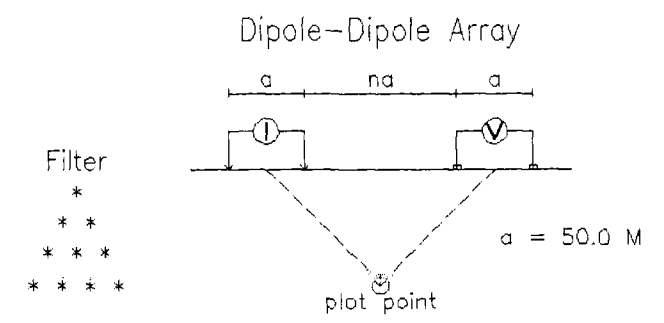
RESISTIVITY  
OHM-METERS

PHASE  
MRAD



PHASE  
MRAD

### Line 0900 E

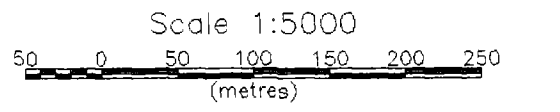


Filter  
\*  
\*\*  
\*\*\*  
\*\*\*\*

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

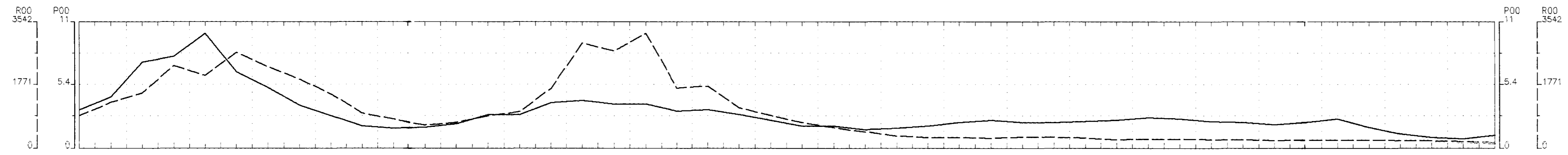


**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK - SIMS  
HARKER TOWNSHIP - ONTARIO

Date: 96/12/10  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



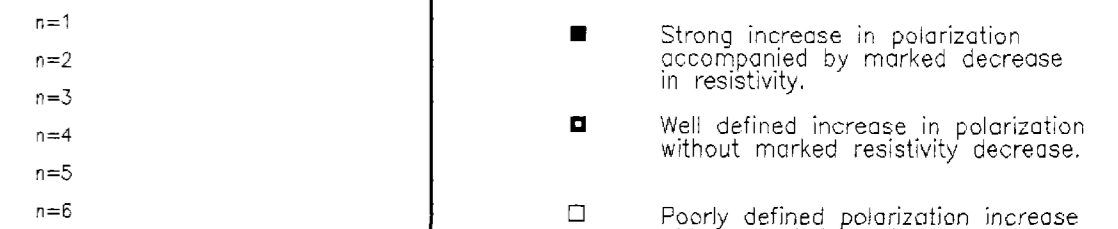
RESISTIVITY  
OHM-METERS

Filter 890 1262 1534 2306 2923 2880 2270 1917 1501 956 786 620 695 879 1001 1656 2940 2722 3220 1667 1724 1107 688 690 548 426 307 272 265 249 274 273 256 204 219 220 208 201 182 193 195 185 183 176 160 129



