# WORK REPORT on the RANEY TWP PROPERTY RANEY TOWNSHIP PORCUPINE MINING DIVISION for MPH VENTURES CORP.





Submitted by: Steve Anderson OFFICE

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# **INTRODUCTION**

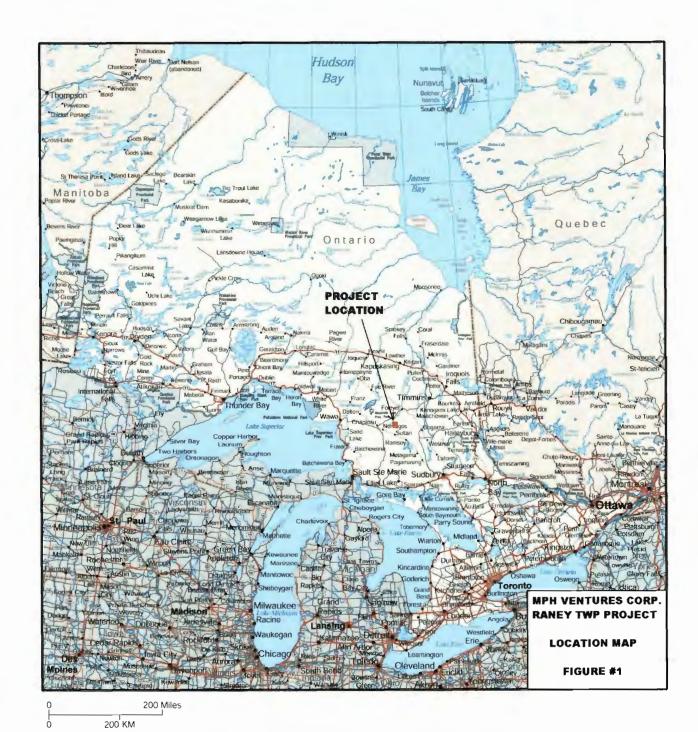
The following report will deal with the results of magnetometer and Induced Polarization surveys carried out on the Raney Township Project. This property consists of 12 single unit and block mining claims (88 units) located in central portion of Raney Township, Porcupine Mining Division, Ontario (Figure #2&3). This work was carried out on a contract basis by Vision Exploration on behalf of MPH Ventures Corp.

This program was designed as a test survey and follow-up to a number of work programs carried out by current as well as previous property holders.

A total of 7.6km of grid lines were established and surveyed with magnetometer and induced polarization. This work was carried out between February 1<sup>st</sup>, 2010 and February 20<sup>th</sup>, 2010.

The purpose of this survey was to provide geophysical data that will further aid in the geological interpretation of the area as well as provide targets that can be tested with diamond drilling.

This report will deal with the results of the magnetometer and IP surveys carried out on the above-mentioned grid.



# **LOCATION AND ACCESS**

The Raney Township Property consists of twelve single unit and block mining claim (88 units) located in the central portion of Raney Price (Figure #3). The property is situated approximately 140km southwest of the city of Timmins (Figure #1).

Access to the work area was gained by taking Hwy 101 west from the city of Timmins for approximately 90km to the Foleyet Timber Road. At this point the Foleyet Timber Road heads south for approximately 40km where a junction in the road heads southwest into Raney Township (Figure #3). At about 1 km down this junction in the road is located a camp owned by Foleyet Timber. Accommodations were arranged at the camp and the job was accessed from this point during the survey period. This road is maintained year round as far as the camp but from that point on the road is maintained only if necessary for logging operations.

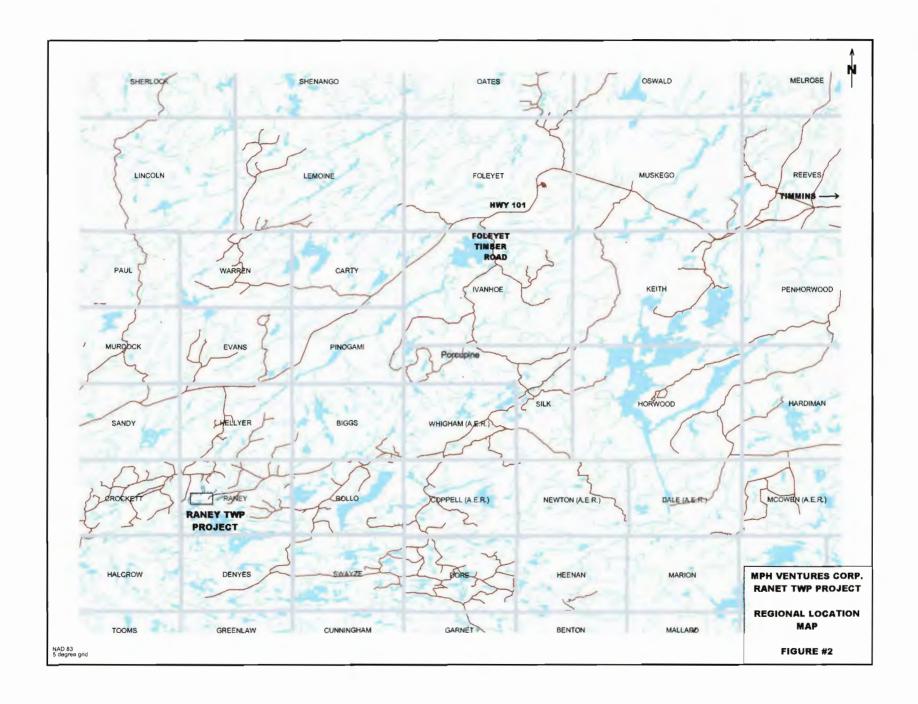
# **PERSONNEL**

The following people were directly involved in carrying out the magnetometer and induced polarization surveys.

| Steve Anderson | Timmins  |
|----------------|--|
| Lanny Anderson | Timmins  |
| Aurel Chaumont | Timmins  |
| Dan Dupuis     | Timmins  |
| Ken Matenin    | Timmins  |
| Kyle Cochrane  | Timmins  |
| Rob Mathews    | Timmins  |
|                | Lanny Anderson Aurel Chaumont Dan Dupuis Ken Matenin Kyle Cochrane |

# PREVIOUS WORK

The first phase of exploration conducted by the current claim holders took the form of diamond drilling to test an old showing. The results from this program were not available to the author at the time of writing.



