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LINE CUTTING and GEOPHYSICAL REPORT
on the
SHINING TREE PROJECT
for PLATINEX INC.

CHURCHILL AND MACMURCHY TOWNSHIPS, LARDER LAKE MINING DIVISION ONTARIO, CANADA

Prepared By:
Iain Trusler
Under the advisement of
James R. Trusler P.Eng, Chairman and Director of
PLATINEX INC.
December 3rd, 2021

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LIST OF FIGURES

1.0 INTRODUCTION

This report outlines the work completed respecting a line cutting program and geophysical surveys as part of ongoing exploration by Platinex Inc. on its Shining Tree Project. The line cutting work ran from April 15th to May 1st, 2021. Picket lines were cut by chainsaw and axe across the central portion of the property with relatively good truck or ATV access. Prior to completion of the line cutting, Magnetic and IP surveys (see report attached) were commenced by Golden Mallard Corp. of Kanata, Ontario, on portions of the line grid.

Results from previous programs such as till sampling, geological and air borne magnetic surveys encouraged a closer look at these areas with IP. This survey was conducted to follow up on sample locations with high gold grain counts in till and find potential drill targets. Further IP is warranted to provide complete coverage of high potential areas of the property and known mineralization.

2.0 PROPERTY LOCATION AND ACCESS

At the time this work was completed the Shining Tree property consisted of 1097 contiguous boundary and single cell claims and one lease in Churchill, MacMurchy, Asquith, Tyrrell, Cabot, Kelvin, Natal, Connaught, Fawcett, Leonard, Ogilive, and North Williams townships, Larder Lake Mining Division, District of Sudbury, Ontario.

Figure 1 shows the location of the Shining Tree area in Ontario as well as the claim locations and numbers with respect to major topographic and cultural features of the area.

Primary access to the property is obtained using highway 560; a paved secondary highway which runs through the centre of the property. Highway 560 connects with highway 144 to the west and with highway 65 at Elk Lake to the east. The claims surround the village of Shining Tree extending North and South-East and are approximately 50 kilometers west of Gowganda. A number of logging trails accessible by 4-wheel drive vehicle provide access to portions of the property, and boat access is possible using Michiwakenda Lake, Cryderman Lake, Okawakenda Lake and West Shining Tree Creek.

3.0 PREVIOUS WORK

Several shafts with limited underground development are situated on the project claims, and existed within separate properties pre 1940's. These were best known as the Herrick, Churchill, and Caswell properties. Relatively little diamond drilling has been done on the Churchill, and only sporadic programs have been carried out on the Caswell, including seven holes drilled by Platinex in 2011. From 2008 through 2011, 51 drill holes targeted the Herrick deposit, bringing the total number of diamond drill holes to 66. Exploration on the remainder of the property has been limited to prospecting, hand dug trenches, mapping and local sporadic geophysical and diamond drilling programs. Several extensive glacial till sampling programs have also been carried out.

4.0 TOPOGRAPHY

The area has relatively low relief between 350 and 420 metres above sea level. Terrain is hummocky and gently rolling, with the remnant bases of Nipissing diabase sills forming several of the higher ridge lines, along with positive relief Matachewan diabase dykes. The area is generally well drained with numerous lakes and rivers. Logging for pine, spruce and poplar has taken place in small areas of the property at various times in the past, and continues. Regrowth is generally jack pine and poplar. Cedar is common in poorly drained areas. Outcrop ranges from 5% to 10% with a thin till veneer underlying most of the property. Outwash sands and ice contact stratified drift cover most of the eastern-most part of the property.

5.0 GEOLOGY

5.1 QUATERNARY GEOLOGY

The glacial deposits preserved in the area are products of the latest continental ice sheet, the Laurentide of Wisconsinan age. The Keewatin lobe advanced from the northeast approximately 100,000 years ago, and extended south into the northern United States. By 11,000 years ago, the ice sheet had receded back to the Shining Tree area and deposited a variety of surficial material, dominated by thin sandy till ground moraine over bedrock knobs (Roed and Hallett, 1979). Sand and gravel outwash deposits begin to predominate on the eastern edge of the project area, and can often be found as a thin deposit overlying ground moraine tills.

5.2 GENERAL BEDROCK GEOLOGY

The Shining Tree greenstone belt is located approximately 100 km north of Sudbury, and is the southern portion of the Abitibi Sub province, Superior Province, northeast Ontario. The supracrustal rocks in the Shining Tree area have been divided into the Pacaud, Deloro, Kidd-Munro, Tisdale and Timiskaming assemblages in keeping with the rest of the Abitibi greenstone belt (Ayer 1999; Ayer et al. 1999; Johns 1999b; Oliver et al. 1999b). The ~2669-2678 Ma Porcupine assemblage is separated from the older assemblages (>2.7 Ga) by an unconformity. The Timiskaming assemblage (<2.680 Ga) is also composed of a considerably different array of rocks than the older supracrustal rocks (Ayer 2000).

The Pacaud, Deloro, Kidd-Munro and Tisdale assemblages are dominated by volcanic supracrustal rocks, which were formed before the first phase of deformation. Felsic volcanic units close to the presumed tops of the assemblages in the Shining Tree area have been dated: The ages of the older three assemblages (Pacaud, Deloro and Kidd-Munro) indicate that the greenstone belt youngs to the northeast (Ayer 2000).

The Pacaud assemblage is mainly composed of massive and pillowed basalts and is associated with minor spinifex or cumulate textured komatiites.

The Deloro assemblage is dominated by felsic volcanic rocks and is capped in many places by chemical sediments, seen as banded chert and jasper.

The Kidd-Munro assemblage is a varied assemblage dominated by tholeiitic basalts and komatiites, with minor felsic volcanic rocks, and the Tisdale assemblage comprises mafic flows and intermediate to felsic pyroclastics and/or volcaniclastics (Johns 1999a).

5.3 METAMORPHISM AND STRUCTURE

The metamorphic grade throughout most of the Shining Tree area is mid to low greenschist facies (Oliver et al. 1999a, 1999b). Amygdules are filled with chlorite, carbonate or quartz. There are two main phases of deformation and associated metamorphism in the Shining Tree area (Oliver et al. 1999a,1999b) with rocks older than 2.7 Ga having undergone two periods of deformation. There are multiple deformation zones in the older volcanic rocks in which gold has been found, especially in Macmurchy and Tyrrell Townships (Johns 1996, 1997 and 1999a). The Timiskaming assemblage has undergone a single period of deformation and is metamorphosed to a lesser degree than the older volcanic rocks (Oliver et al. 1999a, 1999b). The Timiskaming assemblage was formed between the two deformation events and lies unconformably above the pre-deformational volcanics (Ayers 2000).

6.0 LINE CUTTING AND GEOPHYSICAL PROGRAM

6.1 LOGISTICS

The line cutting project was conducted under the supervision of Dean Cutting, Rouyn-Noranda, Quebec, from April 15 to May 1, 2021. Preliminary grids were designed by Joerg Kleinboeck, North Bay, Ontario. The grid design was finalized by Dean Cutting and James Trusler, Newmarket, Ontario, within the boundaries of exploration plan PL-21-000005. The line cutting was conducted by MG Explo, La Sarre, Quebec. The total length of all the lines came to 59.35km. The IP and Magnetic surveys were conducted by Golden Mallard Corp. of Kanata, Ontario (See report attached) from April 28th to June 4th 2021. A Final Revised Copy of the report was received on November 5th 2021. The IP Survey was conducted within the boundaries of exploration plan PL-21-000005.

6.2 RESULTS

The results of the IP and Magnetic surveys are presented in a report by Golden Mallard Corp. in appendix II.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The IP survey identified 25 chargeability anomalies of which nine are judged to be strong, three are moderate to strong, ten are moderate and three are weak. Giving consideration to the resistivity rating and the magnetic survey indications ratings were provided for the 25 anomalies revealing that 16 anomalies are rated priority one, 7 are rated priority two and 2 are rated priority three.

Prospecting and soil sampling are recommended to test these anomalies further.

8.0 REFERENCES

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Oliver, H.S., Hughes, D.J., Hall, R.P. and Johns, G.W. 1999b. The Mafic And Ultramafic Volcanics Of The ShiningTree Greenstone Belt, Northeastern Ontario, Canada; Summary of Field Work and Other Activities 1999,Ontario Geological Survey, Open File Report 6000, p.11.1-11.12.

Oliver, H.S., Johns, G.W., Thurston, P.C., Hughes, D.J. and Hall R.P. 1998 Preliminary geochemistry of the Shining Tree area; Abitibi Subprovince, Ontario; in Summary of Field Work and Other Activities 1998, Ontario Geological Survey, Miscellaneous Paper 169, p.51-58.

Certificate of Qualifications: James R. Trusler

I, James R. Trusler at Suite 807, 20 William Roe Blvd. Newmarket, Ontario do hereby certify that:

1) I am a Geological Engineer employed as Chairman and director of Platinex Inc. and I am also a major shareholder of Platinex Inc.;

2) I graduated from the University of Toronto with BA.Sc. in Geological Engineering in 1967. I obtained a Master of Science (Geology) from Michigan Technological University in 1972. I have practiced my profession full-time from 1967-1969 and from 1970 to present;

3) I am a Professional Engineer registered with the Professional Engineers Ontario (PEO #47064019);

4) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Shining Tree property;

5) As of the date of this certificate, to the best of my knowledge, information and belief, this report contains all scientific and technical information that is required to be disclosed to make the Line Cutting and Geophysical Report on the Shining Tree Project for Platinex Inc. not misleading;

6) I have read National Instrument 43-101 and supervised the completion of the Line Cutting and Geophysical Report on the Shining Tree Project for Platinex Inc. which has been prepared in compliance with the intent of National Instrument 43-101 and Form 43-101F1 but is not a Technical Report as defined by National Instrument 43-101;

7) I have collaborated with Iain Trusler who prepared Line Cutting and Geophysical Report on the Shining Tree Project for Platinex Inc. under my supervision;

8) I have visited the property on various occasions.

Dated at Newmarket, ON

December 3rd, 2021

James R. Trusler, BA.Sc, MS, PEng

Certificate of Qualifications: Iain S. Trusler

I, Iain S. Trusler at 32 Richmond St., Richmond Hill, Ontario do hereby certify that:

1) I am a GIS consultant and Property Manager employed as such by Platinex Inc.;

2) I have practiced my profession full-time from 2010 to Present;

3) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Shining Tree property;

4) As of the date of this certificate, to the best of my knowledge, information and belief, this report contains all scientific and technical information that is required to be disclosed to make the Line Cutting and Geophysical Report on the Shining Tree Project for Platinex Inc. not misleading;

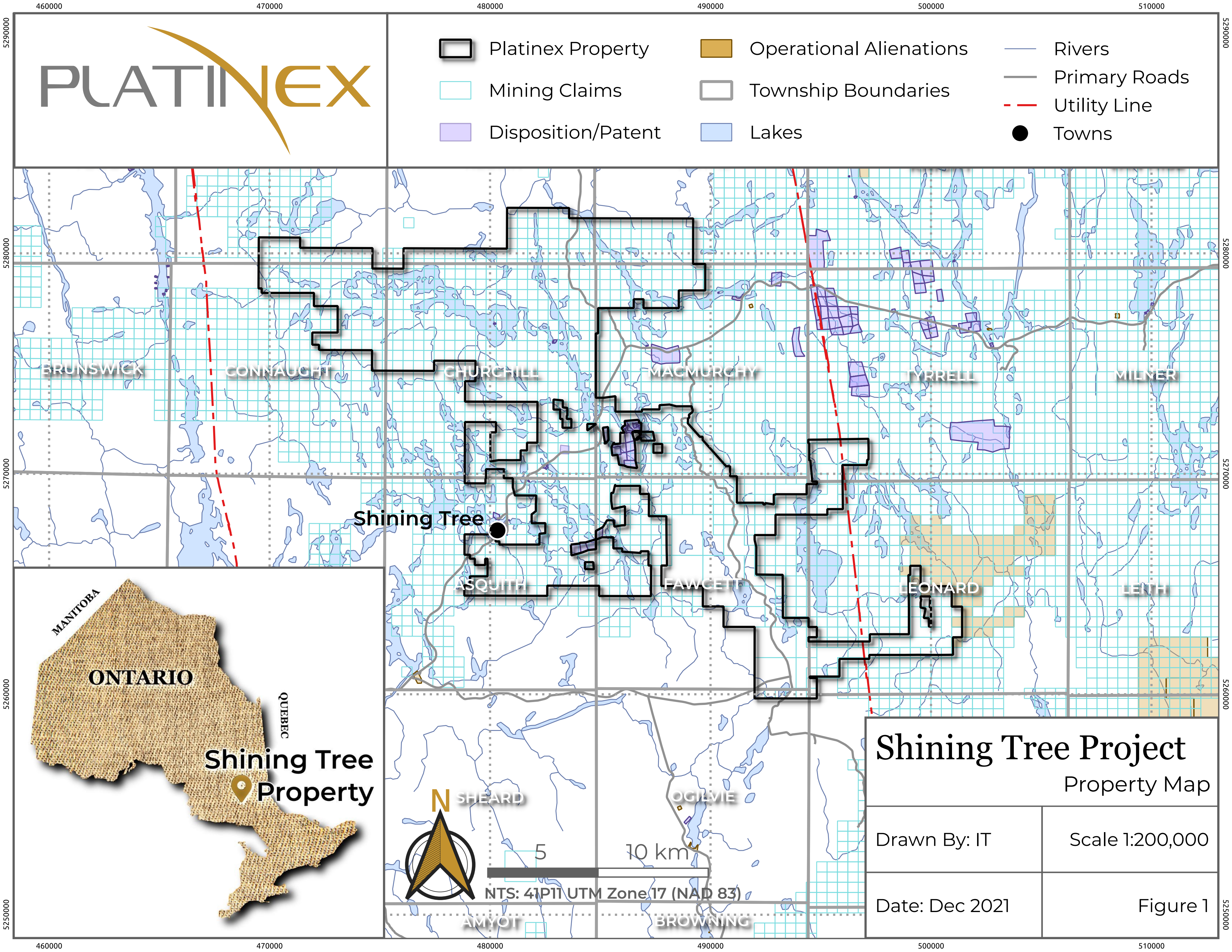
5) I have collaborated with James R Trusler who supervised Line Cutting and Geophysical Report on the Shining Tree Project for Platinex Inc.;

6) I have visited the property once in October of 2011, and twice in March and April of 2012.

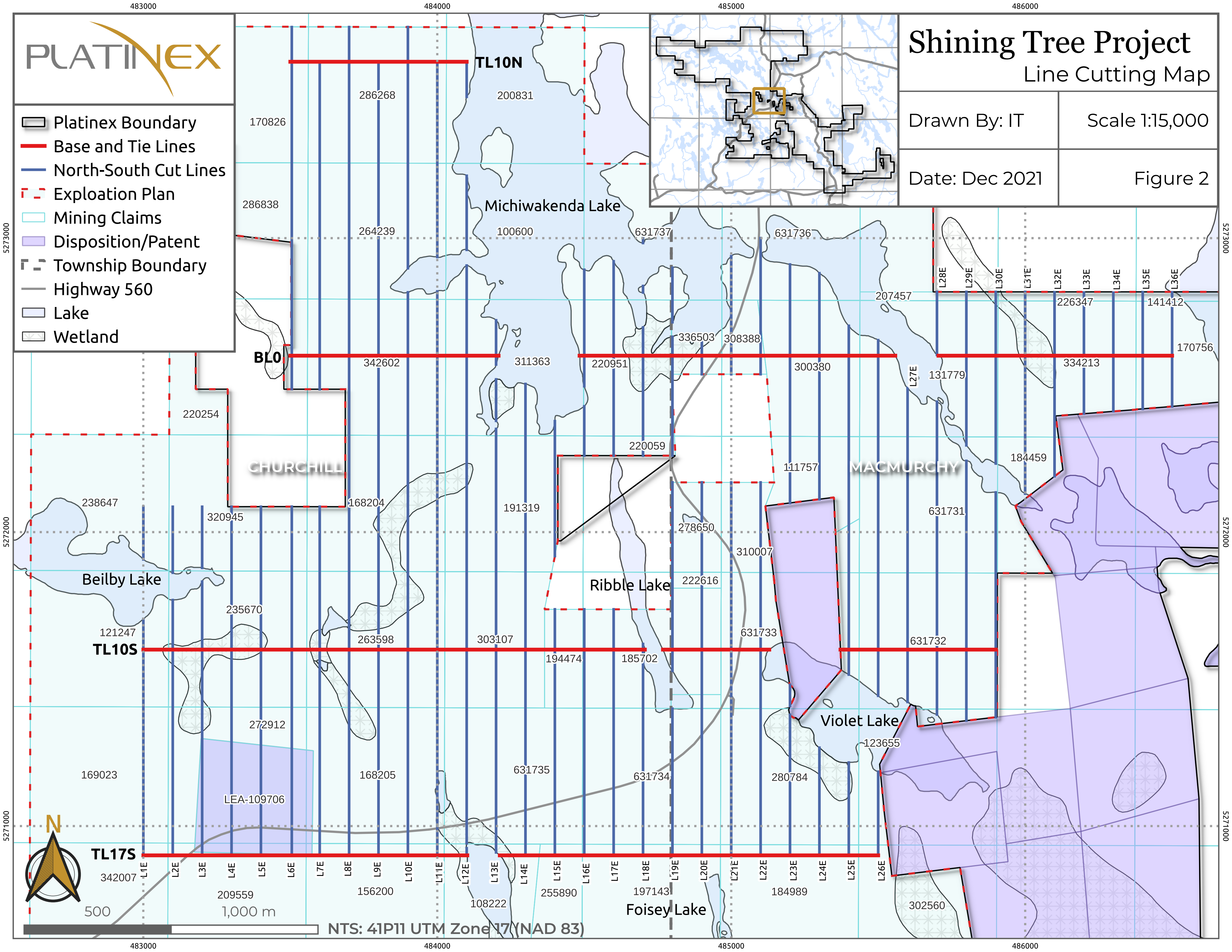
Dated at Richmond Hill, ON

December 3rd, 2021

Iain S. Trusler



Shining Tree Project
Property Map
Drawn By: IT
Scale 1:200,000
Date: Dec 2021
Figure 1



PLATINEX
Platinex Boundary
Base and Tie Lines
North-South Cut Lines
Exploation Plan
Mining Claims
Disposition/Patent
Township Boundary
Highway 560
Lake
Wetland
Shining Tree Project
Line Cutting Map
Drawn By: IT
Scale 1:15,000
Date: Dec 2021
Figure 2
483000
484000
485000
486000
5273000
5272000
5271000
TL10N
BL0
TL10S
TL17S
Michiwakenda Lake
Beilby Lake
Ribble Lake
Violet Lake
Foisey Lake
CHURCHILL
MACMURCHY
286268
200831
170826
286838
264239
100600
631737
631736
207457
226347
141412
170756
336503
308388
342602
311363
220951
300380
131779
334213
220254
220059
111757
184459
238647
168204
191319
320945
278650
631731
310007
222616
235670
121247
263598
303107
194474
185702
631733
631732
123655
272912
169023
168205
631735
631734
280784
LEA-109706
342007
209559
156200
108222
255890
197143
184989
302560
L1E
L2E
L3E
L4E
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L26E
L27E
L28E
L29E
L30E
L31E
L32E
L33E
L34E
L35E
L36E
N
500
1,000 m
NTS: 41P11 UTM Zone 17 (NAD 83)

Appendix I

Claim List where Work was Performed

Claim Number	Township	Work Performed	Ownership
272649	Churchill	Mag	Platinex Inc.
206641	Churchill	Mag	Platinex Inc.
168692	Churchill	Mag	Platinex Inc.
119224	Churchill	Mag	Platinex Inc.
280429	Churchill	Mag	Platinex Inc.
159113	Churchill	Mag	Platinex Inc.
307076	Churchill	Mag	Platinex Inc.
307077	Churchill	Mag	Platinex Inc.
111808	Churchill	Mag	Platinex Inc.
119223	Churchill	Mag	Platinex Inc.
232428	Churchill	Mag	Platinex Inc.
266644	Churchill	Mag	Platinex Inc.
132845	Churchill	Mag	Platinex Inc.
164531	Churchill	Mag	Platinex Inc.
211116	Churchill	Mag	Platinex Inc.
214580	Churchill	Mag	Platinex Inc.
160831	Churchill	Mag	Platinex Inc.
322855	Churchill	Mag	Platinex Inc.
200100	Churchill	Mag	Platinex Inc.
238647	Churchill	LC, Mag	Platinex Inc.
121247	Churchill	LC, Mag	Platinex Inc.
169023	Churchill	LC, Mag	Platinex Inc.
342007	Churchill	LC, Mag	Platinex Inc.
170826	Churchill	LC, IP, Mag	Platinex Inc.
286838	Churchill	LC, IP, Mag	Platinex Inc.
220254	Churchill	LC, IP, Mag	Platinex Inc.
320945	Churchill	LC, Mag	Platinex Inc.
235670	Churchill	LC, Mag	Platinex Inc.
272912	Churchill	LC, Mag	Platinex Inc.
209559	Churchill	LC, Mag	Platinex Inc.
LEA-109706	Churchill	LC, Mag	Platinex Inc.
200099	Churchill	Mag	Platinex Inc.
286268	Churchill	LC, IP, Mag	Platinex Inc.
264239	Churchill	LC, IP, Mag	Platinex Inc.
342602	Churchill	LC, IP, Mag	Platinex Inc.
168204	Churchill	LC, IP, Mag	Platinex Inc.
263598	Churchill	LC, IP, Mag	Platinex Inc.
168205	Churchill	LC, IP, Mag	Platinex Inc.