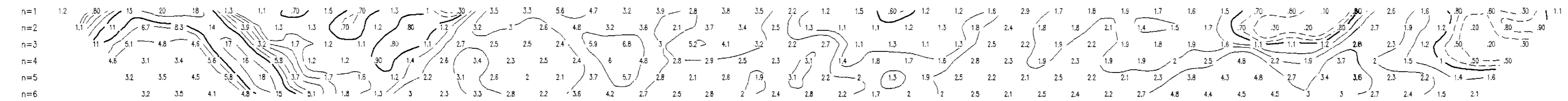
RESISTIVITY  
OHM-METERS

Filter



PHASE  
MRAD

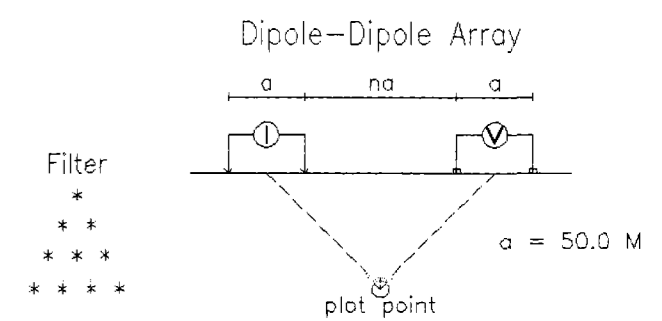
Filter 3.2 4.3 7.3 7.8 9.8 6.5 6.1 3.5 2.7 1.8 1.6 1.7 2 2.8 2.8 3.8 4 3.7 3.7 3.1 3.2 2.8 2.3 1.8 1.8 1.5 1.6 1.8 2.1 2.3 2.1 2.1 2.2 2.5 2.5 2.4 2.2 2.1 1.9 2.1 2.4 1.7 1.1 .80 .70 1



PHASE  
MRAD

Filter

### Line 1000 E



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

### INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- ▣ Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000  
50 0 50 100 150 200 250 (metres)

**BARRICK GOLD CORPORATION**

INDUCED POLARIZATION SURVEY  
WEST BLOCK - SIMS  
HARKER TOWNSHIP - ONTARIO

Date: 96/12/10  
Interpretation: GERARD LAMBERT

**REMY BELANGER (GEOPHYSICAL CONTRACTOR)**



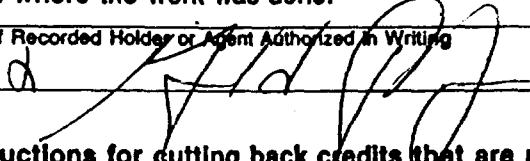




3. Work to be recorded and distributed. Work can only be done on the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$8,892	\$4,000	0	\$4,892
1 L1184131	6	0	2,400	0	0
2 L641387	1	1,282	1,282	0	0
3 L641388	1	1,282	1,282	0	0
4 L641389	1	1,282	1,282	0	0
5 L641390	1	1,282	1,282	0	0
6 L641391	1	1,282	1,282	0	0
7 L641392	1	1,282	1,282	0	0
8 L641393	1	1,282	1,282	0	0
9 L641394	1	1,282	1,282	0	0
10 L641395	1	1,282	1,282	0	0
11 L641396	1	1,282	1,282	0	0
12 L641397	1	1,282	1,282	0	0
13 L641398	1	1,282	1,282	0	0
14 L641399	1	1,282	1,282	0	0
15 L641400	1	1,282	1,282	0	0
<b>Column Totals</b>		SEE PAGE 2			

I, Gerald Panneton, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

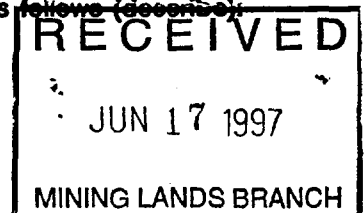
Signature of Recorded Holder or Agent Authorized in Writing:  Date: June 3rd, 1997

6. Instructions for cutting back credits that are not approved.

**2.17403**

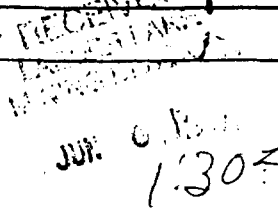
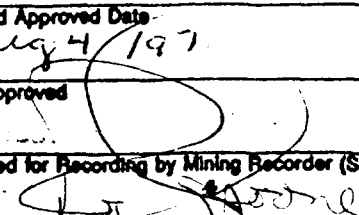
Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):



Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp 	Deemed Approved Date <u>Aug 4 / 1997</u>	Date Notification Sent
	Date Approved 	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		









August 22, 1997

Gerald Panneton  
BARRICK GOLD CORPORATION  
2 CHEMIN BOUSQUET ROUTE 395  
PRIESSAC, QUEBEC  
J0Y-2E0

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (888) 415-9846  
Fax: (705) 670-5863

Dear Sir or Madam:

**Submission Number:** 2.17403

**Status**

**Subject: Transaction Number(s):** W9780.00625 Deemed Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at [jerome\\_l@torv05.ndm.gov.on.ca](mailto:jerome_l@torv05.ndm.gov.on.ca) or by telephone at (705) 670-5858.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Blair Kite".

