

**GEOPHYSICAL REPORT**  
FOR  
***TRELAWNEY MINING AND EXPLORATION INC.***  
ON THE  
***MISHIBISHU PROJECT***  
MISHIBISHU LAKE AREA  
SAULT STE. MARIE MINING DIVISION  
NORTHERN, ONTARIO

Prepared by: J. C. Grant,  
December 2015

Contributions by:  
Stephen Roach  
Alan Smith

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## SUMMARY

The Mishibishu (Mishi) Property is located 50 kilometers west of Wawa and 65 kilometers south of White River, Ontario. Access to the property can be attained by road and helicopter from Wawa, Ontario. The claims of the project are wholly owned by Trelawney Mining and Exploration Inc. (Trelawney) and consist of 208 units in 18 unpatented mining claims covering approximately 3328 hectares (41N14, 42C03, 42C04). Most of the historical exploration occurred in the 1980's and 1990's when production proceeded with the Magnacon and Mishi Mine pit, and the discovery of the Eagle River Deposit. Other than Wesdome Gold Mines, Trelawney has been the most active exploration company in the area in recent times, completing extensive prospecting, airborne magnetic / EM surveying, and diamond drilling (53 DDH, 18,844m) from 2005-2013.

The purpose of the 2015 geophysical program on the Mishi Property was to evaluate and expand an area where historical drilling intersected widespread gold mineralization within the Rook Lake Deformation (RLDZ) in 1988. A total of 23.5 km of line-cutting and magnetic survey was completed, and 15 kilometers of pole-dipole IP was also completed, starting in late October and finishing on November 28, 2015.

The Mishi Property is located in the Mishibishu Greenstone Belt (2670 to 2713 Ma), located in the Wawa Subprovince of the Superior Province. It consists of weakly to strongly metamorphosed metavolcanics and metasediments intruded by a variety of complex intrusives. The metavolcanic supracrustal rocks underlying the property are bimodal and classify as calc-alkaline rhyolite to dacite and magnesium to iron-rich tholeiitic basalt metavolcanics. The bimodal metavolcanics account for 75% of the rocks underlying the property, and consist of massive, pillow, to porphyritic mafic flows and felsic fragmentals. Clastic metasediments account for 20% of the exposed bedrock and generally become more prolific and thicker in the northern part of the property. They consist of interbedded greywacke, and argillaceous/arenaceous metasediments, with thin volcanoclastic inter-formational units within mafic metavolcanics. The remaining 5% part of the property is underlain by chemical metasediments which consist of silicate/oxide facies banded iron formation (BIF) with sulphide-rich exhalative cherty tuff, located in the central part of the property. This marks a general boundary between the felsic and mafic metavolcanics. A series of thin, discontinuous quartz-diorite to diorite/gabbro intrusives are located in the southern part of the property. The monzo-granite and granodiorite intrusives (2673±12) of the Central Pluton, Mishibishu Lake Stock, and Bowman Batholith, and diabase dykes account for the remaining < 1%, cross-cutting and metamorphosing the supracrustal rocks. The rocks underlying the property have undergone regional greenschist metamorphism, with an upper greenschist to mid-amphibolite metamorphism in proximity to the Central Pluton and the Mishibishu Lake Stock.

The bedding and foliation of the metasediments and metavolcanics generally trend east-west. Fold axis lineation along the RLDZ indicate a shallow to steep plunge of between 39° to 77° to the east. Although several sulphide showings and zones were located, extensive alteration and deformation has been recognized in all three map areas. The strongly altered and sheared/fractured felsic and mafic metavolcanics of the RLDZ has similar host rock, geochemical, and alteration characteristics to Wesdome Gold Mines Eagle River Mine (961,936 oz Au in 3,295,795 tonnes @ 9.07 g/t Au – total production) and the Mishi Mine pit (22,713 oz Au in 222,946 tonnes @ 3.17 g/t Au – total production), respectively. Airborne magnetics indicate variable trending magnetic lows and breaks and are consistent to regional deformation zones and cross-cutting features. The geological environment characterized by rocks underlying the Mishi Property has similarities to the deformation zones hosting Wesdome's producing mines in the Mishibishu Greenstone Belt, and known mesothermal lode gold mineralization in various Ontario mining camps, such as Timmins and Red Lake.

Although no significant gold values were returned, the RLDZ on the Mishi Property has been outlined partially over 6 kilometers as part of a 20 kilometer long anastomosing shear zone. It consists of strongly sheared and hydrothermally altered metavolcanics. Historical drill hole M-87-15 intersected over 80 meters of strong fractured and brecciated felsic/cherty tuff exhalative and strongly sheared chlorite-carbonate altered mafic metavolcanics with continuous anomalous gold values up to 0.28 g/t Au over 56.7 meters. The IP and magnetic survey were successful in outlining four (4) major IP chargeability zones, with two of the chargeability zones associated with a strong, linear magnetic low trending southwest splaying off the main RLDZ.

## **INTRODUCTION:**

The services of Exsics Exploration Limited were commissioned on behalf of Trelawney Mining and Exploration Inc., to complete a total field magnetic survey and an Induced Polarization, (IP), survey over the Mishibishu (Mishi) Property located in the north central section of Mishibishu Lake Area. The Mishibishu Project area is located to the immediate north of the Eagle River Gold Mine and south of the Mishi and Magnacon Gold properties.

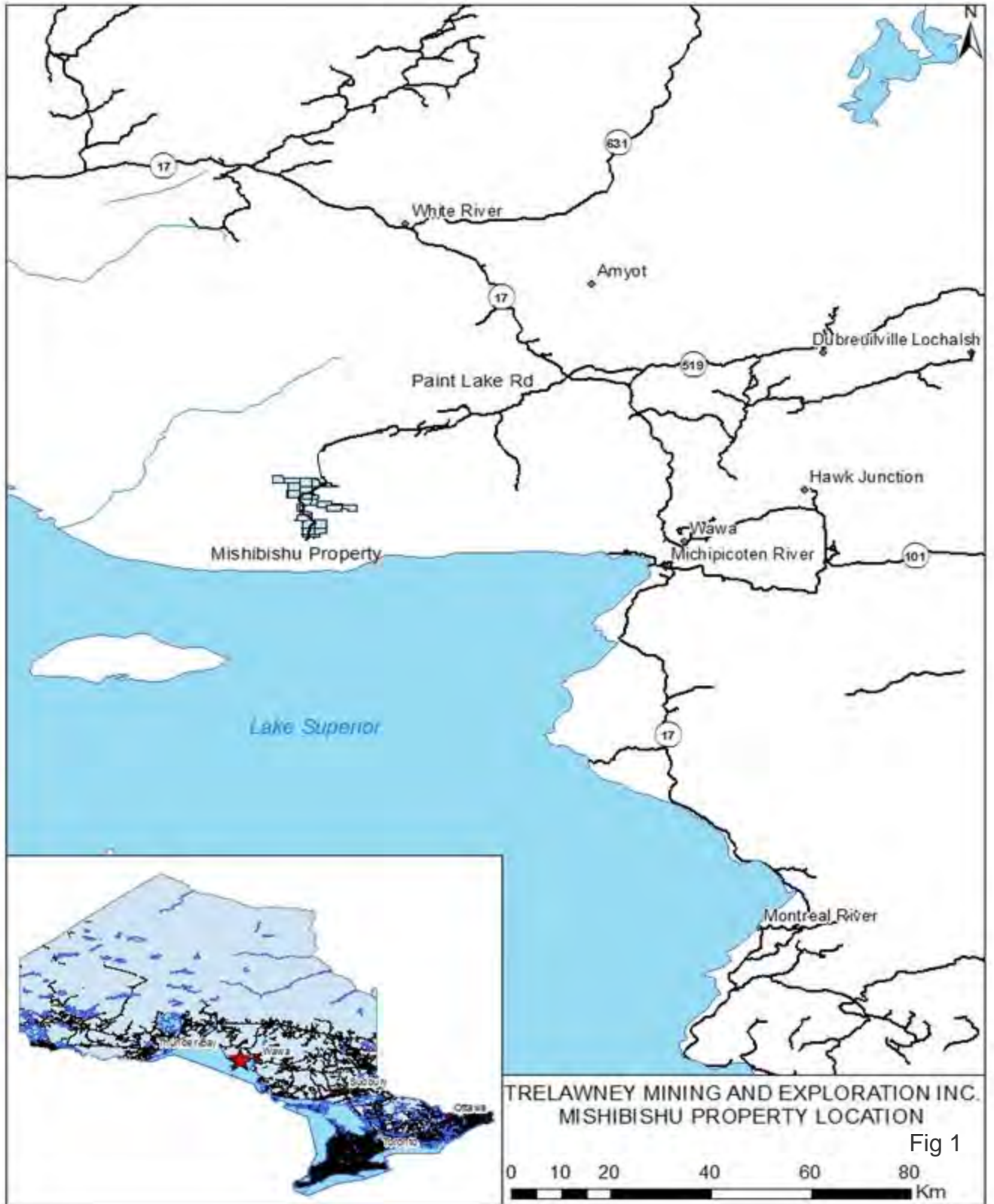
The purpose of this program was to investigate favorable stratigraphy hosting Au identified in historic diamond drilling. Geological investigations were completed in 2014 by Trelawney Mining and Exploration (wholly-owned subsidiary of IAMGOLD Corp) to follow-up anomalous Au values of 0.28 g/t Au / 56.7m encountered within an 80m interval of strongly fracture and altered felsic and mafic metavolcanics. The 2015 geophysical surveying program was centered on this target.

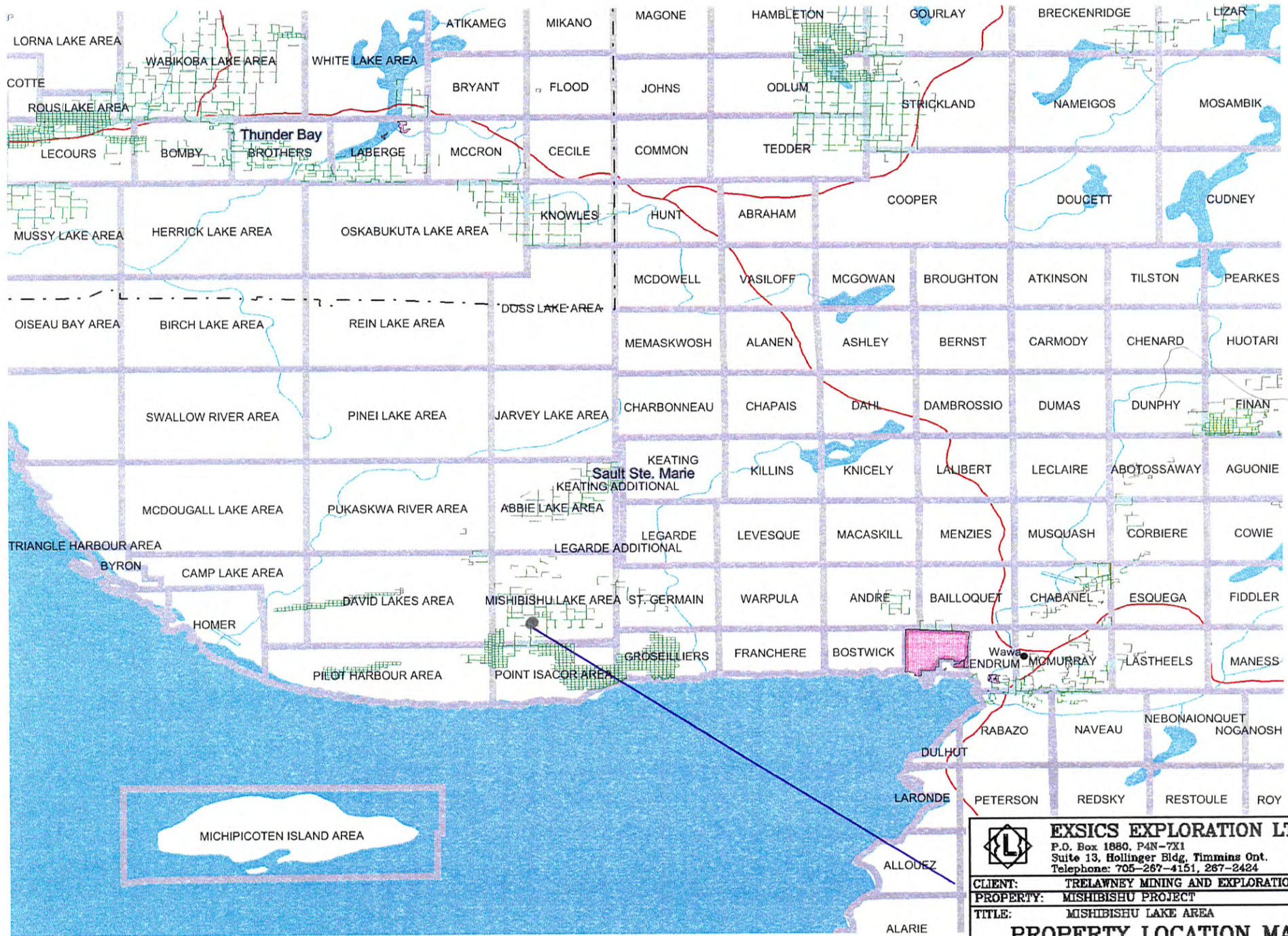
## **PROPERTY LOCATION AND ACCESS:**

The Mishi Property is located 50 kilometers west of Wawa and 65 kilometers south of White River, Ontario (Figure 1). It is located in the Sault Ste. Marie Mining Division (NTS 42C/03SW and 41N/14NW).

The Mishi Property can be accessed by both road via the Paint Lake Road from the Trans-Canada Highway 17 and by helicopter from Wawa. The Paint Lake Road is approximately 48.8 kilometers northwest of Wawa along Highway 17, with access to the property between 50 KM and 68 KM along the Paint Lake (mine) Road from the Trans-Canada Highway 17. The Paint Lake Road offers direct and easy access to most of the claim group, bisecting the claims in a north-south direction, and links Highway 17 to Wesdome's Eagle River Mine and Mishi Pit, with a security gate at KM 52. The grid is located between KM 57 and 59 on the Paint Lake Mine Road, two kilometers southwest of Mishibishu Lake.

The Exsics Exploration crew stayed at Moose Lodge on Highway 17, situated 12 kilometers to the northwest of the Paint Lake Road. They stayed from about October 24, 2015 to November 28, 2015.





	<b>EXSICS EXPLORATION LTD.</b>		
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CLIENT:		TRELAWNEY MINING AND EXPLORATION INC.	
PROPERTY:		MISHIBISHU PROJECT	
TITLE:		MISHIBISHU LAKE AREA	
<b>PROPERTY LOCATION MAP</b>			
Date: NOV.2015		Scale: 1:100,000	NTS:
Drawn: J.C.Grant		Interp: J.C.Grant	Job No.: E-951

**CLAIM BLOCK:**

The Mishi Property consists of 208 units in 18 unpatented mining claims, covering approximately 3328 hectares (Figure 2). The mining claims are wholly owned by Trelawney Mining and Exploration Inc. (3 Mesomikenda Lake Road, Gogama, Ontario P0M 1W0). The claim schedule is summarized in Table 1. Claims which were covered by the line-cutting and geophysical surveys are as follows:

3006841	16 Units
3006842	12 Units
3006843	16 Units
4278350	10 Units

Table 1 – Claim Schedule

3006830	16	256	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006831	16	256	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006833	16	256	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006834	12	192	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006835	12	192	Point Isacor (G-3778)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006841	16	256	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006842	12	192	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006843	16	256	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
3006844	8	128	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	January 26, 2016
4207235	13	208	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	February 7, 2016
4207242	3	48	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	February 7, 2016
4212999	13	208	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	February 7, 2016
4254047	15	240	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	February 22, 2016
4263348	4	64	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	May 10, 2016
4263349	15	240	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	February 22, 2016
1243569	7	112	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	April 22, 2016
1243570	4	64	Mishibishu Lake (G-3772)	Trelawney Mining & Exploration Inc.	April 22, 2016
4278350	10	160			
<i>18 claims</i>	<i>208</i>	<i>3328</i>			

One of the claims was acquired for Trelawney Mining and Exploration by staking (4278350) and registered October 29, 2015.