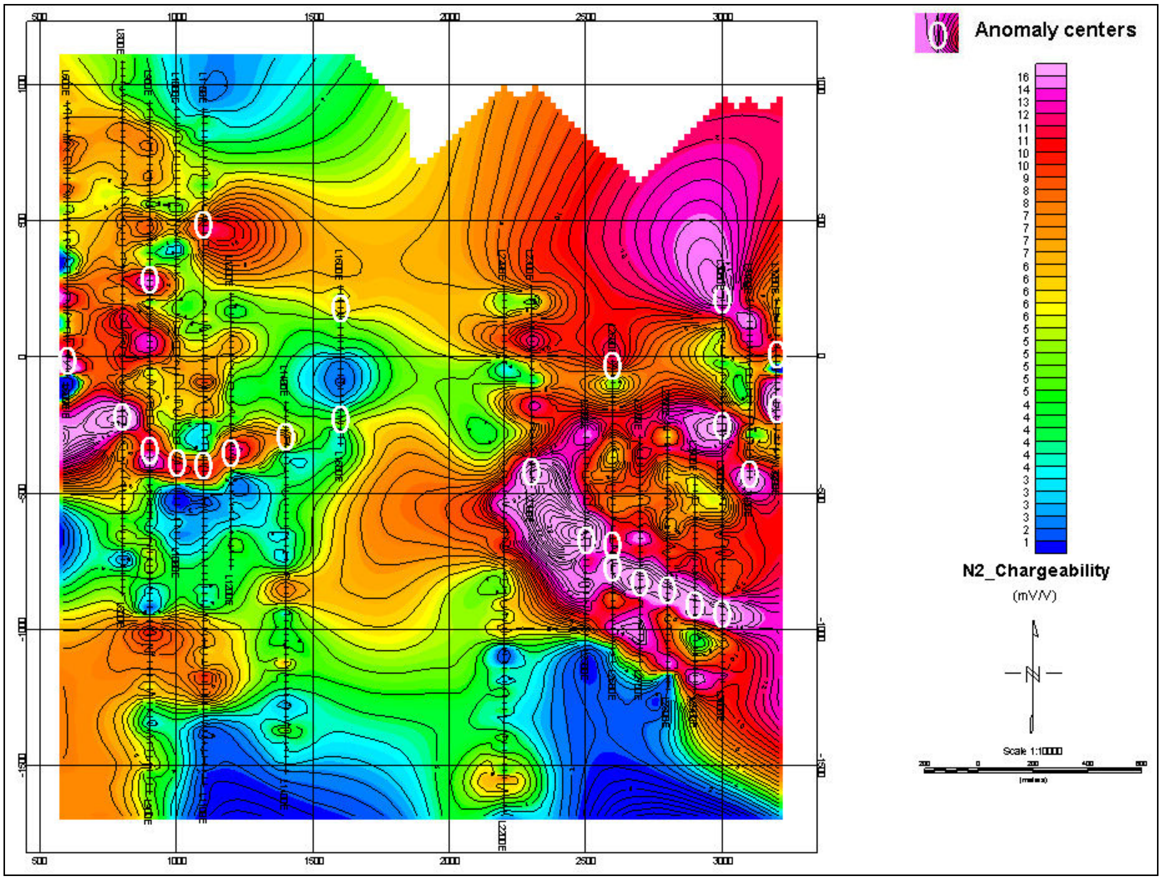
Claim Number	Township	Work Performed	Ownership
156200	Churchill	LC, Mag	Platinex Inc.
200831	Churchill	LC	Platinex Inc.
100600	Churchill	LC, IP, Mag	Platinex Inc.
311363	Churchill	LC, IP, Mag	Platinex Inc.
191319	Churchill	LC, IP, Mag	Platinex Inc.
303107	Churchill	LC, IP, Mag	Platinex Inc.
194474	Churchill	LC, Mag	Platinex Inc.
631735	Churchill	LC, IP, Mag	Platinex Inc.
108222	Churchill	LC, Mag	Platinex Inc.
255890	Churchill	LC, Mag	Platinex Inc.
631737	Churchill, MacMurchy	LC, Mag	Platinex Inc.
220951	Churchill, MacMurchy	LC, IP, Mag	Platinex Inc.
336503	Churchill, MacMurchy	LC, Mag	Platinex Inc.
220059	Churchill, MacMurchy	LC, IP, Mag	Platinex Inc.
278650	Churchill, MacMurchy	LC, Mag	Platinex Inc.
185702	Churchill, MacMurchy	LC, Mag	Platinex Inc.
222616	Churchill, MacMurchy	LC, Mag	Platinex Inc.
631734	Churchill, MacMurchy	LC, Mag	Platinex Inc.
197143	Churchill, MacMurchy	LC, Mag	Platinex Inc.
631736	MacMurchy	LC, IP, Mag	Platinex Inc.
308388	MacMurchy	LC, IP, Mag	Platinex Inc.
300380	MacMurchy	LC, IP, Mag	Platinex Inc.
111757	MacMurchy	LC, IP, Mag	Platinex Inc.
310007	MacMurchy	LC, IP, Mag	Platinex Inc.
631733	MacMurchy	LC, IP, Mag	Platinex Inc.
280784	MacMurchy	LC, IP, Mag	Platinex Inc.
184989	MacMurchy	LC, IP, Mag	Platinex Inc.
207457	MacMurchy	LC, IP, Mag	Platinex Inc.
131779	MacMurchy	LC, IP, Mag	Platinex Inc.
631731	MacMurchy	LC, IP, Mag	Platinex Inc.
631732	MacMurchy	LC, IP, Mag	Platinex Inc.
123655	MacMurchy	LC, IP, Mag	Platinex Inc.
302560	MacMurchy	LC, Mag	Platinex Inc.
226347	MacMurchy	LC, IP, Mag	Platinex Inc.
334213	MacMurchy	LC, IP, Mag	Platinex Inc.
184459	MacMurchy	LC, IP, Mag	Platinex Inc.
141412	MacMurchy	LC, Mag	Platinex Inc.
170756	MacMurchy	LC, Mag	Platinex Inc.

Appendix II

Golden Mallard Geophysical Report

Report on Surface IP/Resistivity and Magnetic Surveys

Shining Tree Project – Platinex Inc.



Submitted to: Platinex Inc.
Address: 20 William Roe Blvd.,
Suite 807, Newmarket, Ontario
L3Y 5V6, Canada
Contact email: info@platinex.com

By: Golden Mallard Corp.
122 Castle Cres.,
Kanata, Ontario
K2L 4G9
Contact email:
blaine.r.webster@gmail.com

Report on Surface IP/Resistivity and Magnetic Surveys
Shining Tree Project
Ontario

for

Platinex Inc.
20 William Roe Blvd.,
Suite 807, Newmarket, Ontario
L3Y 5V6, Canada
Contact email: info@platinex.com

by

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1. Introduction

Surface Spectral Induced Polarization (SIP)/Resistivity and Magnetic surveys were done on the Shining Tree Project which is located in northern Ontario. Highway 560 provides access to the property. The work was done for Platinex Inc. by Golden Mallard Corp. The field work was done in the period from April 28 to June 4, 2021.

The Surface SIP/Resistivity and Magnetic surveys were conducted on 18 IP lines (L600E, L800E, L900E, L1000E, L1100E, L1200E, L1400E, L1600E, L2200E, L2300E, L2500E, L2600E, L2700E, L2800E, L2900E, L3000E, L3100E and L3200E) and 39 Magnetic lines (L1700W, L1000W, L0B, L100E, L200E, L300E, L400E, L500E, L600E, L700E, L800E, L900E, L1000E, L1100E, L1200E, L1300E, L1400E, L1500E, L1600E, L1700E, L1800E, L1900E, L2000E, L2100E, L2200E, L2300E, L2400E, L2500E, L2600E, L2700E, L2800E, L2900E, L3000E, L3100E, L3200E, L3300E, L3400E, L3500E and L3600E). The Electrical SIP/Resistivity and Magnetic methods were employed. The Pole-Dipole (Radial Detection) array measurement configuration was used for SIP/Resistivity survey.

The objective of the SIP/Resistivity survey on the Shining Tree Project was to identify/map chargeability and resistivity anomalies which may warrant further investigation and drilling. The objective of the Magnetic survey was to map the total Magnetic field and see the association of the IP anomalies with the Magnetic anomalies (structures).

Both geophysical surveys provided images of SIP/Resistivity and Magnetic anomalies over the surveyed area. The Resistivity and Chargeability pseudosections and colour contour plan maps produced from the SIP/Resistivity and Magnetic surveys are presented as screen captured images in the interpretation section of this report. The pseudosections and the plan maps are provided as JPGs and Oasis Montaj Geosoft map files. The IP/Resistivity and Magnetic data is provided in xyz file formats.

Appendix A contains the specification sheets of the instruments used for the surveys. Production summary for the survey is given in Appendix B. The pseudosections of the Pole-Dipole array and colour contour plan maps are found in Appendix C. The profile maps are found in Appendix D, the IP/Resistivity and Magnetic data are found in Appendix E and the main report is found in Appendix F.

This geophysical report includes an overview of the data acquisition and also the survey operations including a production summary and technical information about the SIP/Resistivity system, the raw data, processed data, and graphical information of the results. The report also includes a summary and results.

1.2. General Project Information

Client Contact Details	
Client Name:	Platinex Inc.
Client Address:	20 William Roe Blvd., Suite 807, Newmarket, Ontario L3Y 5V6, Canada
Client Representative, Position:	James R. Trusler
Phone Number:	416-565-5616
Fax Number:	
Email Contact:	jtrusler@platinex.com
Project Information	
Project Name:	Shining Tree Project
Project Location:	Shining Tree Township, Ontario
Geophysicist (Deg, Assoc, Prov):	B. Webster, B.Sc., P.Geo., ON
Report Date	05/11/2021
Grid Details	
Coordinate System:	UTM
Datum & Zone:	NAD83 / Zone 17
UTM Reference Location (E/N):	483496m E, 5272502m N
NTS Sheet:	
Claim numbers:	
Survey Specifications	
Survey Type:	SIP/Resistivity
Array Configurations:	Pole-Dipole, and Gradient
Dipole Sizes:	25 metres
Dipole Numbers (n):	1 to 8
Processed Parameters:	Spectral MIP, Tau, Chargeability and Resistivity

1.3. Property Location and Grid Access

The Shining Tree Property is located in Shining Tree Townships, northern Ontario. Highway 560 provides access to the property. The general location map of the survey area is given in Figure 1-1.

Figure 1.3-1: General Location Map

1.4. Survey Objectives

The objective of the SIP/Resistivity survey on the Shining Tree Project was to identify/map chargeability and resistivity anomalies which may warrant further investigation and drilling. The objective of the Magnetic survey was to map the total Magnetic field and see the association of the IP anomalies with the Magnetic anomalies (structures).

2. Survey Methodology and Coverage

The Electrical IP/Resistivity and Magnetic methods were employed. The Pole-Dipole and Gradient measurement configurations were used in this survey and are described in the following subsections.

2.1. Pole-Dipole (Radial Detection) Array

A Pole-Dipole (Radial Detection) array with electrode separations of a = 25m was used to determine the distance of the anomaly source from the survey line and how the anomaly changes radially from it. A single electrode is positioned on the surface at a distance away from the survey line (usually several 100's of meters). This electrode is used as the "Infinity" electrode (C1) for current injection. The second current electrode (C2) is put in front of seven potential electrodes at a fixed distance (25m). The potential electrodes are used for measuring the potential differences between the dipoles, usually forming the P1-P2, P2-P3, P3-P4, P4-P5, P5-P6 and P6-P7 dipoles.
In this survey a maximum of six (6) dipoles were used for acquiring the Pole-Dipole data.

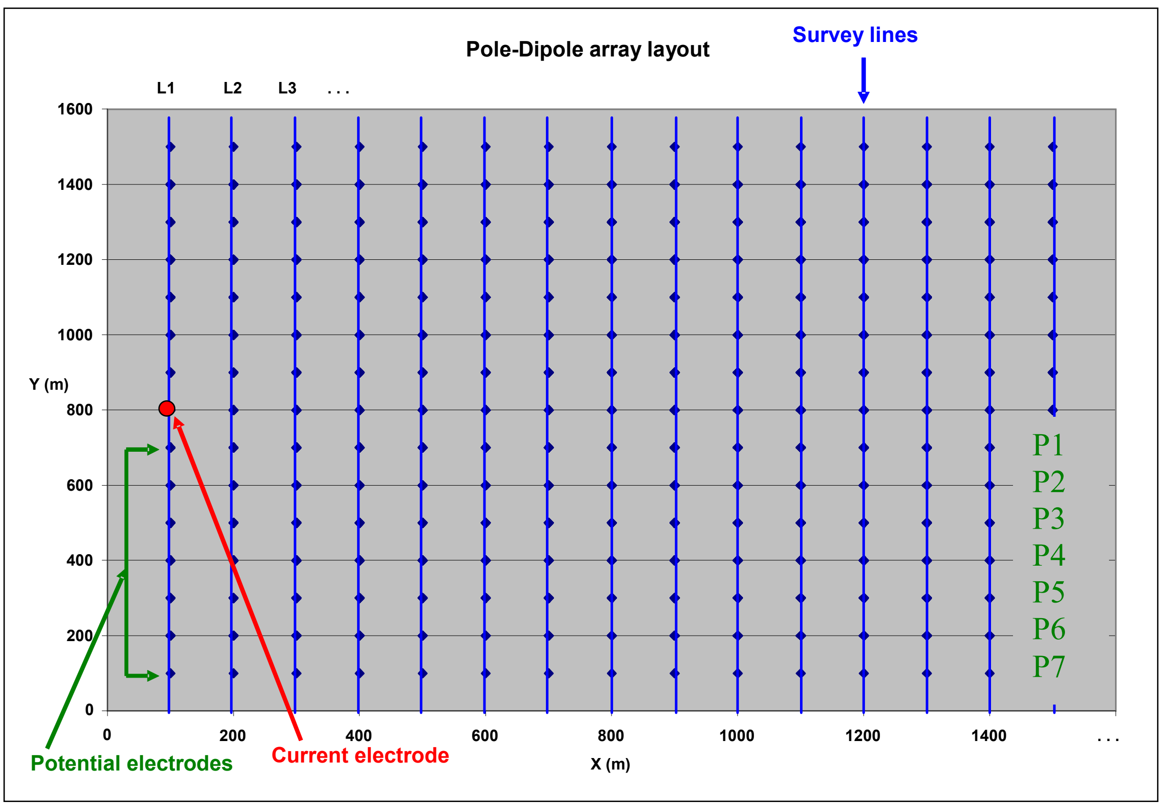


Figure 2.1-1a: Surface Pole-Dipole (Detection) Array Schematics

2.2. Gradient (Directional) Array

The Gradient (Directional) array surveys use large current dipoles located on the surface either on the East or West of the survey lines. Potential readings were taken using 25m dipoles with current injection either East or West of each survey line (Figure 2-1b).

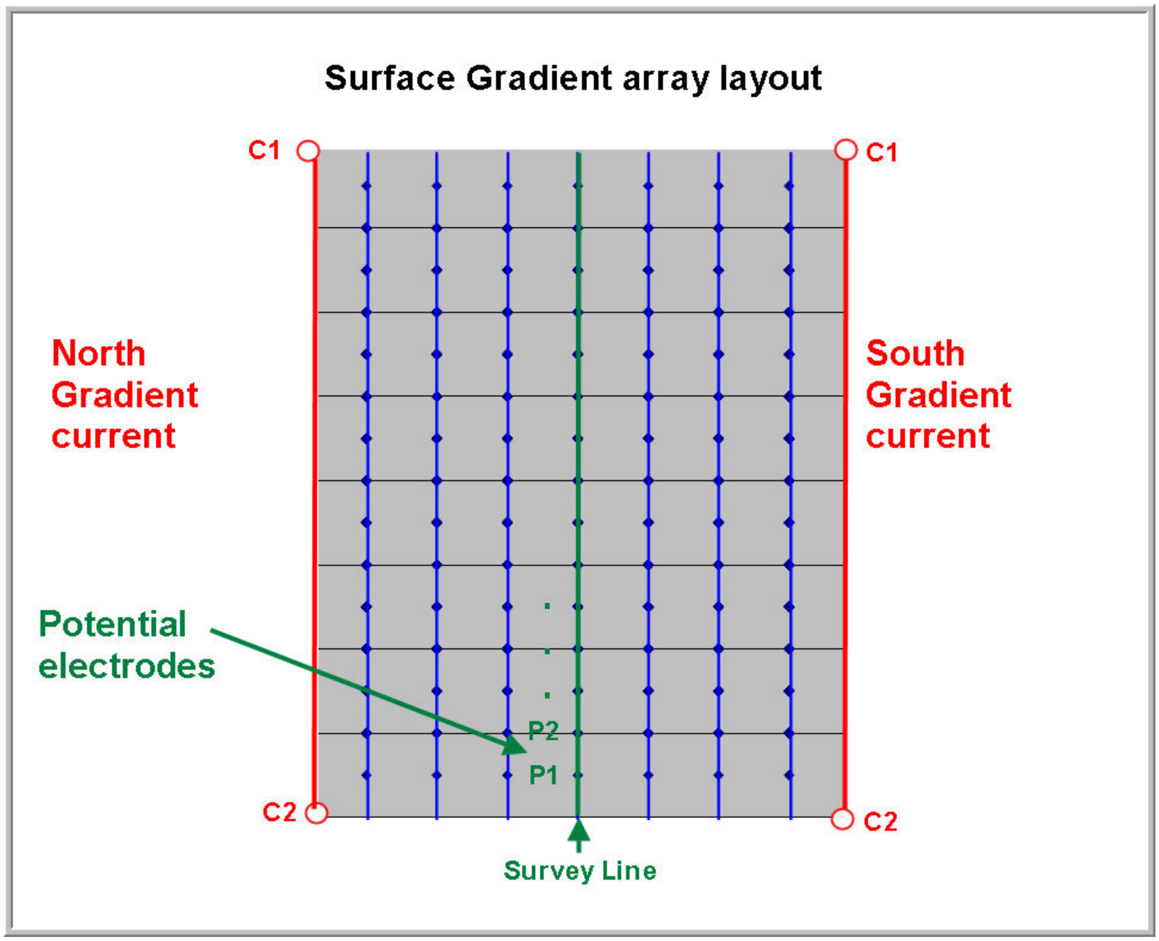


Figure 2.2-1b: Surface Gradient (Directional) Array Schematics

2.3. Survey Coverage

Table 1 shows the survey coverage for the IP/Resistivity survey and Table 2 shows the survey coverage for the Magnetic data.