ORIGINAL SIGNED BY  
Blair Kite  
Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

---

**Submission Number:** 2.17403

**Date Correspondence Sent:** August 22, 1997

**Assessor:** Lucille Jerome

---

<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9780.00625	641387	HARKER	Deemed Approval	August 22, 1997

**Section:**

14 Geophysical IP

**Correspondence to:**

Resident Geologist  
Kirkland Lake, ON

Assessment Files Library  
Sudbury, ON

**Recorded Holder(s) and/or Agent(s):**

Gerald Panneton  
BARRICK GOLD CORPORATION  
PRIESSAC, QUEBEC

---



LAMPLUGH TWP M-358

NOTICE OF FORESTRY ACTIVITY  
THIS TOWNSHIP/AREA FALLS WITHIN THE  
ABITIBI MANAGEMENT UNIT  
AND MAY BE SUBJECT TO FORESTRY OPERATIONS.  
THE M.N.R. UNIT FORESTER FOR THIS AREA CAN BE  
CONTACTED AT: P.O. BOX 129 SWASTIKA ONT. POK-JTO  
705-642-3222

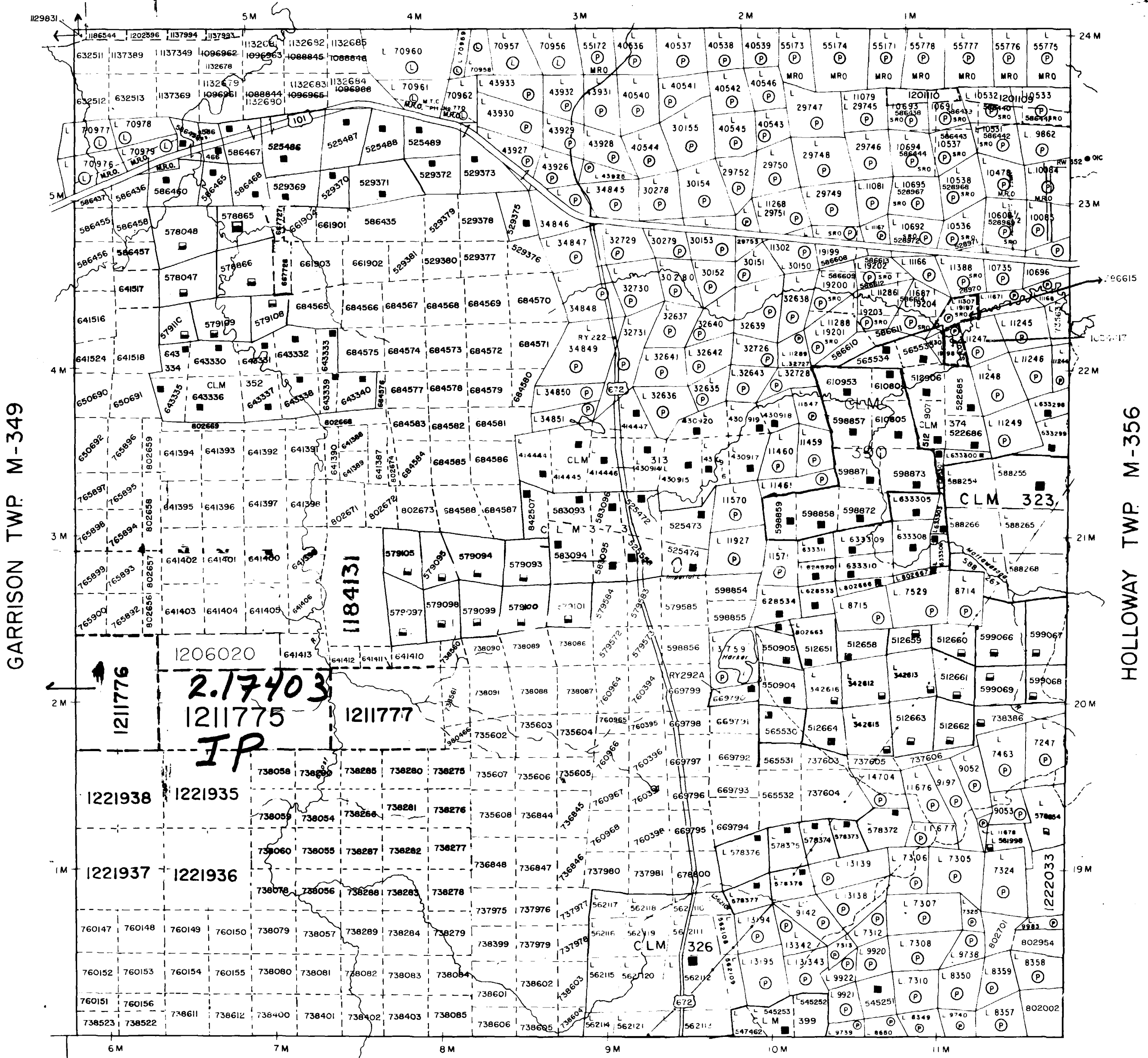
