2.727

REPORT ON GEOLOGICAL AND GEOPHYSICAL SURVEYS for METRON EXPLORATION LIMITED

Marshal Twp
Ont.

010

INTRODUCTION

Metron Exploration Limited holds under option six contiguous unpatented mining claims numbered 322999 to 323001 inclusive and 323332 to 323334 inclusive situated in the northwest corner of Marshay Twp., Sudbury Mining District, Ontario. An additional six, adjacent and contiguous unpatented mining claims numbered 317376 to 317381 inclusive are owned by Metron.

Access to the property is available by C.N.R. which lies at the east boundary of the property at a point 48 miles north of Sudbury, Ont. The property can also be reached by a good lumber road leading south from Shiningtree, Ontario, for a distance of 45 miles.

Map references of this area include O.D.M. Map P 300, Westree Sheet, which shows this area as undifferentiated silicic intrusive rocks of Algoman age, and Aeromagnetic Map 1521 G, which features a N 15°W magnetic trend traversing the property which probably represents a diabase dike. A search of the assessment files at Sudbury produced meagre information.

SURVEY METHODS

A systematic grid of lines was cut from an east-west base line centrally located on the property. North-south picket lines were cut at 400' intervals with some additional lines at 200' intervals in the central part of the property. Total mileage of the system was 10.67 miles. Claim 323001 was excluded from the surveys.

The grid system was used to conduct a magnetometer survey using a Sharpe MF - 1 fluxgate instrument. A VLF - EM survey was conducted using a Ronka EM 16 instrument and Cutler, Maine as the transmitting source. An Induced Polarisation survey was conducted by Seigel Associates Ltd. under contract and the results of this survey appear in another report. The property was geologically mapped by the writer of this report. All of this work was carried out during September and October, 1971.

THEORY OF THE EM SURVEY METHOD

A Ronka EM 16 instrument is simply a sensative receiver unit which detects radio signals from VLF transmitting stations operating for communications with submarines. There are several of these stations in the world and the selection of the one to use depends upon its orientation. The direction to the station that is most closely aligned to the general trend of the country rocks is usually the factor considered. The stations have vertical antenna and as a result transmit a concentric field around them. Any conductive body lying in this field will create a secondary field.

The receiver unit contains a crystal of the same frequency as the transmitting source and a means of measuring the vertical field components. It has two inputs with two receiving coils built into the instrument. One coil has a normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the coil. The tilt-angle is calibrated in percentages and degrees. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90°. The axis of this coil is at right angles to the axis of the first coil. This coil is kept normally parallel to the primary field.

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measurement of the vertical real-component and the compensation $\pi/2$ - signal from the horizontal coil is a measurement of the quadrature vertical signal.

RESULTS OF THE SURVEYS

The property is approximately 85% covered by overburden. The rocks observed consist mainly of granodiorite intruded by east-west and north-south trending diabase dikes. Near the north boundary of the property and centrally located are two narrow altered basic rocks termed as diorite. They trend east-west and dip -45° south and are sheard along strike and contain minor pyrite. A grab sample of this material assayed tr. Au, 0.04 Ag, 0.03% Cu, 0.01% Ni. (Line 0, 1100' N).

In the central part of the property old pits were located which contained white quartz stringers and veins which were barren of metallic minerals. At this location the garnodiorite was homogeneously peppered with chalcopyrite and pyrrhotite up to 1/8" size. A grab sample of this material assayed 1.36% Cu, 0.02% Ni. This is situated in a low swampy area. (Line 8 W, 1000' S).

On Line 0, 1800' S, rusty sheared basic rocks contain minor pyrite and is likely a contact zone of a diabase dike.

The results of the magnetic survey confirmed the presence of diabase dikes and outlined other possible dikes. No magnetic indications were observed over the pits containing pyrrhotite, and no other special features were observed.

The results of the VLF - EM survey showed only one minor valid conductor located on the north end of lines 0, 4E, 8E, and near the pyritized diorite band. The disturbance along the creek in the central part of property is due to overburden affects.

