

Report of an Induced Polarization Survey

On the

Windsor Property

Beatty Township, Ontario

Claim Nos. 3019360 3019361 3016567 3015042  
4208025 3012926

Larder Lake Mining Division

For

Vedron Gold Inc



May 9, 2007  
Timmins, Ontario

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## **1.0 Introduction**

The Windsor property of Vedron Gold Inc. consists of several unpatented mining claims, 3019360, 3019361, 3016567, 3015042, 4208025, and 3012926 located in Beatty Township, Larder Lake Mining Division. During April 2007, a geophysical survey program consisting of induced polarization and resistivity surveys was conducted over a portion of this claim group. Remy Belanger of Evian, Quebec, carried out the geophysical surveys. The I.P. surveys were performed in order to evaluate and map the presence of disseminated to massive sulphides with respect to their location, width, and concentrations.

## **2.0 Location And Access**

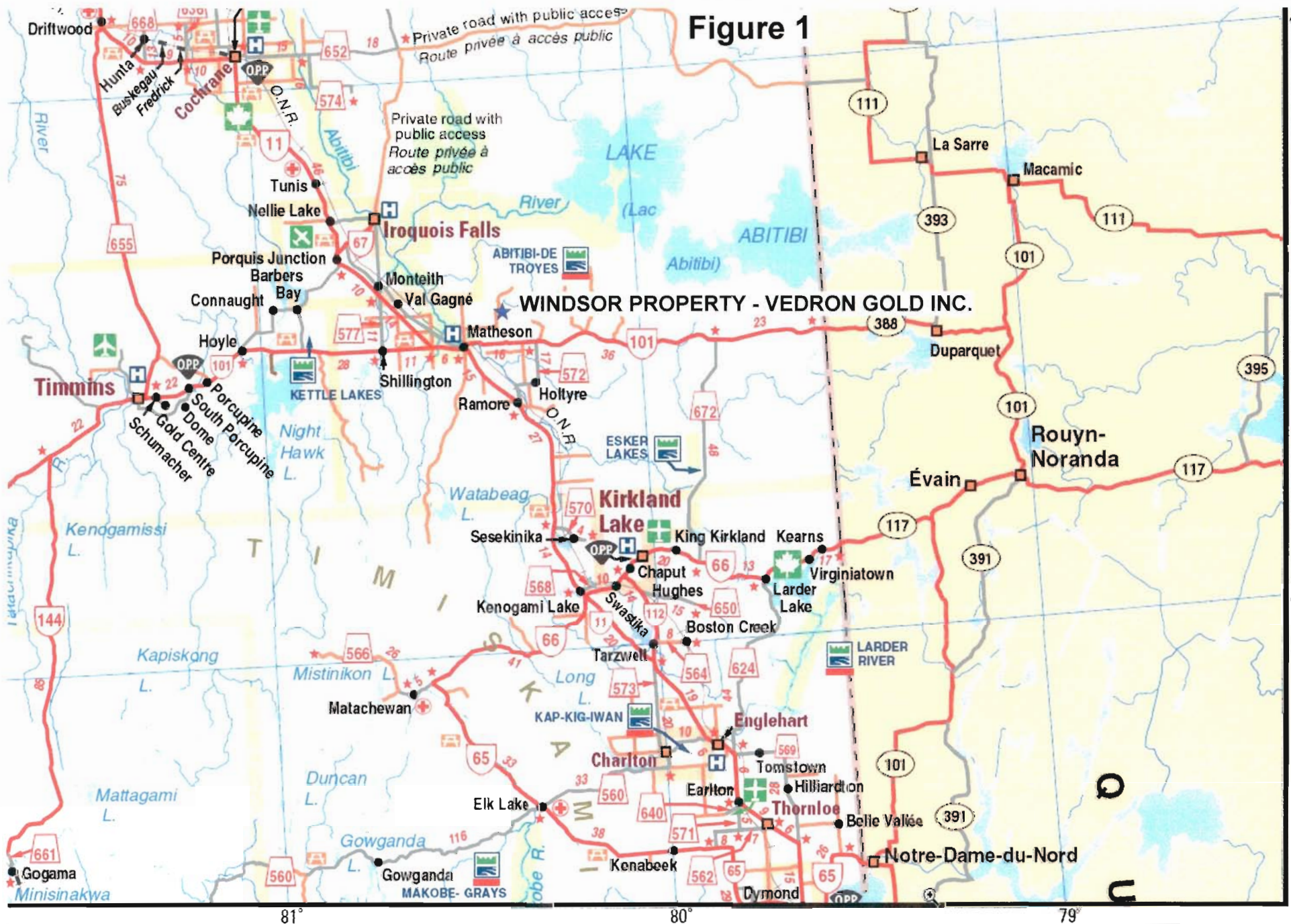
The Windsor property of Vedron Gold Inc. is located in the north central part of Beatty Township near Painkiller Lake. The claims are located approximately 12 kilometres northeast of the Town of Matheson, Ontario. Access to grid area is via an all-weather gravel road north from highway 101. This road traverses the centre of the claims (see figures 1 and 2).