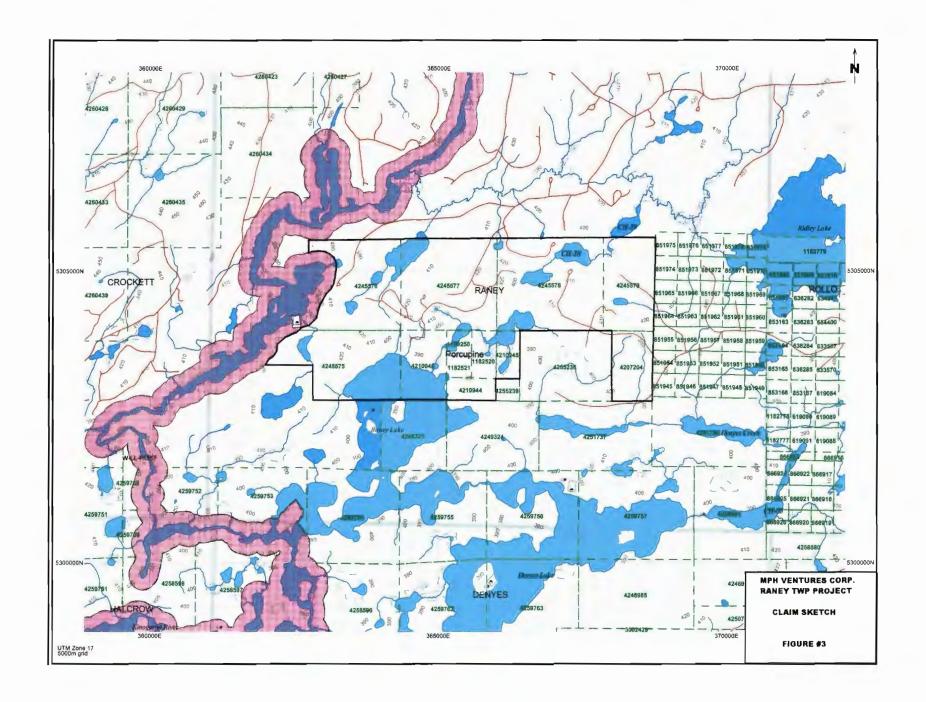
# GENERAL GEOLOGY

The Raney Twp. Property is shown by OGS Map # P3511 Geological Compilation of the Swayze Area, Abitibi Greenstone Belt, to be underlain primarily by mafic to intermediate metavolcanics.

# **CLAIMS**

The property is made up of twelve single unit and block mining claim totalling 88 units (Figure #3). The claims are all located within Raney Township, Porcupine Mining Division and are recorded 100% in the name of MPH Ventures Corporation. The following is a list of claims that make up the Raney Township Property.

| Claim #        | # of units | Township   |
|----------------|------------|------------|
| 1180250        | 1 unit     | Raney Twp. |
| 1182520        | 2 units    | Raney Twp. |
| 1182521        | 1 unit     | Raney Twp. |
| 4207204        | 6 units    | Raney Twp. |
| 4210943        | 6 units    | Raney Twp. |
| 4210944        | 2 units    | Raney Twp. |
| 4210945        | 2 units    | Raney Twp. |
| 4245575        | 14 units   | Raney Twp. |
| 4245576        | 13 units   | Raney Twp. |
| 4245577        | 16 units   | Raney Twp. |
| 4245578        | 16 units   | Raney Twp. |
| <u>4245579</u> | 9 units    | Raney Twp. |
| 12 claims      | 88 units   |            |



# **WORK PROGRAM SUMMARY**

# **General Information:**

Survey Dates: February 1<sup>st</sup> - 20<sup>th</sup>, 2010

Survey Period: 8 days
Survey Days: 8 days
Weather: 0 days
Down days: 0 day
Survey Coverage: 7.6 km

#### Personnel:

Project Supervision: Steve Anderson
Geophysical Technician Aurel Chaumont
Geophysical Technician Lanny Anderson

Helper

# **Survey Specifications:**

Mag Reading interval: 12.5meters
IP Array: Pole-Dipole
IP "a" spacing: 25 meters

IP # of Dipoles: 6

IP Parameter Surveyed: Chargeability and resistivity

#### **Instrument:**

Magnetometer: GEM GSM-19 Total Field magnetometer

IP Receiver BRGM IP-6

IP Transmitter GDD Instrumentation IP-II

# Surveyed by:

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# **WORK PROGRAM**

The work program involved establishing 7.6km of grid line over a select portion of the subject property. The grid specifications were set up as per the accompanying grid sketch (Figure #4). The resulting grid was then surveyed with magnetometer and Induced Polarization. It should be noted that due to an unusually mild spring, the magnetometer coverage could not be carried out over some portions of the grid covered by water. The results can be found in the back pocket of this report.

The following is a brief description of the geophysical methods and parameters used:

# General IP Theory

The IP method involves applying voltage across two electrodes in a pulsed manner i.e. 2 seconds on, 2 seconds off. A second "dipole" or electrode pair, measures the residual potential or voltage between them after the voltage is shut off or during the 2 second off cycle. The potential is recorded at different times after the shut off. If, for example, there is sulphide mineralization within the measuring dipoles, they will be polarized or charges set up on the sulphide particles. This polarization gives the zone a capacitor effect, thereby blocking the current delay giving a higher chargeability reading.

A typical signature for many gold showings would be a chargeability high, resistivity high and magnetic low. This would be characteristic of a mineralized, highly altered carbonated and/or silicified zone. However, this is by no means the only geological setting for gold; therefore every profile should be looked at individually and correlated with all other geophysical-geological data.

#### Electrode Array

The electrode array used for the survey was the Pole-Dipole Array. In this array, one current electrode (C1) and two receiver or potential electrodes (P1,P2), are moved down a line in unison. A second current electrode (C2), is placed normal to the expected strike direction an infinite distance away, at least one km. The two current electrodes are hooked up to a motor-generator and a current applied across them, usually less than 3 amperes. The applied voltage is pulsed in a 2 second on, 2 second off pattern controlled by the transmitter.

Thus we have a single pole current electrode following a pair or dipole of potential electrodes

moving down the line. The advantage of this "Pole-Dipole" array over the "Dipole-Dipole" array is a deeper current pattern between the ifinite and moving current electrode, resulting in better penetration of conductive overburden. Also, this array is considerably faster in areas of high electrode contact impedance due to frozen and or rocky ground conditions because only one current electrode placement is needed for each reading. A disadvantage of the "Pole-Dipole" array is a slightly more ambiguous interpretation due to the asymmetry of the array.

The distance between the potential electrodes is fixed usually 25 or 50 meters and this is called the "a" spacing. When the potential dipole is positioned with one "a" spacing between the C1 and the nearest P1, it is called a "N=1" reading with a theoretical plot point at the intersection of a 45 degree line drawn down in a section format from the C1 and nearest P1. When this N=1 reading is finished, the C1 remains stationary and the P1P2 dipole moves ahead one "a" spacing and an N=2 reading is obtained. Using the above plot convention it can be seen that the plot point is now further from the C1 and deeper. This is repeated for as many "N" readings as desired.

# **IP Survey Parameters**

The IP survey was carried out using the following parameters:

Method: Time Domain Electrode Array: Pole-Dipole

"a" spacing: 25 meters

Number of Dipoles Read: 1-6 inclusive Pulse Duration: 2 seconds on, 2 seconds off

Delay Time: 310 milliseconds Integration Time: 140 milliseconds

Receiver: BRGM IP-6

Transmitter: GDD Instrumentation IP-II 1.8KVA. Data Presentation: Individual Psuedosections

Scale: 1:2500

# MAGNETOMETER THEORY

A GEM - GSM 19 Proton Precession magnetometer was used to carry out the magnetometer survey. The instrument is synchronised with a GEM -GSM 19 recording base station to help eliminate magnetic diurnal variation. This should ensure an accuracy of less than 10 Nt.

The Proton Precession method involves energising a wire coil immersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess simulating spinning magnetic dipoles. When the current is removed the protons precess about the direction of the earth's magnetic field, generating a signal in the same coil which is proportional to the total magnetic field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form with values of equal intensity joined to form a contour map.