Line	Coverage From	Coverage To	Total Distance (m)	Date
	Pole-Dipole			
L600E	100S	375N	475	April 30
L600E	375N	1000N	625	May 1
L800E	900S	175N	1075	May 2
L800E	175N	1125N	950	May 3
L900E	1025S	50N	1075	May 11
L900E	75N	1000N	950	May 12
L1000E	275N	1000N	725	May 14
L1000E	700S	200N	900	May 18
L1100E	375N	1000N	625	May 13
L1100E	1600S	1150S	475	May 15
L1100E	1150S	225S	925	May 16
L1100E	225S	200N	425	May 17
L1200E	800S	725S	75	May 18
L1200E	725S	275N	1000	May 19
L1400E	1550S	975S	575	May 20
L1400E	975S	125S	850	May 21
L1600E	350S	175S	175	May 21
L1600E	175S	300N	525	May 22
L2200E	1700S	725S	975	May 23
L2200E	725S	425S	300	May 24
L2300E	500S	300N	800	May 24
L2200E	50S	300N	350	May 25
L2500E	1000S	250S	750	May 28
L2500E	1075S	1000S	75	May 29
L2600E	1150S	25N	1175	May 26
L2700E	1175S	250S	925	May 29
L2800E	1250S	200S	1050	May 27
L2900E	1250S	400S	850	May 30
L2800E	0	225N	225	June 2
L2900E	300S	250N	550	June 2
L3000E	350S	250N	600	June 2
L3100E	470S	100S	375	June 3
L3100E	100S	250N	350	June 4
L3200E	400S	250N	650	June 4
	Gradient			
L2500E	1075S	75N	1150	May 31
L2600E	50N	850S	900	May 31
L2600E	850S	1150S	300	June 1
L2700E	1175S	125S	1050	June 1
L2800E	225S	1250S	1025	June 1
L2900E	1250S	400S	850	June 1
L3000E	475S	625S	150	June 1
L3000E	625S	1225S	600	June 2

Table 1: SIP/Resistivity Survey Coverage

Line	Coverage From	Coverage To	Total Distance (m)
	Magnetic		
L1700W	100N	2600N	2500
L1000TW	100N	487.5N	387.5
L1000W	500N	3000N	2500
L0B	2812.5N	3600N	787.5
L0E	1000N	2662.5N	1662.5
L100E	1725S	525S	1200
L200E	1725S	525S	1200
L300E	1675S	525S	1150
L400E	1700S	525S	1175
L500E	1700S	525S	1175
L600E	1700S	987.5N	2687.5
L700E	1700S	1000N	2700
L800E	1700S	1100N	2800
L900E	1687.5S	1000N	2687.5
L1000E	1712.5S	1200N	2912.5
L1100E	1712.5S	1000N	2712.5
L1200E	1625S	275N	1900
L1300E	1625S	100S	1725
L1400E	1700S	100S	1600
L1500E	1700S	875S	825
L1600E	1700S	275N	1975
L1700E	1687.5S	300N	1987.5
L1800E	1700S	75N	1775
L1900E	1712.5S	50N	1762.5
L2000E	1687.5S	425S	1262.5
L2100E	1700S	75N	1775
L2200E	1700S	300N	2000
L2300E	1700S	300N	2000
L2400E	1700S	275N	1975
L2500E	1700S	100N	1800
L2600E	1700S	0	1700
L2700E	1225S	100S	1125
L2800E	1225S	225N	1450
L2900E	1225S	225N	1450
L3000E	1225S	225N	1450
L3100E	462.5S	225N	687.5
L3200E	400S	225N	625
L3300E	200S	225N	425
L3400E	200S	225N	425
L3500E	175S	225N	400
L3600E	175S	225N	400

Table 2: Magnetic Survey Coverage

2.4. Data Quality Control and Assurance

The data acquisition over randomly selected lines was repeated for Quality Control and Assurance (QC/QA). At the end of every survey day, the SIP and Resistivity data are dumped from the acquisition instrument to a Personal Computer (PC). The output file from the instrument is in ASCII or binary file formats (*.dat or *.bin). The data are checked for quality and quantity on the site. The data are archived and checked at the end of the acquisition day and then transferred to Golden Mallard Corp, Kanata, Ontario for further processing and assessment.

3. Processing and Inversions

All raw data was recorded and downloaded to a processing computer and archived at Golden Mallard Corp.'s core digital archive. The routine data processing is carried out using proprietary Mallard Corp.'s processing software. Plots of the raw data are reviewed by the Sr. Geophysicist on a daily basis during the survey. The maps, sections, final inversion models (if any) of the SIP/Resistivity results are included in the report.

The Cole-Cole model is utilized which provides a three-parameter representation (M, τ and C) for IP responses. The time-constant (τ), in particular, has been found to be very useful in resolving IP sources with differing mean particle size.

The Cole-Cole spectral parameters may be determined either through the analysis of the response of the earth to sequential transmission of AC currents of different frequencies (i.e., frequency-domain IP), or through the analysis of the transient decays resulting from the transmission of interrupted square-wave currents.

The latter approach offers the major convenience of being applicable to data obtained in the course of routine production surveys, with no increase in survey time.

In practice, spectral IP parameters are determined most readily from time-domain transients through the computer matching of the observed data to the best fit in a family of pre-calculated Cole-Cole curves. This may be done, off-line, using a PC, or in a recent receiver, essentially on-line, using software imbedded in the receiver (Society of Exploration Geophysicists, ©1997).

The Cole-Cole impedance model was developed in the 1970s after it became clear that chargeability is a complex property that includes amplitude (volume percent electronic conductors), grain size and grain size uniformity.

In the Cole-Cole model, the low frequency electrical impedance Z(ω) of rocks and soils is defined by 4 parameters. They are:

r0	DC resistivity in Ohm.m
m	true zero time chargeability
τ	tau - time constant in seconds
c	exponent

The general equation defining the Cole-Cole model is expressed as:

Z(ω) = r0 {1 – m [1 - (1+(iωτ)c)-1]} in Ohm.m

where ω is the angular frequency (2πf)

The true chargeability (m or MIP) is a better measure of the volume percent electronic conductors (primarily pyrrhotite and graphite). The time constant is a measure of the square of the average grain size. The exponent is a measure of the uniformity of the grain size. Common or possible ranges are 0 to 1 V/V (m), .01 to 100 seconds (tau) and .1 to .5 (c).

In time domain IP surveys, impedance model parameters may be estimated using a best fit between theoretical and measured decays. The simplest approach is to use a set of master decay curves, pre-calculated for selected values of time constant and exponent. For a 2 second current pulse, the master curve set used here is for time constant values of .01, .03, .1, .3, 1, 3, 10, 30 and 100 seconds and exponent values of 0.1, 0.2, 0.3, 0.4 and 0.5.

All decays that give an RMS fit between measured and master decay of less than 5% are judged to be of sufficient quality to yield spectral IP parameters. Under ideal conditions, more than 90% of the IP decays in any survey are of sufficient amplitude and quality to yield spectral parameters. 80% is probably average for most surveys.

The most common reason for the lack of spectral parameters is in very low decay amplitudes, often seen in areas of thick and/or conductive overburden. Instrumentation and/or noise problems can occur over long sections of outcrop or at an abrupt boundary between outcrop and conductive ground.

3.1. Data Presentation

The SIP/Resistivity data is presented as pseudosections, profiles and colour contour plan maps. The Magnetic data is presented as colour contour plan maps. The pseudosections are plotted using standard depth and position conventions, [C1+ (P1+P2)/2]/2, where C1 is the current injection position and P1 and P2 are potential electrode positions. The Resistivity and Chargeability anomaly centers (Table 4) are plotted on the colour contour plan maps and approximately indicated by arrow in the pseudosections.

4. Interpretation

The interpretation is based only on the association of high Chargeability with relatively low to moderate Resistivity and with Magnetic anomalies. On the colour contour plan maps, the center of the “ellipses” are the approximate anomaly centers of the probable/potential targets. Geophysical results should be compared with subsurface geological model of the area for choosing any potential targets prior to drilling. The main SIP/Resistivity anomalies on the pseudosections are interpreted line by line. A potential target anomaly centers in the profiles and pseudosections are indicated by an arrow in the figures. The anomalies from the pseudosections are zoomed in for interpretation and presentation purposes as needed.

For interpretation purposes, the geophysical response characterization given in Table 3 and 4 are assumed and followed.

Table 3: Geophysical Response Characterization for Chargeability and Time Constant

Geophysical Responses	Weak	Moderate	Strong
Mx-chargeability (mV/V)	Approx. < 10	Approx. 10 - 20	Approx. > 20
Tau (seconds)	< 30 (short)		> 30 (long)

Table 3: Geophysical Response Characterization

Table 4: Geophysical Response Characterization for Apparent Resistivity

Geophysical Responses	Relatively Low	High	Very High
Apparent resistivity (KOhm.m)	Approx. < 10	Approx. 10 - 30	Approx. > 30

Table 4: Geophysical Response Characterization

4.1. Profiles and Pseudosections

4.1.1. L600E

The main anomaly on L600E is centered approximately at station 25S. This anomaly is associated with moderate to strong chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

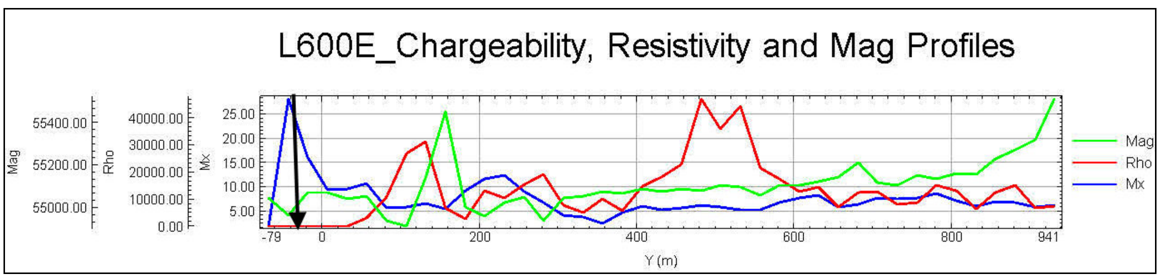


Figure 4.1a: L600E Chargeability, Resistivity and Mag Profiles

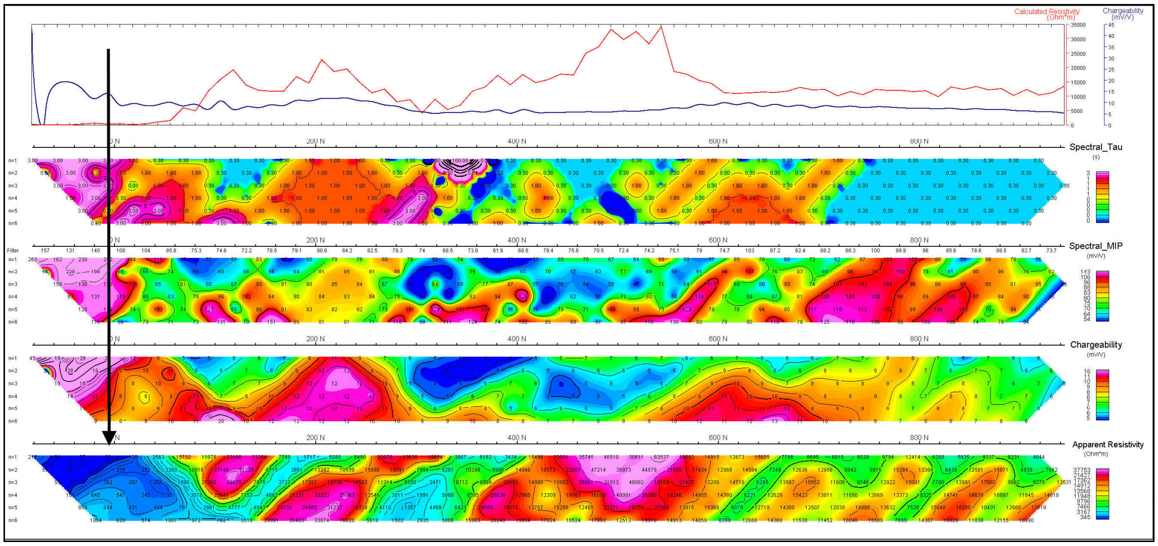


Figure 4.1b: Zoomed in Anomaly from L600E Pseudosection

4.1.2. L800E

The main anomaly on L800E is centered approximately at station 230S. This anomaly is associated with moderate to strong chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

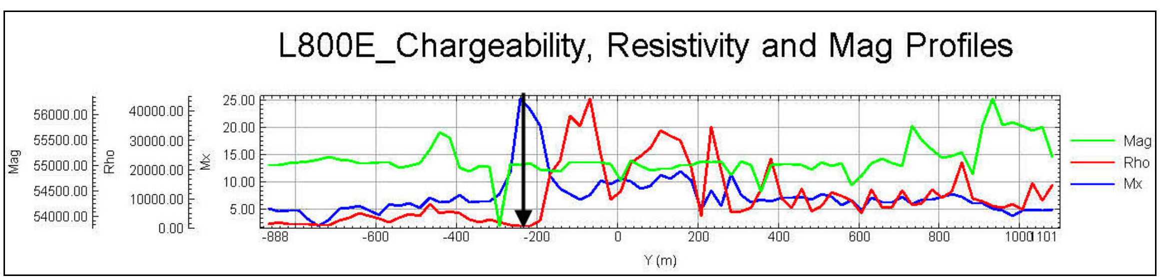


Figure 4.2a: L800E Chargeability, Resistivity and Mag Profiles

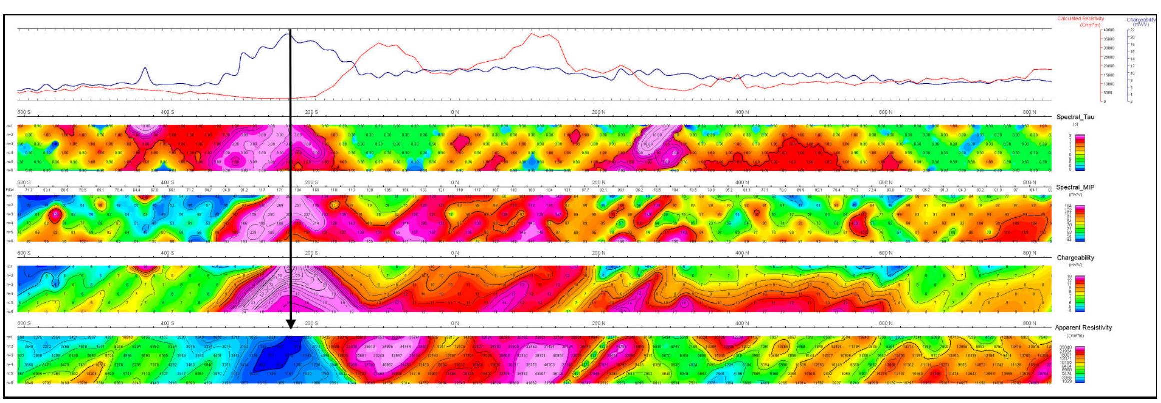


Figure 4.2b: Zoomed in Anomaly from L800E Pseudosection

4.1.3. L900E

The main anomalies on L900E are centered approximately at stations 350S and 275N. Both anomalies are associated with moderate chargeability, relatively low resistivity, high mag and short time constant (Tau). The short time constant (Tau) indicates that the anomalies are composed of fine grain size materials.

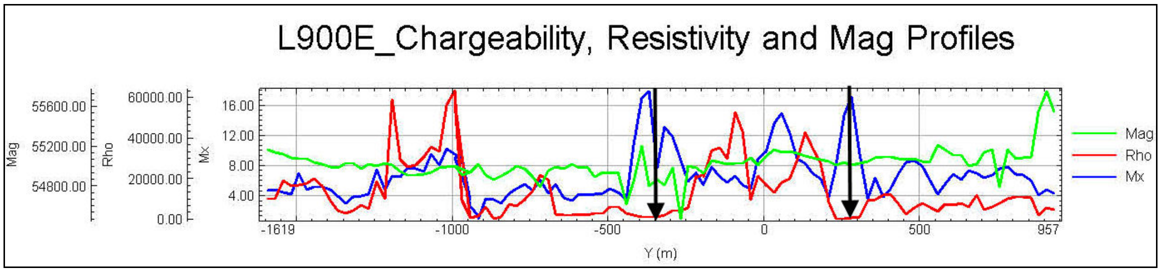


Figure 4.3a: L900E Chargeability, Resistivity and Mag Profiles

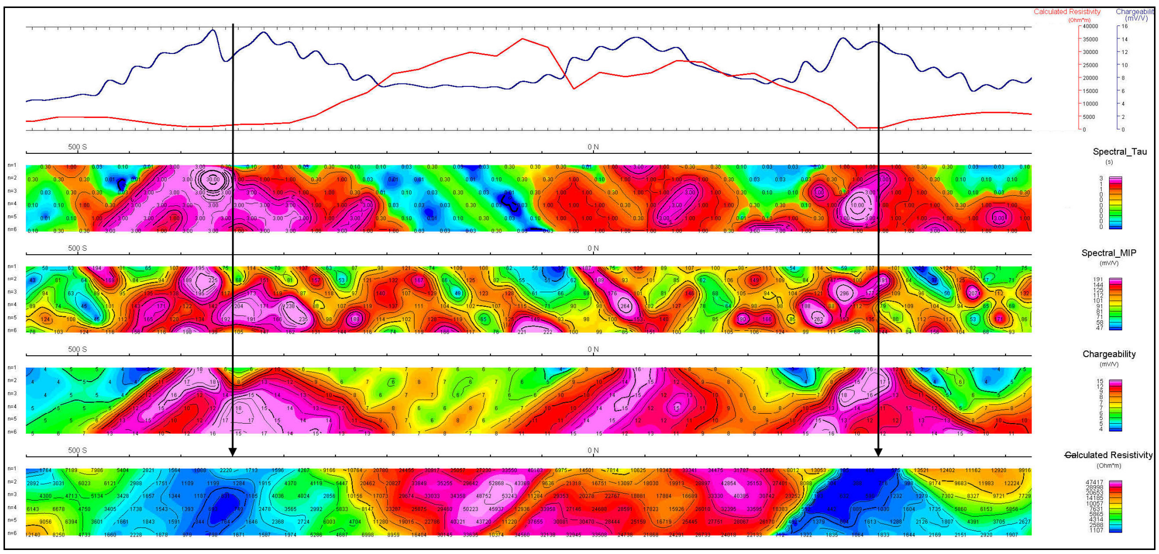


Figure 4.3b: Zoomed in Anomaly from L900E Pseudosection

4.1.4. L1000E

The main anomaly on L1000E is centered approximately at station 400S. This anomaly is associated with moderate chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