**PERSONNEL:**

The field crew directly responsible for the collection of all the raw data were as follows.

**IP and Magnetic Survey Crew:**

J. Francoeur	Timmins, Ontario
A. Chamberlain	Timmins, Ontario
D. Poirier	Timmins, Ontario
R. Bradshaw	Timmins, Ontario

DJ Gibson	Timmins, Ontario
D. Belair	Timmins, Ontario
R. Belair	Timmins, Ontario
N. Collins	Timmins, Ontario
C. Glouster	Timmins, Ontario

The field work was completed under the direct supervision of J. C. Grant of Exsics. The survey team was contracted by Stephen Roach (Trelawney Mining and Exploration Inc.) who supervised the project work.

### **GROUND PROGRAM:**

The ground program was completed in two phases. The first phase was to establish a detailed metric grid across the claims. This was done by first establishing a base line that was turned off at a point designated by Trelawney. The base line was turned off at this point and cut at 115 degrees for 750 meters to line 11100ME which represented the southeast limit of the grid. The base line was also cut 350 meters at 295 degrees to line 10000ME which represented the northwest limit of the grid. Lines were turned off perpendicular to this base line at 100 meter intervals from line 10000ME to 10500ME and then at 200 meter intervals from 10500ME to 11100ME.

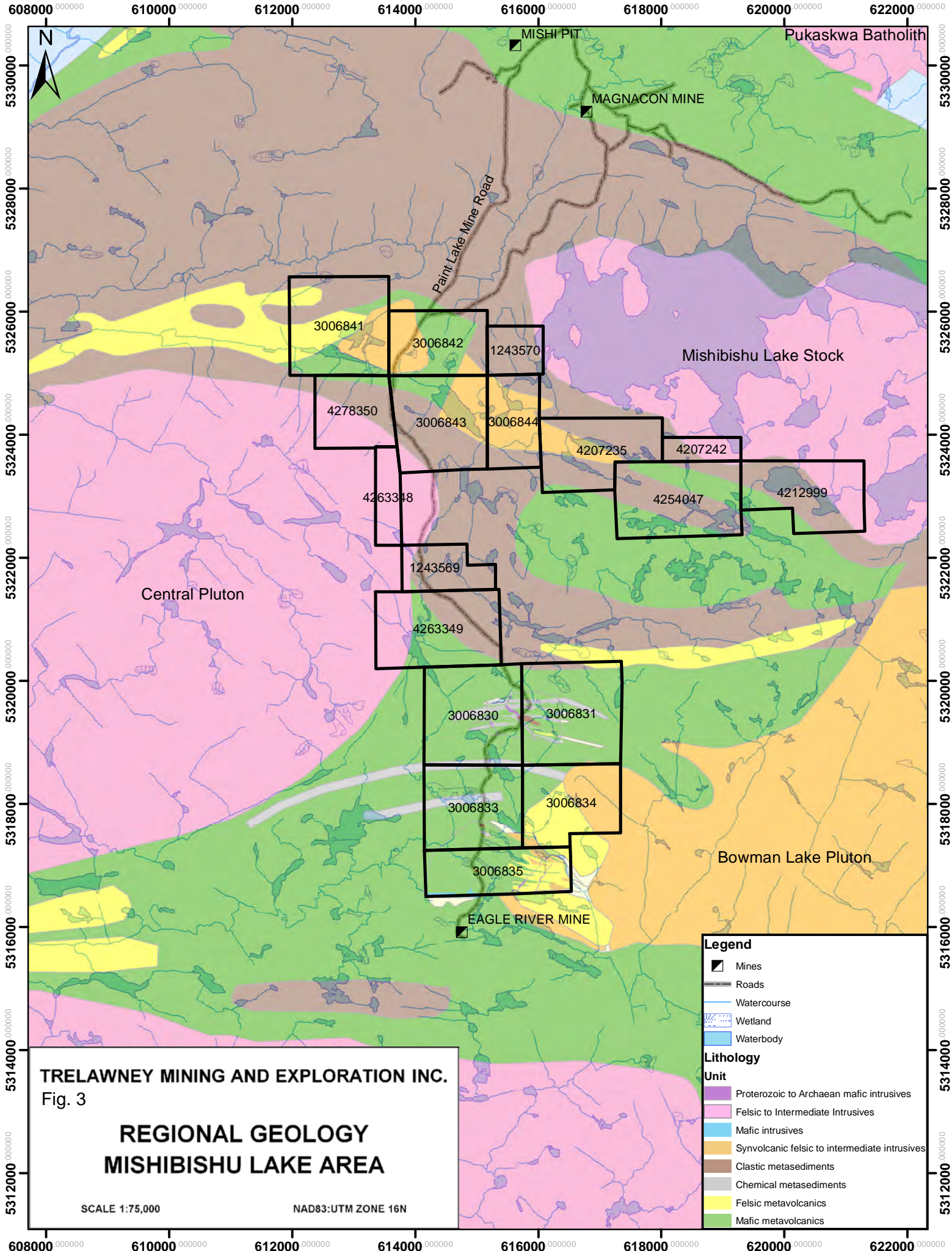
All of these cross lines were then cut 1000 meters to the northeast and 1000 meters to the southwest of the base line to two tie lines labelled 11000MN and 9000MN which were cut parallel to the base line. All of the base lines, tie lines and cross lines were chained at 25 meter intervals and all station pickets have been metal tagged. In all a total of 21.3 kilometers of cut lines were completed across the claim block between October 24<sup>th</sup> and November 7<sup>th</sup> 2015.

Once the cutting was completed the grid was covered by a total field magnetic survey that was done in conjunction with an IP survey. The magnetic survey was completed using the Scintrex Envi mag system. Specifications can be found as Appendix A of this report. The following parameters were kept constant throughout the magnetic survey.

#### Magnetic survey:

Line spacing	100 and 200 meters
Station spacing	25 meters
Reading intervals	12.5 meters
Diurnal monitoring	base station recorder
Base record intervals	30 seconds
Reference field	56000nT
Datum subtracted	55500nT
Unit accuracy	+/- 0.1 gamma





**TRELAWNEY MINING AND EXPLORATION INC.**  
 Fig. 3  
**REGIONAL GEOLOGY**  
**MISHIBISHU LAKE AREA**  
 SCALE 1:75,000      NAD83:UTM ZONE 16N

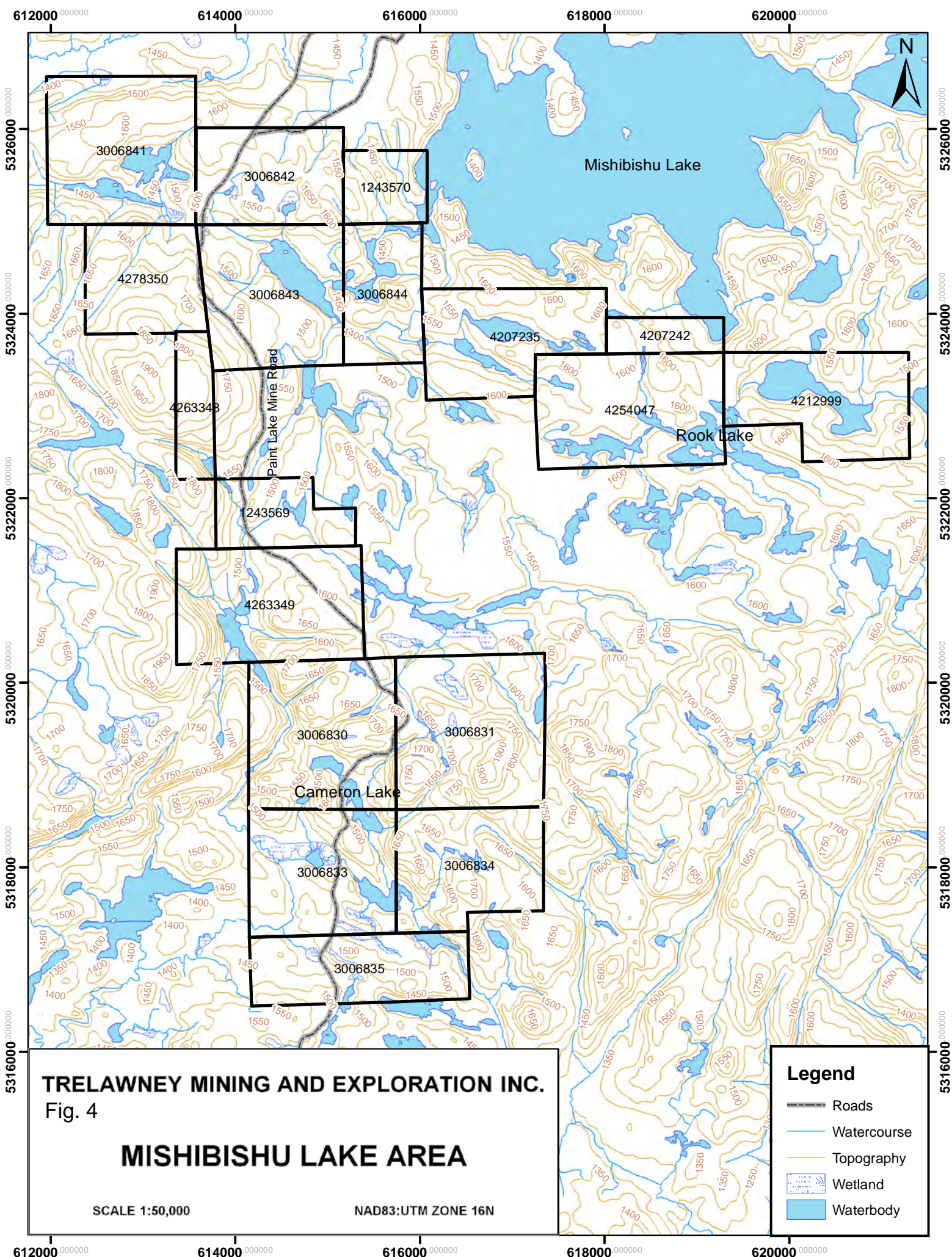
**Legend**

- Mines
- Roads
- Watercourse
- Wetland
- Waterbody

**Lithology**

**Unit**

- Proterozoic to Archaean mafic intrusives
- Felsic to Intermediate Intrusives
- Mafic intrusives
- Synvolcanic felsic to intermediate intrusives
- Clastic metasediments
- Chemical metasediments
- Felsic metavolcanics
- Mafic metavolcanics



**TRELAWNEY MINING AND EXPLORATION INC.**  
 Fig. 4  
**MISHIBISHU LAKE AREA**

SCALE 1:50,000

NAD83:UTM ZONE 16N

- Legend**
-  Roads
  -  Watercourse
  -  Topography
  -  Wetland
  -  Waterbody

3006841 3006842 1243570

4278350 3006843 3006844

4263348 4207235 4207242

4254047 4212999

243569

4263349

3006830 3006831

Cameron Lake

3006833 3006834

3006835

Mishibishu Lake

Rook Lake

Paint Lake Mine Road

The IP survey was completed using the G.D.D. transmitter and receiver units. Specifications for these units can be found as Appendix B of this report. The collected and corrected magnetic data was then plotted onto a base map at a scale of 1:2500 and then contoured at 25 gamma intervals wherever possible. A copy of this color contoured plan map is provided in Appendix D. The following parameters were used for the IP survey:

IP Survey:

Line spacing	100 and 200 meters
Station spacing	25 meters
Reading intervals	50 meters
IP method	Time domain
IP array	Pole-Dipole
Delay time	240Ms
Timing	80Ms through 20 windows
Number of electrodes	10 stainless steel
Electrode spacing	50 meters
Parameters measured	Chargeability and Apparent Resistivity

The data was then plotted on individual line pseudo-sections at a scale of 1:2500 showing the contoured results of the chargeability and resistivity as well as for the calculated metal factors. Copies of these individual color sections are included in Appendix D.

The ground geophysical surveys were completed between November 9<sup>th</sup> and 30<sup>th</sup> , 2015.

**PROPERTY GEOLOGY:**

The Mishibishu Property and grid area is situated in the Mishibishu Lake Greenstone Belt, an Archean greenstone belt which lies within the Wawa Sub province of the Superior Structural Province. The belt strikes in a rough east west direction, and is approximately 50 km long, and up to 20 km wide. The Mishibishu Lake greenstone belt is bounded to the north, northeast and northwest by the Pukaskwa granitic batholith, and to the south, by the Floating Heart batholith. At least three major granitic batholiths are located within the belt. Supracrustal rocks in the belt are similar to other Archean greenstone belts found in northern Ontario. The rocks consist predominately of metavolcanics and metasedimentary rocks, intruded by felsic and mafic dikes and sills. The regional geology has been well described by Bowen, 1985, and others.

Approximately 55 % of the Mishibishu Lake belt is underlain by metavolcanic and metasedimentary rocks, with magnesium and iron tholeiitic volcanics covering approximately 20 % of the area. Felsic to intermediate volcanic rocks occupy approximately 15% of the area and clastic metasediments cover approximately 20% of the area.

Chemical sediments comprise less than 1%, and occur as sulphide and oxide facies iron formation. These rocks have been intruded by syn-tectonic to post-tectonic intrusive complexes ranging from felsic to intermediate composition. The supracrustal rocks are Precambrian in age, and have been metamorphosed to upper greenschist facies or lower. Diabase dikes intrude all of the above rocks.