12.17403

THE TOWNSHIP  
OF  
HARKER

DISTRICT OF  
COCHRANE

LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH 40 CHAINS



GARRISON TWP M-349

HOLLOWAY TWP M-356

LEGEND

- PATENTED LAND ● or (P)
- CROWN LAND SALE C.S.
- LEASES ■ or (L)
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- PATENTED S.R.O.
- LEASE - MINING RIGHTS ONLY
- ORDER - IN - COUNCIL O.I.C.

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No	Date	Disposition	File
L.U.P.				

L.U.P. LAND USE PERMIT NO. 117130, PENDING APPLICATION UNDER PUBLIC LANDS ACT

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY IS NOT GUARANTEED. THOSE WISHING TO CLAIM MINING RIGHTS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

ELLIOTT TWP M-347

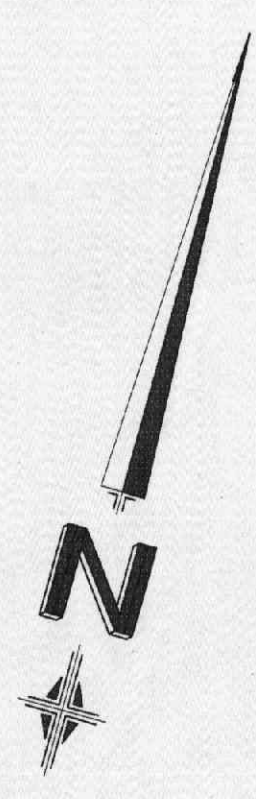
Ministry of Natural Resources Ontario  
Ministry of Northern Development and Mines