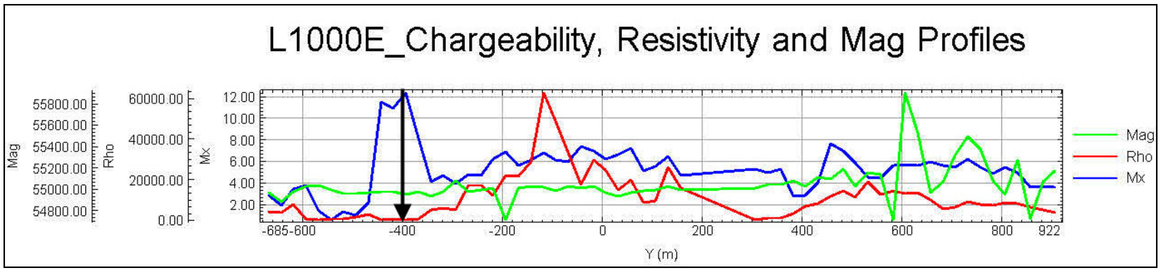


Figure 4.4a: L1000E Chargeability, Resistivity and Mag Profiles

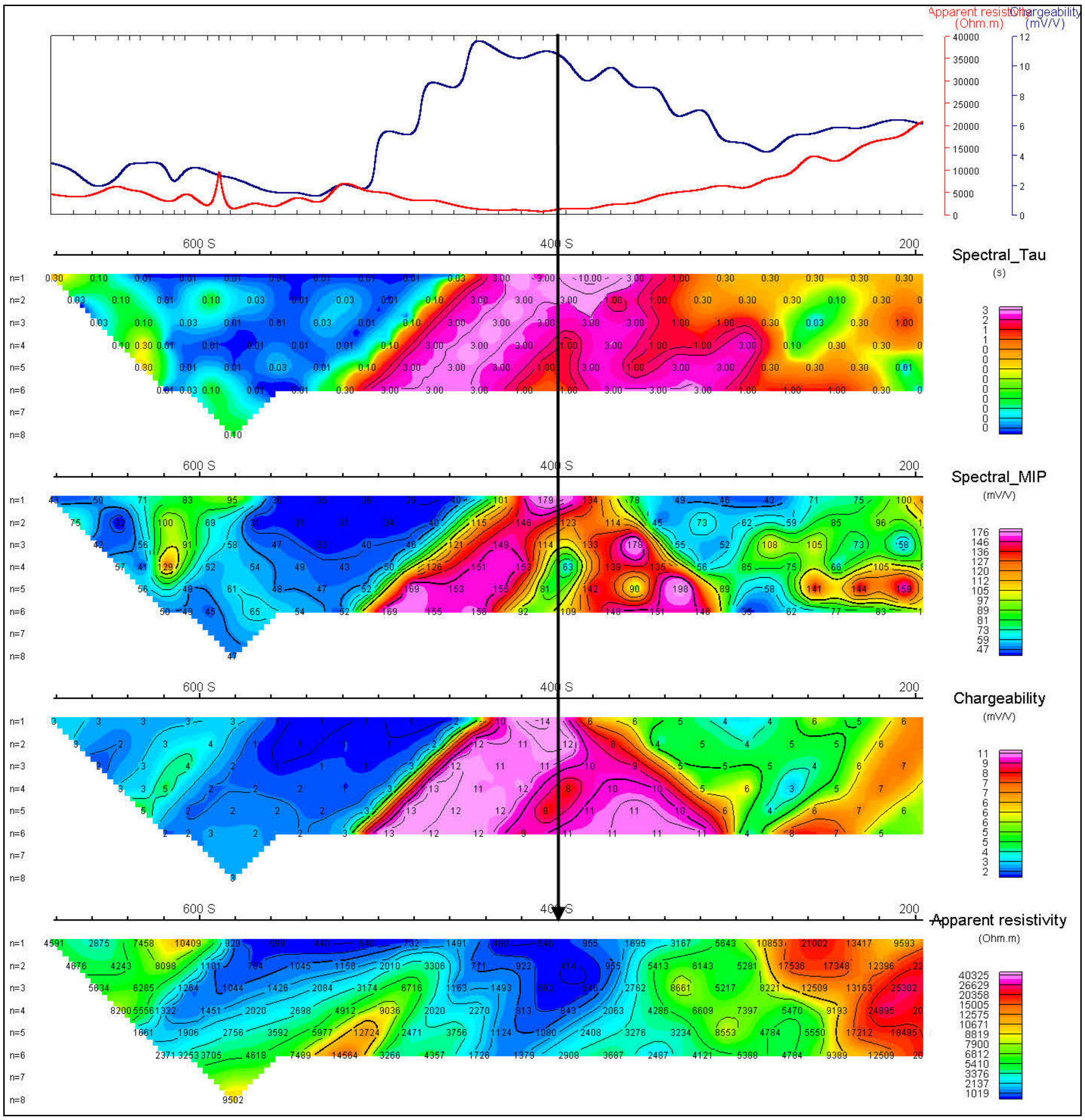


Figure 4.4b: Zoomed in Anomaly from L1000E Pseudosection

4.1.5. L1100E

The main anomalies on L1100E are centered approximately at stations 405S and 475N. Both anomalies are associated with moderate chargeability, relatively low resistivity and short time constant (Tau). The short time constant (Tau) indicates that the anomalies are composed of fine grain size materials. The mag data is not reliable for this line.

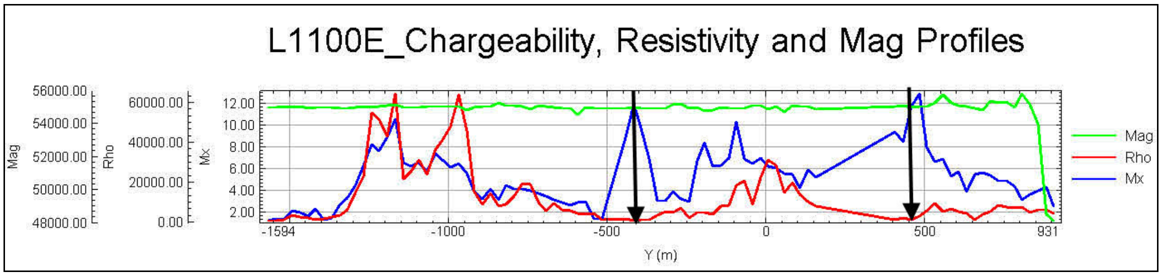


Figure 4.5a: L1100E Chargeability, Resistivity and Mag Profiles

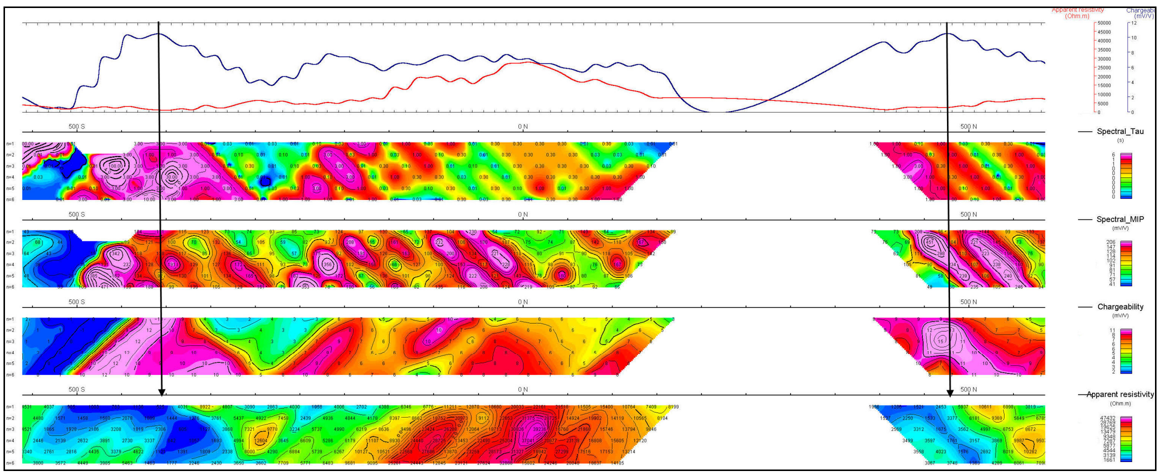


Figure 4.5b: Zoomed in Anomaly from L1100E Pseudosection

4.1.6. L1200E

The main anomaly on L1200E is centered approximately at station 360S. This anomaly is associated with moderate chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

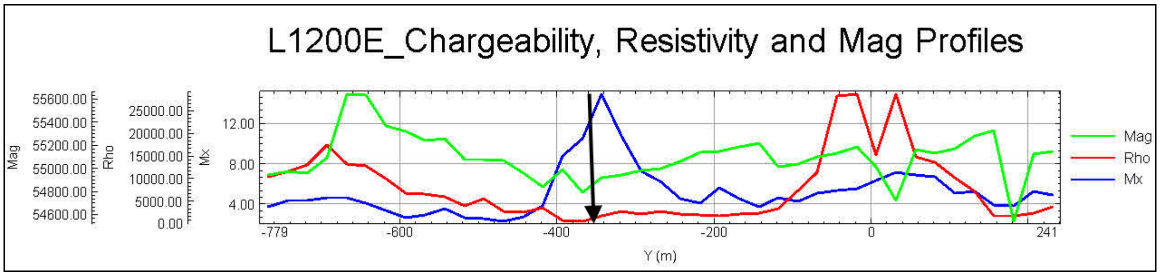


Figure 4.6a: L1200E Chargeability, Resistivity and Mag Profiles

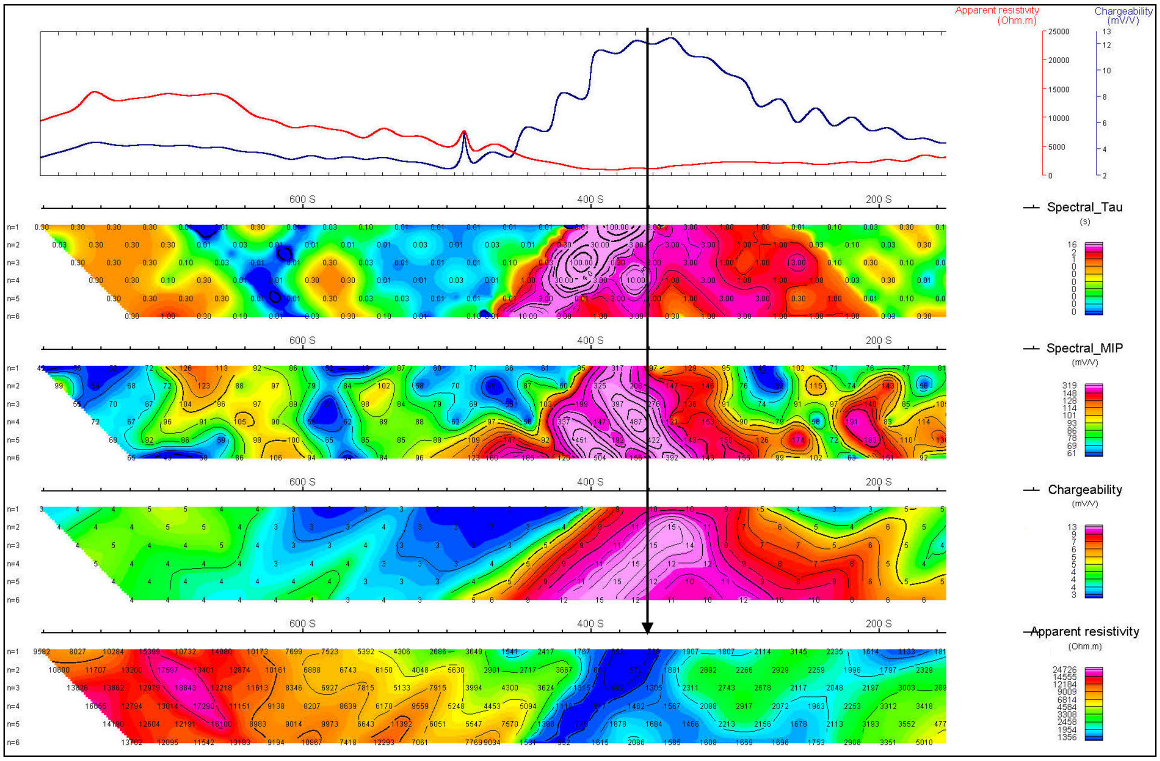


Figure 4.6b: Zoomed in Anomaly from L1200E Pseudosection

4.1.7. L1400E

The main anomaly on L1400E is centered approximately at station 300S. This anomaly is associated with weak chargeability, relatively low resistivity, low mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

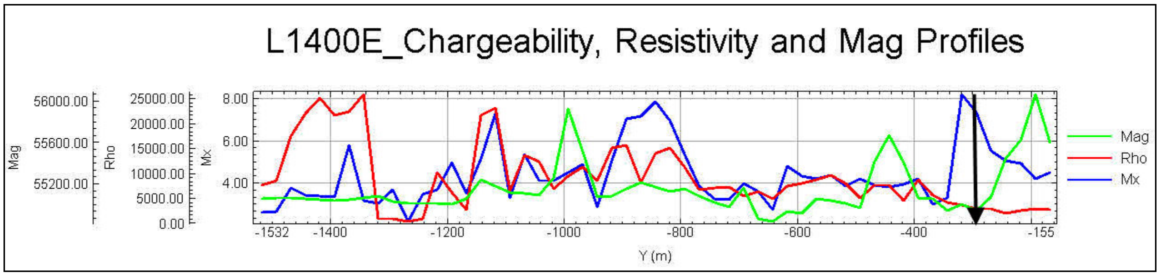
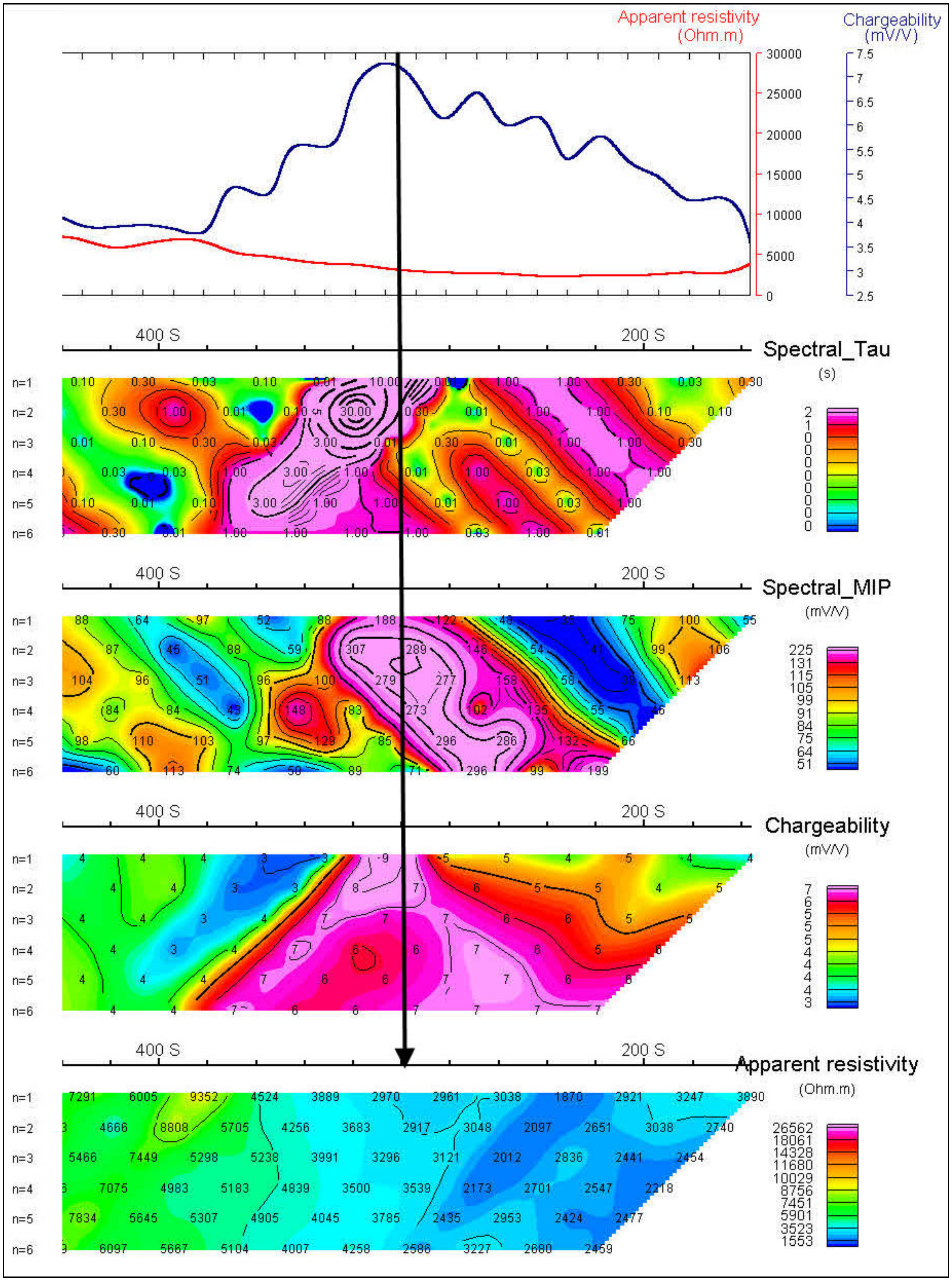


Figure 4.7a: L1400E Chargeability, Resistivity and Mag Profiles



<u>Figure 4.7b: Zoomed in Anomaly from L1400E Pseudosection</u>

4.1.8. L1600E

The anomalies on L1600E are centered approximately at stations 237S and 170N. The first anomaly (237S) is associated with weak chargeability, relatively low resistivity, low mag and short time constant (Tau). The second anomaly (170N) is associated with weak chargeability, high resistivity, low mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

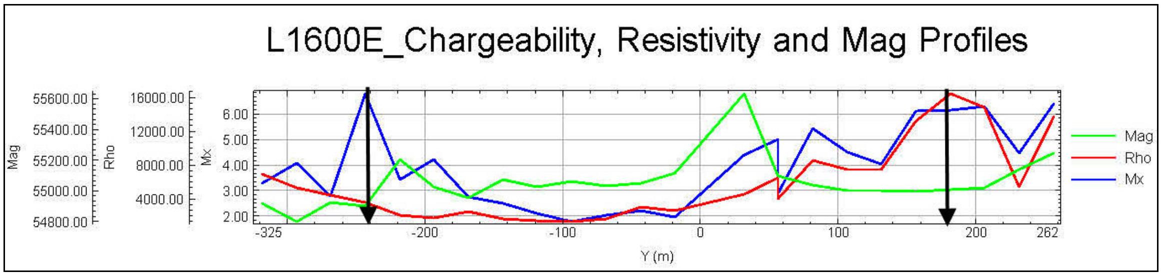


Figure 4.8a: L1600E Chargeability, Resistivity and Mag Profiles

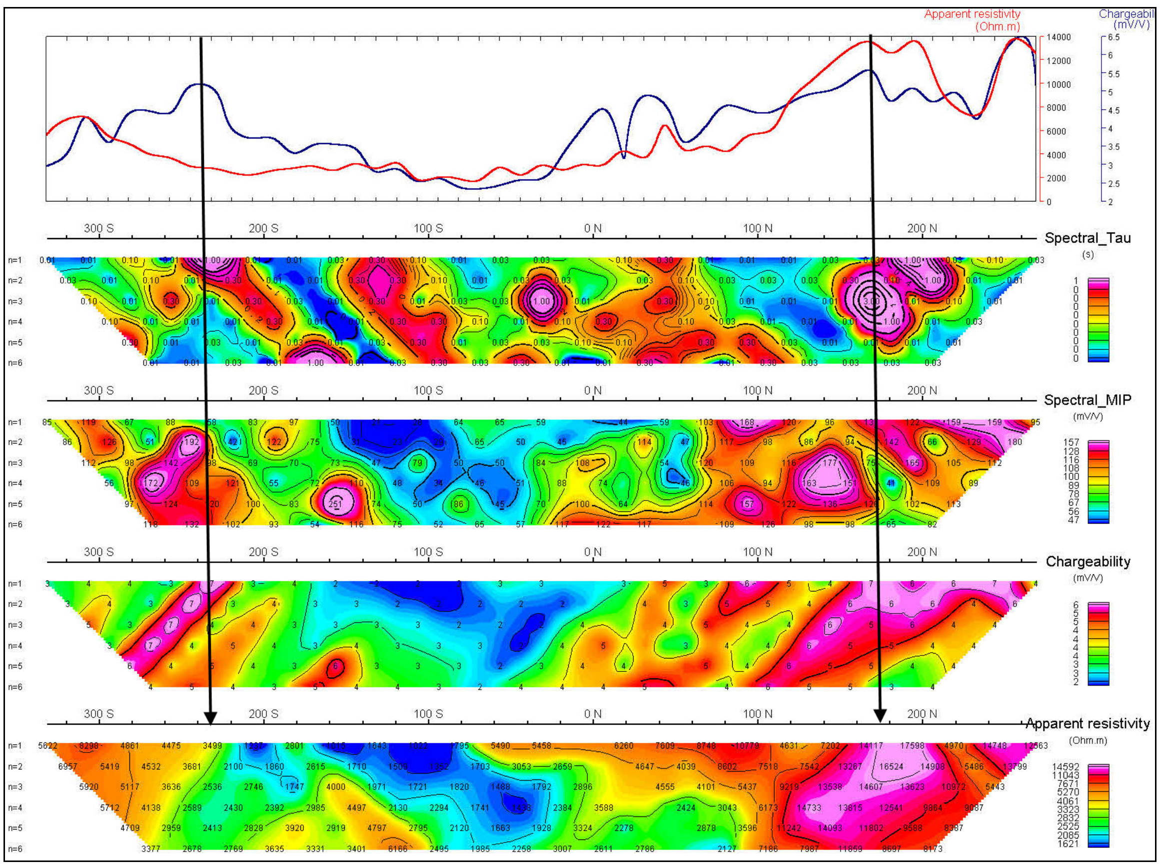


Figure 4.8b: Zoomed in Anomaly from L1600E Pseudosection

4.1.9. L2200E

On L2200E, no potential target is observed.