## **3.0 Summary of 2007 Geophysical Program**

The geophysical program consisted of induced polarization and resistivity surveying. This survey was carried out on reconnaissance lines of previously chained lines at various orientations and chained and marked every 25 meters. The I.P. survey was performed using a pole-dipole electrode configuration. The dipole spacing was 25 metres and increasing separations of  $n=1$ ,  $n=2$ ,  $n=3$ ,  $n=4$ ,  $n=5$  and  $n=6$  times the dipole spacing was measured in order to map the response at depth. A total of approximately 3.4-km of I.P. data was measured and recorded.

The I.P. equipment used for the survey consisted of a Phoenix IPT-1 transmitter operating at 1.0 Hz. in the frequency domain powered by a 2 kilowatt MG-2 motor generator. The phase angle (measured in milliradians) between the transmitted current

Figure 1



WINDSOR PROPERTY - VEDRON GOLD INC.

81°

80°

79°

49°

48°



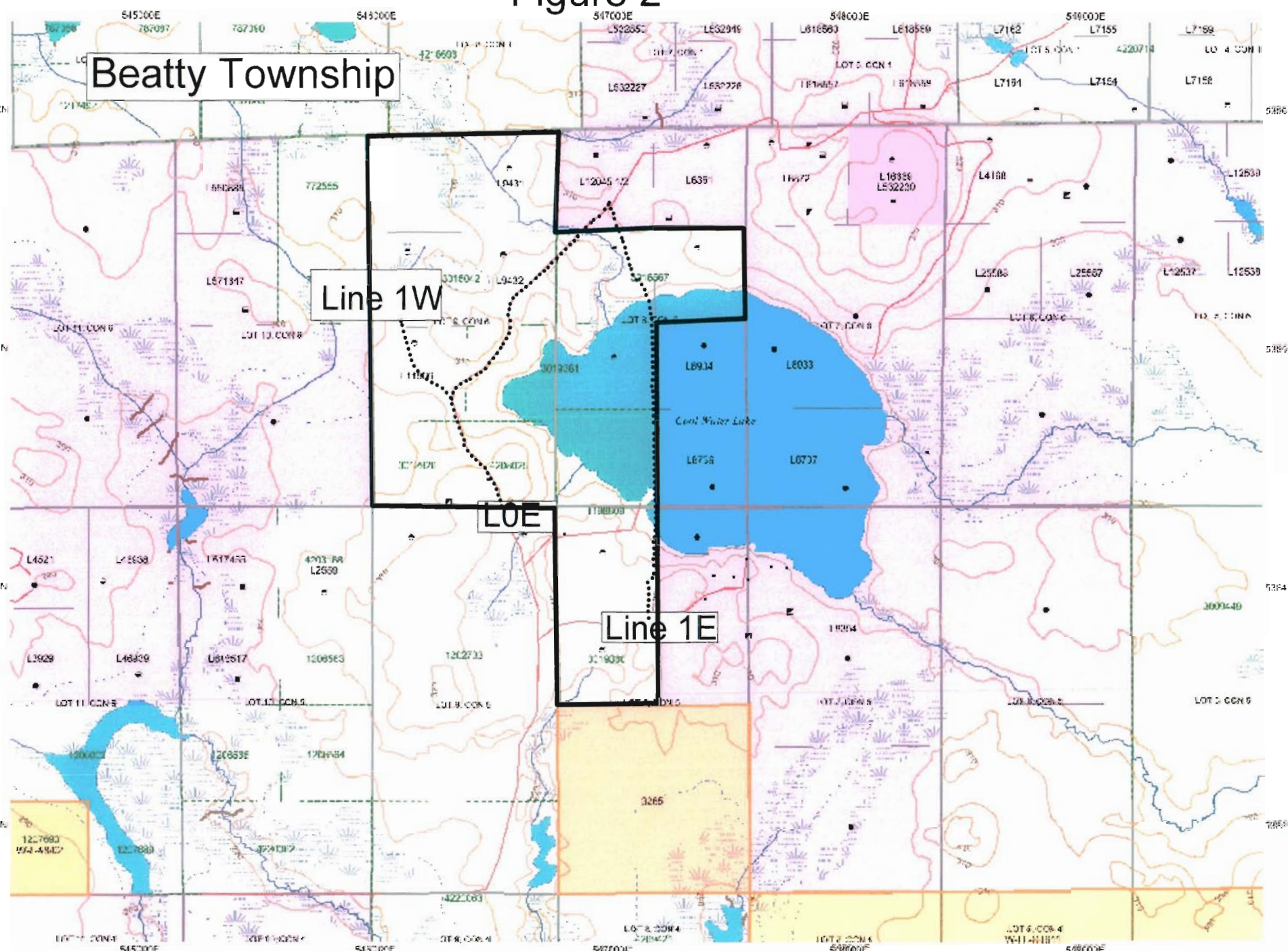
# Figure 2

## Beatty Township

### Line 1W

### LOE

### Line 1E



and the received voltage is recorded by a Phoenix Turbo V-5 I.P. receiver which records the phase shift and the apparent resistivity for each set of dipoles. The phase angle measured in this survey is an equivalent measure of the polarization of the underlying lithology.

A description of the survey method and equipment used can be found in Appendix A.

#### **4.0 Discussion of Results**

The results of the I.P. survey are presented as contoured and posted pseudo-sections of the apparent resistivity and chargeabilities at a scale of 1:2500. In addition a plan map at a scale of 1:5,000 showing the lines with the interpretation and location of the I.P. anomalies is also presented. All maps accompany this report in the pocket at the back of this report.

The resistivity data for the three lines shows a wide variation of measured resistivities in the range of 17 to 28084 ohm-m with a background resistivity of approximately 1306 ohm-m. The higher resistivity areas may likely be mapping areas of bedrock ridges and sub-cropping bedrock areas. These areas are quite evident on the pseudo –sections map. It is also possible the high resistivity zones may be outlining more resistive felsic lithology or silica altered horizons as well. The I.P. anomalies have been interpreted and are displayed on the plan map as well. Emphasis was placed on identifying I.P. anomalies, which were thought to originate within the bedrock as opposed to cultural sources; or those I.P. anomalies that, may be associated with bedrock relief.