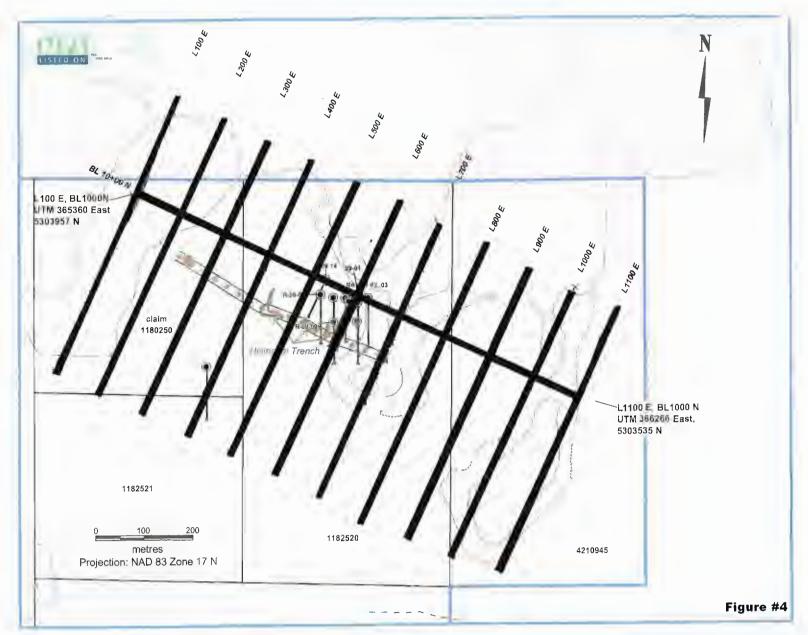
This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic

Responses can be interpreted for dip, depth and width estimates after profiling the data.

The following parameters were employed for the survey:

Instrument - GEM GSM 19 Proton Precession Magnetometer
Station Interval - 12.5m
Line Interval - 50m
Diurnal Correction Method - GEM GSM-19 Recording Base Station
Data Presentation - Magnetic Contours Map

- 1:2500 scale
- Contour interval = 10 nano-teslas



### SURVEY RESULTS

The results of the work program show that there appears to be two main areas if interest. The most dominant feature is marked by a moderate chargeability high that runs north of the base line from L600E/1050N to L1100E/1125, remaining open to the east and north. What may be the offset extension of this zone extends from L200E/950N to L500E/925N. What shows up as a north-south trending magnetic low may be marking a fault zone that has offset the previously described feature.

Within the southern portion of the survey area a second moderately chargeable zone occurs from L400E to L700E at 650N. As with the previously described zone, what appears to be a fault zone may have offset this zone to L800E/725N.

# RECOMMENDATIONS AND CONCLUSIONS

As mentioned under result the IP was successful in outlining two areas of interest. The data from this work program should be compiled with any additional geological or geophysical information available for the area.

At this point in time, both the features outlined in this report should be further investigated. If possible, geological mapping should be carried out in order to explain the IP responses and if warranted, a diamond drill program should be carried out.

# **CERTIFICATION**

- I, Steve Anderson of Timmins, Ontario hereby certify that:
- 1. I hold a three-year Geological Technologist Diploma from Sir Sandford College, Lindsay, and Ontario, obtained in May 1981.
- 2. I have been practising my profession since 1979 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Manitoba, Saskatchewan and Greenland.
- 3. I have been employed directly with Asamera Oil Inc. Urangellschaft Canada Ltd. Nanisivik Mines Ltd., R.S. Middleton Exploration Services Ltd., Rayan Exploration Ltd and I am currently President of Vision Exploration.
- 4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the fieldwork conducted on the property during February 2010.

Dated this 24<sup>th</sup> day of May, 2011 At Timmins, Ontario. APPENDIX "A" BRGM IP-6





### SPECIFICATIONS

#### **SPECIFICATIONS**

Multiple inputs, allowing from one to eight simultaneous dipole Inputs:

measurements. Nine binding posts mounted in a single row for easy

reversal of the connection of the dipole array.

Input Impedance:  $16M\Omega$ 

50µV to 14V Input Voltage Range:

14V Sum Vp2...Vp8:

 $\pm 10$ V. Automatic, linear slope correction operating on a cycle by cycle SP Bucking Range:

basis.

Chargeability Range: 0 to 300m V/V

2-14 to 211s Tau Range:

Reading Resolution of

Vp, SP and M:

 $Vp - 10\mu V$ , SP - 1mV, M - 0.01mV/V

Better than 1% Absolute Accuracy:

Common

Mode Rejection:

>100db

10% to 80% of the current on time. Vp Integration Time:

IP Transient Program: Total measuring time keyboard selectable at 1, 2, 4, 8, 16 or 32

> seconds. Normally 14 windows except that the first four are not measured on the 1 second timing, the first three are not measured on the 2 second timing and the first is not measured on the 4 second timing. See diagram in the Measurement and Calculation section. An additional transient slice of minimum 10ms width, and 10ms steps, with delay of

at least 40ms is keyboard selectable.

User Selectable

The user is allowed to program the transient slice widths of up to 14 IP Transient Program slices. The minimum slice width is 10ms and initial delay cannot be less

than 40ms. The user can choose to program less than 14 slices,

however, the remaining slices must be initialized with 0ms.

Programmed slices must be contiguous.

Transmitter Timing: Equal on and off times with polarity reversal each half cycle. On/Off

times keyboard selectable at 1, 2, 4, 8, 16, 32 s. Timing accuracy of

transmitter better than ±100ppm required.

# SPECIFICATIONS

All dipoles are measured individually in sequence, using a 10Hz square External Circuit Test:

wave. Range is 0 to 2 M $\Omega$  with 0.1k $\Omega$  resolution. The resistance is

displayed on the LCD and is also recorded.

Self synchronizes on the signal received at a keyboard selected dipole. Synchronization:

Time limited to avoid mistriggering.

RF filter, anti-aliasing filter, 10Hz 6 pole lowpass filter, statistical noise Filtering:

spike removal, linear drift correction, operating on a cycle by cycle

SP = 1200 mV, Vp = 807 mV, M = 30.28 mV/VInternal Test Generator:

For monitoring input signals; switchable to any dipole via keyboard. Analog Meter:

Keyboard: 17 key keypad with direct access to the most frequently used functions.

16 line by 40 characters, 240 x 128 dot graphics liquid crystal display. Display:

Displays instrument status during and after the reading.

Display Heater: Used in below -15°C operation. Thermostatically controlled. Requires

separate rechargeable batteries for heater display only.

Memory Capacity: Stores information for approximately 400 readings when 8 dipoles are

used, more with fewer dipoles.

Real Time Clock: Data is time stamped with year, month, day, hour, minute and second.

Digital Output: Formatted serial data output to printer or computer etc. Data output in 7

> or 8 bit ASCII, one start, stop bits, no parity format. Baud rate is keyboard selectable for standard rates between 300 baud and 57.6k Baud. Selectable carriage return delay to accommodate slow

peripherals. Handshaking is done by X-on/X-off.

Standard Rechargeable Eight rechargeable Ni-Cad D cells. Supplied with a charger, suitable for

Batteries: 115/230V, 50 to 60Hz, 10W. More than 20 hours service at +25°C,

more than 8 hours at -30°C.