### **MAGNETIC SURVEY RESULTS:**

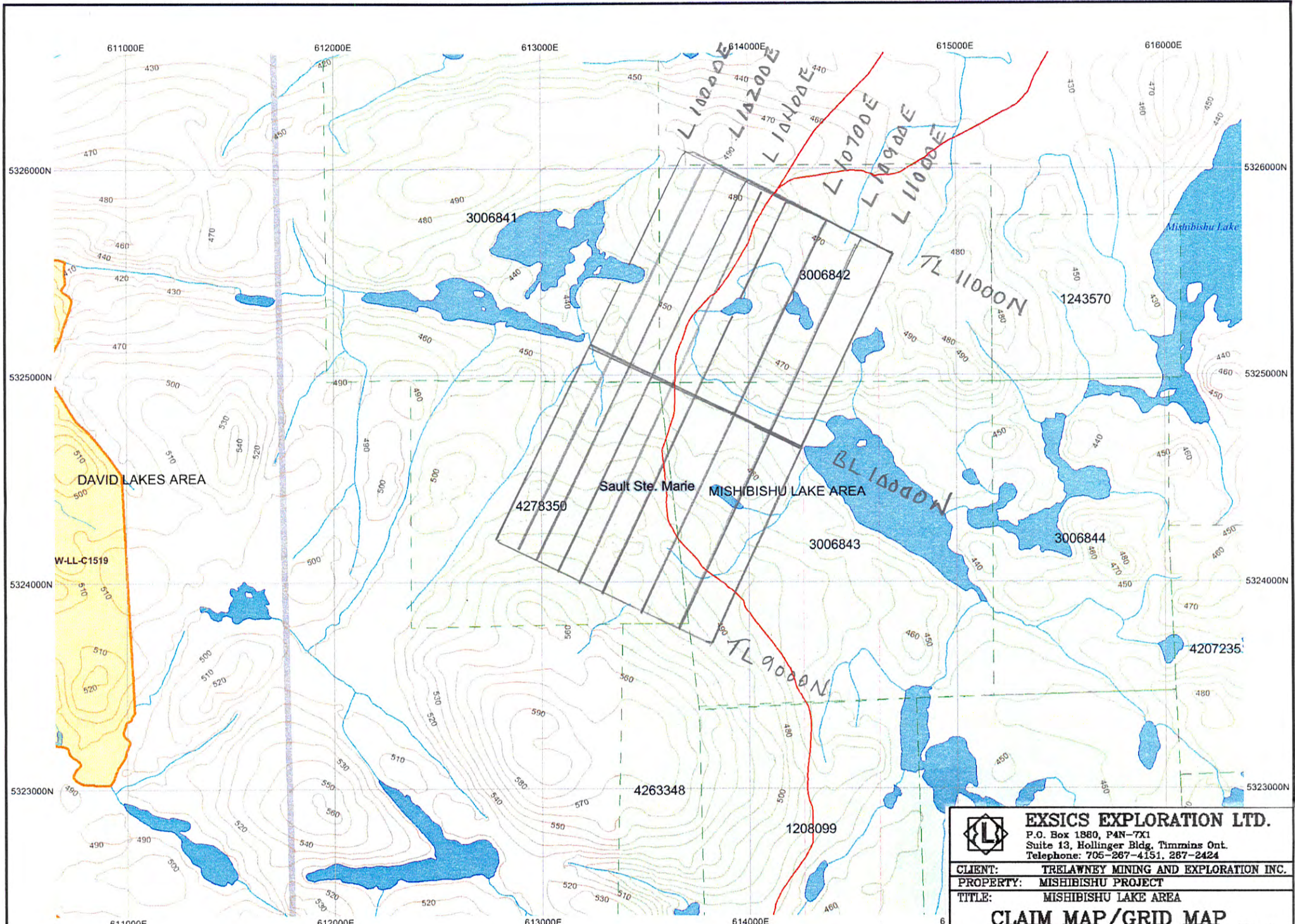
The magnetic survey was completed on the entire cut grid and was successful in outlining the geological characteristics of the grid.

Certainly the most predominant magnetic structure outlined is the significant magnetic low that strikes across the entire grid at an azimuth of  $115^{\circ}$  and continues off of the grid in both directions. This structure is generally situated between 9650MN and 9700MN and appears to dip near vertical. The structure is quite visible on the grid as it is represented by a well-defined drainage system that generally lies between two well defined rock edges that are about 10-12 meters in height and represent the north and south limbs of the magnetic low unit. Visual inspection of the rock faces by the survey crew suggest that there is abundant rust stained patches and stringers within the faces and there appears to be mixed quartz rubble along the bottom of these rock ledges.


This structure most probably relates to the northwest extension of the Rook Lake Deformation Zone. This deformation Zone may have been faulted slightly to the southwest by a suspected fault that is assumed to strike northeast-southwest across the western tip of the lake that lies just east of the base line and line 11000ME. This fault structure was not outlined by the current ground program as it appears that the fault is off of the grid and to the east of line 11000ME. This deformation zone has cross cut and or offset several of the narrow magnetic highs that strike across the southern and central southern sections of the grid.

One such narrow high can be traced from the southern tip of line 10700ME to about 9575MN on line 10400ME where it is cut off by the deformation zone and then possibly continues along line 10400ME to about 9850MN where it seems to come in contact with the geological contact between the Metasedimentary rock unit and the felsic intrusive. This narrow high appears again on line 10200ME at 10500MN and continues north to the northern tip of line 10050ME at 11000MN. This type of narrow magnetic high is indicative of dike like units.

Another narrow magnetic high unit strikes from the first narrow high at 10600ME 9200MN and can be followed up to the deformation zone where it appears to be faulted to the north and then continues to the northeast striking across lines 10700ME at 9750MN to at least line 10900ME at 100075MN. This dike like unit may then continue northeast paralleling line 10900ME to its northern tip.



UTM Zone 16  
1000m grid

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	<b>CLIENT:</b>	<b>TRELAWNEY MINING AND EXPLORATION INC.</b>
<b>PROPERTY:</b>	<b>MISHIBISHU PROJECT</b>	
<b>TITLE:</b>	<b>MISHIBISHU LAKE AREA</b>	
<b>CLAIM MAP/GRID MAP</b>		
<b>Fig. 4a</b>		
<b>Date:</b> NOV.2015	<b>Scale:</b> 1:40,000	<b>NTS:</b>
<b>Drawn:</b> J.C.Grant	<b>Interp:</b> J.C.Grant	<b>Job No.:</b> E-951

The two narrow magnetic high units that strike parallel to the base line and can be followed from line 10400ME to 10000ME between 9250MN and 9300MN and from line 10900ME to 10000ME at 10150MN may correlate to the upper and lower contacts of the Metasedimentary unit that lies between the felsic intrusive to the southwest and the felsic intrusive cutting across the central north section of the current grid.

The magnetic high activity across the northern section of the grid lines may also correlate to the felsic intrusive that may have been cross cut by the dike like units paralleling lines 10100ME and 10200ME as well as a possible dike like feature paralleling line 10900ME. Spotty magnetic lows along these dike like features may represent dipole effects.

### **IP SURVEY RESULTS:**

The IP surveys were completed on all of the cross line with the exception of line 10900ME and the northern half of line 10000ME due to a number of small lakes and flooded areas. Each of the grid lines covered by the IP survey will be discussed separately and in detail below along with any and all magnetic correlation.

#### **LINE 11100ME:**

There are at least 4 IP zones that were outlined across this grid line. The first is a moderate to strong zone that was noted on the northern tip of the line that is building as it continues off of the grid to the north. The zone appears to be relatively shallow with a modest shallow resistivity high that lies on the northern flank of a broad resistivity low. The zone correlates to a magnetic high and lies within the metasediments.

The second zone is a deep rooted zone between 10275Mn and 10350MN that is associated with a resistivity low unit which may be indicative of the metasediment to felsic contact. The zone is associated with a narrow spot mag high and spot low just to the east of the suspected dike like unit. The zone may continue off of the grid to the southeast.

The third zone lies between 9600Mn and 9800MN and it lies on the immediate north limb of the deformation zone. The zone is a moderate to strong broad IP anomaly with a modest resistivity high that lie to the immediate north of a narrow low which most likely represents the deformation zone.

The final IP zone lies between 9250Mn and the south end of the line and it represents a moderate to strong zone building at depth with good resistivity high association. This zone lies just to the south of the access road and the power line that follows the road.

### **LINE 10700ME:**

There were 3 to 4 IP zones outlined across this line. The first zone lies between 10700MN and the north end of the line and continues off of the grid to the north. The zone is associated with a deep resistivity high and a spot magnetic high and it appears to lie within the sediments.

The second zone lies between 9850MN and that portion of the line that lies under the swollen creek. It is associated with a modest resistivity high and a modest magnetic high. The zone lies on the northern edge of the deformation zone.

The third zone lies between 9575MN and 9675MN that correlates to a moderate resistivity high and appears to correlate directly with the Deformation Zone. The zone also appears to be quite deep at its core.

The final zone is a modest near surface response situated between 9150MN and 9200MN that correlates to a modest resistivity spot high above a resistivity low. The zone correlates to the eastern edge of one of the dike like units as well as the contact between the sediments and felsic units.

### **LINE 10500ME:**

There were multiple zones outlined across this line as well. The first zone was noted at the northern tip of the line and it continues off of the grid to the northeast. The zone is a moderate shallow zone with a modest resistivity high association as well as a modest magnetic high association within the sediments.

The second zone is a deeper rooted zone situated between 10300Mn and 10400MN that has a modest to weak magnetic high association. The zone appears to lie at the suspected contact between the felsic unit to the south and the sediments to the north.

The next zone is a broad IP conductor that appears to get stronger at depth. The zone lies between 9650MN and 9925MN with the core of the zone lying between 9750MN and 9850MN. The zone correlates to a modest resistivity high that is part of a much broader high that covers most of the southern section of the grid line. The Deformation zone lies to the immediate south of the target. There is a broad magnetic high associated with the zone.

A deep rooted zone lies between 9400MN and 9500MN that also has a good deep resistivity association and the zone appears to lie on the eastern edge of one of the dike like units striking north across the grid area.

A final zone is building up at the southern tip of the line that continues off of the grid to the south. The zone is a moderate to strong IP target with good resistivity high correlation and it appears to correlate directly with the dike like unit as it cross cuts the contact between the sediments and felsics.

#### **LINE 10400ME:**

There are three conductive zones across the central and southern section of this grid line. The first zone lies between 9700MN and 9900MN and it lies to the immediate north of the Deformation Zone. The northern flank of the zone appears to be somewhat shallow but the core of the target, that part between 9700MN and 9775MN is a deep rooted zone that is still building at depth and the entire zone correlates to a moderate resistivity high unit. The zone correlates to a good magnetic high which may actually be the dike like unit striking parallel to the line.

There is a moderate parallel zone lying between 9525MN and 9600MN that lies to the immediate south of the Deformation Zone that appears to correlate to a narrow resistivity low unit. This zone also appears to correlate to the western edge of the dike like unit.

The final zone is a broad modest zone that covers the southern section of the grid line with a somewhat stronger core lying between 9225MN and 9300MN. This zone has a good resistivity high association and correlates directly with the suspected contact between the sediments to the north and the felsics to the south.

#### **LINE 10300ME:**

There were a number of zones outlined across this grid line. The first zone is at the northern tip of the line and it appears to be a moderate to strong zone that is relatively shallow and continues off of the grid to the north. There is a modest and narrow resistivity high associated with the zone as well as a good magnetic high correlation. The zone appears to lie within the felsic unit.

The second zone is a deep seated narrow zone located at 10200MN that correlates directly with a narrow resistivity high at depth as well. The zone appears to lie within the contact between the sediments and the felsic intrusive unit.

The main target is the zone lying between 9700MN and 9900MN that is strongest between 9700MN and 9800MN. This zone lies to the immediate north of the Deformation Zone and continues to depth. The zone has a moderate to strong resistivity high association that is also strengthening at depth. The zone correlates to a modest low magnetic signature that is surrounded by a magnetic high.

There is a narrow shallow zone between 9600Mn and 9650Mn that lies to the immediate south of the Deformation Zone that may, in part, be associated with the deeper and broader zone that lies between 9350MN and 9450MN. These zones correlate to a good resistivity high unit entered within a broad resistivity unit that covers the majority of the southern section of the grid line.



A final zone appears to be building at the southern tip of the line and it may continue off of the grid to the south. It appears that this zone and the afore mentioned zone lie at the contacts of the narrow magnetic high that strikes northwest to southeast across this section of the grid and is thought to represent the contact between the sediments and felsic units.

#### **LINE 10200ME:**

This line outlined at least four zones. The first is a narrow weak zone between 10550MN and 10600MN. The zone generally correlates to a modest resistivity low and a magnetic high bullseye that appears to lie at the contact of the dike like unit striking north.

A somewhat stronger albeit narrow zone lies between 10350MN and 10400MN that also correlates to a resistivity low and a somewhat weaker magnetic high that lies between the dike like units.

The main zone lies between 9650MN and 9900MN with a stronger core lying between 9700MN and 9825MN. This zone lies to the immediate north of the Deformation Zone and correlates to a broad resistivity high. The zone itself is associated with a magnetic high.

The final zone is a broad IP zone that generally covers the southern section of the grid line and appears to be represented by two narrow stronger zones within the broad response. Both of these zones appear to lie at the contacts of a narrow magnetic high unit thought to represent the contact between the felsics and sediments. The zone correlates to a good resistivity high unit. This zone is building as it continues to the south and off of the grid.

#### **LINE 10100ME:**

Four zones were outlined across this grid line as well. The first zone is located at the northern tip of the line and continues off of the grid to the north. The zone is relatively shallow with a modest to weak resistivity high association. The zone correlates to a magnetic high unit at the northern tip of the line

The second zone is a deep rooted zone lying between 10200MN and 10300MN that appears to be getting stronger at depth. The zone correlates to a deep seated resistivity high that also seems to continue at depth. The zone is associated with the narrow magnetic high striking across this section of the grid.

The main zone lies between 9700MN and 9900MN again with the core lying between 9700Mn and 9800MN. This zone is associated with a deep seated resistivity high unit that is getting stronger at depth. The zone lies to the immediate north of the Deformation Zone and it is generally associated with a modest magnetic low trapped between two highs.

The final zone lies between 9600MN and 9375MN and it is represented by a broad anomaly that is associated with a good resistivity high unit that is strengthening at depth. This zone also lies at the northern edge of the contact between the sediments and felsic units.

## **LINE 1000ME:**

This line was only read from the south end to the baseline where a large pond cut off continual access to the northern section of the line. Two zones were noted on this section of the line. The first is a broad weak zone with a somewhat stronger section lying between 9250Mn and 9325MN. The zone correlates to a moderate resistivity high and again correlates to the northern edge of the contact between the sediments and felsic units.

The main zone is represented by a broad IP anomaly that generally covers the remainder of the grid line between 9600MN and 9950MN. This broad zone contains two stronger zones, one at 9625MN located at the southern edge of the Deformation Zone which appears to be moderate in strength and deeper than the second zone that lies between 9800Mn and 9925MN. Both zones correlate to a moderate resistivity high with a narrow resistivity high correlating to the zone between 9800MN and 9925MN. This northern zone correlates to a good magnetic high unit that continues off of the grid to the west.

A brief table description of the geological characteristics associated with the IP and magnetic anomalies is presented as Appendix C.

## **CONCLUSIONS AND RECOMMENDATIONS:**

The ground program was successful in defining several good conductive IP trends. Certainly the most predominant feature on the grid correlates to the northwest extension of the Rook Lake Deformation Zone .

The main IP zone correlates generally with the northern limb of the Deformation Zone and appears to continue off of the grid to the northwest. The southeast extension of the main IP target appears to have either been cut off by what appears to be a north striking dike like unit that has been faulted and or folded by the strike of the Deformation Zone. This dike like unit is represented by a narrow magnetic high unit that is comprised of somewhat spotty magnetic highs that can be traced from the south end of line 10700ME up to line 10400ME at the Deformation Zone. North of the Deformation Zone the dike like unit continues across line 10400ME and strikes in a northerly direction across lines 10300ME to the northern tip of line 10100ME. This narrow magnetic high appears to continue off of the grid to the north.

There may be indications of the main zone showing up again on line 10700ME just at the northern edge of the Deformation Zone but at this writing it also appears to have been faulted and or folded by a second dike like unit that strikes off of the above mentioned dike in the vicinity of 10600ME at 9200MN that runs into the Deformation Zone and then may continue on the north side either striking northeast across the grid to line 11100ME at 10250MN and off of the grid or it strikes northward generally paralleling line 10900ME to its northern tip and then continue off of the grid.

This main zone should be followed up further by extending the current grid to the northwest for at least another several hundred meters to better define the strike of the anomaly as it seems to correlate to the historical drilling. Lines 10600ME and possibly 10800ME should be considered in the additional cutting to better define the strike of the main zone as it comes into contact with the two north striking dikes. Line 10900ME should also be surveyed once the lakes freeze up to fill in that part of the original grid that could not be done at the time of this ground survey.

The additional magnetic coverage of these fill in lines will help with the interpretations of the dike directions in and to the north of the Deformation Zone.

The moderate IP zone that parallels the north limb of the narrow magnetic high striking across the southern end of lines 10500ME to line 10000ME appears to correlate to the contact between the felsic intrusive and the metasediments. A parallel IP zone lies at the southern contact of this narrow high as well and both of these zones appear to have been offset by the dike like unit striking north.

This zone should also be followed up further to the northwest to define the strike direction and limits of the two zones. Line 10000ME should also be completed to the north once the lakes and ponds have frozen over to help with the interpretations of the main zone to the north of the Deformation Zone.