SUMMARY AND CONCLUSIONS

Material from the pits located in the central part of the property was significantly interesting for copper possibilities. The nature of the mineralization is such that Induced Polarization methods should detect it. No particular features were outlined using magnetometer and VLF - EM methods.

Respectfully submitted,

J.G. Willars

New Liskeard, Ont.
Nov. 4, 1971.

J.G. Willars B.A.Sc., P.Eng.

CERTIFICATE

This is to certify that :

1. I am a graduate in Mining Geology from the University of Toronto in 1951, and I hold the degree of Bachelor of Applied Science and I have been practising my profession continuously for the past twenty years.

2. I am a member in good standing of The Association of Professional Engineers of Ontario, and I reside and hold office at 127 Lakeshore Road, New Liskeard, Ontario.

3. My report is based on personal supervision of the field work during the months of September and October, 1971, and personal examination of the geology of the property and of the results of the investigations.

Signed : J.G. Willars

J.G. Willars B.A.Sc., P.Eng.

New Liskeard, Ont. Nov. 4, 1971.

REPORT ON INDUCED POLARIZATION SURVEY MARSHAY TWP. ONTARIO ON BEHALF OF METRON EXPLORATION LIMITED

by

James M. Haynes, B.Sc., D.I.C.,
Geophysicist

Jan Klein, M.Sc., P. Eng.,
Geophysicist

TORONTO, Ontario

October, 1971

SUMMARY

The induced polarization survey carried out in the Marshay Twp. grid has revealed one anomalous zone of up to at least 1600 feet in length but open to both sides. This zone (marked C) might reflect 1% sulphides by volume.

It is recommended that detailed geological mapping and sampling be executed prior to drilling of this zone.

REPORT ON INDUCED POLARIZATION SURVEY
Marshay Twp. Ontario
on Behalf of
METRON EXPLORATION LIMITED

INTRODUCTION

Between September 21st and October 3rd, 1971, an induced polarization survey was conducted on a property in Marshay Twp., northern Ontario, under the direction of Mr. J.M. Haynes, B.Sc. D.I.C., of Seigel Associates Limited on behalf of Metron Exploration Limited.

The property, comprised of claims 317376, 317377, 317378, 317379, 317380, 317381, 323000, 323001, 323322, 323333, 323334, 323999 is located approximately 68 miles north of Sudbury adjacent to the C.N.R. main line and 2 miles west of Shoofly Lake. Access was by vehicle from New Liskeard and by a logging road to the old Lapalmes Spur. A location map is included on Plate 1. The survey was completed over a precut grid consisting of 20 north-south traverse lines. The sections surveyed on each line are indicated on Plate 1. A total of approximately 8.0 line miles of profiles were obtained. The three electrode array configuration was used throughout the survey, employing a 200' electrode spacing, and traverse lines were run north and south from the base line. On all lines the current electrode followed the potential electrodes although on sections north of the base line, the current electrode was to the south of the potential electrodes and on sections south of the base line the current electrode was placed north of the potential electrodes. The western half of the grid was completed first with the "infinite" current