The survey over line 1E mapped two discrete IP anomalies located at 540N and 1340N. The anomaly at 540N was associated with a resistivity high, while the anomaly at 1340N was associated with a resistivity low. IP anomalies on line 0 were located at 340S, 650S, 760S, 1060S and 1440S and are all associated with anomalously low resistivity. The survey over line 1W mapped 1 discrete IP anomaly located at 180 and it is associated with a resistivity low.

## 5.0 Conclusions and Recommendations

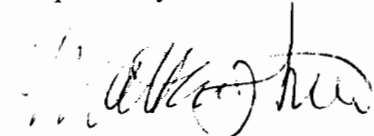
The induced polarization surveys completed over the Windsor property were successful in mapping 8 discrete zones of well defined anomalous I.P. effects as well as mapping the bedrock resistivity. The interpreted I.P. anomalies are strong and well defined and will likely require further investigation in order to determine their causes. The most promising I.P. anomalies, which are thought to arise from bedrock sources, have been interpreted and identified. Each of the identified IP anomalies mapped by the present survey can be considered as high priority follow-up exploration targets.

It is difficult to quantitatively rate all of the I.P. anomalies in terms of their economic potential when searching for exploitable mineral deposits, but it is possible that some of the I.P. anomalies mapped by this survey are caused by disseminated to semi-massive metallic mineralization. This type of mineralization is often associated with valuable deposits of massive sulphides, gold and platinum group minerals.

All of the responses should be investigated further in order to determine the priority of follow-up needed. The anomalies should be further screened utilizing any other different types of geophysical surveys that may have been undertaken on the Pamour grid. This would aid greatly in further refining the interpretation of the I.P. survey.

Any existing geological, diamond drilling or geochemical information that may exist in the mining recorder assessment files should be investigated and compiled prior to further exploration of the IP anomalies in order to accurately assess the follow-up exploration method for these anomalies.

Respectively Submitted



Matthew Johnston

## Statement of Qualifications

This is to certify that: MATTHEW JOHNSTON

I am a resident of Timmins; province of Ontario since June 1, 1995.

I am self-employed as a Consulting Geophysicist, based in Timmins, Ontario.

I have received a B.Sc. in geophysics from the University of Saskatchewan; Saskatoon, Saskatchewan in 1986.

I have been employed as a professional geophysicist in mining exploration, environmental and other consulting geophysical techniques since 1986.