4.1.10. L2300E

The anomaly on L2300E is centered approximately at station 430S. The anomaly is associated with strong chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

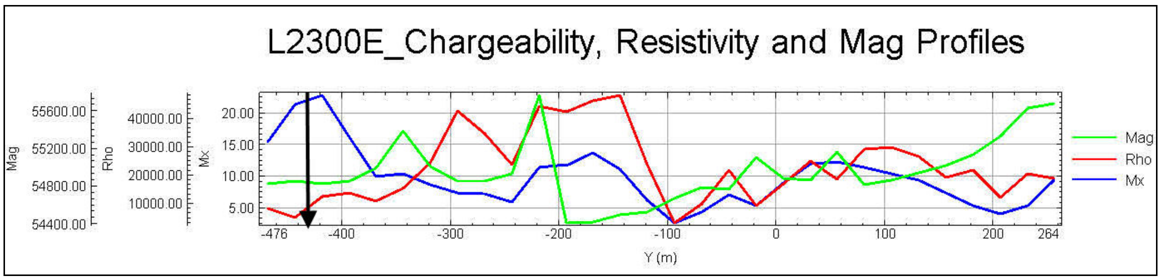


Figure 4.10a: L2300E Chargeability, Resistivity and Mag Profiles

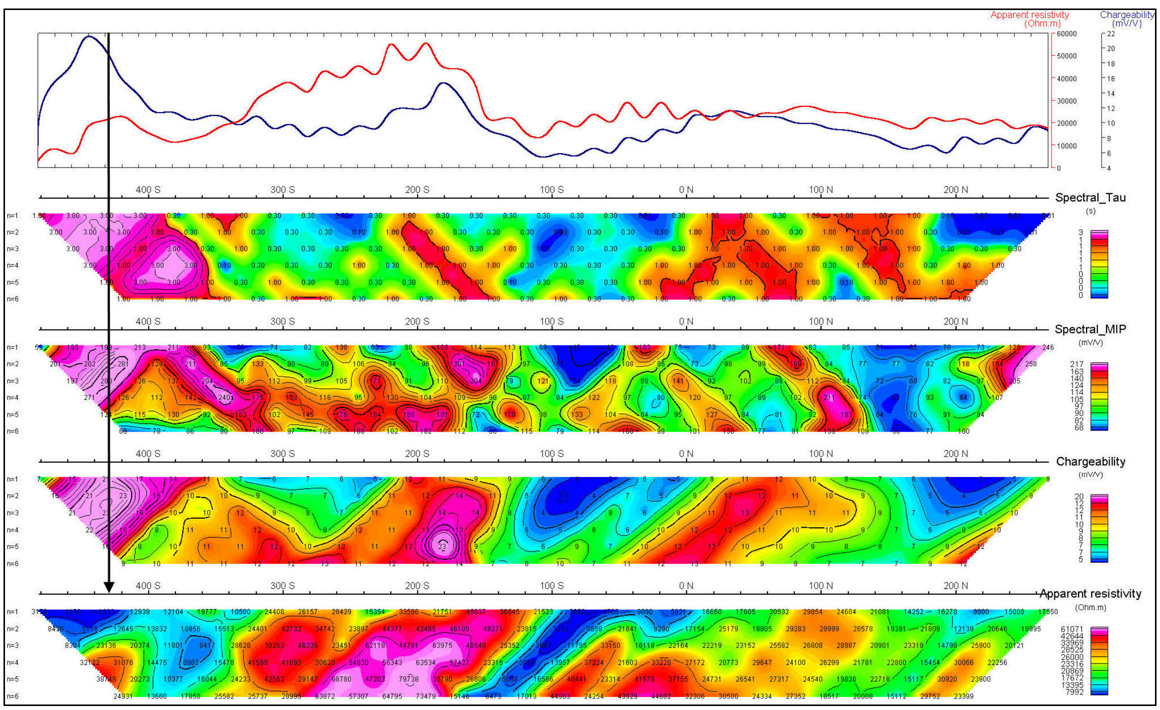


Figure 4.10b: Zoomed in Anomaly from L2300E Pseudosection

4.1.11. L2500E

The main anomaly on L2500E is centered approximately at station 680S. This anomaly is associated with strong chargeability, relatively low resistivity, low mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

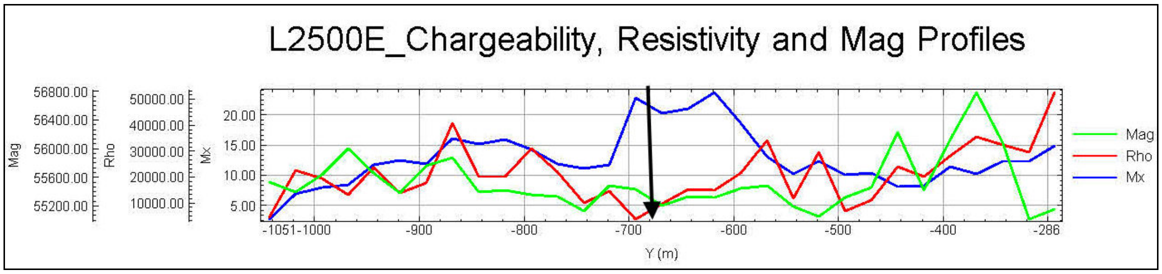


Figure 4.11a: L2500E Chargeability, Resistivity and Mag Profiles

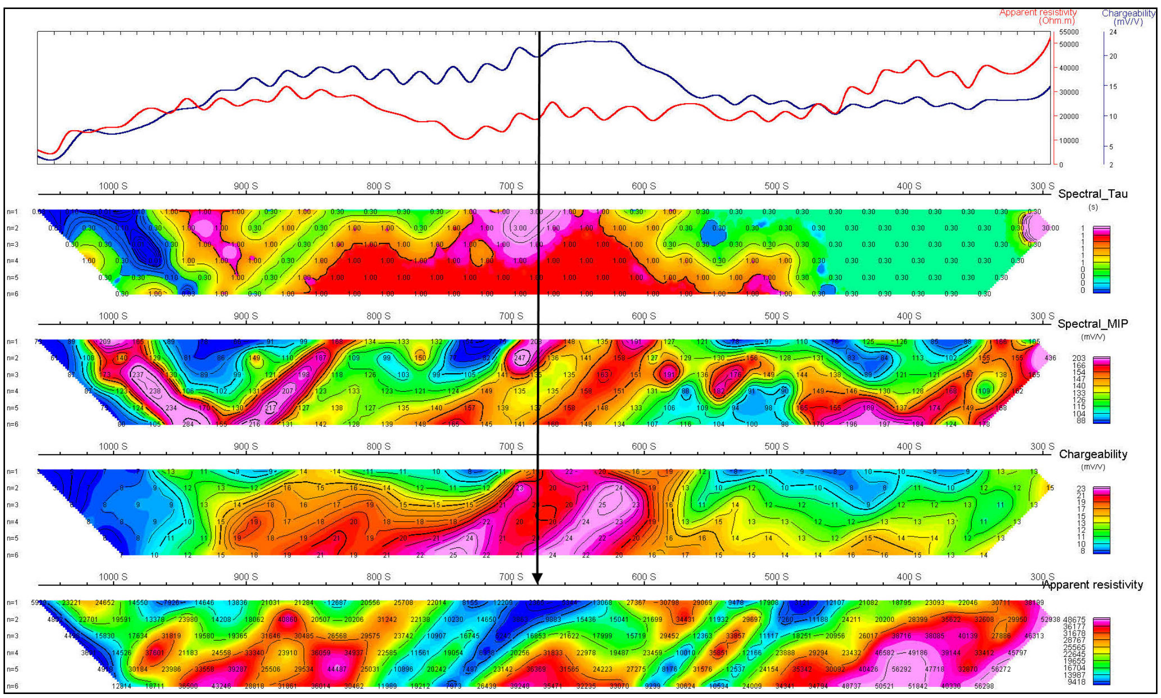


Figure 4.11b: Zoomed in Anomaly from L2500E Pseudosection

4.1.12. L2600E

The anomalies on L2600E are centered approximately at stations 780S, 700S and 40S. The first anomaly (780S) is associated with moderate chargeability, relatively low resistivity, low mag and short time constant (Tau). The second anomaly (700S) is associated with moderate to strong chargeability, high to very high resistivity, moderate mag and short time constant (Tau). The third anomaly (40S) is associated with moderate chargeability, relatively low resistivity, low mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

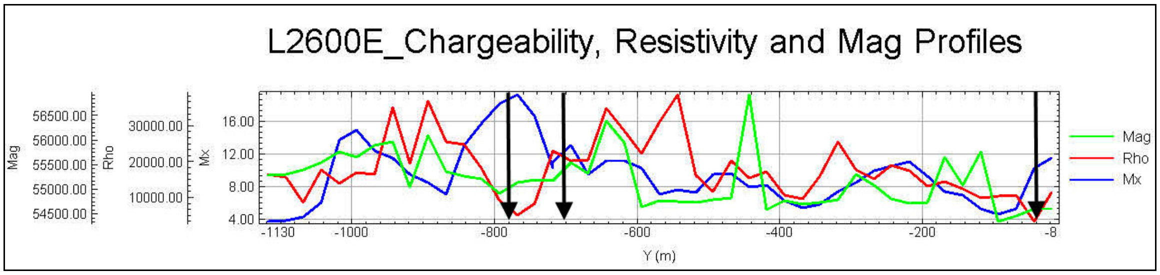


Figure 4.12a: L2600E Chargeability, Resistivity and Mag Profiles

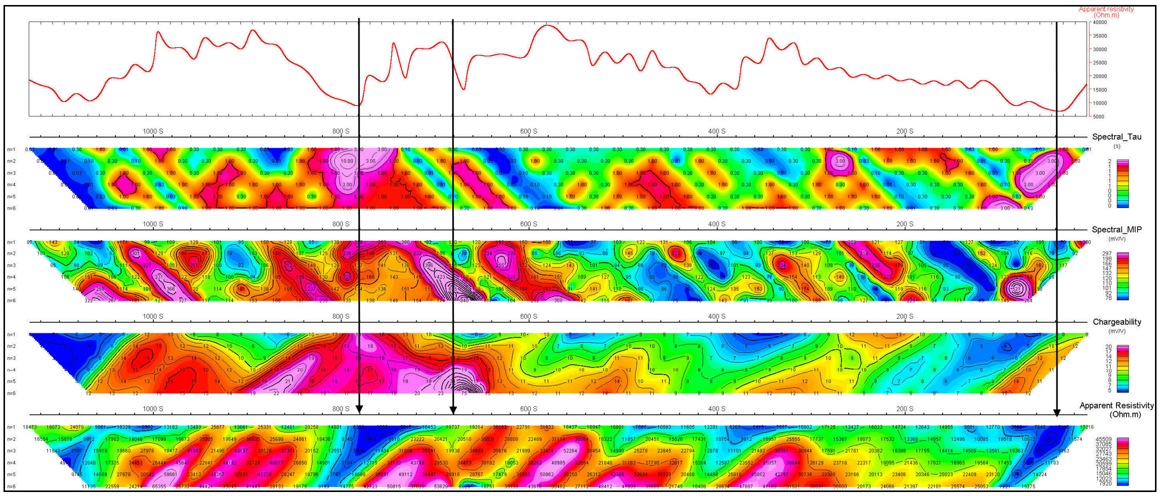


Figure 4.12b: Zoomed in Anomaly from L2600E Pseudosection

4.1.13. L2700E

The main anomaly on L2700E is centered approximately at station 838S. This anomaly is associated with strong chargeability, relatively low to very high resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

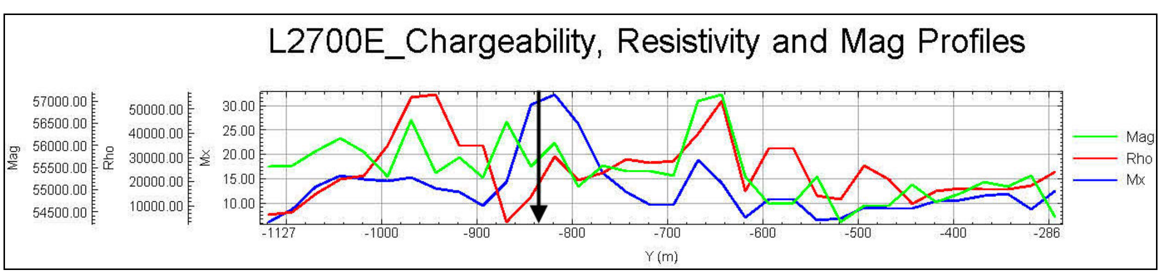


Figure 4.13a: L2700E Chargeability, Resistivity and Mag Profiles

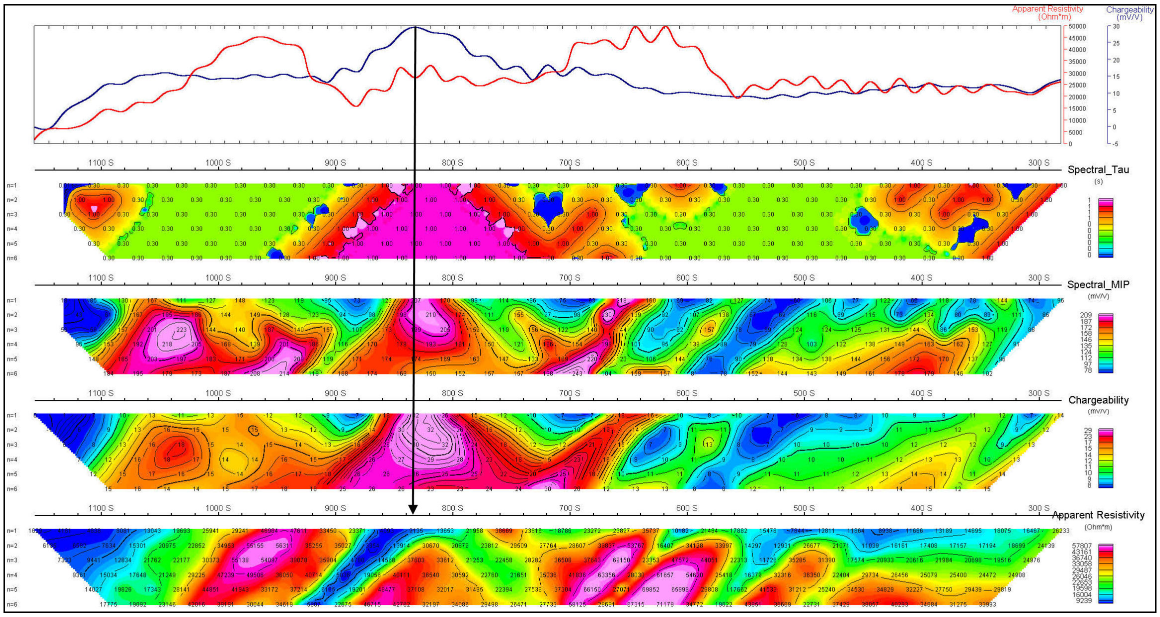


Figure 4.13b: Zoomed in Anomaly from L2700E Pseudosection

4.1.14. L2800E

The main anomaly on L2800E is centered approximately at station 865S. This anomaly is associated with strong chargeability, relatively low to very high resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

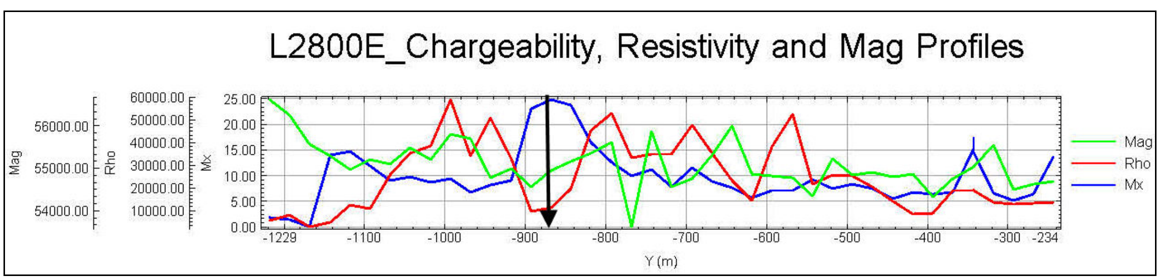


Figure 4.14a: L2800E Chargeability, Resistivity and Mag Profiles

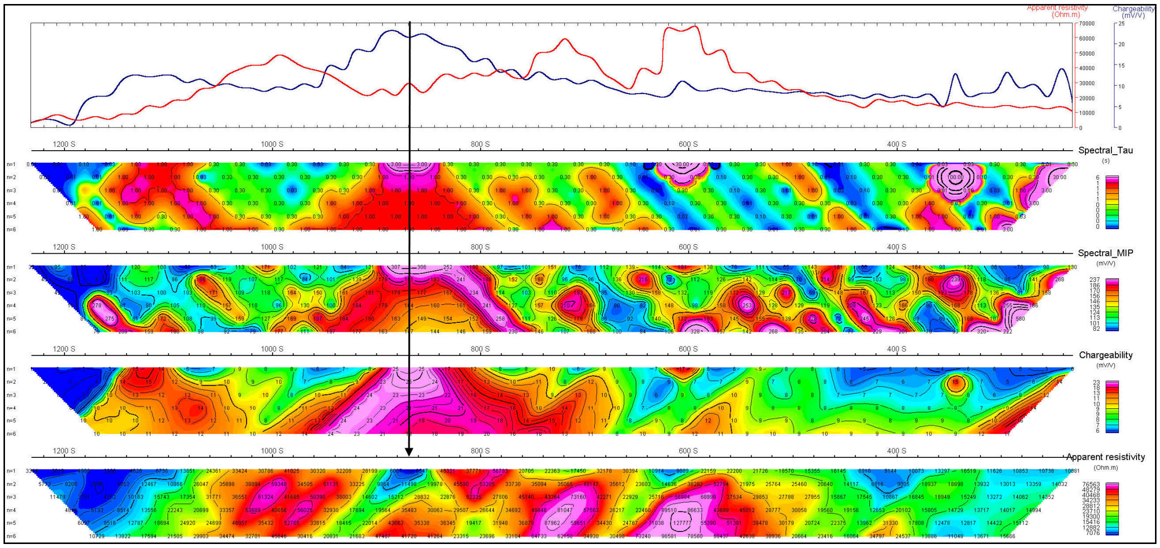


Figure 4.14b: Zoomed in Anomaly from L2800E Pseudosection

4.1.15. L2900E

The main anomaly on L2900E is centered approximately at station 920S. This anomaly is associated with strong chargeability, relatively low to very high resistivity, high mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