Ancillary Rechargeable

Batteries:

An additional eight rechargeable Ni-Cad D cells may be installed in the console along with the Standard Rechargeable Batteries. Used to power

the Display Heater or as back up power. Supplied with a second

charger. More than 6 hours service at -30°C.

Use of Non-

Rechargeable Batteries:

Can be powered by D size Alcaline batteries, but rechargeable batteries

are recommended for longer life and lower cost over time.

Field Wire Terminator: Used to custom make cables for up to eight dipoles, using ordinary field

wire.

Optional Multi-Conductor Cable

**Adapter** 

When installed on the binding posts, permits connection of the

Multidipole Potential Cables.

# **SPECIFICATIONS**

Operating and Storage: Temperature Range

-30°C to +50°C

Console; 355 x 270 x 165mm Charger; 120 x 95 x 55mm

Weight:

Dimensions:

Console; 5.8kg Standard or Ancillary Rechargeable Batteries; 1.3kg Charger; 1.1 kg

APPENDIX B GDD IP-II

# The Tx II 1400-W I.P. Transmitter

# **Specifications**

#### **GENERAL**

☑ Size: 21 x 34 x 39 cm
 ☑ Weight: approximately 20 kg
 ☑ Operating temperature: -40°C to 65°C

# **ELECTRICAL CHARACTERISTICS**

☐ Used for time-domain I.P.: 2 sec. ON, 2 sec. OFF

Output current range: 0.005 to 10 A

Output voltage range: 150 to 2000 V

#### CONTROLS

Power ON/OFF

Output voltage range switch: 150 V, 350 V, 500 V, 7€9 V, 1000 V, 1400 V, 2000 V

#### **DISPLAYS**

Output current LCD: reads to ± 0.001 A

図 Standard LCD heater for very cold weather

Total protection against short circuits even at zero (0) ohms

■ Indicator lamps:

- High voltage ON/OFF

- Output overcurrent

- Generator over or undervoltage

- Overheating

- Logic failure

- Open loop protection

#### **POWER**

Recommended motor/generator set: standard 120 V / 60 Hz backpackable Honda generator (650,1400, or 1900 W)

#### COST

The Tx II 1400-W I.P. transmitter including shipping box: \$ 12,500\* (CAD);

 Optional backpack frame for transmitter or generator: \$ 500\* (CAD).



3700, bout de la Chaudiere Sainte-Foy (Québec) Canada G1X 487

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E-mail: gdd@gddinstrumentation.com Web-site: www.gddinstrumentation.com



#### SERVICE

Any instrument manufactured by GDD that breaks down while under warranty or service contract is replaced free of charge upon request, subject to instruments availability.

#### WARRANTY

A one-year warranty on parts and labour. Repairs done at GDD's office in Sainte-Foy.

Prides and specifications subject to change without notice.
 Taxes, transportation and duties are extra, if applicable.

Instruments available for rental or sale.

© Copyright 1997 Instrumentation GDD inc

# APPENIX C GEM GSM-19 MAGNETOMETER

# GEM GSM-19

#### INSTRUMENT SPECIFICATIONS

# MAGNETOMETER / GRADIOMETER

Resolution:

0.01 nT (gamma), magnetic field and gradient.

Accuracy:

0.2 nT over operating range.

Range:

20,000 to 120,000 nT.

Gradient Tolerance:

Over 10,000 nT/m

Operating interval:

Power Requirements:

:3 seconds minimum, faster optional. Readings initiated from keyboard,

external trigger, or carriage return via RS-232-C.

Input/Output:

6 pin weatherproof connector, RS-232C, and (optional) analog output. 12 V, 200 mA peak (during polarization), 30 mA standby. 300mA peak

in gradiometer mode.

Power Source:

Internal 12 V, 2.6 Ah sealed lead-acid battery standard, others op-

tional. An External 12V power source can also be used.

Battery Charger:

Input: 110 VAC, 60 Hz. Optional 110/220 VAC, 50/60 Hz.

Output: dual level charging.

Operating Ranges:

Temperature: -40 °C to +60 °C.

Battery Voltage: 10.0 V minimum to 15V maximum.

Humidity: up to 90% relative, non condensing.

Storage Temperature:

-50°C to +65°C

Display:

LCD: 240 x 64 pixels, or 8 x 30 characters. Built in heater for opera-

tion below -20°C

Dimensions:

Console: 223 x 69 x 240mm. Sensor staff: 4 x 450mm sections.

Seisor scar: 4 x 450mm secu

Sensor: 170 x 71mm dia.

Weight: Console 2.1kg, Staff 0.9kg, Sensors 1.1kg each.

#### VLF

Frequency Range:

·· 15 - 30.0 kHz.

Parameters Measured:

Vertical In-phase and Out-of-phase components as percentage of total

field.

2 components of horizontal field. Absolute amplitude of total field.

Resolution:

0.1%.

Number of Stations:

Up to 3 at a time.

Storage:

Automatic with: time, coordinates, magnetic field/gradient, slope, EM field, frequency, in- and out-of-phase vertical, and both horizontal

components for each selected station.

Terrain Slope Range:

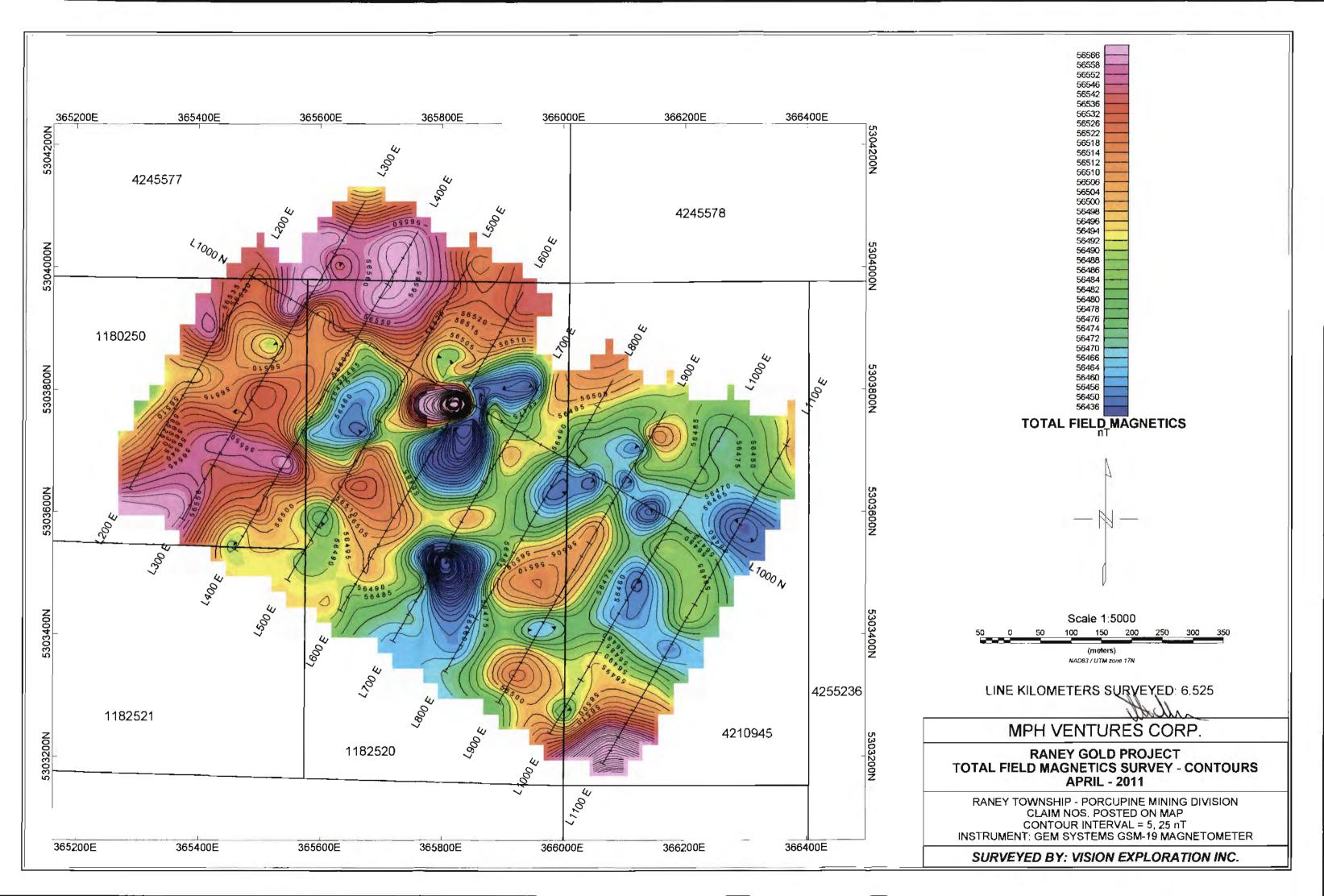
0°-90° (entered manually).