The IP zone that continues to appear on several of the northern tips of the survey lines should be considered for additional coverage in any additional line cutting and survey programs especially to the northeast to close off the anomaly and get a better definition of the anomaly. However, the topography is somewhat rugged across the southeastern and northeastern sections of the grid so caution should be used to pick the lines with the least outcrop ridges to get a good clean survey line and proper coverage.

Diamond drilling of the main zone and the two parallel zones at the southern ends of lines 10500ME to 10000ME should be considered once detailed interpretations along with inversions are completed which will aid in the collar spotting and final depth determinations of the drill holes being contemplated.

Respectfully submitted

J. C. Grant, CET, FGAC  
December 2015

Contributions by:

Stephen Roach  
Alan Smith

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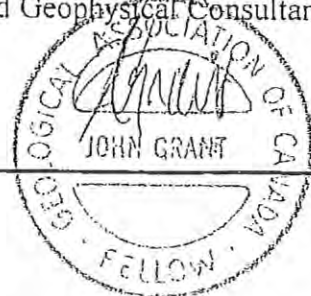
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## CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

- 1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.
- 2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.
- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.
- 4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15<sup>th</sup> day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.
- 6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

John Charles Grant, CET., FGAC.



APPENDIX A:  
SCINTREX ENVI MAG SYSTEM

# SCINTREX

## ENVI-MAG Environmental Magnetometer/Gradiometer

### Locating Buried Drums and Tanks?

The ENVI-MAG is the solution to this environmental problem. ENVI-MAG is an inexpensive, lightweight, portable "WALKMAG" which enables you to survey large areas quickly and accurately.

ENVI-MAG is a portable, proton precession magnetometer and/or gradiometer, for geotechnical, archaeological and environmental applications where high production, fast count rate and high sensitivity are required. It may also be used for other applications, such as mineral exploration, and may be configured as a total-field magnetometer, a vertical gradiometer or as a base station.

#### The ENVI-MAG

- easily detects buried drums to depths of 10 feet or more
- more sensitive to the steel of a buried drum than EM or radar
- much less expensive than EM or radar
- survey productivity much higher than with EM or radar

### Features and Benefits

#### "WALKMAG" Magnetometer/Gradiometer

The "WALKMAG" mode of operation (sometimes known as "Walking Mag") is user-selectable from the keyboard. In this mode, data is acquired and recorded at the rate of 2 readings per second as the operator walks at a steady pace along a line. At desired intervals, the operator "triggers" an event marker by a single key stroke, assigning coordinates to the recorded data.

#### True Simultaneous Gradiometer

An optional upgrade kit is available to configure ENVI-MAG as a gradiometer to make true, simultaneous gradiometer measurements. Gradiometry is useful for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey.

#### Selectable Sampling Rates

0.5 second, 1 second and 2 second reading rates user selectable from the keyboard.

#### Main features include:

- select sampling rates as fast as 2 times per second
- "WALKMAG" mode for rapid acquisition of data
- large internal, expandable memory
- easy to read, large LCD screen displays data both numerically and graphically
- ENVIMAP software for processing and mapping data

ENVI-MAG comprises several basic modules; a lightweight console with a large screen alphanumeric display and high capacity memory, a staff mounted sensor and sensor cable, rechargeable battery and battery charger, RS-232 cable and ENVIMAP processing and mapping software.

For gradiometry applications an upgrade kit is available, comprising an additional processor module for installation in the console, and a second sensor with a staff extender.

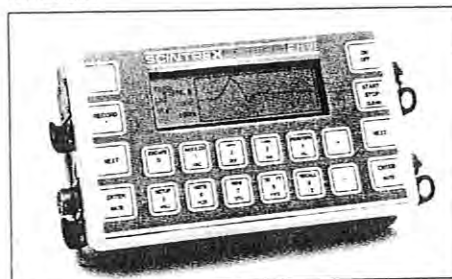


ENVI-MAG Proton Magnetometer in operation

For base station applications a Base Station Accessory Kit is available so that the sensor and staff may be converted into a base station sensor.

#### Large-Key Keypad

The large-key keypad allows easy access for gloved-hands in cold-weather operations. Each key has a multi-purpose function.



Front panel of ENVI-MAG showing a graphic profile of data and large-key keypad

#### Large Capacity Memory

ENVI-MAG with standard memory stores up to 28,000 readings of total field measurements, 21,000 readings of gradiometry data or 151,000 readings as a base station. An expanded memory option is available which increases this standard capacity by a factor of 5.

#### Easy Review of Data

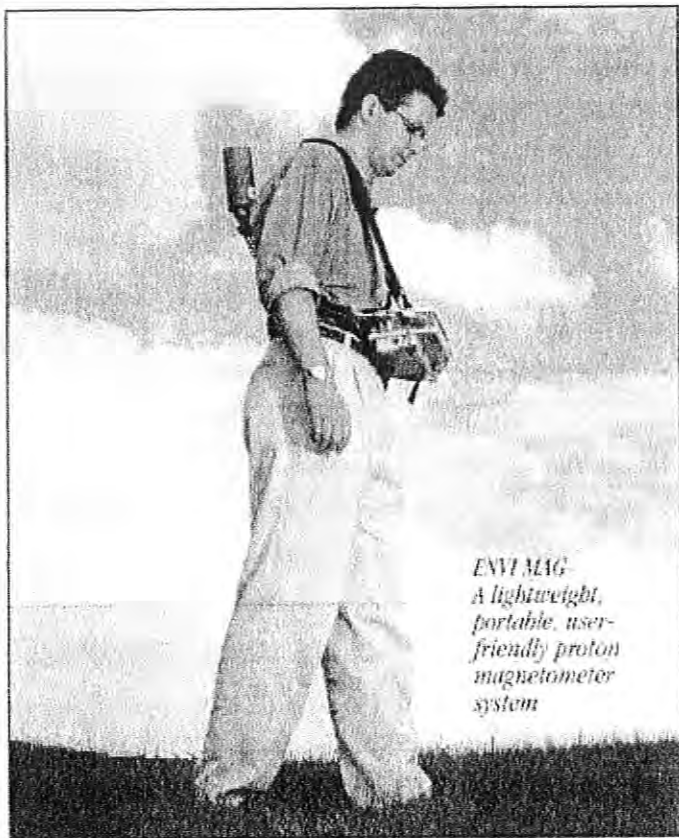
For quality of data and for a rapid analysis of the magnetic characteristics of the survey line, several modes of review are possible. These include the measurements at the last four stations, the ability to scroll through any or all previous readings in memory, and a graphic display of the previous data as profiles, line by line. This feature is very useful for environmental and archaeological surveys.

#### Highly Productive

The "WALKMAG" mode of operation acquires data rapidly at close station intervals, ensuring high-definition results. This increases survey productivity by a factor of 5 when compared to a conventional magnetometer survey.

#### "Datacheck" Quality Control of Data

"Datacheck" provides a feature wherein at the end of each survey line, data may be reviewed as a profile on ENVI-MAG's screen. Datacheck confirms that the instrument is functioning correctly and



**ENVI MAG**  
A lightweight,  
portable, user-  
friendly proton  
magnetometer  
system

### Saves You Time

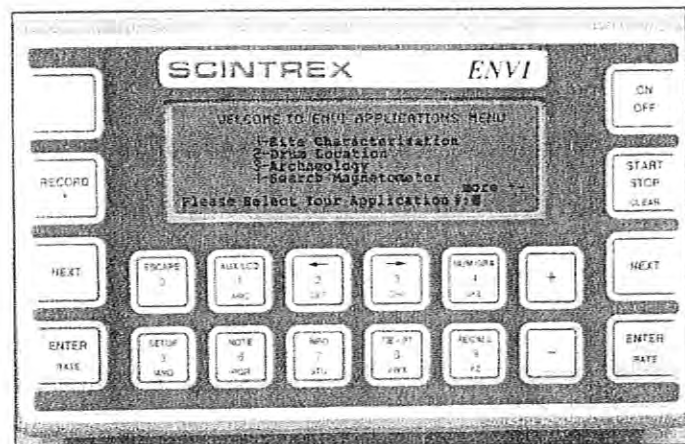
Only one instrument is needed for magnetometer, gradiometer, VLF and VLF resistivity surveying. A complete ENVI System can calculate and record 4 VLF magnetic field parameters from 3 different transmitters, a magnetic total field reading and a simultaneous magnetic gradient reading. It can also measure and record 2 VLF electric field parameters from 3 different transmitters with the VLF Resistivity option.

### Upgrade Your Unit at any Time

The ENVI is based on a modular design, you can upgrade your system at any time. This built-in flexibility allows you to purchase an ENVI system with only the surveying equipment that you need for now but does not limit you to one application. When your surveying needs grow, so can your ENVI system. Existing users of OMNI systems can also upgrade their consoles.

### SYSTEM CONFIGURATIONS

- ENVI MAG
- ENVI GRAD
- ENVI VLF
- ENVI MAG/VLF
- ENVI GRAD/VLF



Left: Application oriented menus provide the user with the utmost flexibility

### ENVI MAG

The ENVI system when configured as a total field magnetometer is referred to as the ENVI MAG. In this set up the ENVI system can be operated a traditional stop and measure mode, thus providing the full sensitivity obtainable with a proton magnetometer, ideally suited for mineral exploration. Alternatively the ENVI MAG can be operated in the "WALKMAG" mode, where readings may be made continuously at a user selectable rate of up to 2 readings per second. Although this reduces the accuracy marginally, it does allow the user to collect increased volumes of data and cover more area in a shorter period of time. This is particularly important for large signal near surface targets as typically found in environmental surveys. This makes the ENVI a very cost effective tool for environmental surveys. The ENVI MAG provides the following information:

- Total Magnetic Field
- Time/Date of Reading
- Co-ordinates of Reading
- Statistical Error of the Reading
- Signal Strength and Decay Rate of the Reading

As a magnetic base station instrument the ENVI can be set up to record variations of the earth's magnetic field. Using this information from a stationary ENVI MAG the total field readings obtained with other roving magnetometers can be corrected for these fluctuations thus improving the accuracy of your magnetic data. All ENVI MAG systems can be operated as either field or base station instruments. The optional base station accessories kit is recommended for base station applications.

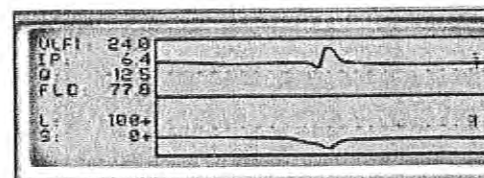
### ENVI GRAD

The ENVI System configured as an ENVI GRAD enables true simultaneous gradiometer measurements to be obtained.

The ENVI GRAD provides you with an accurate means of measuring both the total field and the gradient of the total field. It reads the measurements of both sensors simultaneously to calculate the true gradient measurement.

In the gradient mode, the ENVI sharply defines the magnetic responses determined by total field data. It individually delineates closely spaced anomalies rather than collectively identifying them under one broad magnetic response. The ENVI GRAD is well suited for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey. In addition to what the ENVI MAG provides the ENVI GRAD also provides the gradient of the total magnetic field.

Below: Large screen graphics capability allows for rapid data analysis.



APPENDIX B:

G.D.D. IP RECEIVER, G.D.D. 2, 5000 KW TRANSMITTER





Canadian Manufacturer of Geophysical Instrumentation since 1976  
 Sales, Rental, Customer Service, R&D and Field training

WWW.GDD.CA

# 32 Channels IP Receiver Model GRx8-32

*«Field users have reported that the GDD IP Receiver provided more repeatable readings than any other time domain IP receiver and it read a few additional dipoles.»*



## Features

- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey:  
 4 lines X 8 channels - 2 lines X 16 channels or  
 1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking (Full Wave)
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 ( $10^8$ )
- Shock resistant, portable and environmentally sealed

**GRx8-32:** This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

**Reception poles/dipoles:** 8 simultaneous channels expandable to 16, 24 or 32, for dipole-dipole, pole-dipole or pole-pole arrays.

**Programmable windows:** The GRx8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

**User modes available:** Arithmetic, logarithmic, semi-logarithmic, Cole-Cole, IPR-12 and user define.

**IP display:** Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRx8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

**Internal memory:** The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. A flash card stores the full wave signal for post-treatment processing.

## SPECIFICATIONS

**Number of channels:** 8, expandable to 16, 24 or 32  
**Survey capabilities:** Resistivity and Time domain IP  
**Twenty chargeability windows:** Arithmetic, logarithmic, semi-logarithmic, IPR-12 and user defined  
**Synchronization:** Automatic re-synchronization process on primary voltage signal  
**Noise reduction:** Automatic stacking number  
**Computation:** Apparent resistivity, chargeability, standard deviation, and % of symmetrical Vp  
**Size:** 41 X 33 X 18 cm (16 X 13 X 7 in)  
**Weight (32 channels):** 8.9 kg (19.6 lb)  
**Enclosure:** Heavy-duty Pelican case, environmentally sealed  
**Serial ports:** RS-232 and Bluetooth to communicate with a PDA  
**Temperature range:** -45 to +60°C (-49 to +140°F)  
**Humidity range:** Waterproof

## POWER

**Power:** -12 V rechargeable batteries.  
 -Standard plug for external battery.



## PDA included with GRx8-32

Standard Juniper - Allegro CX mobile PDA computer provided with the GDD receiver with all accessories.  
**Operating system:** Windows CE  
 Comes with Bluetooth and RS-232

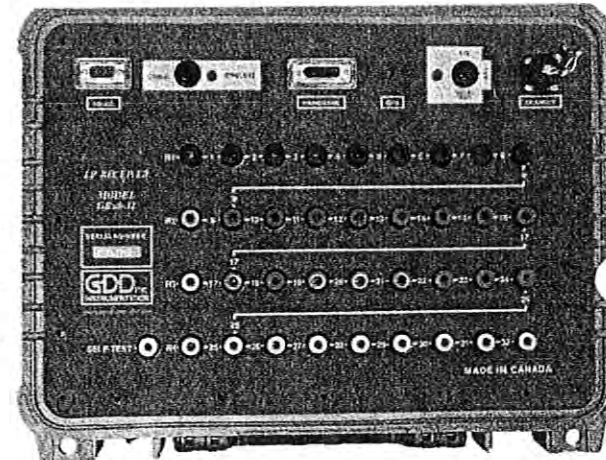
## ELECTRICAL CHARACTERISTICS

**Ground Resistance:** Up to 1.5 MΩ  
**Signal waveform:** Time domain (ON+, OFF, ON-, OFF)  
**Time base:** 0.5, 1, 2, 4 and 8 seconds  
**Input impedance:** 10<sup>4</sup> GΩ  
**Primary voltage:** ±10 μV to ±15 V for any channel  
**Input:** True differential for common-mode rejection in dipole configuration  
**Voltage measurement:** Resolution 1 μV  
**SP offset adjustment:** ± 5 V, automatic compensation through linear drift correction per steps of 1%  
**Filter:** Eight-pole Bessel low-pass 15 Hz, notch filter 50 Hz and 60 Hz



↕ Components included with GDD IP Receiver GRx8-32

## 32 channels GDD GRx8-32 IP Receiver



8 Channels →  
 +8 = 16 Ch. →  
 +8 = 24 Ch. →  
 +8 = 32 Ch. →

A	1x	Not shown but included: Receiver	L	1x	Allegro Cx hand strap
B	1x	Not shown but included: Transportation box	M	2x	Allegro Cx NIMH battery pack 3000mAh 3.6V
C	1x	GRx8-32 IP receiver wall charger (120-240V)	N	1x	Allegro Cx external NIMH 3000mAh 3.6V battery charger (120-240V)
D		Red cable banana/alligator (8 ch/10x, 16 ch/19x, 24 ch/28x, 32 ch/37x)	O	1x	Allegro Cx utility CD
E	2x	Black cable banana/alligator	P	1x	Allegro Cx AA alkaline battery holder
F	1x	Allegro Cx field computer	Q	1x	Charger with 4 AA 2400mAh 1.2V NIMH batteries
G	1x	Allegro Cx wall charger (120-240V)	R	1x	Allegro Cx USB power dock
H	1x	Serial communication cable 9 pos. D-SUB female - 9 pos. D-SUB female	S	1x	Allegro Cx USB cable for USB power dock
I	2x	Serial communication cable 9 pos. D-SUB female - 5 pos. Amphenol male	T	tx	Not shown but included: Instruction manual (Receiver)
K	1x	Allegro Cx shoulder strap	U	tx	Not shown but included: Instruction manual (Allegro Cx mobile PDA)

## PURCHASE

Can be shipped anywhere in the world.