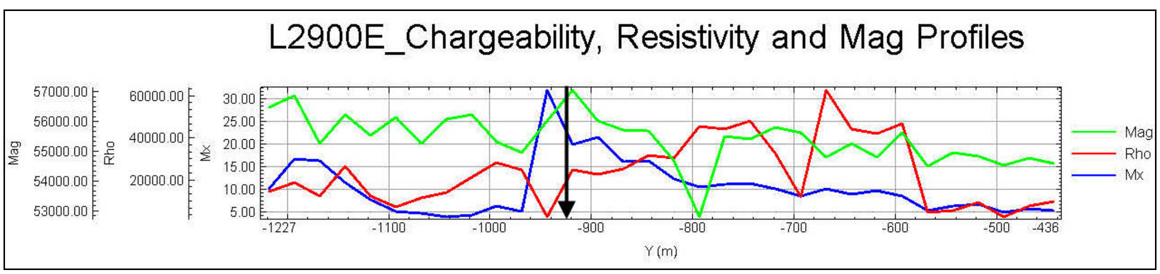


Figure 4.15a: L2900E Chargeability, Resistivity and Mag Profiles

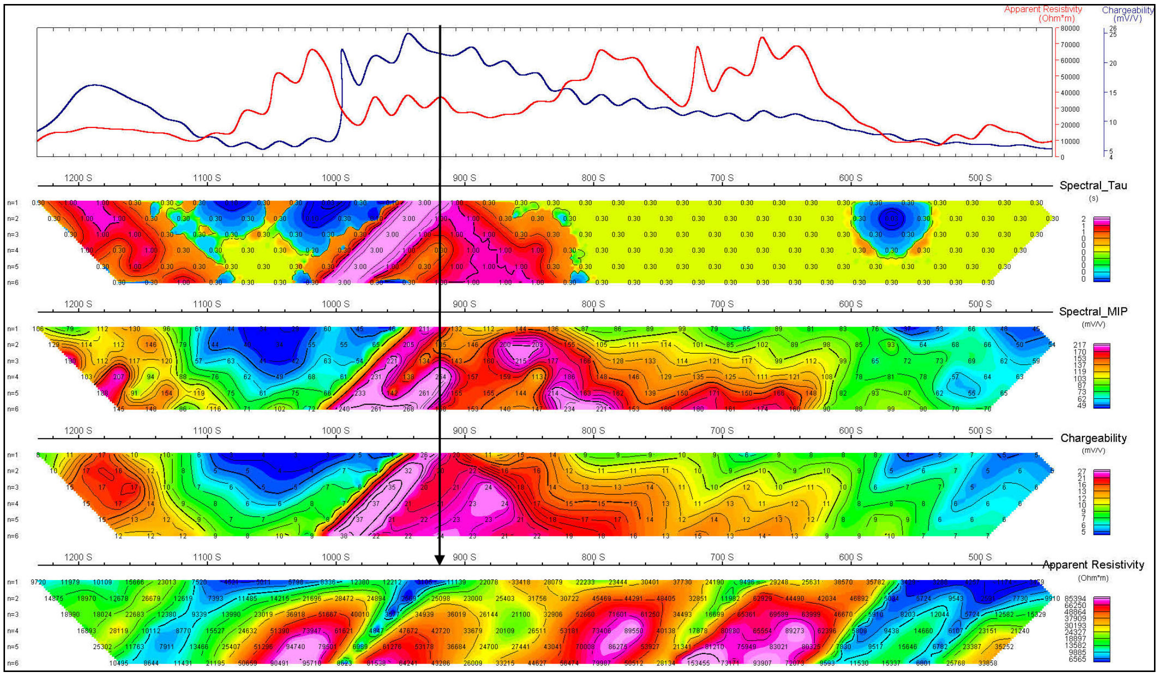


Figure 4.15b: Zoomed in Anomaly from L2900E Pseudosection

4.1.16. L3000E

The anomalies on L3000E are centered approximately at stations 950S, 260S and 200N. The first anomaly (950S) is associated with strong chargeability, relatively low resistivity, low mag and short time constant (Tau). The second anomaly (260S) is associated with strong chargeability, relatively low to high resistivity, moderate mag and short time constant (Tau). The third anomaly (200N) is associated with moderate chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

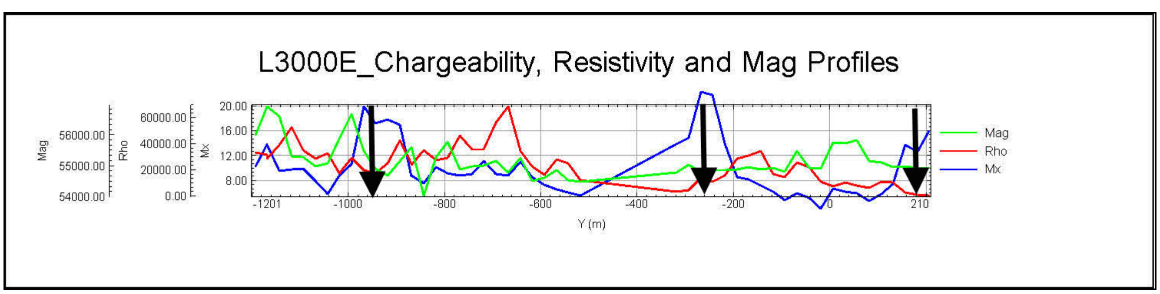


Figure 4.16a: L3000E Chargeability, Resistivity and Mag Profiles

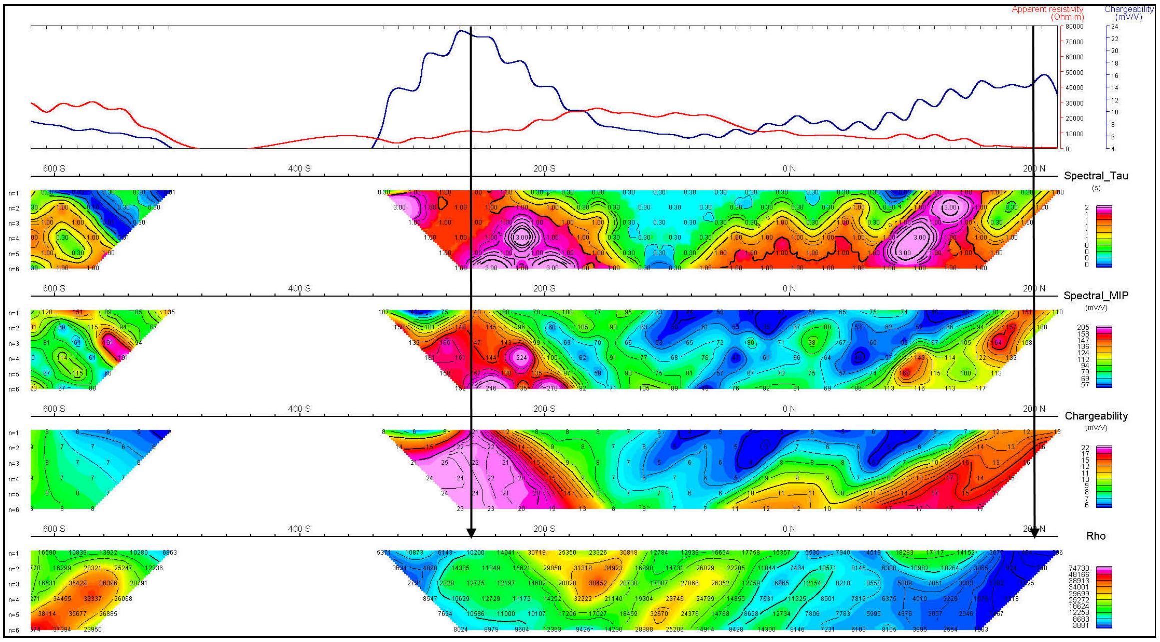


Figure 4.16b-1: Zoomed in Anomaly from L3000E Pseudosection

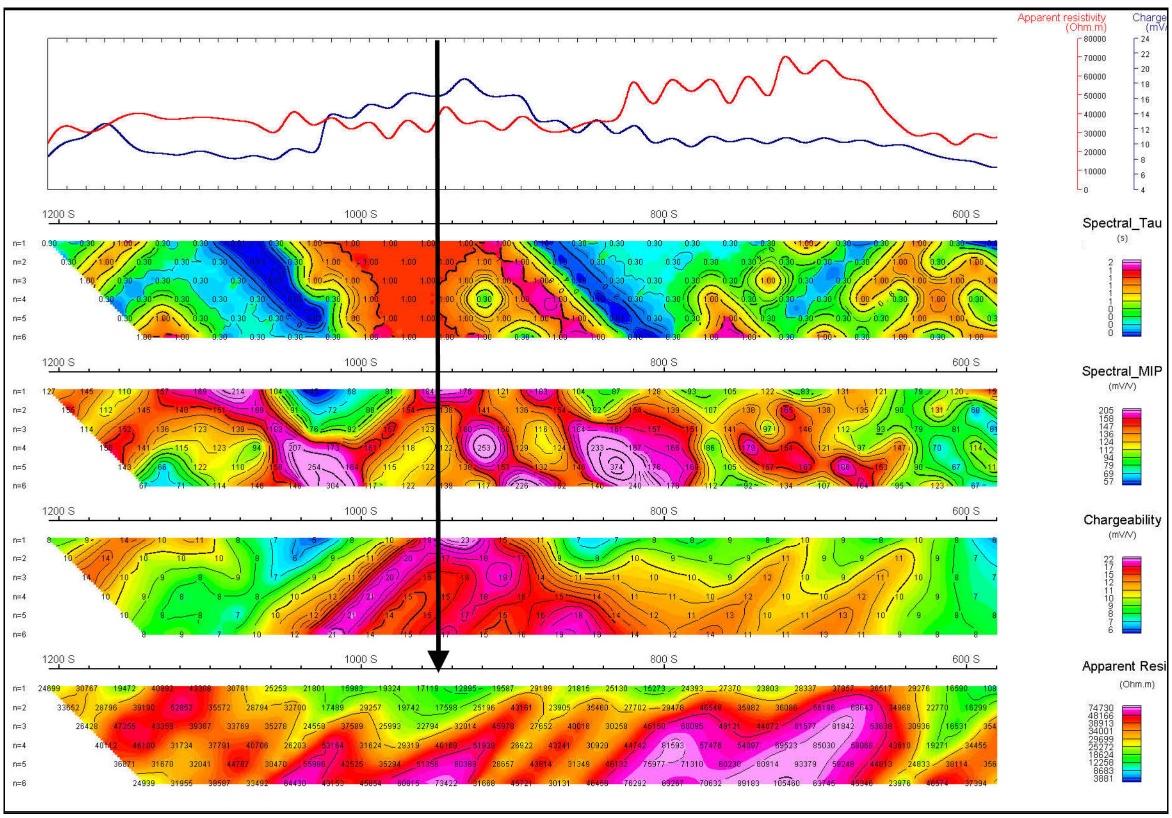


Figure 4.16b-2: Zoomed in Anomaly from L3000E Pseudosection

4.1.17. L3100E

The main anomaly on L3100E is centered approximately at station 440S. This anomaly is associated with strong chargeability, relatively low resistivity, moderate mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials. The line should be extended southward to fully map the anomaly.

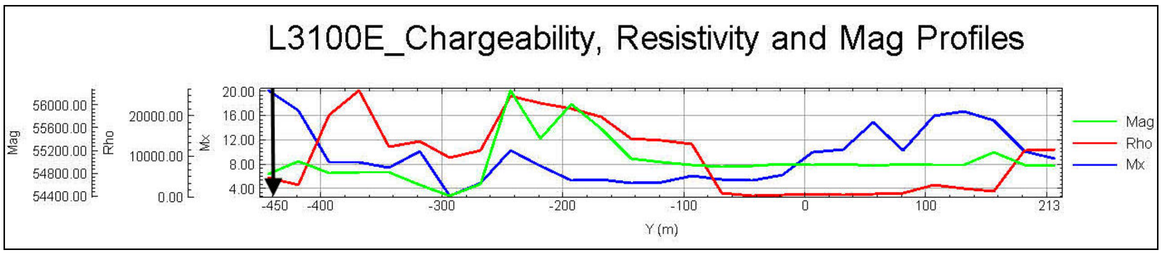


Figure 4.17a: L3100E Chargeability, Resistivity and Mag Profiles

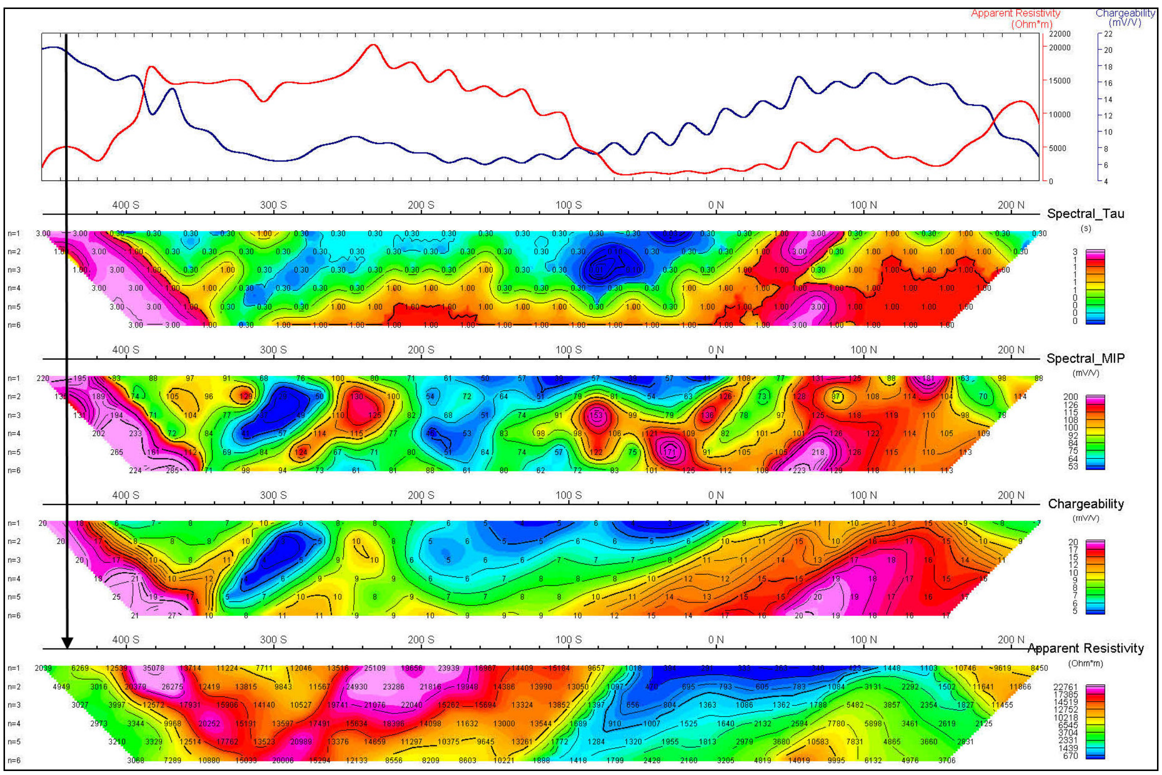


Figure 4.17b: Zoomed in Anomaly from L3100E Pseudosection

4.1.18. L3200E

The first anomaly on L3200E is centered approximately at station 200S. This anomaly is associated with strong chargeability, relatively low resistivity, low mag and short time constant (Tau). The second anomaly on L3200E is centered approximately at station 0N.

This anomaly is associated with moderate chargeability, relatively low resistivity, low mag and short time constant (Tau). The short time constant (Tau) indicates that the anomaly is composed of fine grain size materials.

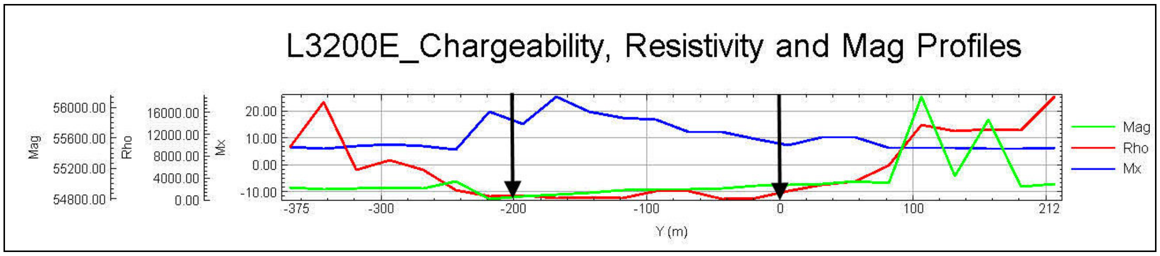


Figure 4.18a: L3200E Chargeability, Resistivity and Mag Profiles

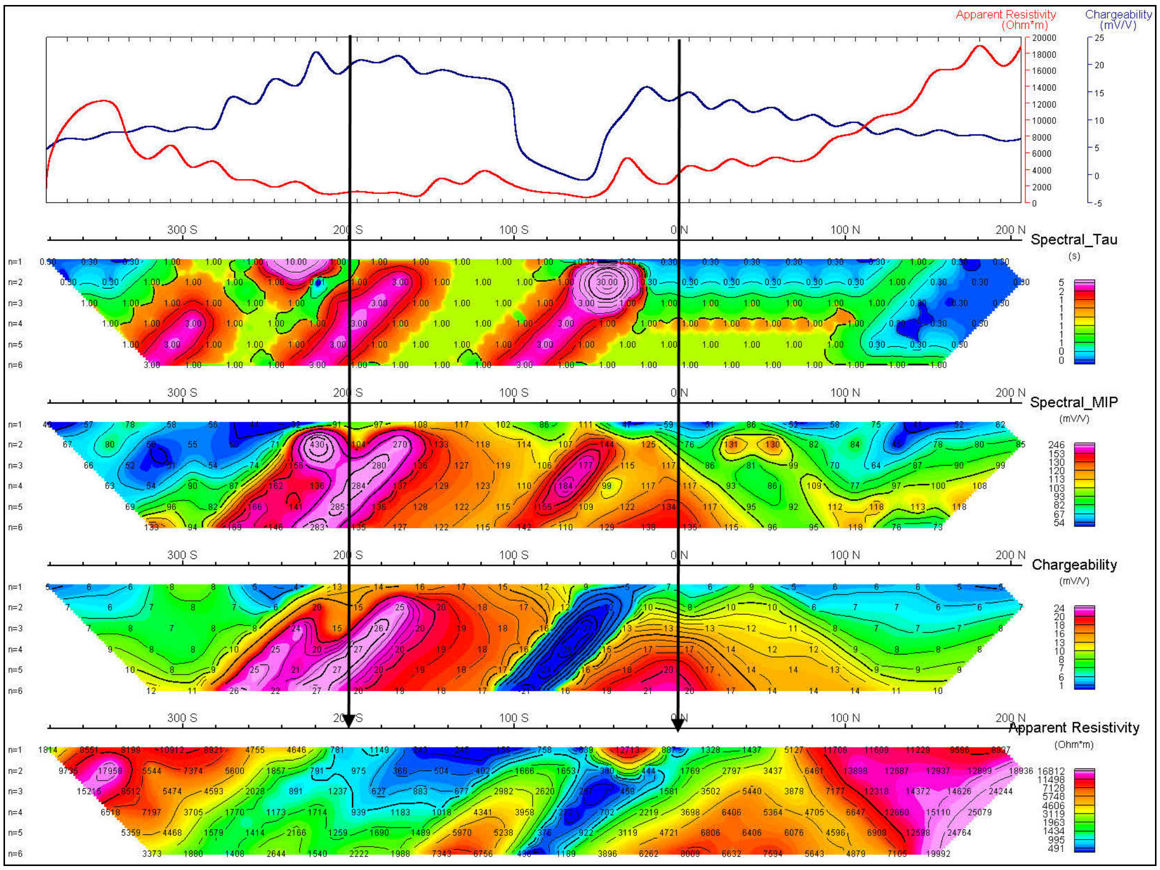


Figure 4.18b: Zoomed in Anomaly from L3200E Pseudosection

4.2. Approximate Anomaly Centers

Based on the association of the geophysical responses, the following approximate anomaly centers table is prepared (Table 5).