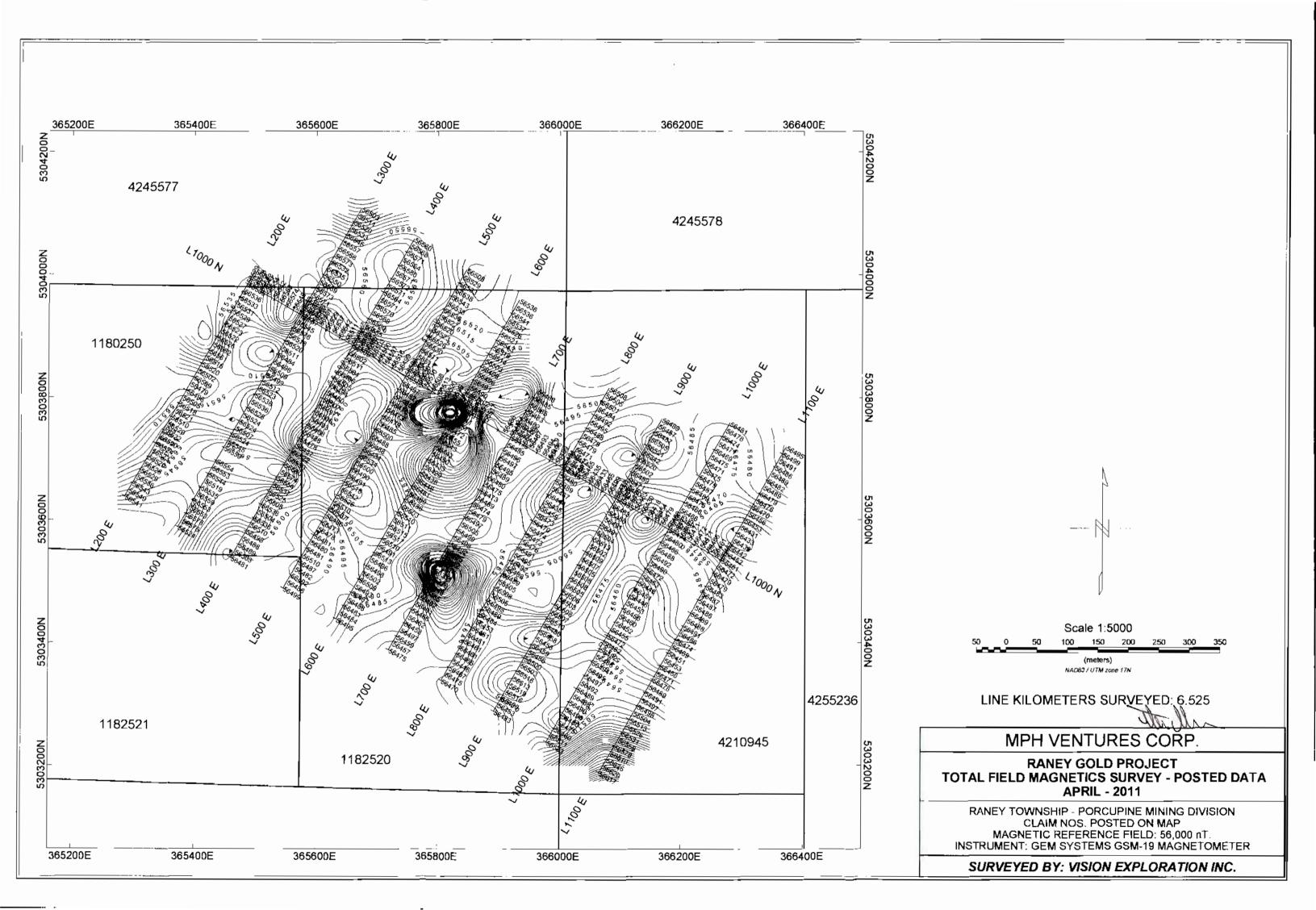
Sensor Dimensions:

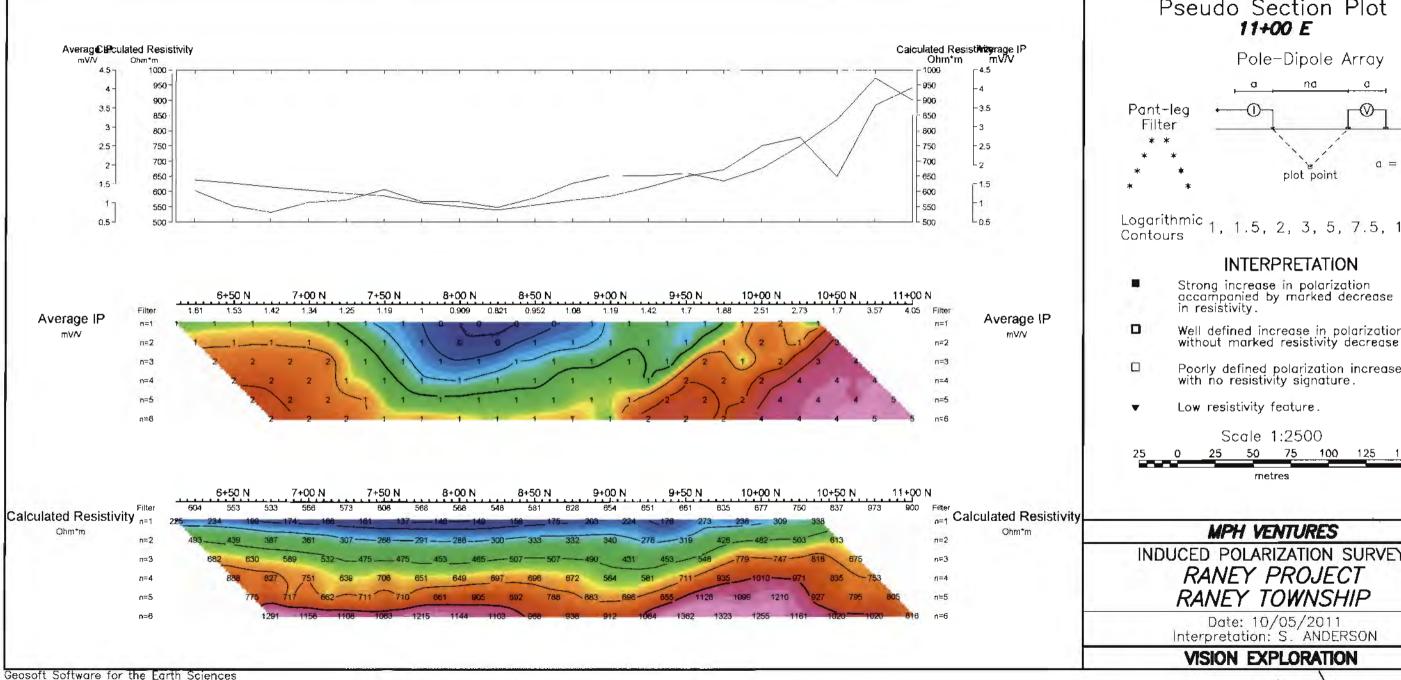
14 x 15 x 9 cm. (5.5 x 6 x 3 inches).