**RENTAL** – available in Canada and USA only

Starts on the day the instrument leaves GDD office in Quebec to the day of its return in GDD office. 50% of the rental fees up to a maximum of 4 months can be credited towards the purchased of the rented instrument.

## WARRANTY

All GDD instruments are covered by a one-year warranty. All repairs will be done free of charge at our office in Quebec, Quebec, Canada.

## SERVICE

If an instrument manufactured by GDD breaks down while under warranty or service contract, it will be replaced free of charge during repairs (upon request and subject to instruments availability).

## OTHER COSTS

Shipping, insurances, customs and taxes are extra if applicable.

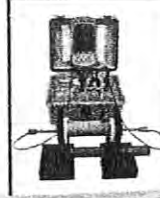
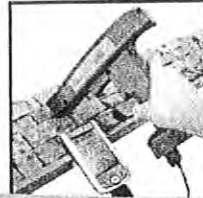
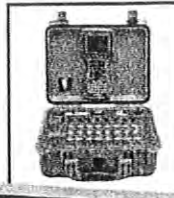
## PAYMENT

Checks, credit cards, bank transfer, etc.



3700, boul. de la Chaudière, suite 200  
 Québec (Québec), Canada G1X 4B7  
 Phone: +1 (418) 877-4249  
 Fax: +1 (418) 877-4054  
 E-Mail: [gdd@gddinstrumentation.com](mailto:gdd@gddinstrumentation.com)  
 Web Site: [www.gddinstrumentation.com](http://www.gddinstrumentation.com)

Specifications are subject to change without notice  
 Printed in Quebec, Canada, 2008



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 Sales, Rental, Customer Service, R&D and Field training

WWW.GDD.CA

## Induced Polarization Transmitters



### 3600W-2400V-10A

Its power (3600W) combined with a Honda generator makes it particularly suitable for pole-dipole induced polarization surveys. Link two 3600W IP transmitters together and transmit up to 7200W-4800V-10A.

### 5000W-2400V-10A

Its high power (5000W) makes it particularly suitable for deep pole-dipole induced polarization surveys or in very resistive ground. Link two 5000W IP transmitters together and transmit up to 10,000W-4800V-10A.

**Link two GDD IP 3600W or 5000W transmitters together to double power.**

Protection against short circuits even at zero (0) ohm

Output voltage range: 150V – 2400V / 14 steps

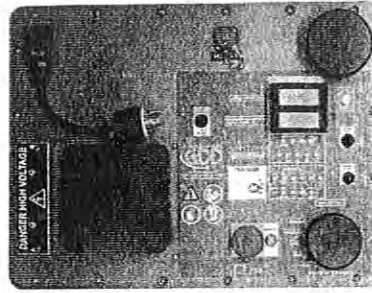
Power source: 220-240V / 50-60 Hz

Displays electrode contact, transmitting power and current

GDD 3600W or 5000W Induced Polarization (IP) transmitters work from a standard 220-240V source and are well adapted to rocky environments where a high output voltage of up to 2400V is needed. Moreover, in highly conductive overburden, the highly efficient GDD transmitter is able to send current up to 10 A. By using this IP transmitter, you obtain fast and high-quality IP readings even in the most difficult conditions.

Manufactured in Canada by Instrumentation GDD in

## Control Panel



## SPECIFICATIONS

### TxII - 3600W

- Size : 27 cm x 40 cm x 20 cm
- Weight : approximately 32 kg
- Operating temperature : -40 °C to 65 °C

### TxII - 5000W

- Size : 55 cm x 45 cm x 26 cm
- Weight : approximately 40 kg
- Operating temperature : -40 °C to 65°C

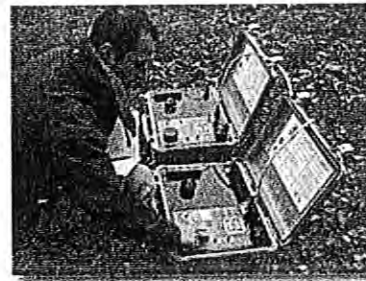
## COMPONENTS INCLUDED

- Tx built in a Pelican transportation box
- 20A power cable extension
- 20/30A cable adaptor

- Instruction manual
- Blue carrying case
- Yellow Master-Slave cable (optional)

## ELECTRICAL CHARACTERISTICS

- Time base : 2 seconds ON, 2 seconds OFF /  
0.5, 1, 2, 4 sec. / 1, 2, 4, 8 sec. / DC
- Output current : 0.030 to 10 A (normal operation)  
0.000 to 10 A (with cancel open loop)
- Output voltage : 150 to 2400V / 14 steps
- Ability to link two transmitters together to double power



←Link together two 3600W-2400V IP transmitters and transmit up to 7200W-4800V. Link together two 5000W-2400V IP transmitters and transmit up to 10,000W-4800V.

## DISPLAYS

- Output current, 0.001 A resolution
- Output power
- Ground resistance (when the Tx is turned off)

## CONTROLS

- Switch ON / OFF
- Output voltage selector : 150V, 180V, 350V, 420V, 500V, 600V, 700V, 840V, 1000V, 1200V, 1400V, 1680V, 2000V, 2400V

## POWER SOURCE

- Standard 220-240V / 50-60 Hz Honda regulated generator

## PURCHASE

Can be shipped anywhere in the world.

## RENTAL-available in Canada and USA only

Starts on the day the instrument leaves our office in Quebec to the day of its return to our office. 50% of the rental fee up to a maximum of 4 months can be credited towards the purchase of the rented instrument.

## WARRANTY

GDD's instruments are covered by a one-year warranty. Repair to be done free of charge at our office in Quebec, Qc. Canada.

## SERVICE

If an instrument manufactured by GDD breaks down while under warranty or service contract, it will be replaced free of charge during repairs (upon request and subject to instruments availability).

## OTHER COSTS

Shipping, insurance, duties and taxes are extra if applicable.

## PAYMENT

Visa, Mastercard, American Express, checks or money transfer.



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Fax: +1 (418) 877-4054  
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Email: [gdd@gdd.ca](mailto:gdd@gdd.ca)

Specifications subject to change without notice.

Printed in Quebec, Canada, 2012

## APPENDIX C: IP RESULTS COMPILATION



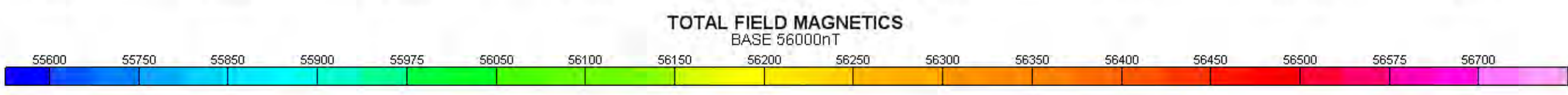
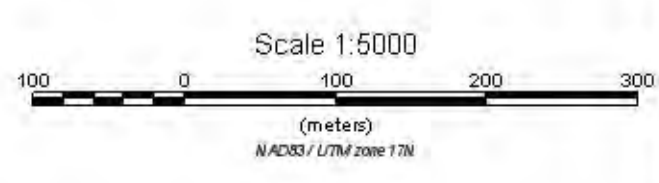
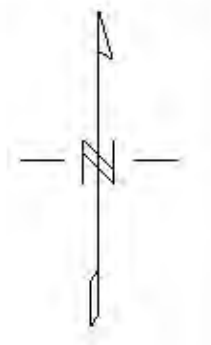
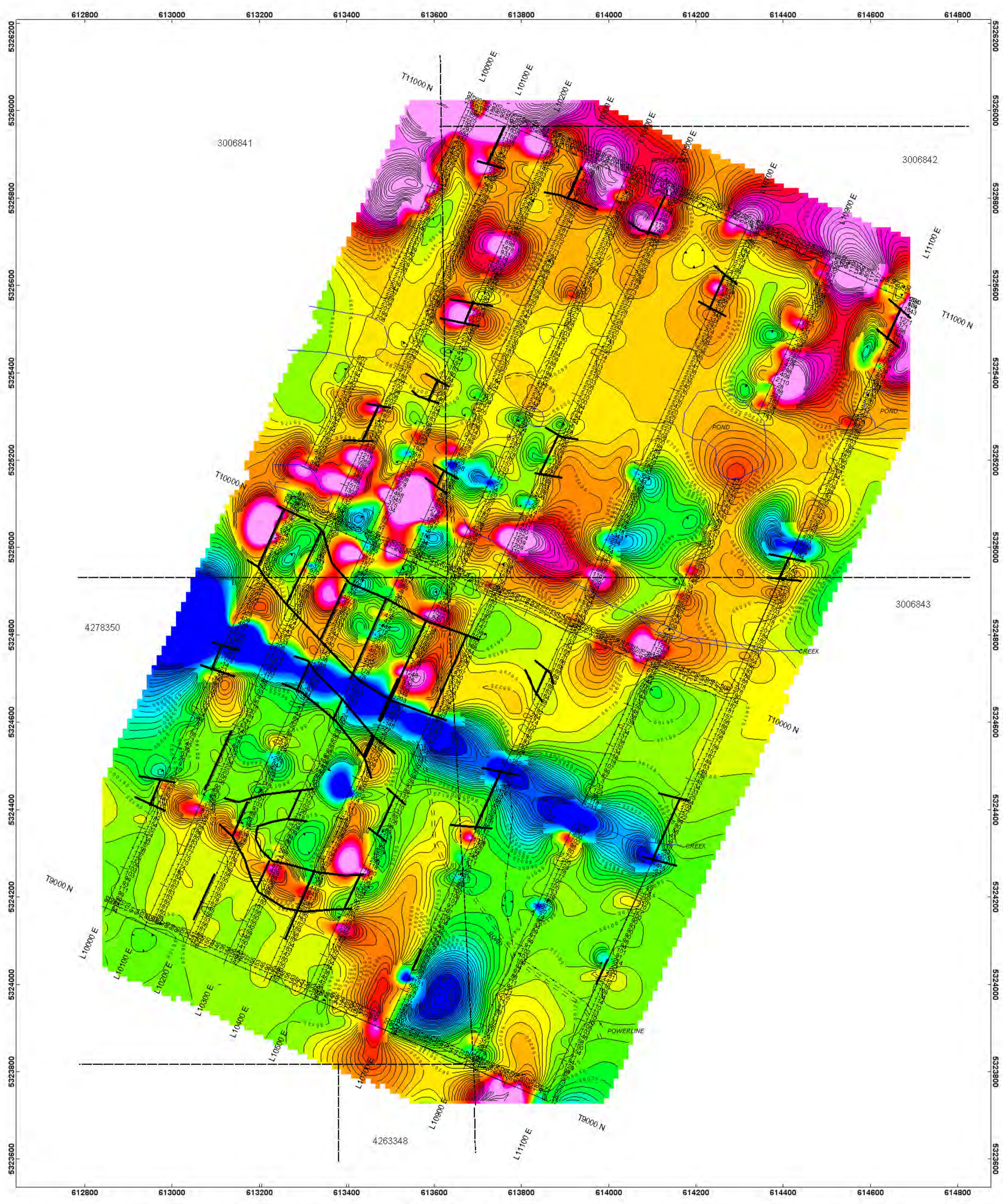
Anomaly	Strike Length (m)	Open Direction	Chargeability & Source	Resistivity	Magnetics	Geology
A	>500	West	Moderate – shallow to moderate & locally deep sources	Coincidental low	Direct moderate magnetics on south side of IP	Coincides on edge of 0.28 g/t Au / 56.7 m in py in QTBX in bimodal, fractured felsic and mafic metavolcanics with the chargeability coming into a clastic/mafic sequence (greywacke/volcaniclastics) with thin py-cpy-bearing shears; edge of sil-ab alteration of RLDZ
B	>1100	West & East	Weak to moderate – shallow & locally moderate source	Both coincidental high with low on end lines	Direct & marginal strong magnetic linear low for 1100m following ravine	Mafic Volcaniclastics with clastic metasediments inter-formational – near sheared and folded xcut by felsic dykes. Also unexplained with qtz rubble and sulphide stains in wallrock ledges in ravine
C	>700	West & (East?)	Weak to (moderate) – shallow to local moderate source	Coincidental high	Direct magnetic high	Regionally mapped mafic to intermediate metavolcanics with inter-formational clastic metasediments – unexplained
D	>100? (series on anomalies)	North-northwest	Moderate – (strong) – shallow source	Coincidental low	Direct and strong	Regional mapped in a massive to mega-crystic quartz monzonite to monzonite in contact with mafic metavolcanics - unexplained

APPENDIX D:

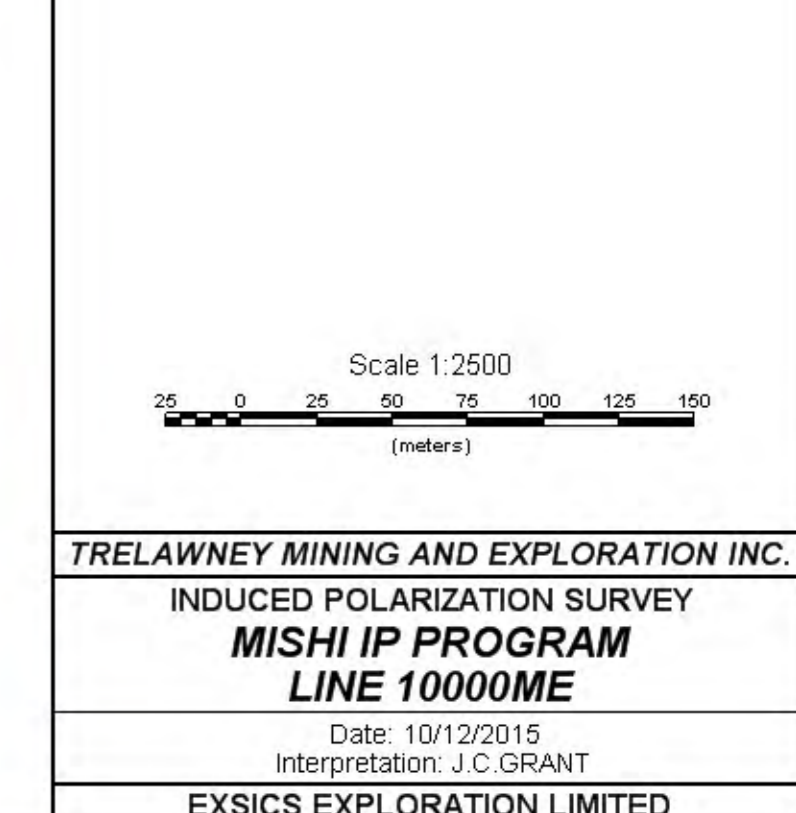
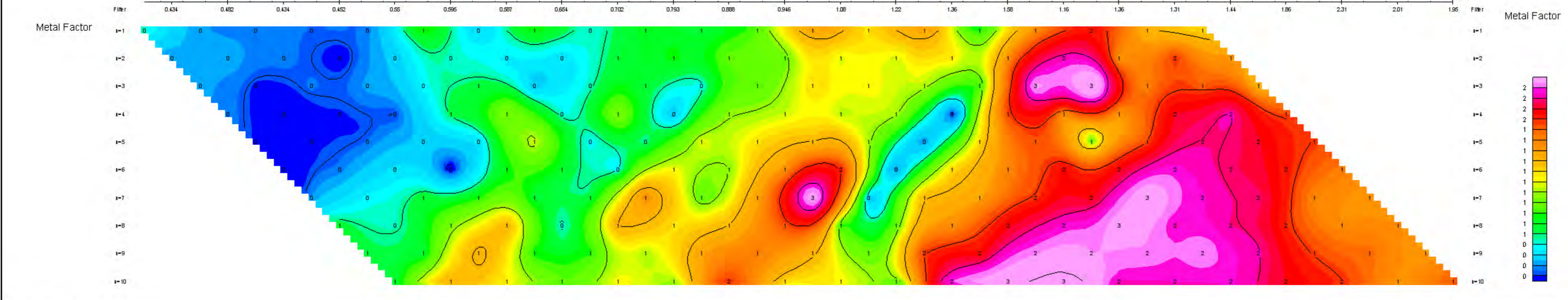
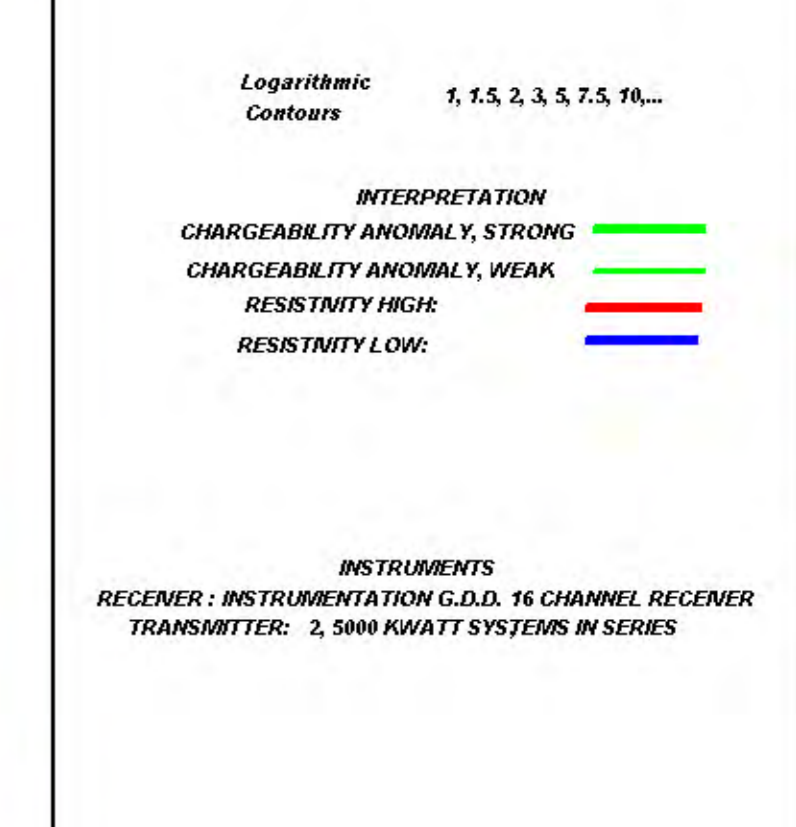
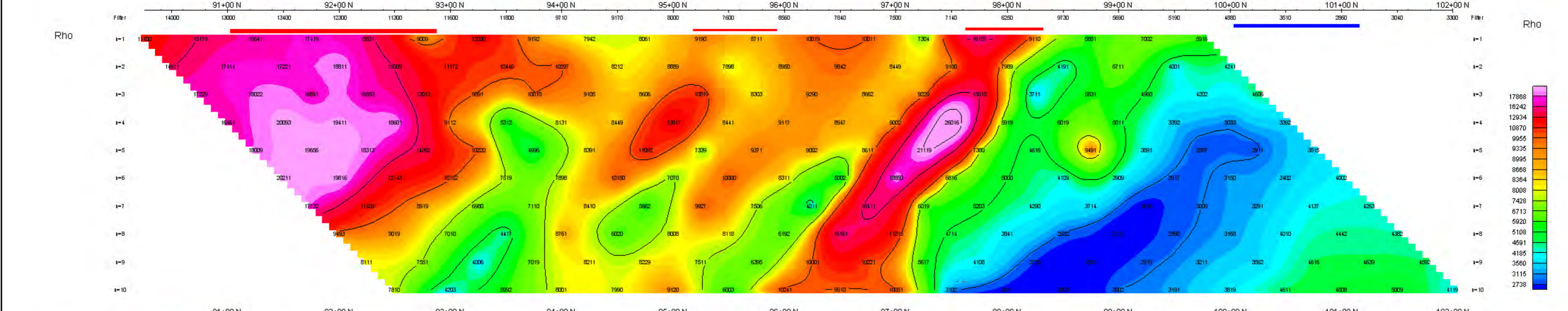
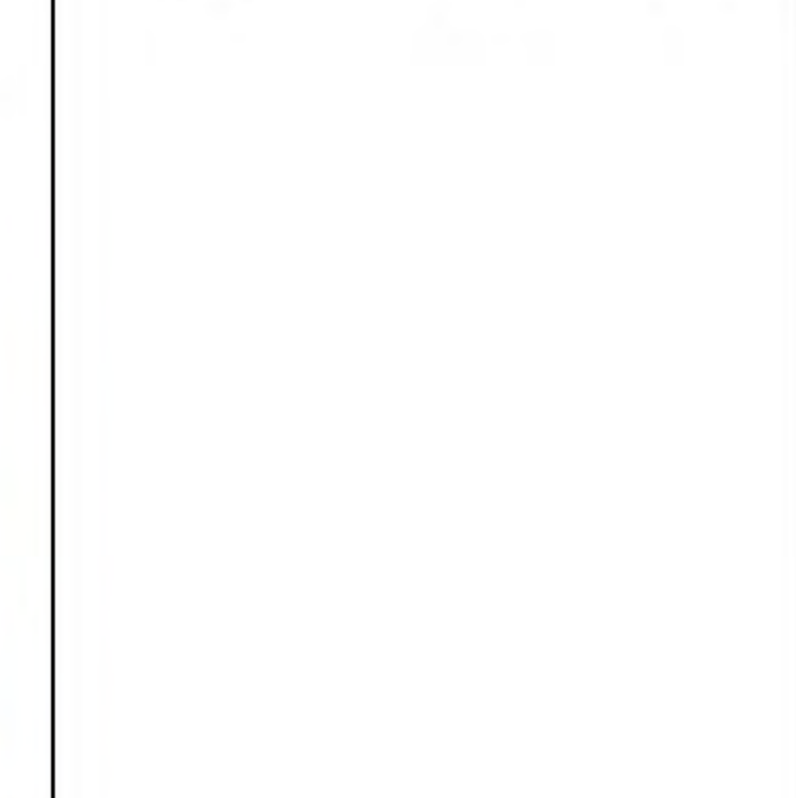
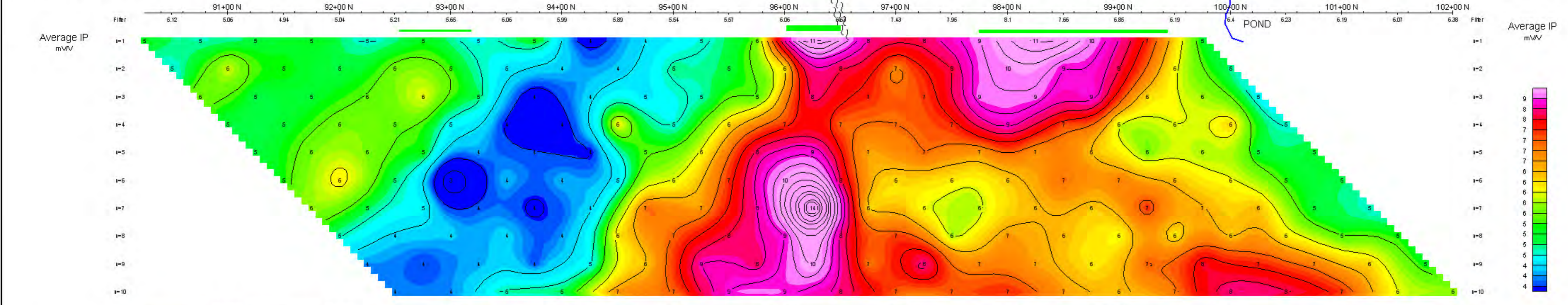
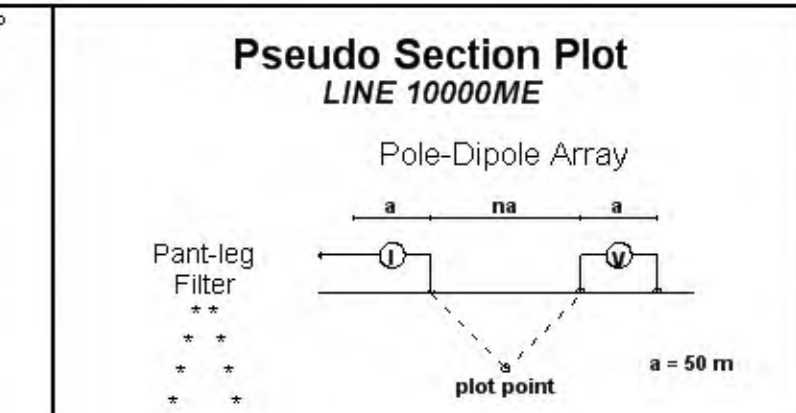
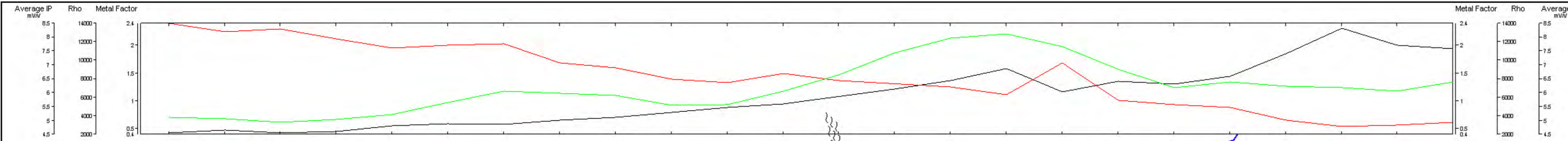
PLAN MAP TOTAL FIELD MAGNETICS, 1:2,500

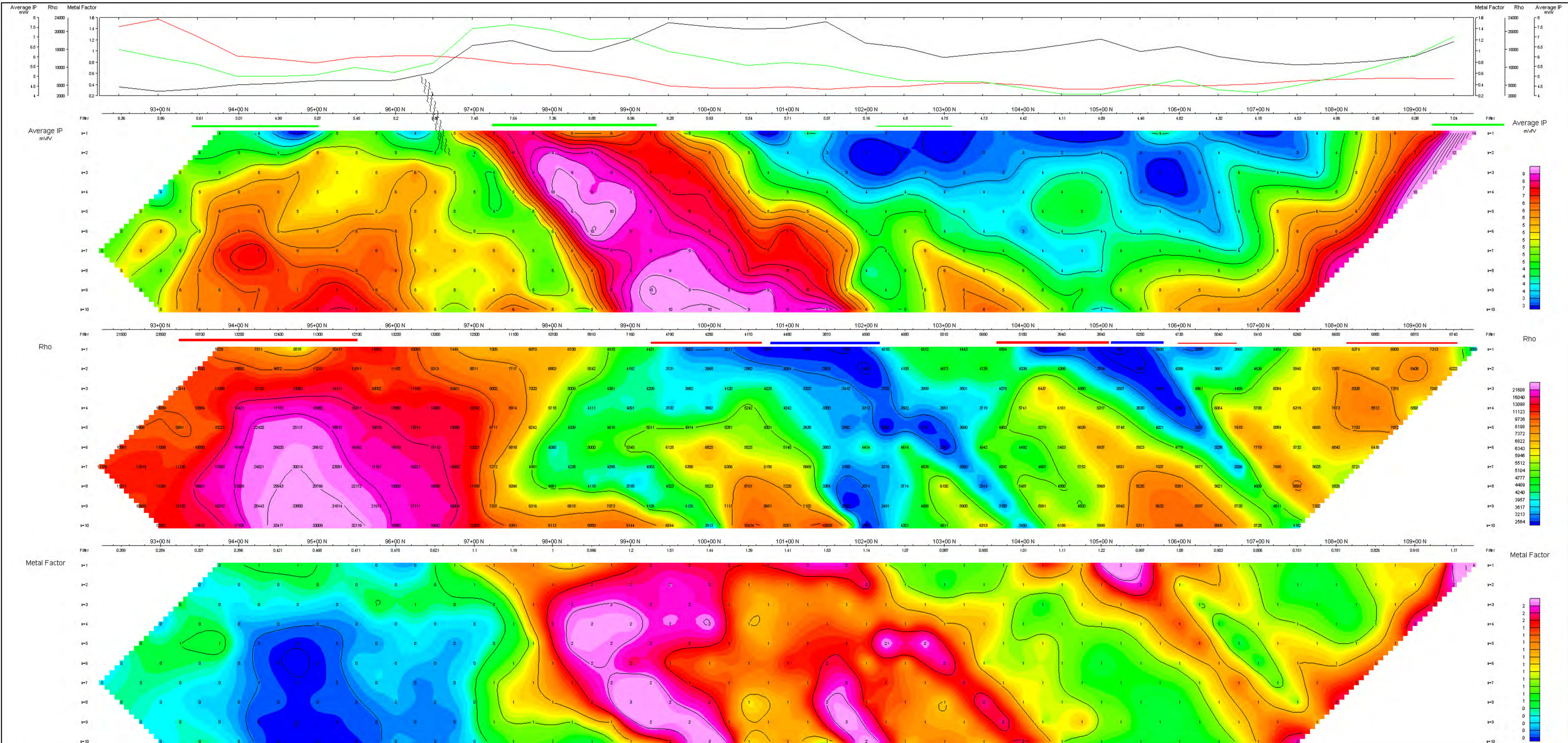
INDIVIDUAL LINE PSEUDO-SECTIONS OF IP LINES,  
IN COLOR, 1:2,500 .



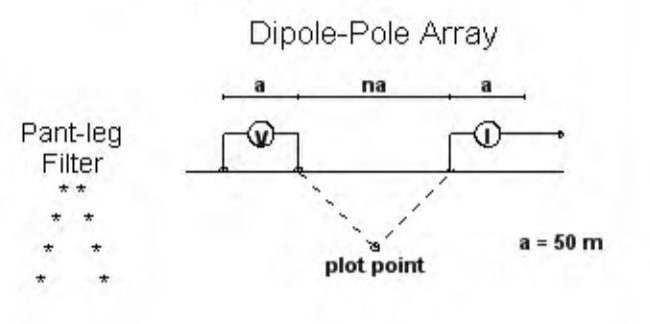


TRELAWNEY MINING AND EXPLORATION INC  
 MISHI PROJECT  
 TOTAL FIELD MAGNETIC SURVEY with IP ZONES  
 CONTOUR INTERVALS: 25nT  
 SCINTREX ENVI MAG SYSTEM  
 NOV. 2015 EXSICS EXPLORATION LIMITED E-951





**Pseudo Section Plot**  
LINE 10100ME



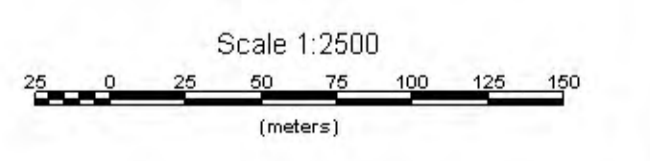
**Logarithmic Contours** 1, 1.5, 2, 3, 5, 7.5, 10, ...