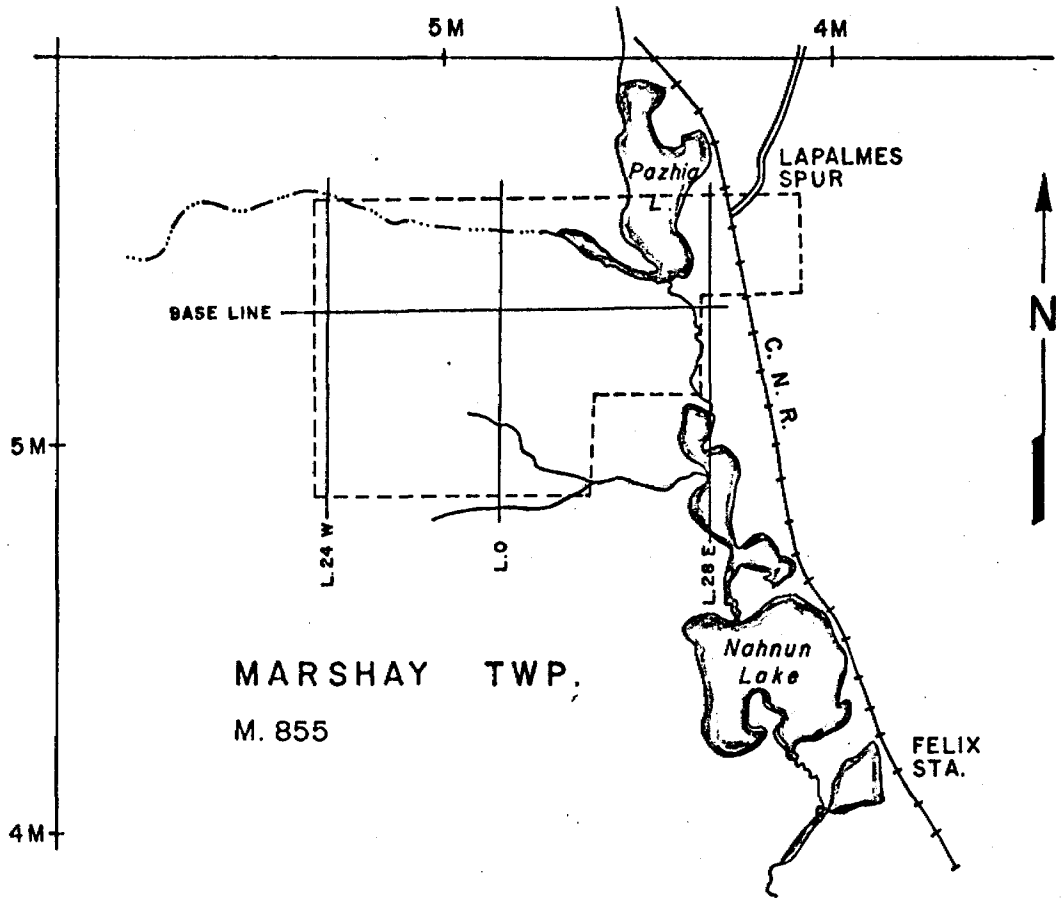


FIGURE I

LOCATION MAP

METRON EXPLORATION LIMITED

MARSHAY TOWNSHIP , ONTARIO

INDUCED POLARIZATION SURVEY

SCALE : 1" = 1/2 MILE

electrode placed at 10E on the base line. Since transmitter current was low (but sufficient, averaging about 0.3 amperes), the "infinite" was moved to 2E when line 10W was completed. On the eastern half of the grid the "infinite" was placed at 10W until line 12E was completed and was then shifted to line 2W. At all times the "infinite" was greater than 5a away from the traverse lines being surveyed ("a" being the separation distance between line electrodes, a = 200').

The purpose of this survey was to detect and map the distribution of subsurface metallic mineralization, in particular cupriferous sulphides, which may exist in the vicinity of the lines traversed.

The survey was performed with a Scintrex Mark VII time domain (pulse type) induced polarization unit. This equipment consists of a Newmont type remotely triggered receiver and a 2.5 kW transmitter operating with a current-on time of two seconds and current-off time of two seconds. The system measures the apparent resistivity of the ground in ohm-meters and two parameters of the overvoltage pulse shape. The chargeability, M, measured in milliseconds, is the normalized integral of the transient voltage between 0.45 seconds and 1.1 seconds after current cut-off. The 0.45 second delay time allows most electromagnetic induction transients, switching transients and interline coupling effects to disappear before measurements are made. The area over the transient curve, taking as a reference the transient voltage at 0.45 seconds after current cut-off, is also measured. This measurement is made during the period 0.45 seconds to 1.75 seconds after current cut-off and is expressed as the quantity, L. Like M, L is

measured directly in milliseconds at the receiver. A number of consecutive integrations of both L and M are measured and the average values used so as to reduce telluric noise effects and other interference.