Sensor Weight:

1.0 kg (2.2 lb).

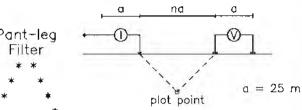






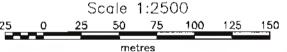
Pseudo Section Plot

Pole-Dipole Array

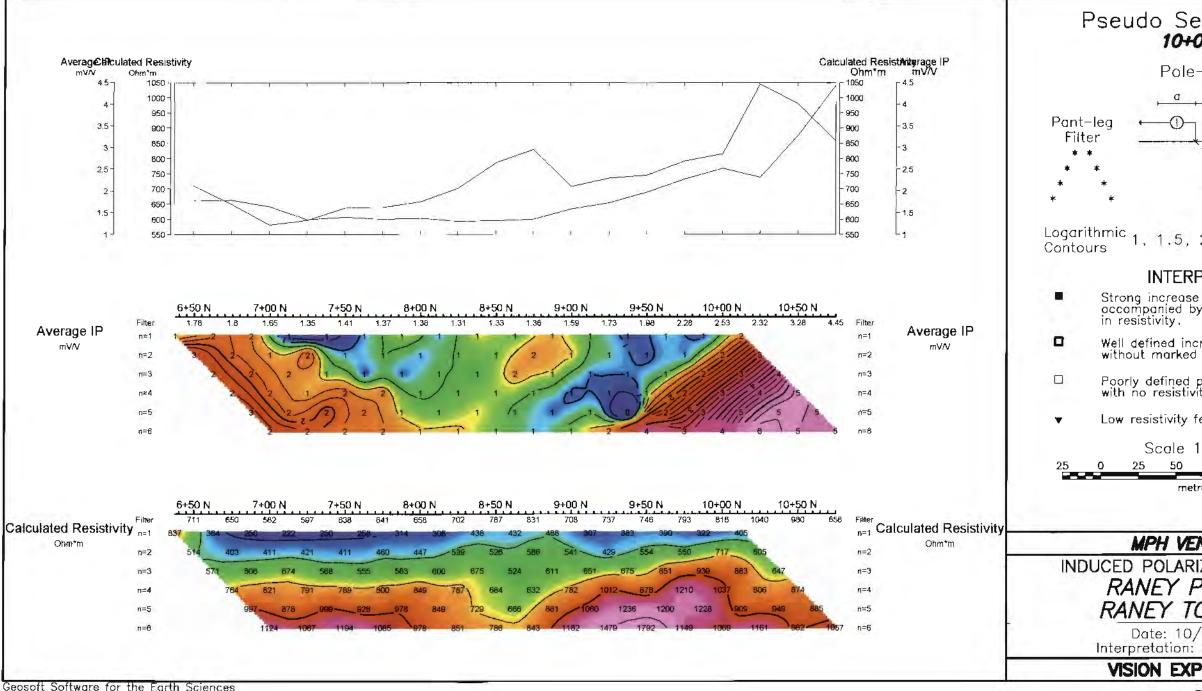


Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,...

- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.