I am registered as professional geophysicist (P.Geoph.) with the Association of Professional Engineers, Geologists and Geophysicists of the N.W.T and Nunavut (L1438).

A handwritten signature in black ink that reads "Matthew Johnston". The signature is written in a cursive, flowing style.

Signed in Timmins, Ontario, this May 9, 2007



## **Appendix A**

## Induced Polarization Surveys

This is currently the most powerful and commonly used galvanic method in mineral exploration. Originally designed in the post-war period for use in porphyry copper exploration, it has evolved into a tool of much wider application.

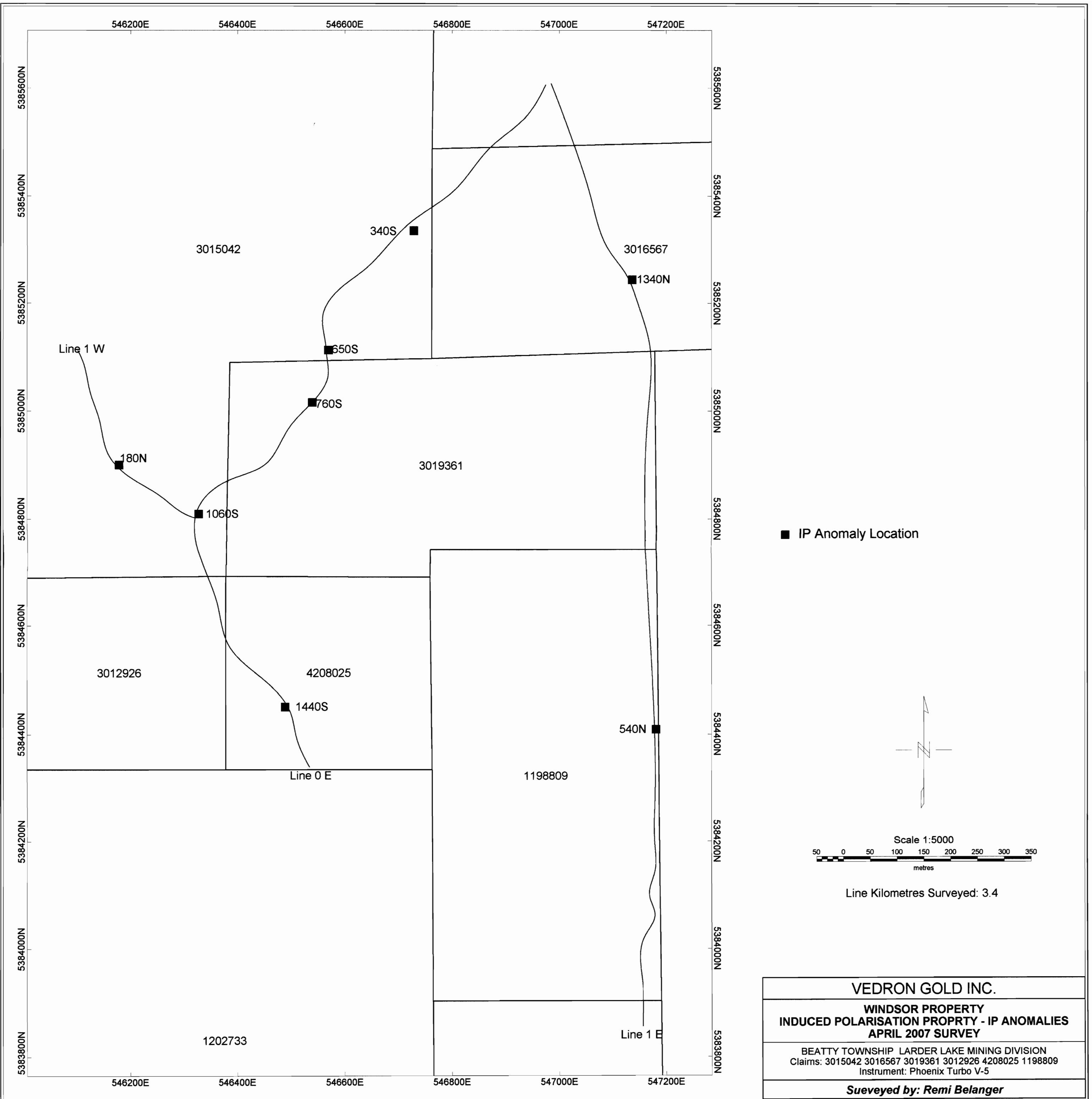
The method depends on the fact that if the voltage near a pair of current electrodes is observed as the current is turned off; it often decreases gradually to zero rather than dropping instantly. This behavior is what is known as the induced polarization (IP) effect. Other equivalent manifestations of IP are a drop in resistance to an AC current with increasing frequency and a phase shift of measured voltage relative to signal current. The effect is caused by current-induced ionic disequilibrium at conductor surfaces and in certain clays such as montmorillonite. The return to chemical equilibrium when the current is shut off is diffusion-controlled, producing the observed slow decay. The electrical analogy often furnished is that of a capacitor discharging current following a charge period.