The ratio L/M may be considered a sensitive indication of the transient curve shape. It has been well established that the L/M ratios measured in areas of no metallic mineralization are constant within better than 20%. Significant departures from this range usually imply an abnormal condition, either an anomalous metallic polarization response, or significant electromagnetic or interline coupling.

For further references on the Induced Polarization technique and case histories, refer to the attached copies of articles by Dr. H.O. Seigel entitled: "Some Comparative Geophysical Case Histories of Base Metal Discoveries" and "The Induced Polarization Method".

GEOLOGY

The geology of the project area is not known in detail at the time of writing this report. Regionally, however, the area is underlain by early Precambrian undifferentiated felsic intrusives as illustrated by the Sudbury-Cobalt, Geological Compilation Series Sheet #2188. Unfortunately even this regional geology sheet is very limited in the Marshay Twp. area, although one geological lineation is postulated striking N15°W through the project area. This lineation is further borne out by the aero magnetic sheet, as a 300 gamm anomaly is present on the property in an area otherwise quite magnetically flat. This anomaly may be due to a diabase dike, as indications of this have

been noted within the survey grid while the survey was being executed. The regional aero magnetics seem to reflect felsic intrusives in the west, in which the magnetic anomaly is an outstanding feature, and a complex of sediments, metamorphics and mafics in the east. The contact of these two areas strikes approximately N30°W. Within the project area, several shallow pits have been dug in the past; although one located on line 8W about station 10S is of particular interest. One sample taken from this pit shows cupriferous sulphides containing chalcopyrite and pyrrhotite in a quartz-monzonite host rock.

PRESENTATION OF DATA

Plate 1 shows the results of the three electrode array profiles on a scale of 1" = 200' and contours on a scale of 1" = 400'. The contour interval is one millisecond. Apparent resistivity, chargeability and the L/M ratio are shown for each line. The chargeability results are plotted on a vertical scale of 1" = 5 milliseconds and resistivity values are plotted on a logarithmic scale for which 1.33" = a factor of 10. The datum level is 1000 ohm-meters except for lines indicated otherwise. The L/M ratio is plotted on a vertical scale of 1" = 1 unit.

DISCUSSION OF RESULTS

By virtue of the fact that the property was surveyed from the base line and due to the positioning of the current electrode on lines running both north and south of the base line, station 0 was read twice. In some cases a difference between these two readings can be noted, but no appreciable change

of curve shape results. (This discrepency for station 0 has no bearing on the results of the entire north south sections as a whole.)

From the chargeability contour plan the property may be divided roughly into at least three zones. Zone C in the south comprises a high on lines 20W to 0+00, south of station 14S. Zone B comprises two blocks, the western one approximately bordered by lines 24W and 10W and stations 0+00 and 14S, the eastern block by lines 4W and 12E and again stations 0+00 and 14S. The remainder of the grid can be identified as Zone A.

The resistivity of the project area on the whole is high, averaging approximately 10,000 ohmmeters ranging between extremes of 300 to 100,000 ohmmeters. On all profile lines the chargeability curves follow the resistivity curves (high chargeability, high resistivity). This is an excellent indication that the three electrode array separation of 200' was successful in giving responses indicative of basement rock material. The depth of penetration for this survey is therefore believed to be quite adequate.

Zone B is a complex zone, and is fairly indicative of background chargeability levels, 4-6 milliseconds. An area running in the vicinity of lines 6W and 8W is well below these levels but probably reflects deeper overburden and marshy conditions. This depression divides Zone B in an east and west portion. A small anomaly about 2 milliseconds above background is present in the area of L8E station 4S. No steep chargeability gradients are present in this zone. The resistivity profiles show no significant increases in bedrock conductivity and are generally above 10,000 ohmmeters. Lines 6W and 8W are the two exceptions with resistivity values much lower, averaging about 5000

ohmmeters. A pit on line 8W near station 14S containing mineralized rock specimens is in a region of low resistivity and chargeability. Tests completed on a mineralized sample taken from this pit indicated extremely high chargeability readings and extreme conductivity. Although these tests are not representative of results that would be expected from the same in situ deposits, they were high enough to show that any sulphides if in quantity would certainly have given verifiable anomalous results.