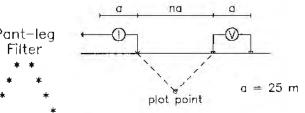


INDUCED POLARIZATION SURVEY RANEY PROJECT



Pseudo Section Plot 10+00 E

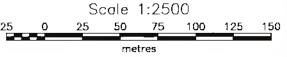
Pole-Dipole Array



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

# INTERPRETATION

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

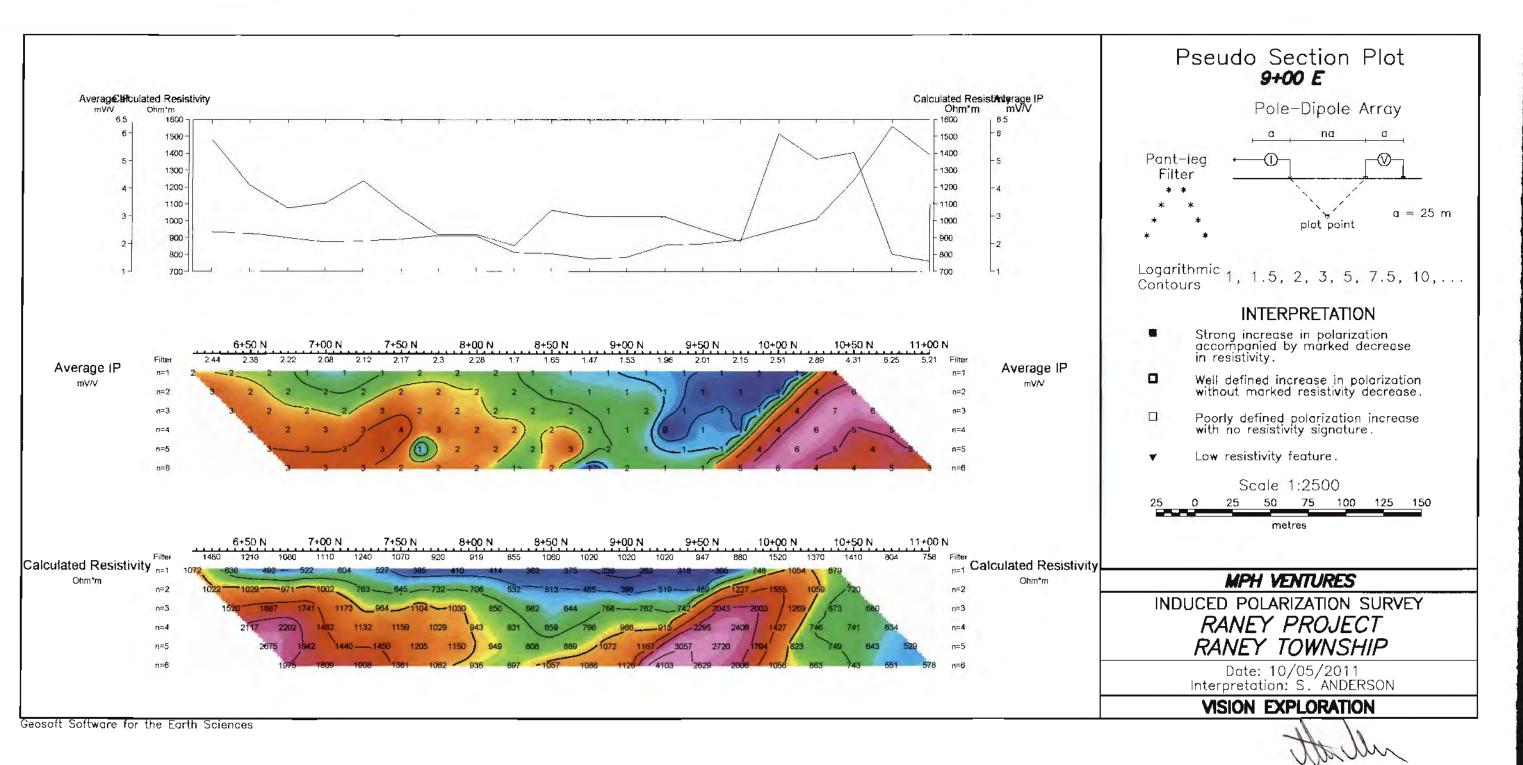