IP measurements are used to locate disseminated conductors such as typical porphyry copper deposits. IP can distinguish zones of electrolytic conductivity from conductive minerals. IP surveys are often useful as a geological mapping tool in areas of thick overburden, and can sometimes provide information on clay alteration. They are invariably combined with resistivity surveys, both measurements being made with the same electrode setup. The technique has found a place in **gold exploration** due to its increasing ability to sense very minor sulphides (1-2%) associated with vein types of gold occurrences.

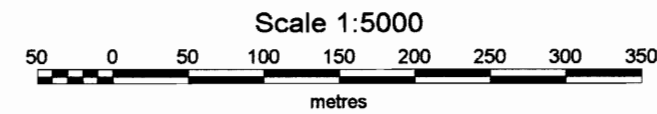
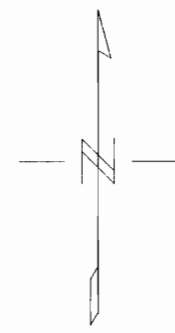
The measured primary voltage, which increases with time, can be regarded as being shifted in time with respect to the transmitted current. That is, there is a phase shift. This shift, expressed in milliradians, is the parameter measured in phase IP. The received square wave is digitized and filtered, and the phase shift of the desired frequency (fundamental or harmonic) is measured relative to the transmitted signal or a synchronous digital clock. The voltage is recorded for use in calculating the resistivity. Many cycles of signal can be averaged, thus increasing the signal to noise ratio and thereby simulating the effect of higher current.

The most advanced instruments measure amplitude and phase shift of the voltage at a wide range of frequencies. This is the so-called spectral IP, multifrequency IP, or complex resistivity technique. These systems are all microprocessor-controlled, and the large amounts of data they produce require digital storage systems. The same information is available from time-domain systems with multiple time gates.

All these systems require some way of synchronizing transmitter and receiver. The easiest method, applicable to time and frequency domain systems, is to synchronize on the received signal. This is feasible if the signal is much stronger than ambient noise. Otherwise, crystal clocks or a cable link must be employed.