Zone A is characterised by low chargeability values (below background level). No steep gradients are present on the contour plan, and the zone is relatively flat. Resistivity values from the profiles are fairly stable, with no significant drops in value on any traverse line to warrant interest with regards to subsurface sulphides. A gradual decrease in chargeability and resistivity values can be observed in an easterly direction towards Poukiz Lake. Coupled with this are contour depressions on lines 8W and 4E and areas adjacent to the lake. This may possibly reflect a deepening of overburden sediments towards the lake and in the region of creeks which flow through the marshy ground situated in this zone. The L/M ratios are fairly normal but for slight changes at 6N on lines 8W, 0+00, 4E and 8E, also at 8N on line 12E. This situation is indicative of a short time constant in the transient decay curve and may be caused by positive E.M. effects or small particle size. The latter reason is more probably the cause, due to the fine marsh deposits.

Zone C is an east-west striking linear high. This zone is at least 1000 feet long, but open to both sides. This zone displays above background charge-

abilities as high as 7 milliseconds. Sharp gradients are illustrated by the contour plan. Again resistivity values increase where chargeability increases. Resistivities in the zone are generally well above 10,000 ohmmeters. If mineralization of a massive nature were present in quantity, the situation should be reflected most likely by a resistivity depression. The anomalous chargeability values possibly reflect a change in rock type from area B, but does not exclude the possibility of sulphide mineralization (up to 1% by volume).

A single station anomaly at L4W station 10N should be mentioned without further evaluation.

CONCLUSIONS AND RECOMMENDATIONS

The survey area can be divided into two main areas. The first area north of station 14S comprises Zones A and B. Both are suggested to be underlain by the same rock type with a chargeability level of 4-6 milliseconds and apparent resistivities between 20,000 and 50,000 ohmmeters. Minor anomalies (L4W station 10N; L8E station 2S) can be caused by small uneconomic amounts of sulphides. Zone B represents areas with a thin cover of overburden while Zone A more or less coincides with the topographically lower parts of the area. It is, in other words, underlain by increasing amounts of overburden and swamp cover, reducing the bedrock response. The areas near old prospecting pits did not give anomalous responses, suggesting that the amount of sulphides must be of a very localised nature.

The chargeabilities in Zone C are generally well above the background values of Zones A and B, reflecting an anomaly striking approximately east-

west across lines 16W to 4W about station 18S. It is recommended that detailed geologic work be done over this zone which might contain up to 1% sulphides by volume, and possibly trenching with samples being taken for assey. No drill sites can be recommended at this time on the geophysical data alone. Future recommendations are dependent on the results of the sampling and geologic programs.

Respectfully submitted,

James M. Haynes, B.Sc., D.I.C.,
Geophysicist.

Jan Klein, M.Sc., P.Eng.,
Geophysicist.

900

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey: Induced Polarization
Township or Area: Marshay Twp., Sudbury Mining Division
Claim holder(s): Metron Exploration Limited #257
2302 - 401 Bay St. Tronto, Ont.

Author of Report: J.M.Haynes & J.Klein (Scintrex)
Address: 222 Snidercroft Rd. Concord, Ont.