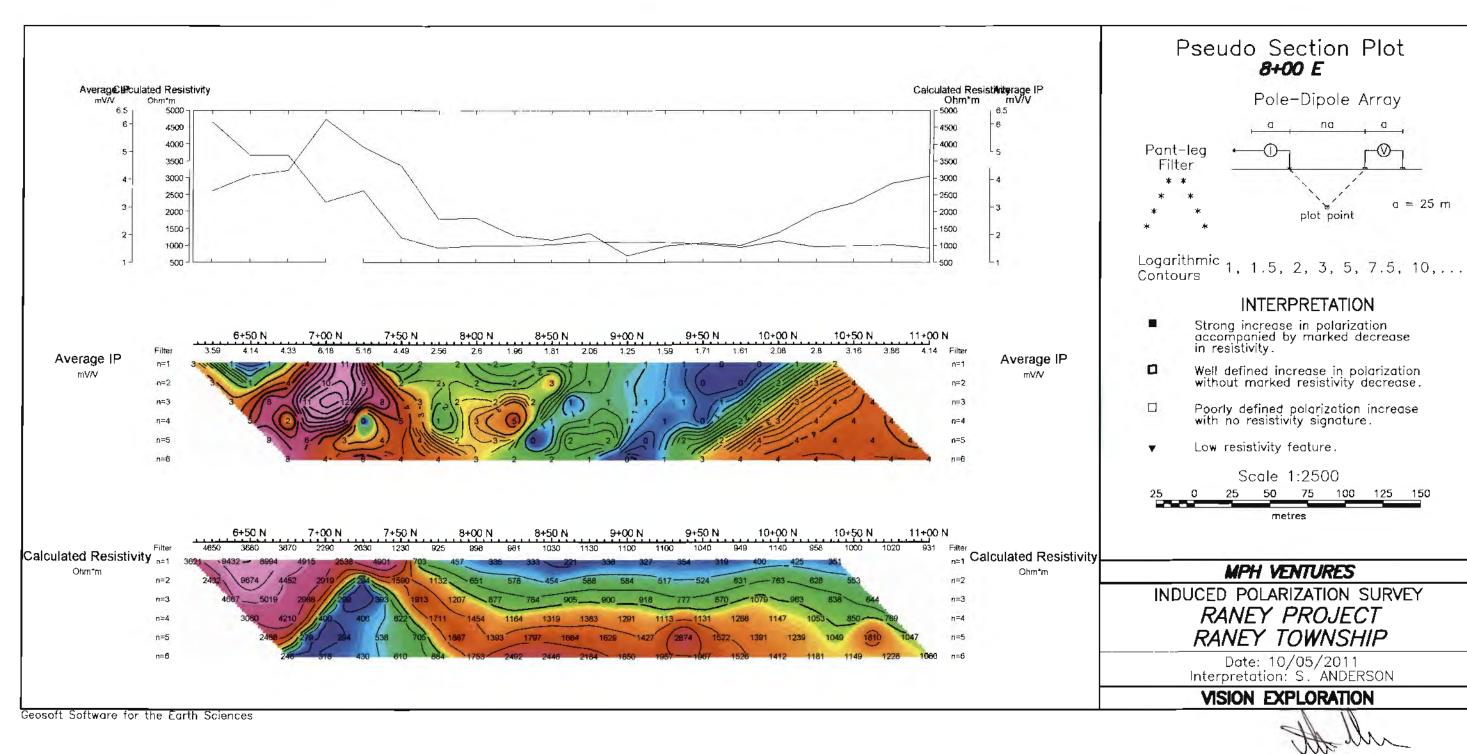
# MPH VENTURES

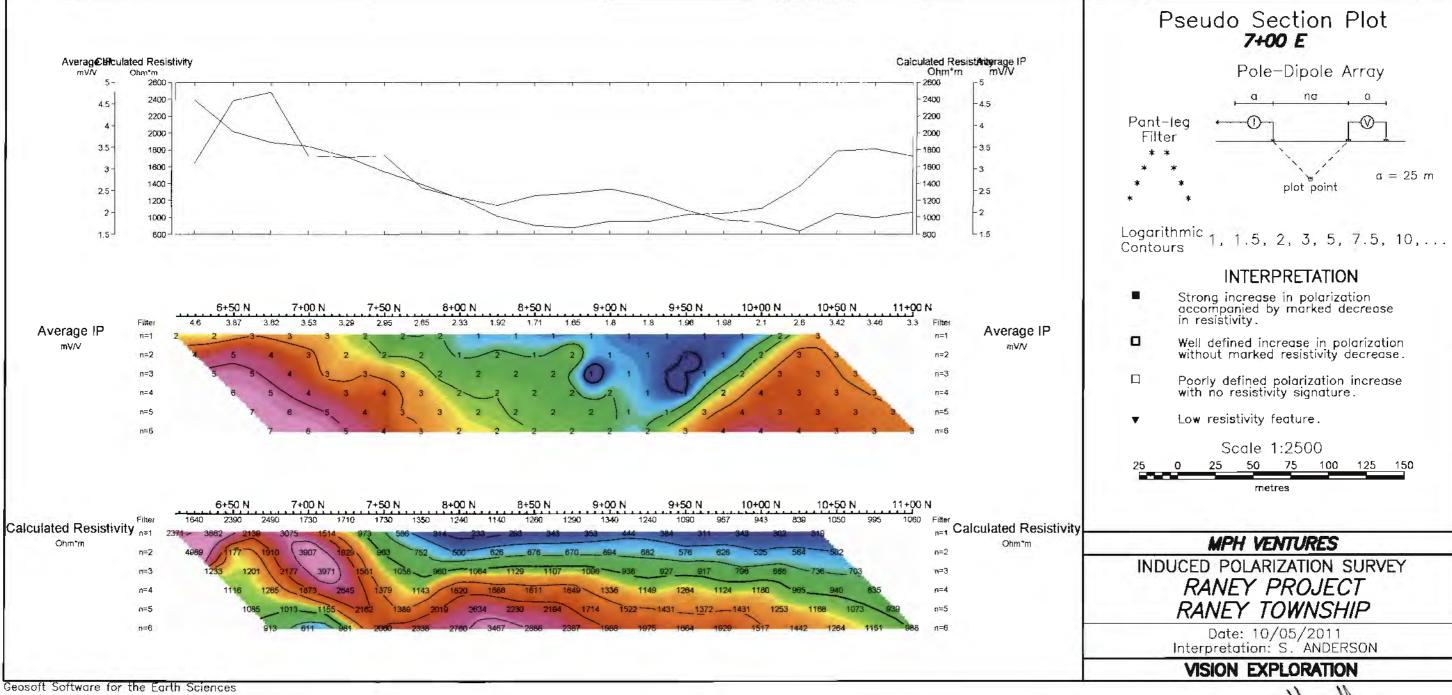
INDUCED POLARIZATION SURVEY RANEY PROJECT RANEY TOWNSHIP

> Date: 10/05/2011 Interpretation: S. ANDERSON

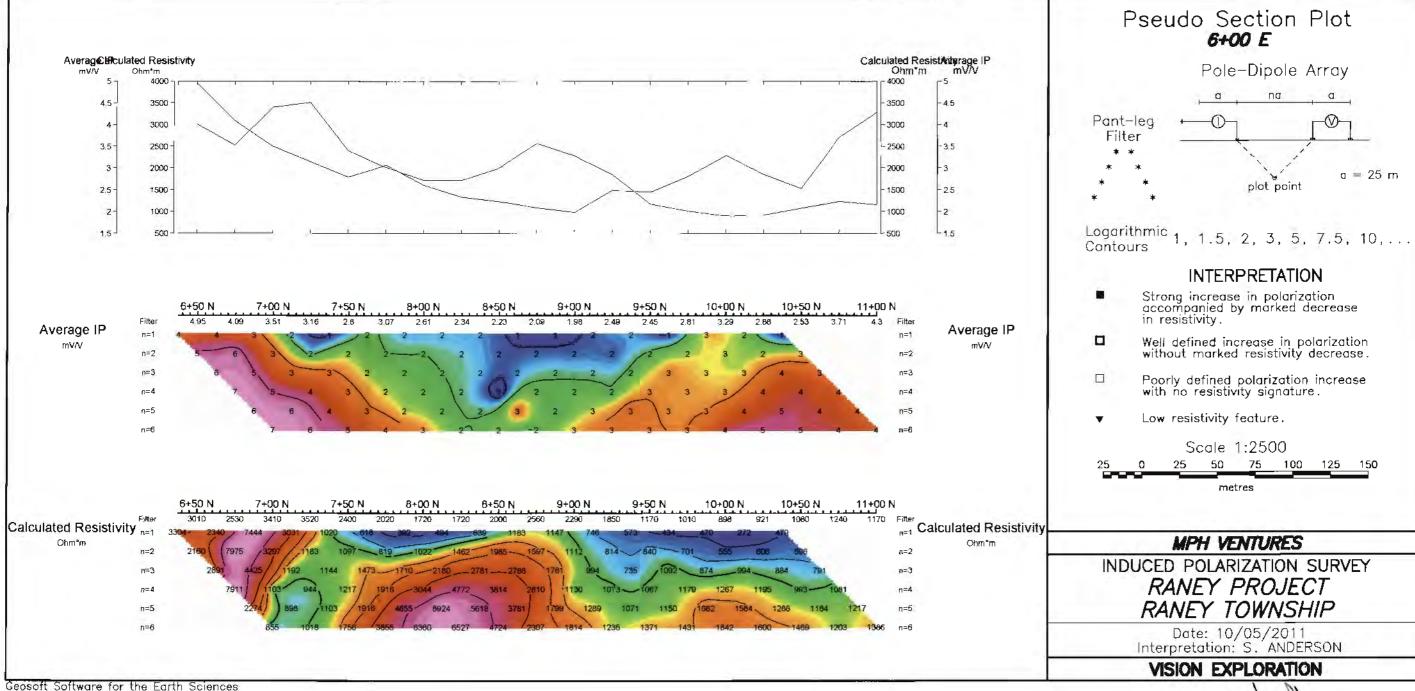
VISION EXPLORATION



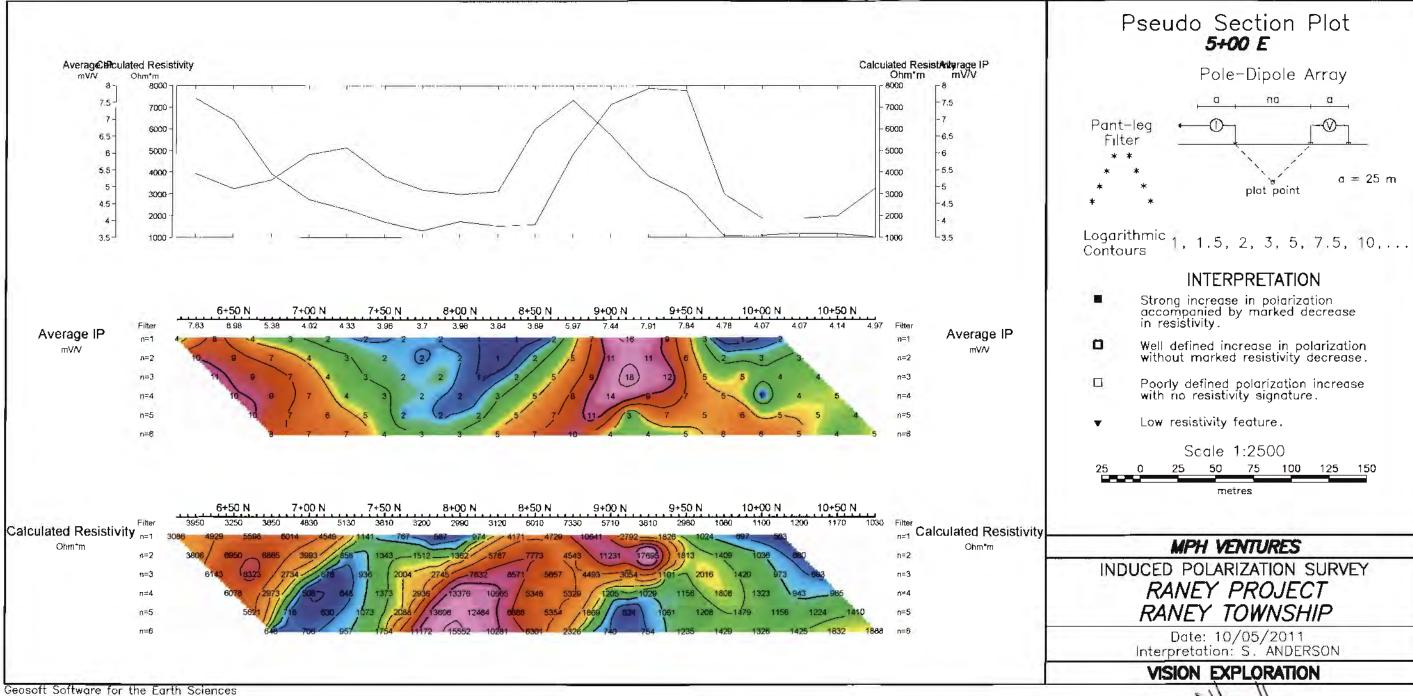




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