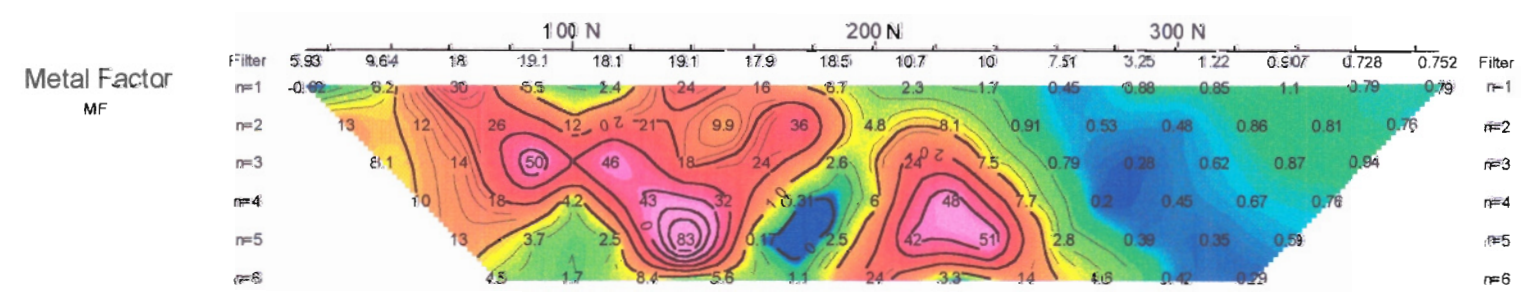
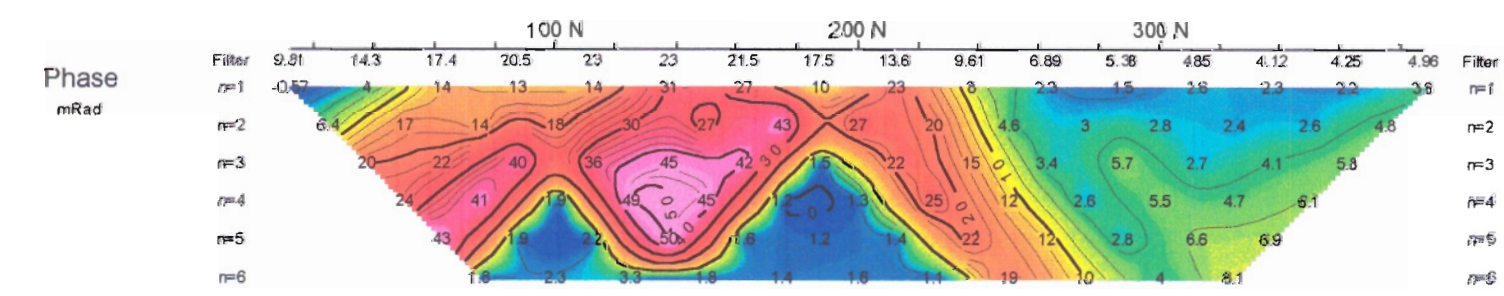
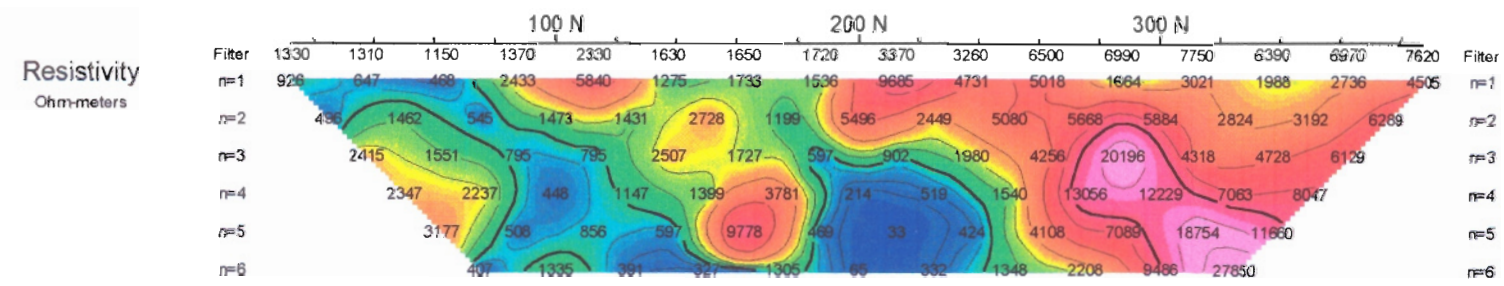
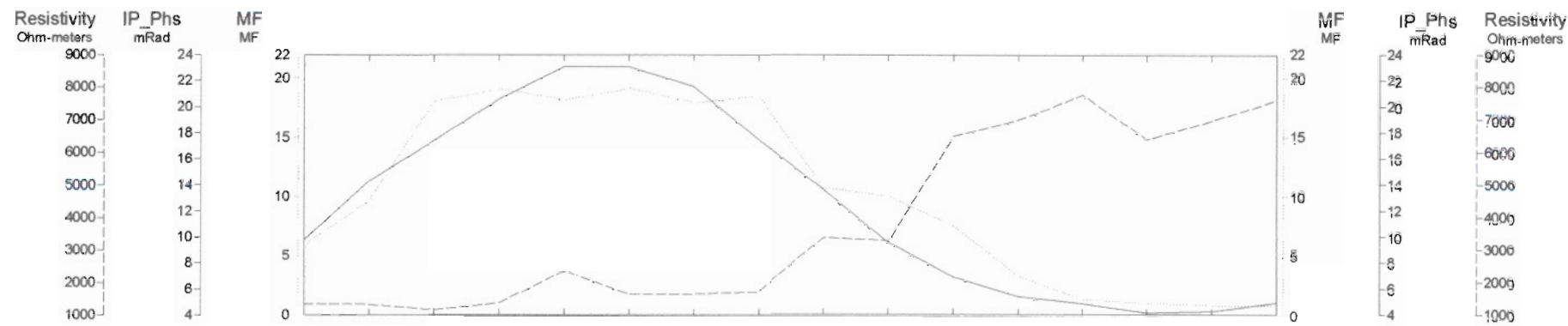