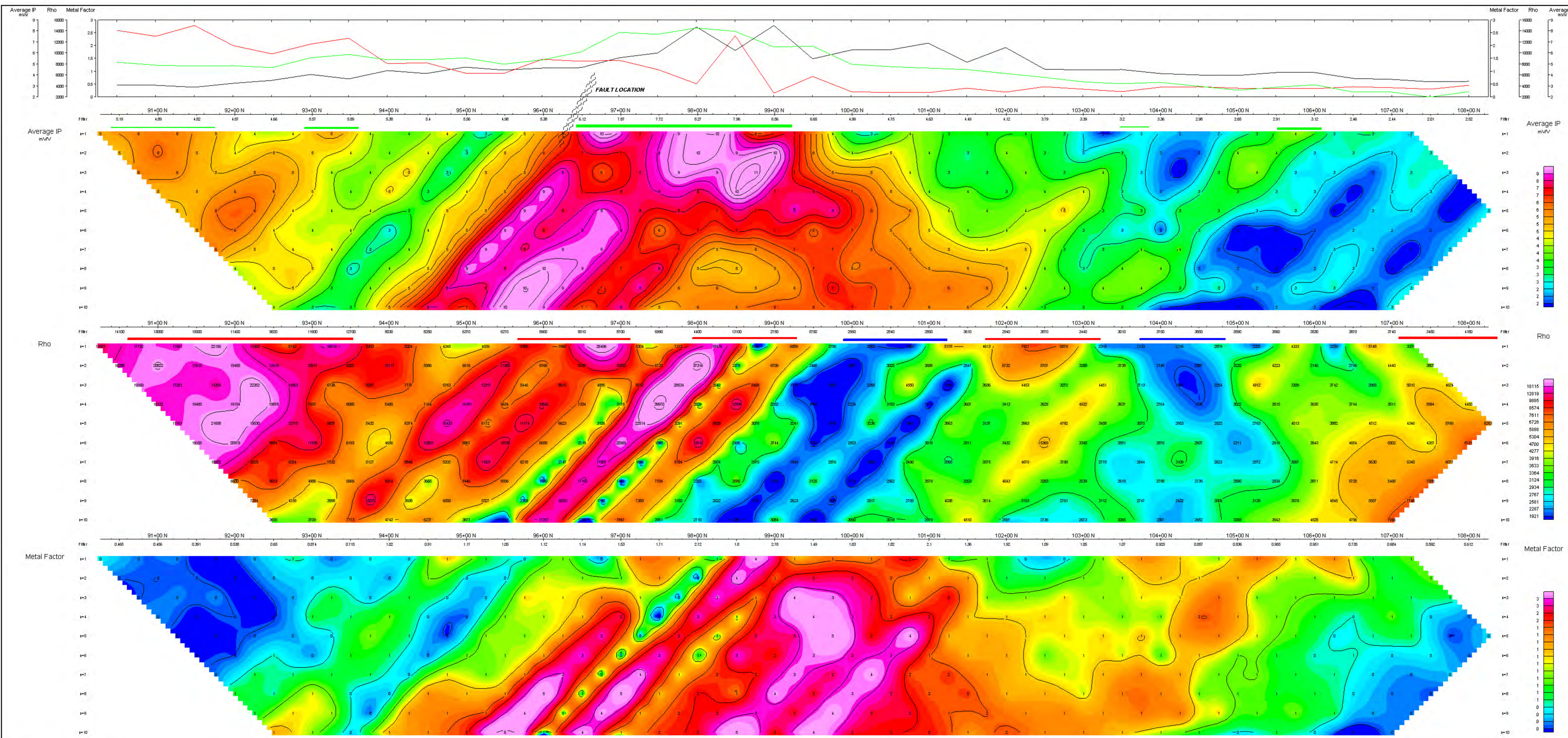
**INTERPRETATION**

- CHARGEABILITY ANOMALY, STRONG (Green line)
- CHARGEABILITY ANOMALY, WEAK (Light Green line)
- RESISTIVITY HIGH (Red line)
- RESISTIVITY LOW (Blue line)

**INSTRUMENTS**

RECEIVER: INSTRUMENTATION G.D.D. 16 CHANNEL RECEIVER  
TRANSMITTER: 2, 5000 KWATT SYSTEMS IN SERIES





### Pseudo Section Plot 10200 ME

Pole-Dipole Array

Pant-leg Filter

plot point

a = 50 m

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

#### INTERPRETATION

- CHARGEABILITY ANOMALY, STRONG (Green line)
- CHARGEABILITY ANOMALY, WEAK (Red line)
- RESISTIVITY HIGH (Yellow/Orange line)
- RESISTIVITY LOW (Blue line)

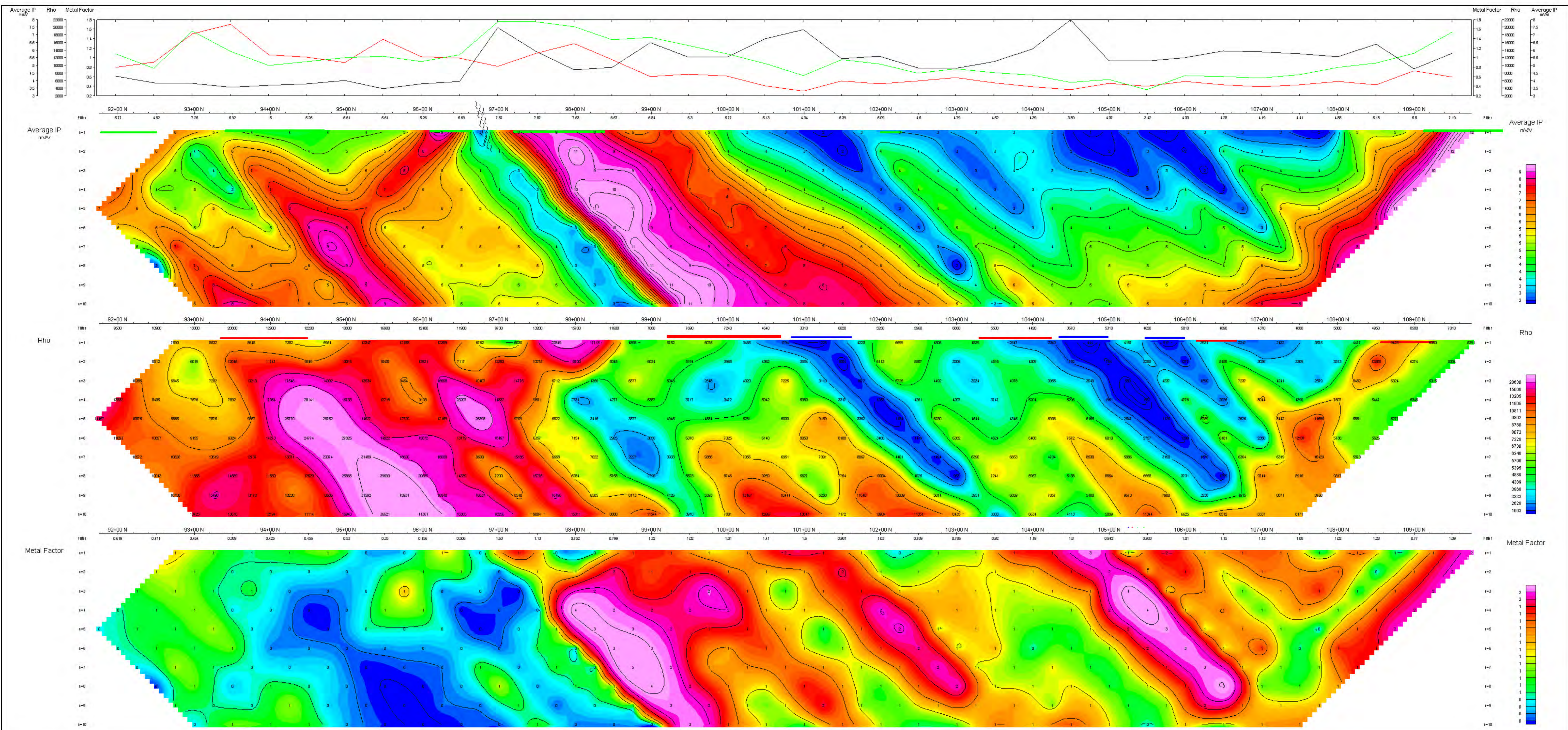
#### INSTRUMENTS

RECENER: INSTRUMENTATION G.D.D. 16 CHANNEL RECENER

TRANSMITTER: 2, 5000 KWATT SYSTEMS IN SERIES

Scale 1:2500

TRELAWNEY MINING AND EXPLORATION INC.  
INDUCED POLARIZATION SURVEY  
**MISHI IP PROGRAM**  
**LINE 10200ME**  
Date: 01/12/2015  
Interpretation: J.C.GRANT  
EXSICS EXPLORATION LIMITED



**Pseudo Section Plot**  
**LINE 10300ME**

Dipole-Pole Array

Pant-leg Filter

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

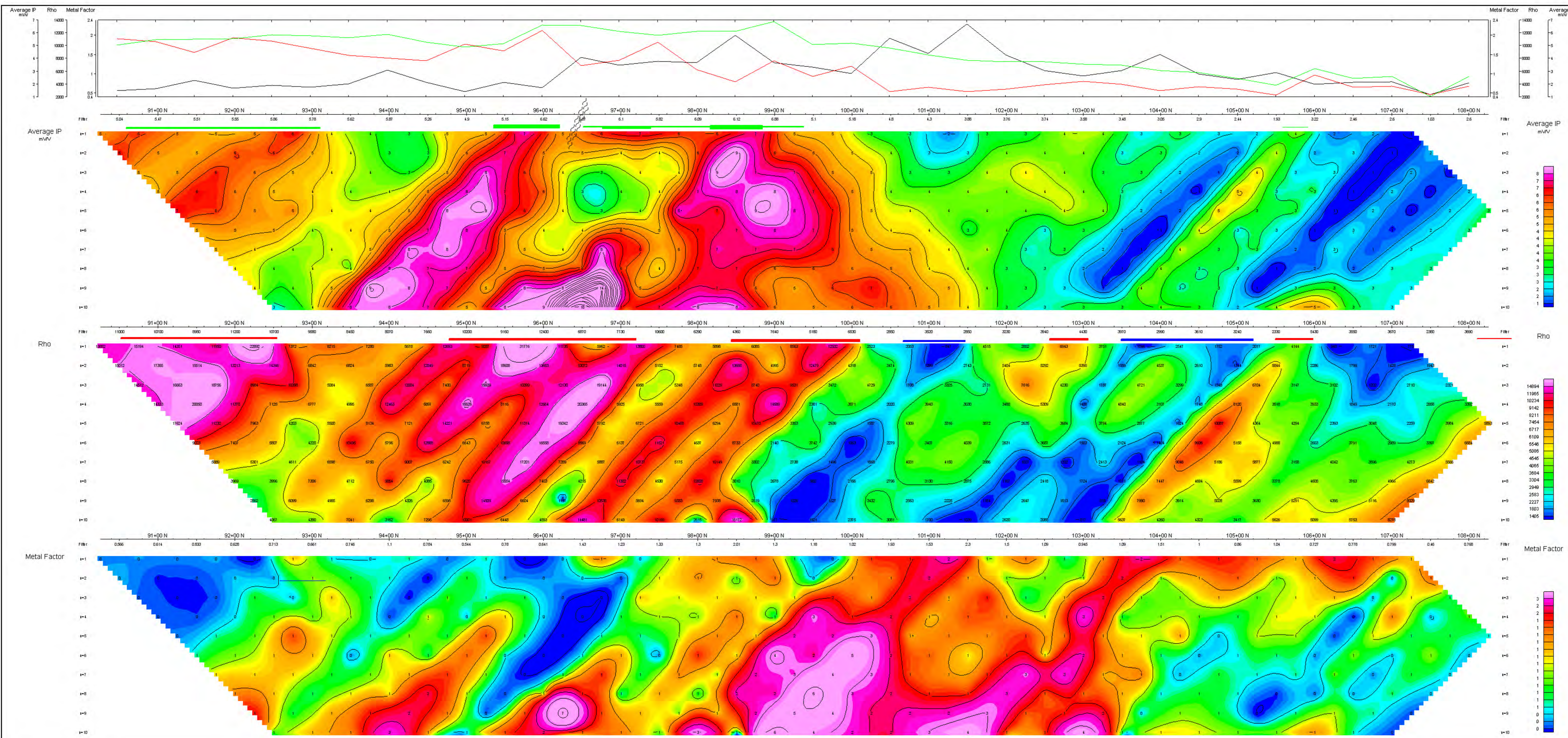
**INTERPRETATION**

- CHARGEABILITY ANOMALY, STRONG (Green line)
- CHARGEABILITY ANOMALY, WEAK (Light Green line)
- RESISTIVITY HIGH (Red line)
- RESISTIVITY LOW (Blue line)

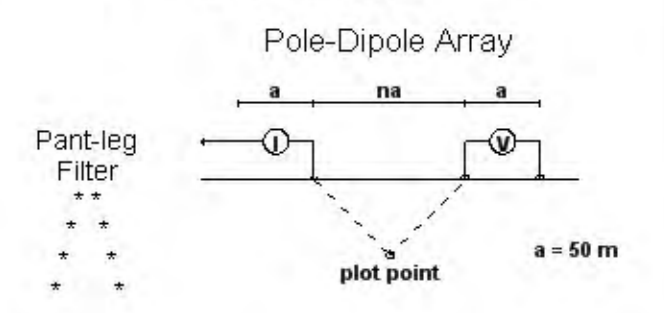
**INSTRUMENTS**  
 RECEIVER: INSTRUMENTATION G.D.D. 16 CHANNEL RECEIVER  
 TRANSMITTER: 2,500 KWATT SYSTEMS IN SERIES

Scale 1:2500

TRELAWNEY MINING AND EXPLORATION INC.  
 INDUCED POLARIZATION SURVEY  
**MISHI IP PROGRAM**  
**LINE 10300ME**  
 Date: 01/12/2015  
 Interpretation: J.C. GRANT  
 EXSICS EXPLORATION LIMITED