Table 5: Approximate anomaly centers and geophysical responses

Line	X	Y	Chargeability	Resistivity	Mag	Priority
600E	600	25S	moderate to strong	relatively low	moderate	1
800E	800	230S	moderate to strong	relatively low	moderate	1
900E	900	350S	moderate	relatively low	high	1
900E	900	275N	moderate	relatively low	high	1
1000E	1000	400S	moderate	moderate	moderate	1
1100E	1100	405S	moderate	relatively low	no	2
1100E	1100	475N	moderate	relatively low	no	2
1200E	1200	360S	moderate	relatively low	moderate	1
1400E	1400	300S	weak	relatively low	low	2
1600E	1600	237S	weak	relatively low	low	3
1600E	1600	170N	weak	high	low	3
2300E	2300	430S	strong	relatively low	moderate	1
2500E	2500	680S	strong	relatively low		1
2600E	2600	780S	moderate	relatively low	low	1
2600E	2600	700S	moderate to strong	high to very high	moderate	2
2600E	2600	40S	moderate	relatively low	low	2
2700E	2700	838S	strong	low to very high	moderate	1
2800E	2800	865S	strong	low to very high	moderate	1
2900E	2900	920S	strong	low to very high	high	1
3000E	3000	260S	strong	low to high	moderate	1
3000E	3000	200N	moderate	low to high	moderate	2
3000E	3000	950S	strong	relatively low	low	1
3100E	3100	440S	strong	relatively low	moderate	1
3200E	3200	200S	strong	relatively low	low	1
3200E	3200	0N	moderate	relatively low	low	2

4.3. Plan Maps

4.3.1. N2_Chargeability

N2_Chargeability plan map shows the distribution of chargeable sources over the survey area. The anomaly centers are shown by ellipses and can help to trace anomalous targets by following its centers. Figures 4.3.1a and 4.3.1b show the N2_Chargeability plan map and N2_Chargeability plan map over N2_Resistivity plan map respectively.

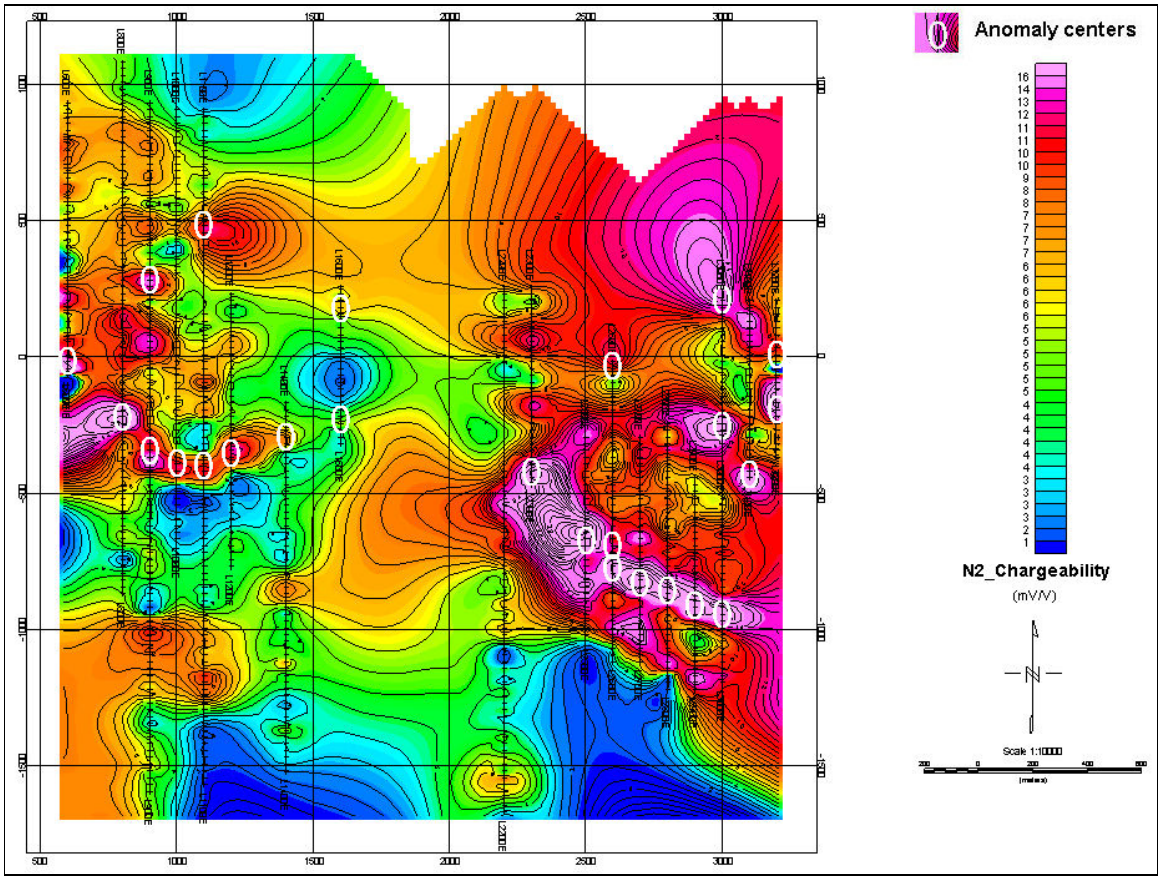


Figure 4.3.1a: N2_Chargeability plan map with anomaly centers (ellipses)

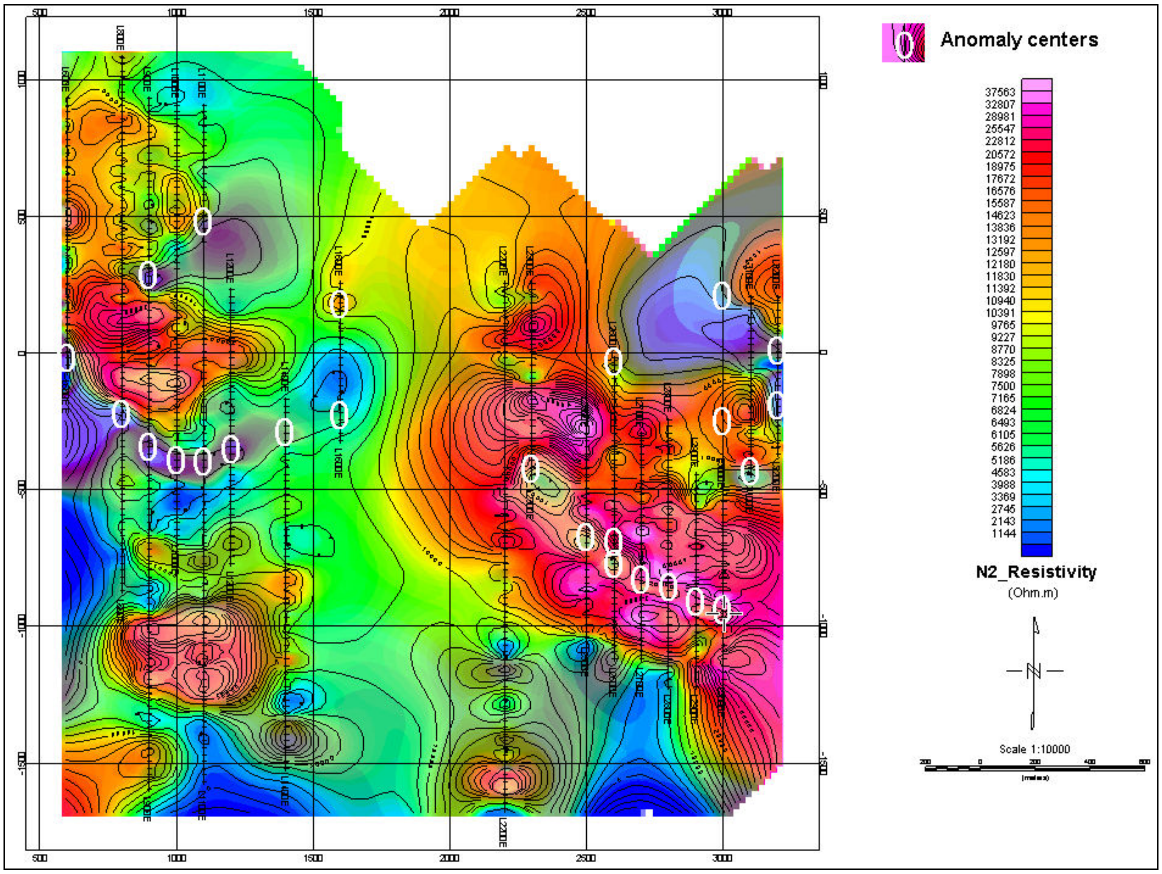


Figure 4.3.1b: N2_Chargeability plan map over N2_Resistivity plan map with anomaly centers (ellipses)

4.3.2. N2_Resistivity

N2_Resistivity plan map shows the distribution of resistivity response over the survey area. The anomaly centers are shown by ellipses and can help to trace anomalous targets by following its centers. Figures 4.3.2 shows the N2_Resistivity plan map with anomaly centers.

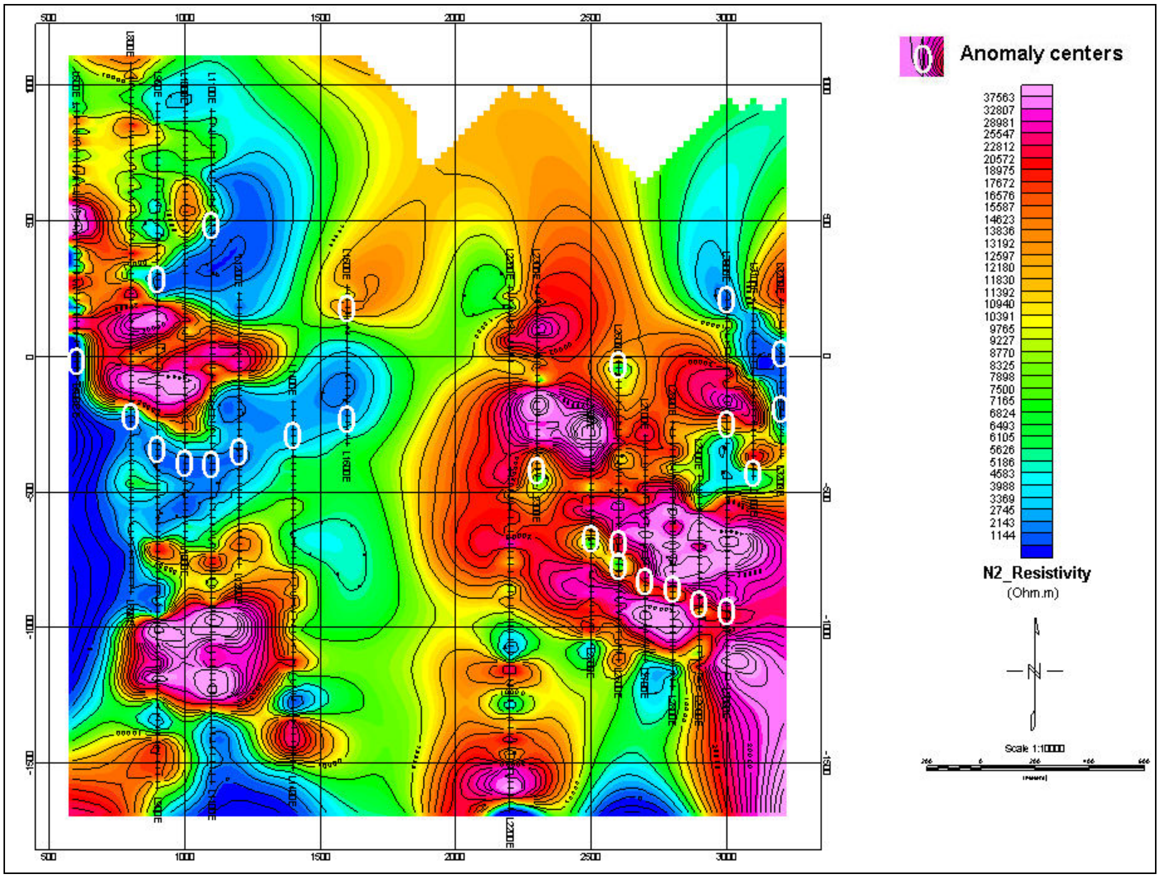


Figure 4.3.2: N2 Resistivity plan map with anomaly centers (ellipses)

4.3.3. Total Magnetic Field

The total Magnetic field plan map shows the distribution of Magnetic field response over the survey area. The anomaly centers are shown by ellipses and can help to see the association of the Magnetic field with Chargeability and Resistivity. Figures 4.3.3a, 4.3.3b, 4.3.3c and 4.3.3d show the total Magnetic field plan map over the IP grid, total Magnetic field plan map over N2_Chargeability, total Magnetic field plan map over Resistivity and total Magnetic field plan map over the whole grid respectively.

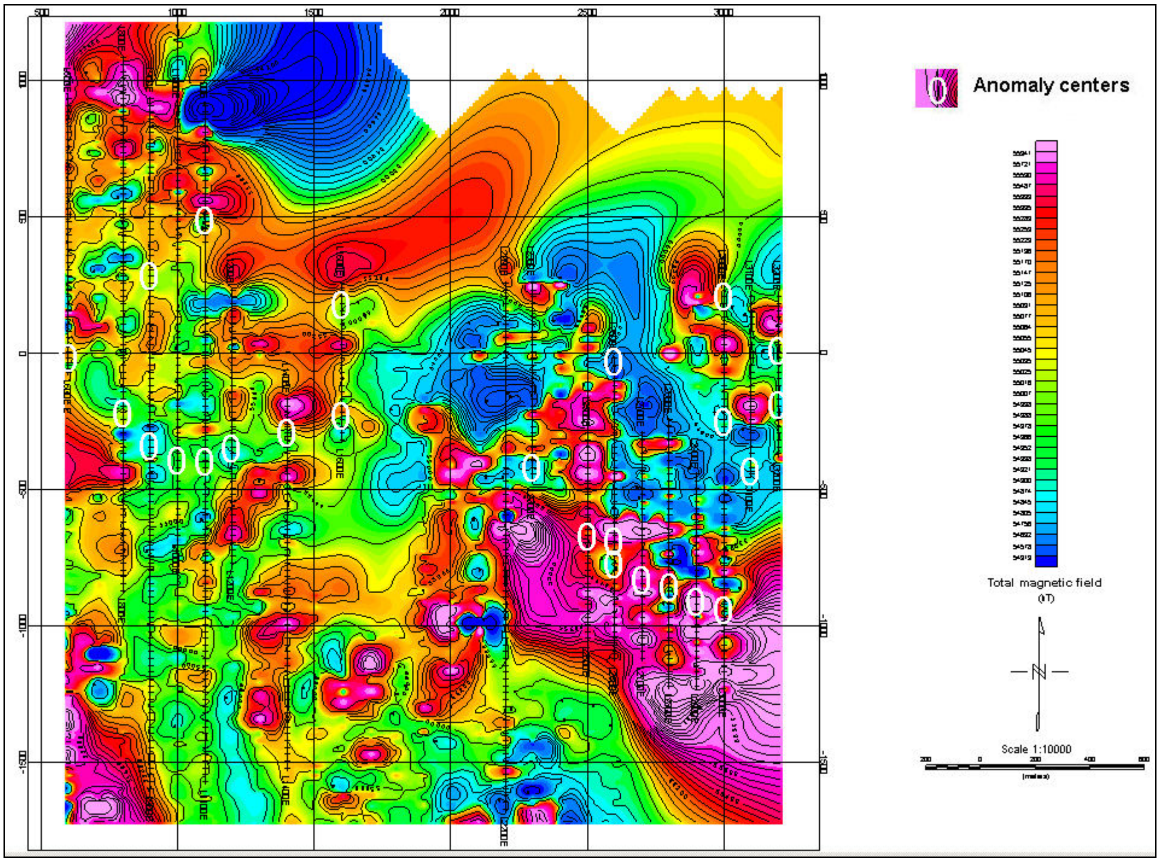


Figure 4.3.3a: Total Magnetic field plan map over the IP grid with anomaly centers (ellipses)

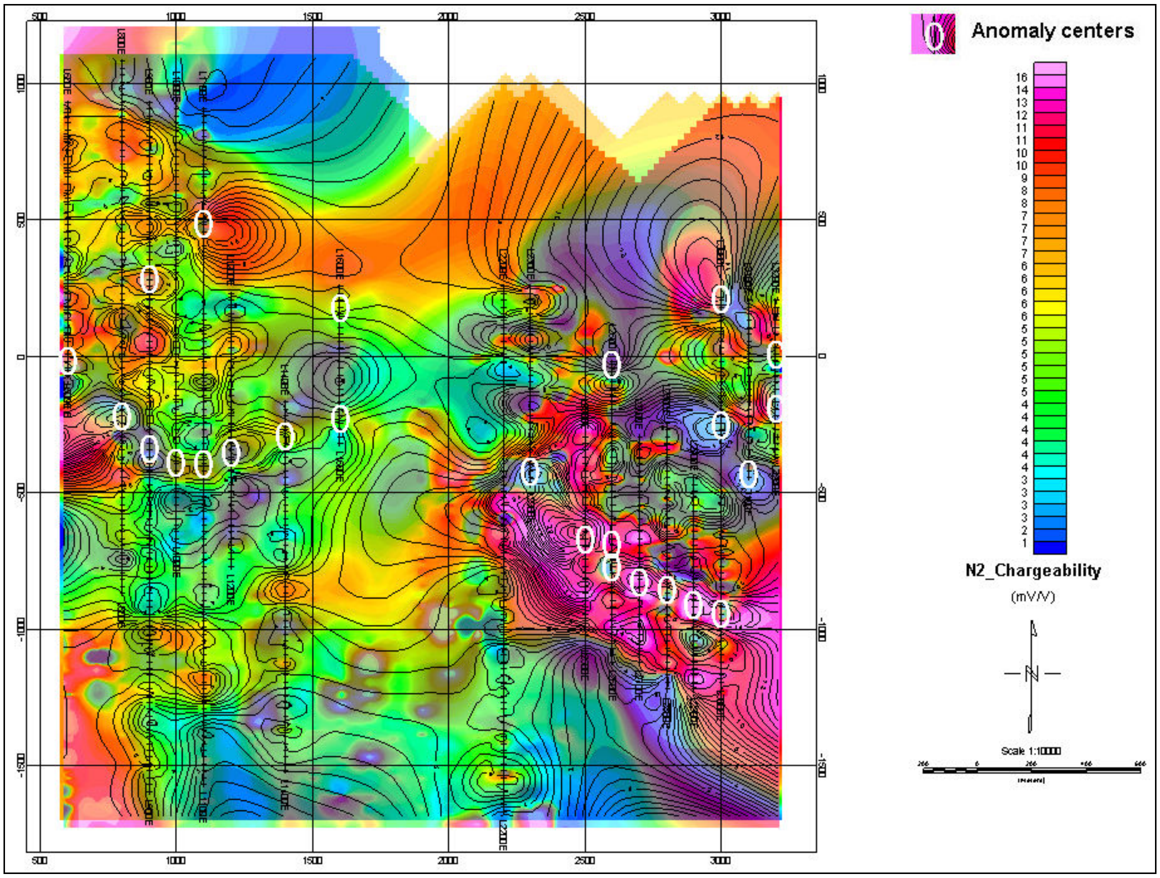
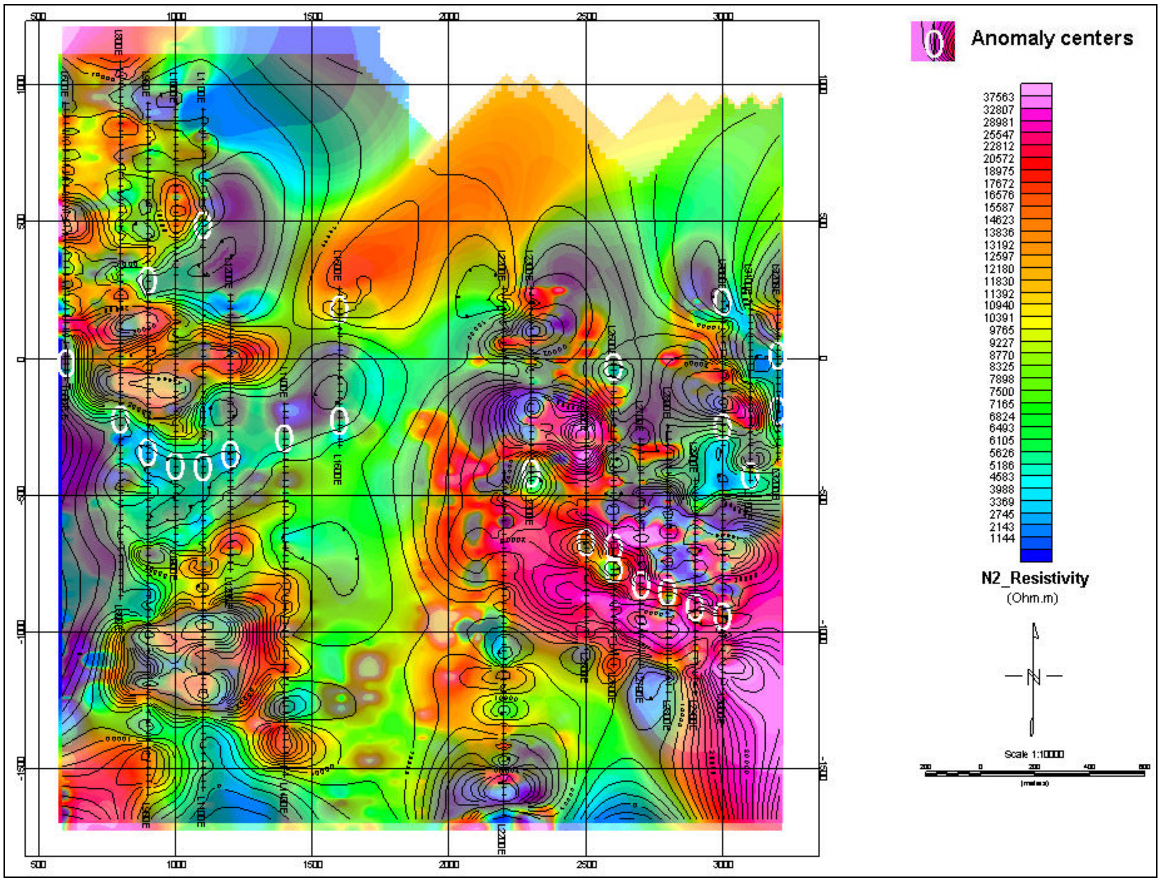