■ IP Anomaly Location

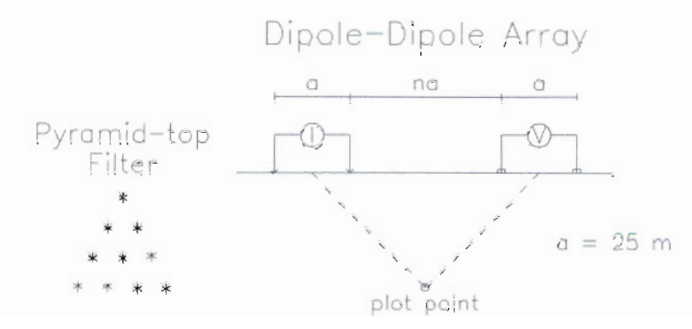


Line Kilometres Surveyed: 3.4

**VEDRON GOLD INC.**  
**WINDSOR PROPERTY**  
**INDUCED POLARISATION PROPERTY - IP ANOMALIES**  
**APRIL 2007 SURVEY**  
 BEATTY TOWNSHIP LARDER LAKE MINING DIVISION  
 Claims: 3015042 3016567 3019361 3012926 4208025 1198809  
 Instrument: Phoenix Turbo V-5  
**Sueyed by: Remi Belanger**



### Pseudo Section Plot 100 W



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

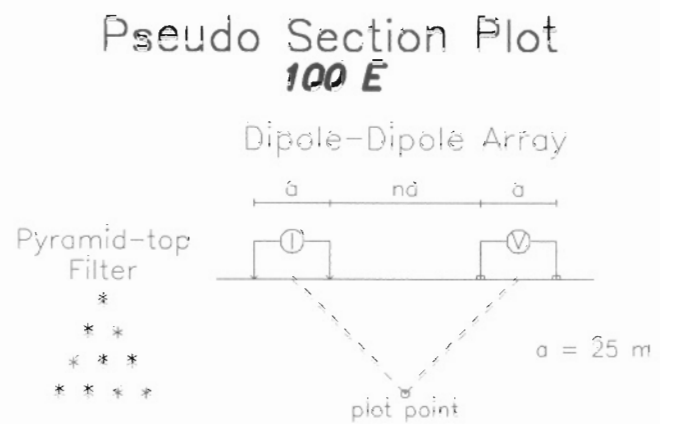
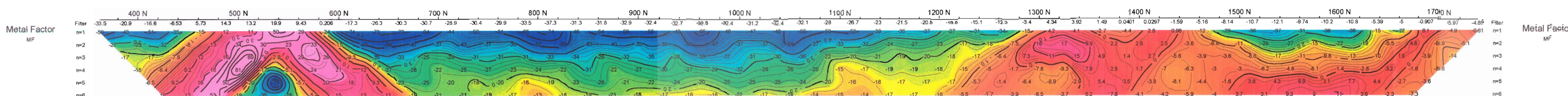
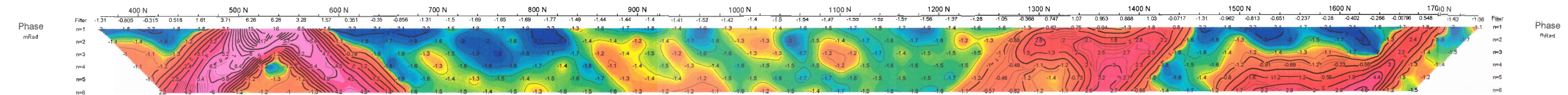
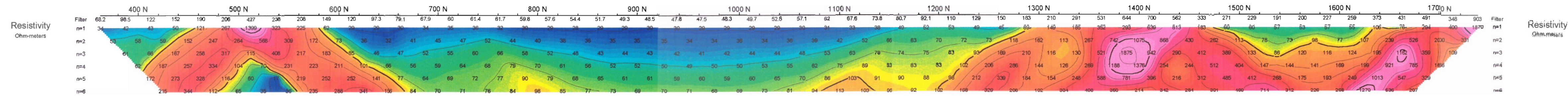
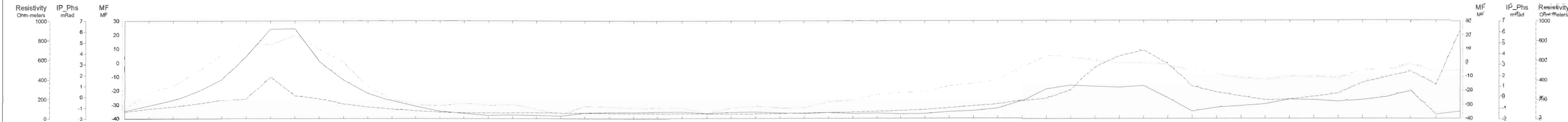
#### INTERPRETATION

- 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.