**Pseudo Section Plot**  
LINE 10400ME

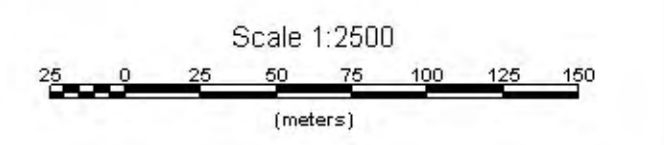


Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

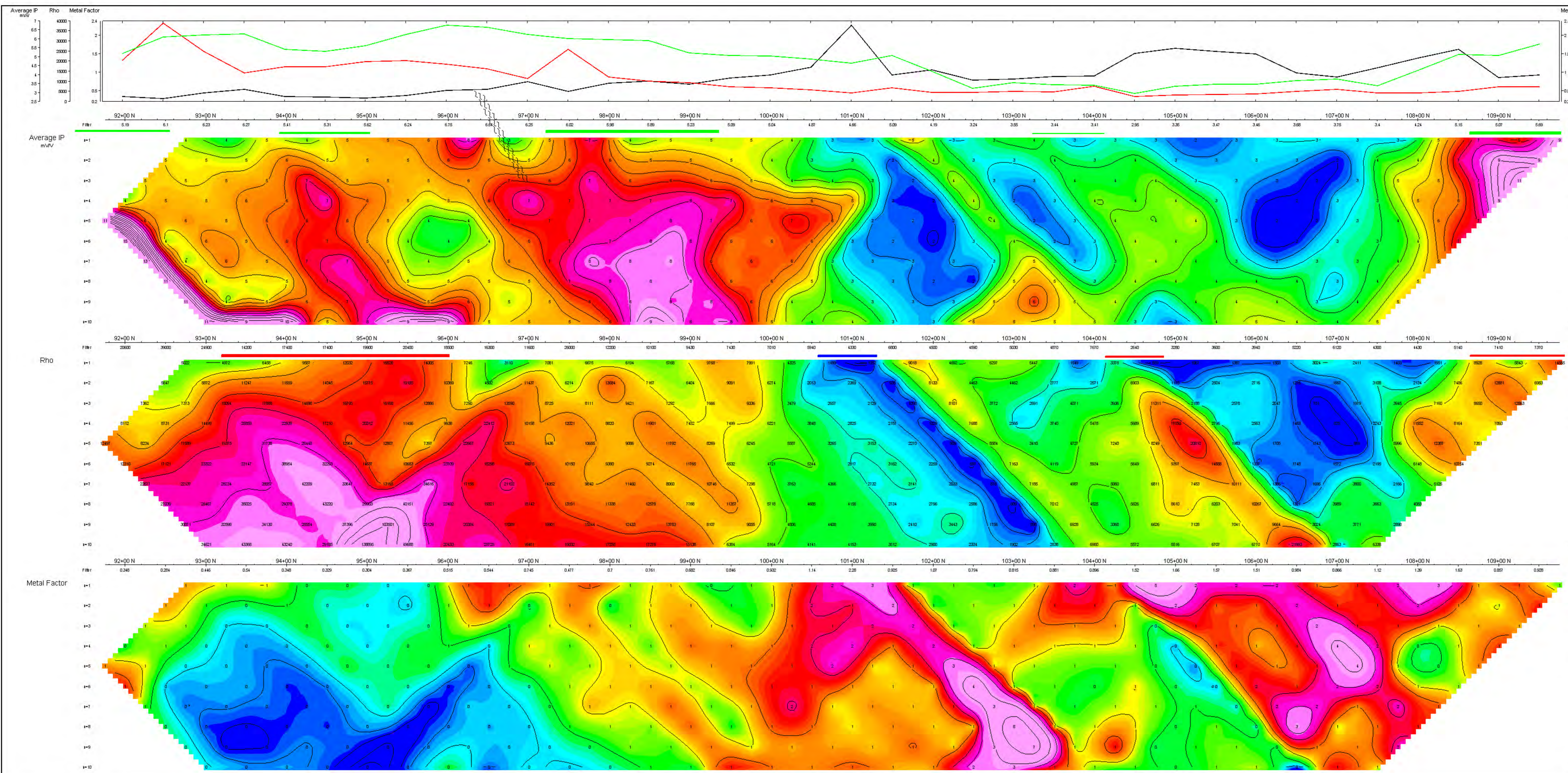
**INTERPRETATION**

- CHARGEABILITY ANOMALY, STRONG
- CHARGEABILITY ANOMALY, WEAK
- RESISTIVITY HIGH
- RESISTIVITY LOW

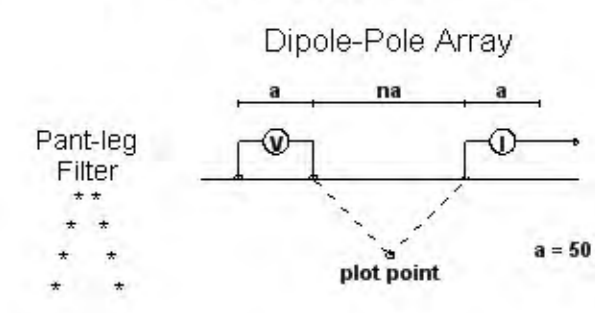
**INSTRUMENTS**  
RECORDER: INSTRUMENTATION G.D.D. 16 CHANNEL RECORDER  
TRANSMITTER: 2, 5000 KWATT SYSTEMS IN SERIES.



TRELAWNEY MINING AND EXPLORATION INC.  
INDUCED POLARIZATION SURVEY  
**MISHI IP PROGRAM**  
LINE 10400ME  
Date: 04/01/2016  
Interpretation: J.C. GRANT  
EXSICS EXPLORATION LIMITED



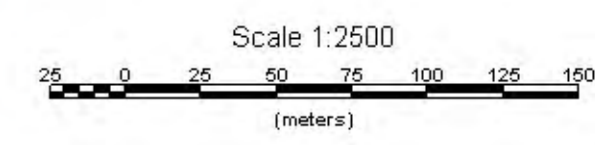
**Pseudo Section Plot**  
LINE 10500ME



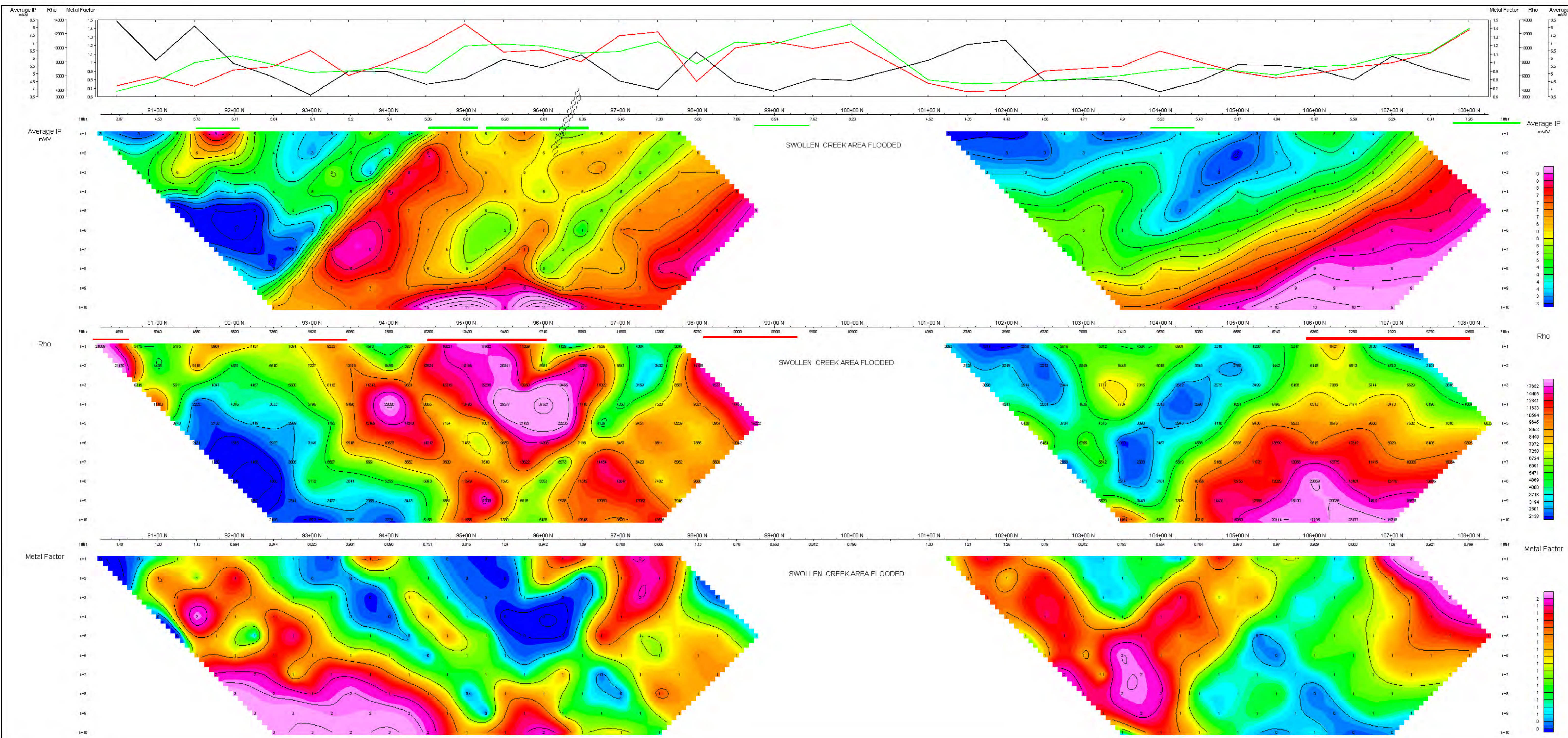
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10...  
Contours

**INTERPRETATION**  
 CHARGEABILITY ANOMALY, STRONG (Green line)  
 CHARGEABILITY ANOMALY, WEAK (Red line)  
 RESISTIVITY HIGH (Blue line)  
 RESISTIVITY LOW (Yellow line)

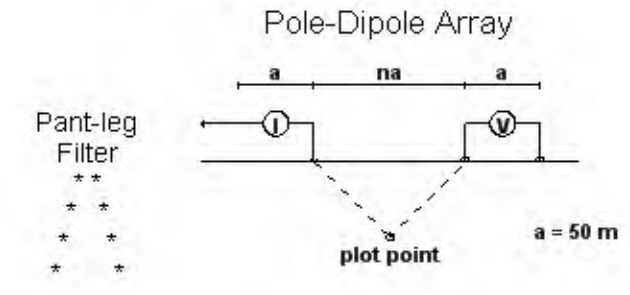
**INSTRUMENTS**  
 RECEIVER: INSTRUMENTATION G.D.D. 16 CHANNEL RECEIVER  
 TRANSMITTER: 2, 5000 KWATT SYSTEMS IN SERIES



TRELAWNEY MINING AND EXPLORATION INC.  
 INDUCED POLARIZATION SURVEY  
**MISHI IP PROGRAM**  
**LINE 10500ME**  
 Date: 21/11/2015  
 Interpretation: J.C. GRANT  
 EXSICS EXPLORATION LIMITED



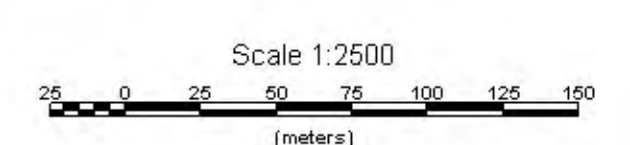
**Pseudo Section Plot**  
LINE 10700ME



- Logarithmic Contours** 1, 1.5, 2, 3, 5, 7.5, 10, ...
- INTERPRETATION**
- CHARGEABILITY ANOMALY, STRONG —
  - CHARGEABILITY ANOMALY, WEAK —
  - RESISTIVITY HIGH —
  - RESISTIVITY LOW —

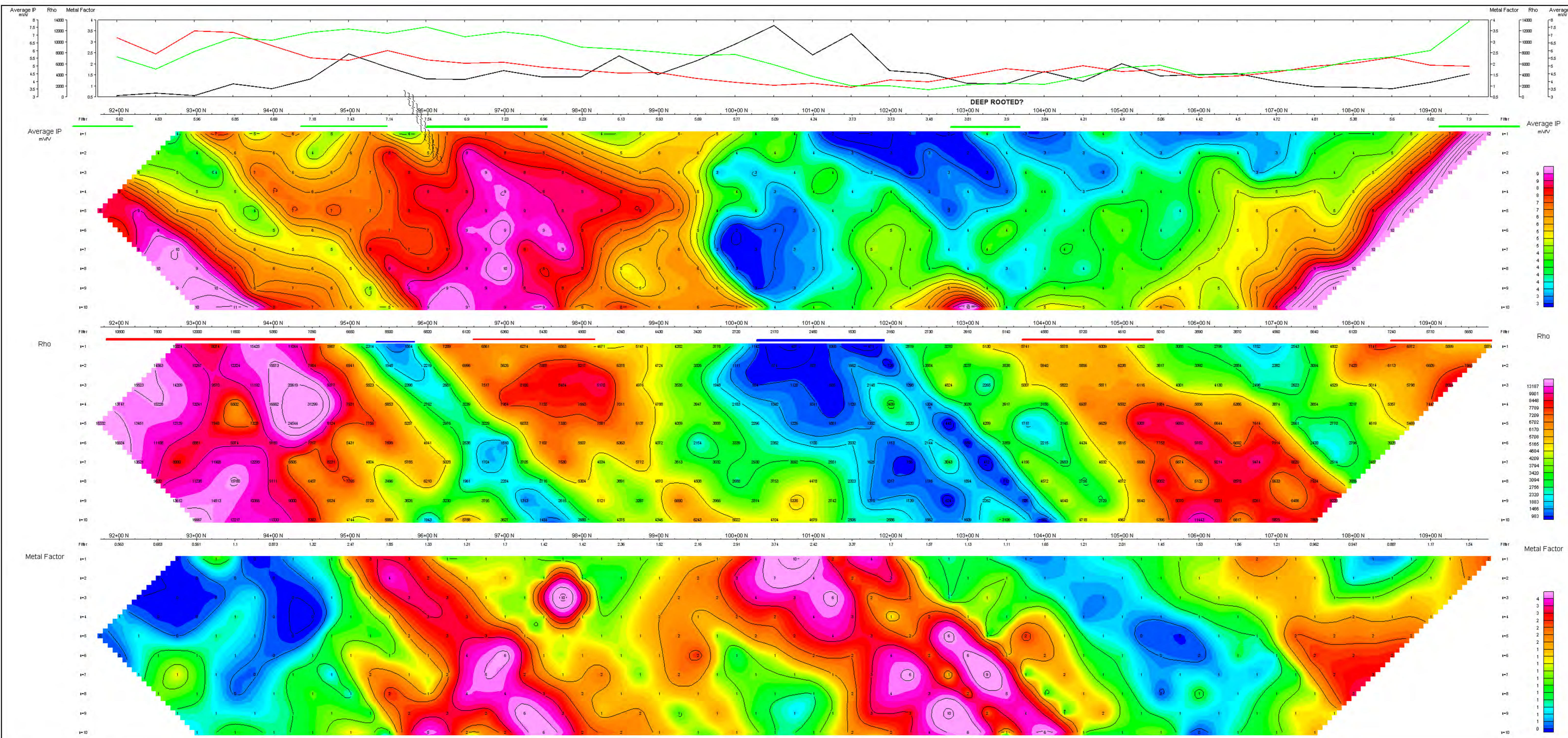
**INSTRUMENTS**

RECENER : INSTRUMENTATION G.D.D. 16 CHANNEL RECENER  
TRANSMITTER : 2, 5000 KWATT SYSTEMS IN SERIES

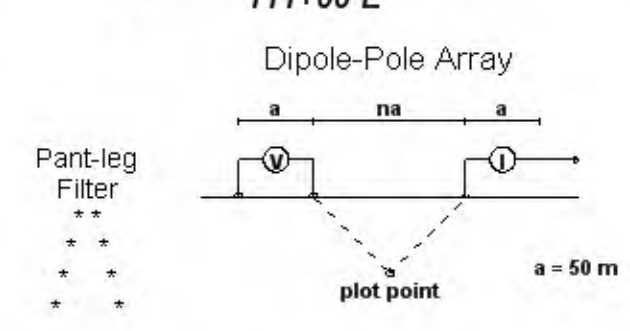


TRELAWNEY MINING AND EXPLORATION INC.  
INDUCED POLARIZATION SURVEY  
**MISHI IP PROGRAM**  
LINE 10700ME  
Date: 21/11/2015  
Interpretation: J.C.GRANT  
EXSICS EXPLORATION LIMITED





**Pseudo Section Plot**  
111+00 E



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

- INTERPRETATION**
- CHARGEABILITY ANOMALY, STRONG (Green line)
  - CHARGEABILITY ANOMALY, WEAK (Light Green line)
  - RESISTIVITY HIGH (Red line)
  - RESISTIVITY LOW (Blue line)

**INSTRUMENTS**

RECORDER: INSTRUMENTATION G.D.D. 16 CHANNEL RECORDER  
 TRANSMITTER: 2, 5000 KWATT SYSTEMS IN SERIES