Figure 4.3.3b: Total Magnetic field plan map over N2 Chargeability with anomaly centers (ellipses)



<u>Figure 4.3.3c: Total Magnetic field plan map over N2 Resistivity with anomaly centers (ellipses)</u>

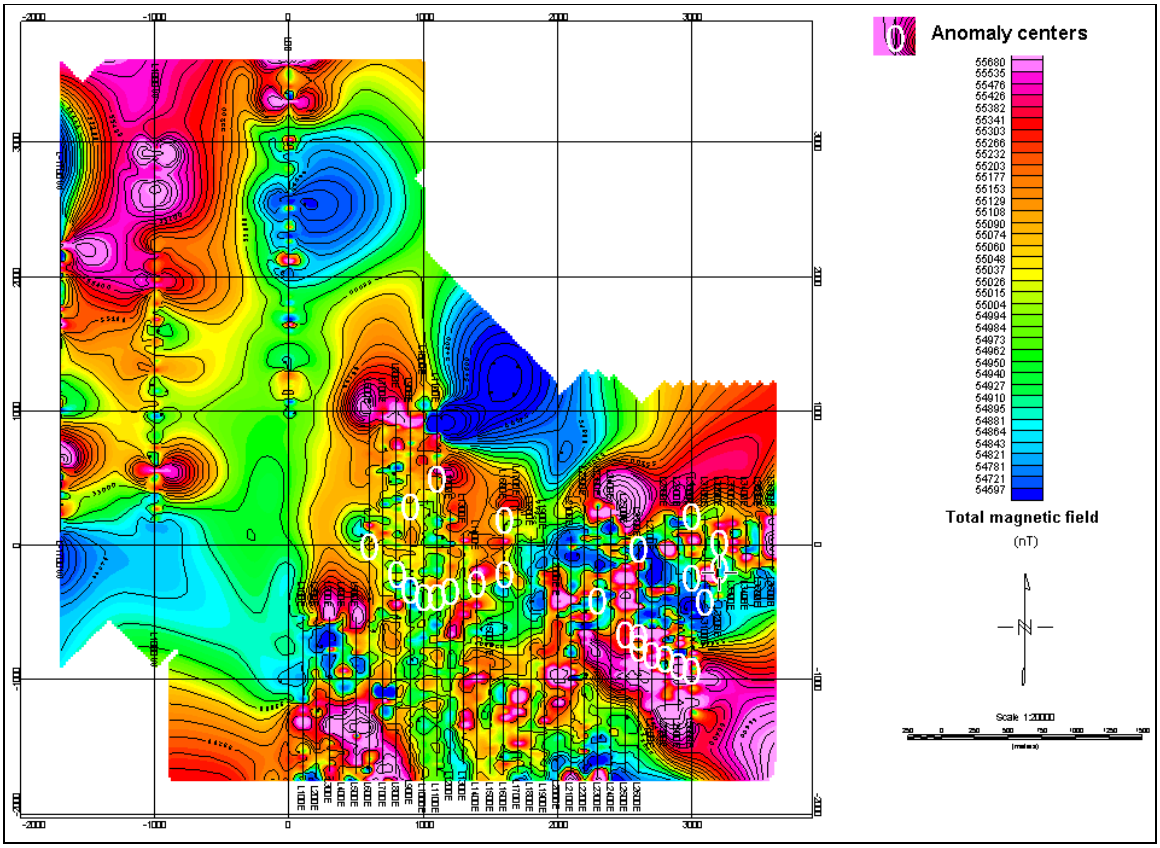


Figure 4.3.3d: Total Magnetic field map with anomaly centers (ellipses) over the whole grid

5. Results

Generally, on each of the lines the chargeability anomalies are associated with resistivity lows and moderate to low Magnetic filed. The anomalies from the pseudosections and profile maps are tabulated in Table 5. Table 5 and the plan maps in conjunction with available geological information can help to make drilling decisions.

Table 5: Approximate anomaly centers and geophysical responses

Line	X	Y	Chargeability	Resistivity	Mag	Priority
600E	600	25S	moderate to strong	relatively low	moderate	1
800E	800	230S	moderate to strong	relatively low	moderate	1
900E	900	350S	moderate	relatively low	high	1
900E	900	275N	moderate	relatively low	high	1
1000E	1000	400S	moderate	moderate	moderate	1
1100E	1100	405S	moderate	relatively low	no	2
1100E	1100	475N	moderate	relatively low	no	2
1200E	1200	360S	moderate	relatively low	moderate	1
1400E	1400	300S	weak	relatively low	low	2
1600E	1600	237S	weak	relatively low	low	3
1600E	1600	170N	weak	high	low	3
2300E	2300	430S	strong	relatively low	moderate	1
2500E	2500	680S	strong	relatively low		1
2600E	2600	780S	moderate	relatively low	low	1
2600E	2600	700S	moderate to strong	high to very high	moderate	2
2600E	2600	40S	moderate	relatively low	low	2
2700E	2700	838S	strong	low to very high	moderate	1
2800E	2800	865S	strong	low to very high	moderate	1
2900E	2900	920S	strong	low to very high	high	1
3000E	3000	260S	strong	low to high	moderate	1
3000E	3000	200N	moderate	low to high	moderate	2
3000E	3000	950S	strong	relatively low	low	1
3100E	3100	440S	strong	relatively low	moderate	1
3200E	3200	200S	strong	relatively low	low	1
3200E	3200	0N	moderate	relatively low	low	2

6. Summary

Surface Spectral Induced Polarization (SIP)/Resistivity and Magnetic surveys were done on the Shining Tree Project which is located in northern Ontario. The work was done for Platinex Inc. by Golden Mallard Corp. The field work was done in the period from April 28 to June 4, 2021. The Surface SIP/Resistivity and Magnetic surveys were conducted on 18 IP lines and 39 Magnetic lines.

The objective of the SIP/Resistivity survey on the Shining Tree Project was to identify/map chargeability and resistivity anomalies which may warrant further investigation and drilling. The objective of the Magnetic survey was to map the total Magnetic field and see the association of the IP anomalies with the Magnetic anomalies (structures). The anomalies should be screened with prospecting soil geochemistry, trenching with the best being drilled. All potential IP/Resistivity target anomalies are identified and prioritized in Table 5.

Both geophysical surveys provided images of SIP/Resistivity and Magnetic anomalies over the surveyed area. The Resistivity and Chargeability pseudosections and colour contour plan maps produced from the SIP/Resistivity and Magnetic surveys are presented as screen captured images in the interpretation section of this report. The pseudosections and the plan maps are provided as JPGs and Oasis Montaj Geosoft map files separately. The IP and Magnetic data is provided in xyz file formats.

Respectfully Submitted,

Kanata, Ontario
(04/11/2021)

B. Webster, B.Sc., P.Geo., ON
President
Golden Mallard Corp.

Appendix A: Instrument Specifications

ELREC Pro IP Receiver

IRIS INSTRUMENTS

ELREC Pro

ELREC Pro unit with its graphic LCD screen

10 CHANNELS

IP RECEIVER FOR

MINERAL EXPLORATION

- **10 simultaneous dipoles**
- **20 programmable chargeability windows**
- **High accuracy and sensitivity**

ELREC Pro: this new receiver is a new compact and low consumption unit designed for high productivity Resistivity and Induced Polarization measurements. It features some high capabilities allowing to work in any field conditions.

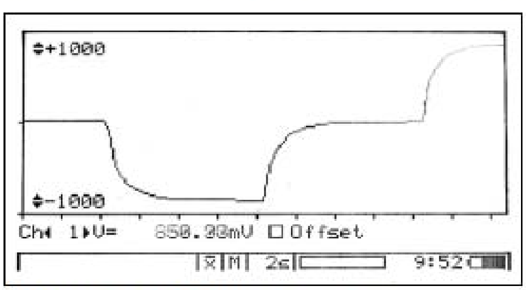
Reception dipoles: the ten dipoles of the ELREC Pro offer an high productivity in the field for dipole-dipole, gradient or extended poly-pole arrays.

Programmable windows: beside classical arithmetic and logarithmic modes, ELREC Pro also offers a Cole-Cole mode and a twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

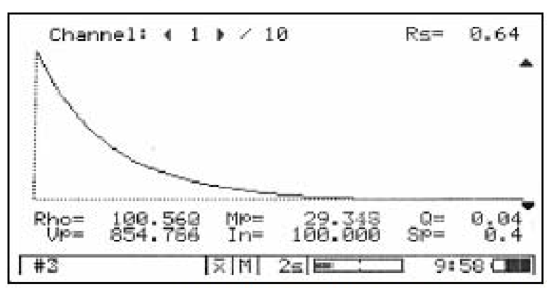
IP display: chargeability values and IP decay curves can be displayed in real time thanks to the large graphic LCD screen. Before data acquisition, the ELREC Pro can be used as a one channel graphic display, for monitoring the noise level and checking the primary voltage waveform, through a continuous display process.

Internal memory: the memory can store up to 21 000 readings, each reading including the full set of parameters characterizing the measurements. The data are stored in flash memories not requiring any lithium battery for safeguard.

Switching capability: thanks to extension *Switch* Pro box(es) connected to the ELREC Pro unit, the 10 reception electrodes can be automatically switched to increase the productivity in-the-field.



Monitoring of the Primary voltage waveform before acquisition



Display of numeric values and IP decay curve during acquisition

ELREC Pro

FIELD LAY-OUT OF AN ELREC PRO UNIT

The ELREC Pro unit has to be used with an external transmitter, such as a VIP transmitter.
The automatic synchronization (and re-synchronization at each new pulse) with the transmission signal, through a waveform recognition process, gives an high reliability of the measurement.
Before starting the measurement, a grounding resistance measuring process is automatically run ; this allows to check that all the electrodes are properly connected to the receiver.

Extension *Switch* Pro box(es), with specific cables, can be connected to the ELREC Pro unit for an automatic switching of the reception electrodes according to preset sequence of measurements ; these sequences have to be created and uploaded to the unit from the ELECTRE II software.

Extension Switch Pro box able to drive 24 - 48 - 72 or 96 electrodes

The use of such boxes allows to save time in case of the user needs to measure more than 10 levels of investigation or in case of large 2D or 3D acquisition.

DATA MANAGING

PROSYS software allows to download data from the unit. From this software, one has the opportunity to visualize graphically the apparent resistivity and the chargeability sections together with the IP decay curve of each data point. Then, one can process the data (filter, insert topography, merge data files…) before exporting them to "txt" file or to interpretation software: RES2DINV or RESIX software for pseudo-section inversion to true resistivity (and IP) 2D section.
RES3DINV software, for inversion to true resistivity (and IP) 3D data.

FEATURES

TECHNICAL SPECIFICATIONS

- Input voltage:
  Max. input voltage: 15 V
  Protection: up to 800V
- Voltage measurement:
  Accuracy: 0.2 % typical
  Resolution: 1 µV
  Minimum value: 1 µV
- Chargeability measurement:
  Accuracy: 0.6 % typical
- Induced Polarization (chargeability) measured over to 20 automatic or user defined windows
- Input impedance: 100 MΩ
- Signal waveform: Time domain (ON+,OFF,ON-,OFF) with a pulse duration of 500 ms - 1 s - 2 s - 4 s - 8 s
- Automatic synchronization and re-synchronization process on primary voltage signals
- Computation of apparent resistivity, average chargeability and standard deviation
- Noise reduction: automatic stacking number in relation with a given standard deviation value
- SP compensation through automatic linear drift correction
- 50 to 60Hz power line rejection
- Battery test

GENERAL SPECIFICATIONS.

- Data flash memory: more than 21 000 readings
- Serial link RS-232 for data download
- Power supply: internal rechargeable 12V, 7.2 Ah battery ; optional external 12V standard car battery can be also used
- Weather proof
- Shock resistant fiber-glass case
- Operating temperature: -20 °C to +70 °C
- Dimensions: 31 x 21 x 21 cm
- Weight: 6 kg

IRIS INSTRUMENTS - 1, avenue Buffon, B.P. 6007 - 45060 Orléans Cedex 2, France
Phone: +33 (0)2 38 63 81 00 - Fax: +33 (0)2 38 63 81 82
E-mail: info@iris-instruments.com - Web site: www.iris-instruments.com

GDD RX-GRx8-32 IP Receiver

INSTRUMENTATION GDD INC.

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

WWW.GDD.CA

IP Receiver Model GRx8-32

«Field users have reported that the GDD IP Receiver provided more reliable readings than any other time domain IP receiver and it reads 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
  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 (10^9)
- 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. Its high ruggedness allows it to work under any field conditions.

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

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: A 4 Go (or more) Compact Flash memory card is used to store the readings. Each reading includes the full set of parameters characterizing the measurements for all channels; the full wave signal for post-treatment processing. The data is stored in flash type memory not requiring any battery power for safekeeping. Data storage space is virtually unlimited.

Manufactured in Canada by Instrumentation GDD Inc.

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

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

ELECTRICAL CHARACTERISTICS

Ground Resistance: Up to 1.6 MΩ
Signal waveform: Time domain (ON+, OFF, ON-, OFF)
Time base: 0.5, 1, 2, 4 and 8 seconds
Input impedance: 10^4 GΩ
Primary voltage: ±10 uV to ±15 V for any channel
Input: True differential for common-mode rejection in dipole configuration
Voltage measurement: Resolution 1 µV, Accuracy 0.5%
SP offset adjustment: ± 5 V, automatic compensation through linear drift correction per steps of 150 µV
Filter: Eight-pole Bessel low-pass 15 Hz, notch filter 50 Hz and 60 Hz
Chargeability Measurement: Resolution 1 µV, Accuracy 0.8%

PDA

Standard – Juniper Allegro Cx or Mx PDA computer provided with the GDD receiver with all accessories.
Display: 3.8" QVGA LCD 320 x 240 pixels
Operating system: Windows CE (Cx)
Windows Mobile 6.0 (Mx)
Comes with Bluetooth and RS-232

Allegro Cx

Allegro Mx

POWER

- 12 V rechargeable batteries.
- Standard plug for external battery.

COMPONENTS INCLUDED

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 Québec to the day of its return to our office. 50% of the rental fee of the last 4 months of rental can be credited towards the purchase of the rented instrument.

WARRANTY

All instruments are covered by one-year warranty. All repair will be done free of charge at our office in 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 instrument availability).

OTHER COSTS

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

PAYMENT

Checks, credit cards, money transfer, etc.

INSTRUMENTATION GDD INC.

3700, boul. de la Chaudière, suite 200
Québec (Québec), Canada, G1X 4B7
Phone: +1 (418) 877-4249
Fax: +1 (418) 877-4054
Web Site: www.gdd.ca
Email: gdd@gdd.ca

Specifications are subject to change without notice

Printed in Québec, Canada, 2009

GDD IP Transmitter (3600W & 5000W Models)

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

Induced Polarization Transmitter

Tx II - 3600W Model

Tx II - 5000W Model

NEW

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

Tx II - 3600W Model

Its power (3600W) combined with a Honda generator makes it particularly suitable for pole-dipole Induced Polarization surveys.

- **Protection against short circuits even at zero (0) ohm**
- **Output voltage range: 150 V – 2400 V / 14 steps**
- **Power source: 220-240 V / 50-60 Hz**
- **Displays electrode contact, transmitting power and current**

This 3600W Induced Polarization (IP) transmitter works from a standard 220-240 V source and is well adapted to rocky environments where a high output voltage of up to 2400 V is needed. Moreover, in highly conductive overburden, at 350 V, the highly efficient TxII-3600W 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. Link two GDD 3600W IP transmitters together and transmit up to 7200W.

Tx II – 5000W Model

Its high power (5000W) makes it particularly suitable for deep pole-dipole Induced Polarization surveys or in very resistive ground.

- **Protection against short circuits even at zero (0) ohm**
- **Output voltage range: 150 V – 2400 V / 14 steps**
- **Power source: 220-240 V / 50- 60 Hz**
- **Displays electrode contact, transmitting power and current**

This 5000W Induced Polarization (IP) transmitter works from a standard 220-240 V source and is well adapted to rocky environments where a high output voltage of up to 2400 V is needed. Moreover, in highly conductive overburden, at 500 V, the highly efficient TxII-5000W 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. Link two GDD 5000W IP transmitters together and transmit up to 10 000W.

SPECIFICATIONS

TxII - 3600W

- Size : 53 cm x 44 cm x 22 cm
- Weight : approximately 32,6 kg
- Operating temperature : -40 °C to 65 °C

TxII - 5000W

- Size : 53 x 44 x 22 cm and 38 x 33 x 16 cm
- Weight : approximately 28 kg and 17 kg
- Operating temperature : -40 °C to 65°C

COMPONENTS

TxII - 3600W

- TX built in a Pelican transportation box
- 20 A / 240 V power cable extension
- 20 / 30 A cable extension
- Instruction manual
- Yellow Master-Slave cable (optional)
- Blue protective case (optional)

TxII – 5000W

- TX built in a Pelican transportation box
- Transfo built in a Pelican transportation box
- 20 A / 240 V power cable extension
- 20 / 30 A cable extension
- Instruction manual
- Yellow Master-Slave cable (optional)
- Blue protective case (optional)

DISPLAYS

- Output current: accuracy of ± 0.001 A.
- Electrode contact displayed when not transmitting.
- Output power displayed when transmitting.

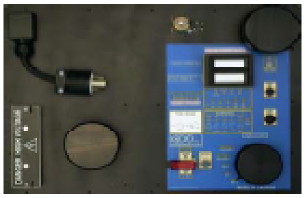
CONTROLS

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

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 2400 V / 14 steps
- Ability to link two transmitters together to double power

Tx II - 3600W Model



Tx II - 5000W Model

PURCHASE OPTION
50 % of the rental fees of the last 4 months of rental will be credited towards the purchase of the rented instrument.

RENTAL PERIOD
Starts on the day the instrument leaves our office in Quebec to the day of its return to our office.

WARRANTY
Standard one year warranty on parts and labour. Repairs to be done at GDD's office in Quebec, Canada.

SERVICE
Any instrument manufactured by GDD that breaks down while under warranty or service contract is replaced free of charge during repairs (upon request and subject to instruments availability).

OTHER COSTS
Taxes, duties, insurances, preparation fees and shipment cost extra if applicable.

PAYMENT
Visa, Mastercard, American Express, checks or bank drafts

INSTRUMENTATION GDD INC.
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Web Site: www.gdd.ca
Email: gdd@gddinstrumentation.com

Specifications subject to change without notice.

Instruments available for rental or sale

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