G-3643









**LEGEND**

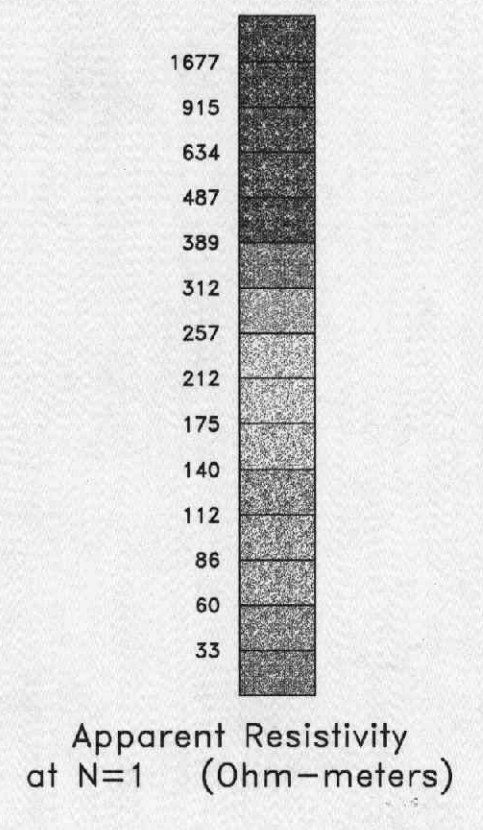
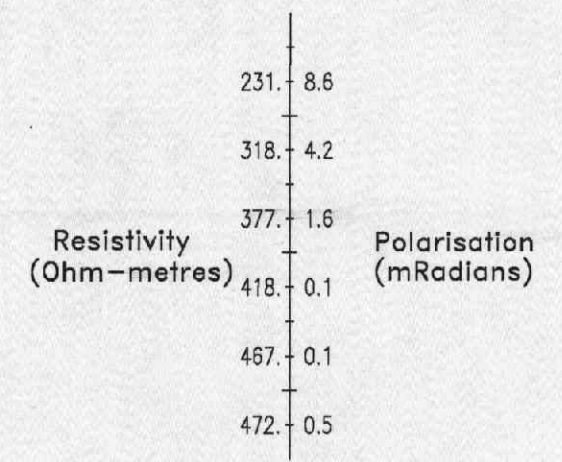
DIPOLE-DIPOLE ARRAY

Instrument: Phoenix DT-1 Tn, Turbu V-4 Bx  
Frequency: 1.0 Hz

Surveyed By: Barry Belanger  
Operator: F. Belanger

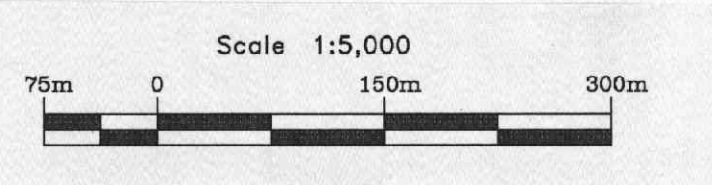
**INTERPRETATION**

- Polarisation increase accompanied by a significant decrease of the apparent resistivity. Sensitive to massive sulphides, especially. Normally will read a conductor on an E.M. survey such as MaxMin or Ingot.
- Polarisation increase without any significant decrease of the apparent resistivity. Discontinuous to stringer to semi-massive sulphides. Intermediate products, sulphate-rich sulphides. Also altered, pyritised structures, siliceous, hematite, massive, massive, massive.
- Poorly defined polarisation increase with no apparent resistivity signature. Small quantities of sulphides, narrow mineralised veins, sometimes noisy readings due to contact problems, noise, cut or surface noise.



**RECEIVED**  
JUN 17 1997  
MINING LANDS BRANCH

2.17403



**WEST BLOCK**

**BARRICK** BARRICK CORPORATION  
(Eastern Canada Exploration)

**HOLT McDERMOTT PROJECT**  
INDUCED POLARIZATION SURVEY  
*Contours of the apparent resistivity*

Data processing and Interpretation by: Gerard Lambert, P.Eng.

PROJECT NO. 612  
RANGE(S)  
TOWNSHIP(S) HARKER & HOLLOWAY, Ont.  
N.T.S. 32 D/5, 32 D/12  
NO INF.

LAMBERT GEOSCIENCES LTD.