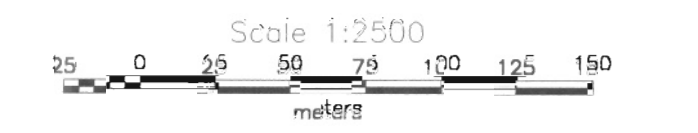
**VEDRON GOLD INC.**  
 INDUCED POLARIZATION SURVEY  
 WINDSOR PROPERTY  
 BEATTY TWP., , ONTARIO  
 Date: 17/04/2007  
 Interpretation: MATTHEW JOHNSTON  
**REMY BELANGER (CONTRACTOR) V-5**





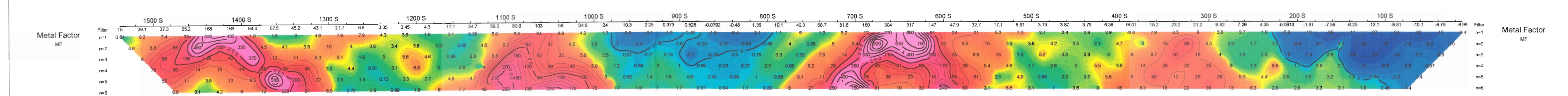
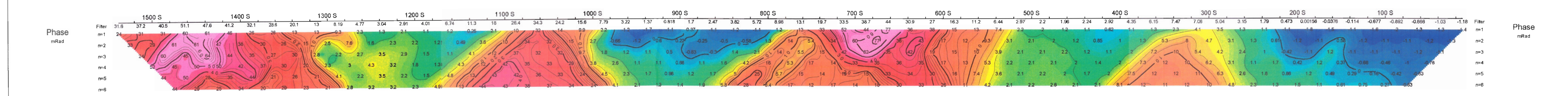
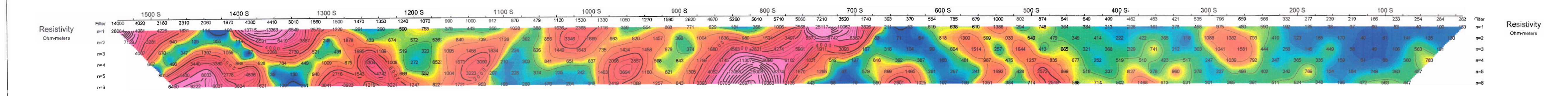
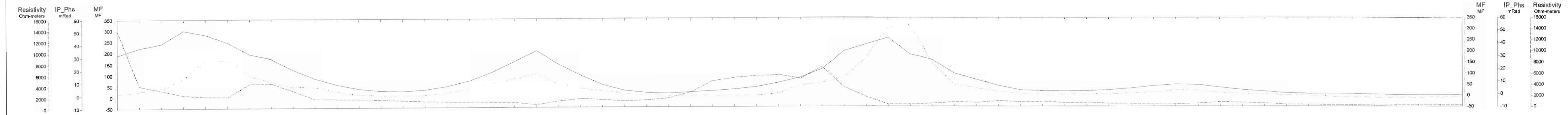
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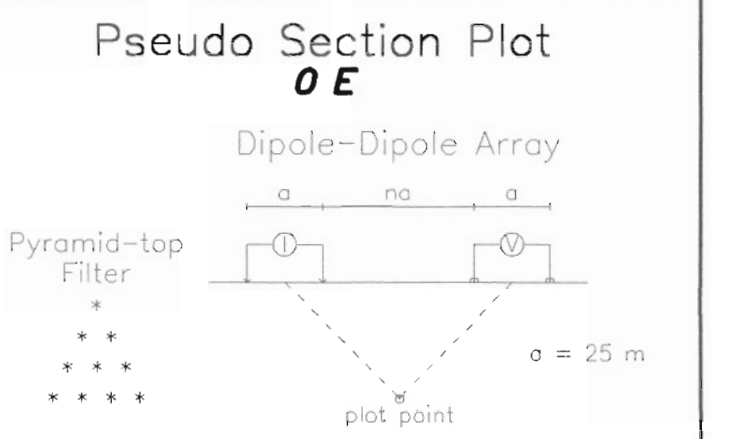


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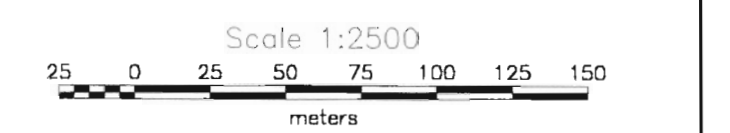
Geosoft Software for the Earth Sciences



Resistivity  
Ohm-meters

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

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