August 1996

SCALE 1:5,000







12500 N

12000 N

11500 N

11000 N

10500 N

10000 N

9500 N

9000 N

500 W

00 N/S

500 E

1000 E

1500 E

2000 E

GARRISON TWP  
HARKER TWP

T.L. 900N

L 1700 W

L 1600 W

L 1500 W

L 1400 W

L 1300 W

L 1200 W

L 1100 W

L 1000 W

L 900 W

L 800 W

L 700 W

L 600 W

L 500 W

L 400 W

L 300 W

L 200 W

WEST BLOCK

BASE LINE 0+00N

Tie Line 9+00S

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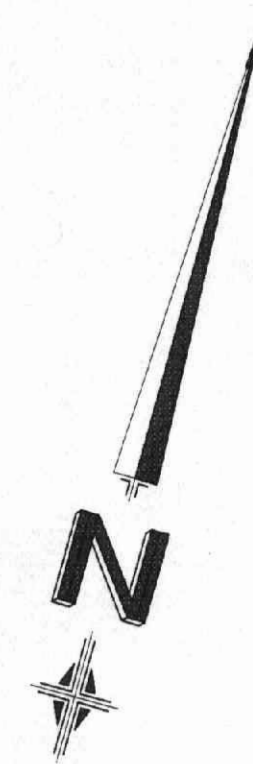
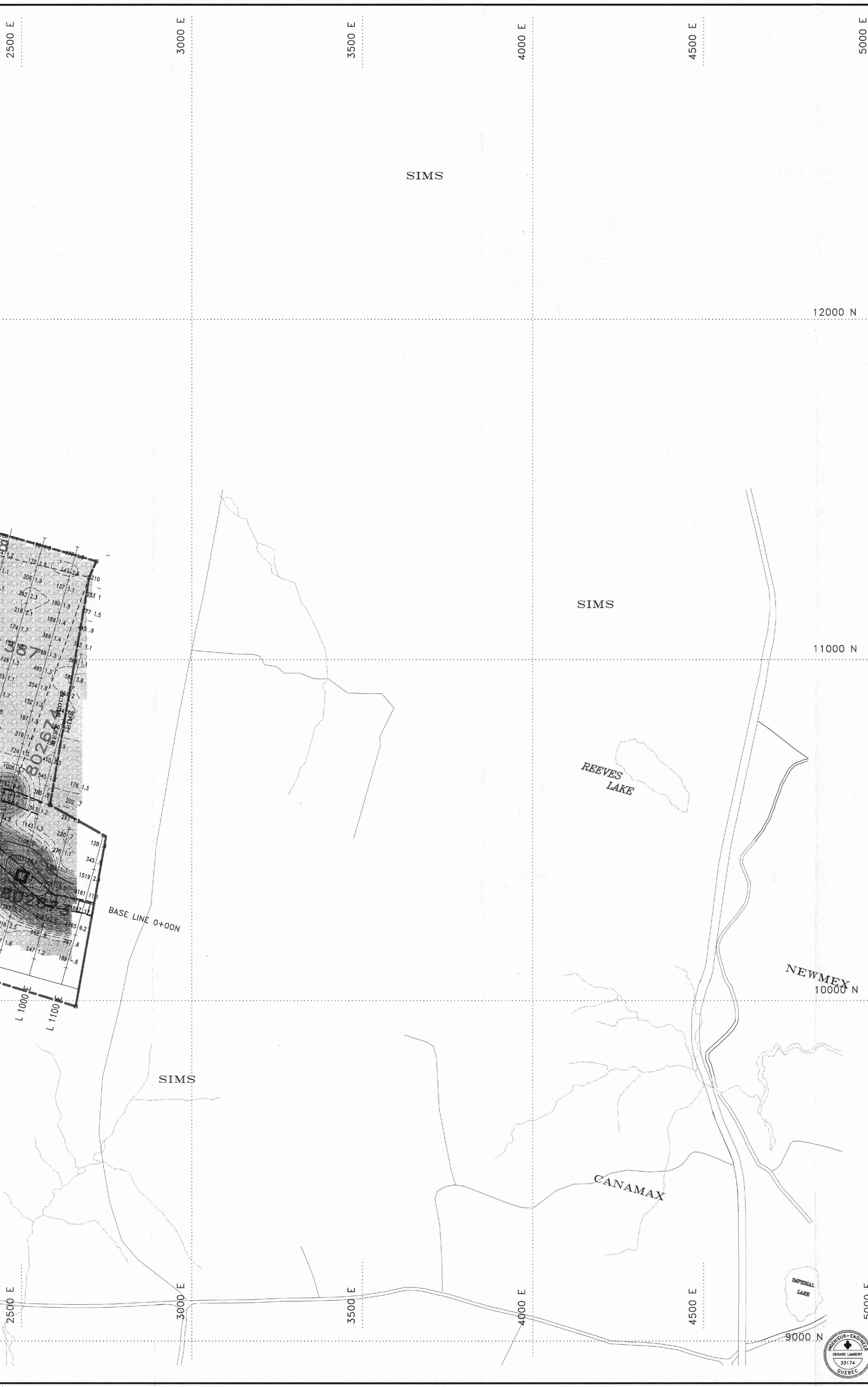
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**LEGEND**

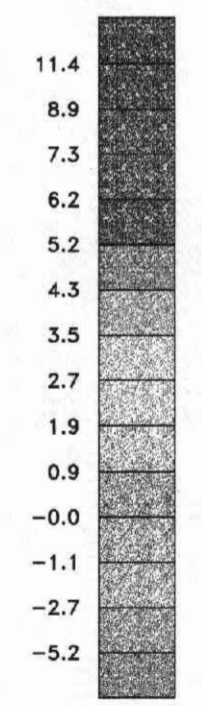
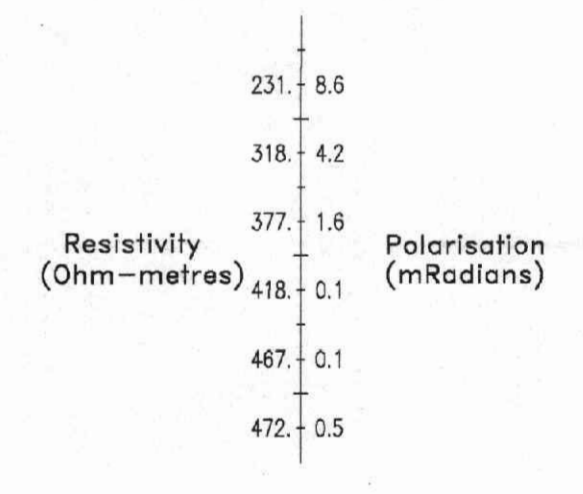
**DIPOLE-DIPOLE ARRAY**

Instruments: Phoenix BT-1 Tx, Turb V-4 Rx  
Frequency: 1.0 Hz

Surveyed by: Penny DeLongor  
Operator: P. DeLongor

**INTERPRETATION**

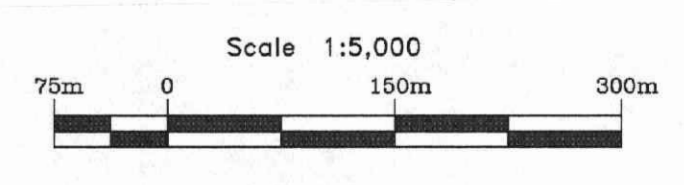
- Polarisation increase accompanied by a significant decrease of the apparent resistivity.  
Semi-conductors to massive sulphides, graphite. Normally will cause a conductor on an E.M. survey such as Maxwell or Input.
- Polarisation increase without any significant decrease of the apparent resistivity.  
Differentiated to stringer to semi-massive sulphides, disseminated graphite, apatite-rich sulphides. Also altered, syngenetic structures, actual conductors, water content, organic matter.
- Poorly defined polarisation increase with no apparent resistivity signature.  
Small quantities of sulphides, narrow subparallel veins, disseminated stringer, due to contact problems, moisture, cut of electrode wires.



Phase angle (I.P. effect) at N=1 (milliradians)

2.17403

**RECEIVED**  
JUN 17 1997  
MINING LANDS BRANCH



**WEST BLOCK**

**BARRICK** BARRICK GOLD CORPORATION  
(Eastern Canada Exploration)

**HOLT McDERMOTT PROJECT**  
INDUCED POLARIZATION SURVEY  
Contours of the phase (I.P. effect)

Data processing and Interpretation by:	PROJECT NO. 512
Gerard Lambert, P.Eng.	RANGE(S)
	TOWNSHIP(S) HARKER & HOLLOWAY, Ont.
	N.T.S. 32 D/5, 32 D/12
LAMBERT GEOSCIENCES LTD.	NO INF.

August 1996      SCALE 1:5,000      0 100 200m