Covering Dates of Survey: Sept. 21 - Oct. 3, 1971.
(linecutting to office)

Total Miles of Line cut: 10.67

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other I.P.	20
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Dec.15,1971. SIGNATURE: [signature]
Author of Report

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	317376
S	317377
S	317378
S	317379
S	317380
S	317381
S	322999
S	2323000 ½
S	323332
S	323333
S	323334

If space insufficient, attach list

TOTAL CLAIMS 11

OFFICE USE ONLY

PROJECTS SECTION
Res. Geol. Sudbury Qualifications This
Previous Surveys LD

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 535 Number of Readings 535

Station interval 100'

Line spacing 400' & 200'

Profile scale or Contour intervals as in report
(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency
(specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION – RESISTIVITY

Instrument Scintrex Mark VII

Time domain x Frequency domain

Frequency Range

Power ~~2.5 kw~~

Electrode array

Electrode spacing ~~200'~~

Type of electrode see report

File

RECEIVED
DEC 28 1971
PROJECTS SECTION

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT.
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT.
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey VLF - EM , Mag., I.P., Geology

Township or Area Marshay Twp., Sudbury Mining Division

Claim holder(s) Metron Exploration Limited # T 257
2302 - 401 Bay St., Toronto, Ont.

Author of Report J.G.Willars & J.M.Haynes/J.Klein

Address Box 596 NEW LISKEARD, Ont.

Covering Dates of Survey Sept. 4 - 30,1971.
(linecutting to office)

Total Miles of Line cut 10.67

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	20
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Dec. 15,1971. SIGNATURE: J.G. Willars
Author of Report

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	317376
S	317377
S	317378
S	317379
S	317380
S	317381
S	322999
S	323000
S	323332
S	323333
S	323334

TOTAL CLAIMS 11

If space insufficient, attach list

OFFICE USE ONLY

PROJECTS SECTION

Res. Geol. _____ Qualifications _____

Previous Surveys _____

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 535 Number of Readings 535

Station interval 100'

Line spacing 400' & 200'

Profile scale or Contour intervals Dip 1dg- 1/50" and quadrature 1 % - 1/50"
(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument Ronka E M 16

Coil configuration

Coil separation

Accuracy

Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency Cutler, Maine 17.8 kHz.
(specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

Type of electrode

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

RECEIVED
DEC 28 1971
PROJECTS SECTION

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey: Magnetometer

Township or Area: Marshay Twp., Sudbury Mining Division

Claim holder(s): Metron Exploration Limited # 257

2302 - 401 Bay St. Toronto, Ont.

Author of Report: J.H.Willars Box 596

Address: New Liskeard, Ont.

Covering Dates of Survey: Sept. 4 - 28, 1971.
(linecutting to office)

Total Miles of Line cut: 10.67

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	40
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Dec. 15 1971. SIGNATURE: J.H.Willars
Author of Report

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	#L&#& 317376
S	317377
S	317378
S	317379
S	317380
S	317381
S	322999
S	323000
S	323332
S	323333
S	323334

TOTAL CLAIMS: 11

If space insufficient, attach list

OFFICE USE ONLY

PROJECTS SECTION

Res. Geol. _____ Qualifications _____

Previous Surveys _____

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 535 Number of Readings 535

Station interval ~~100'~~

Line spacing 400' and 200'

Profile scale or Contour intervals ~~200 gamma~~
(specify for each type of survey)

MAGNETIC

Instrument Sharpe M F - 1 fluxgate

Accuracy - Scale constant

Diurnal correction method hourly and daily

Base station location B.L 19 E

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency
(specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

Type of electrode

File

RECEIVED

DEC 28 1971

PROJECTS SECTION

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey: Geology

Township or Area: ~~Marchay Twp., Sudbury Mining Division~~

Claim holder(s): Metron Exploration Limited T257
2302 - 401 Bay St. Toronto, Ont.

Author of Report: J.G.Willars

Address: ~~Box 596 New Liskeard, Ont.~~

Covering Dates of Survey: month of October 1971.
(linecutting to office)

Total Miles of Line cut: 10.67

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic
--Magnetometer
--Radiometric
--Other
Geological 20
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer ____ Electromagnetic ____ Radiometric ____
(enter days per claim)

DATE: Dec. 15,1971. SIGNATURE: J.G.Willars
Author of Report

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	317376
S	317377
S	317378
S	317379
S	317380
S	317381
S	322999
S	323000
S	323332
S	323333
S	323334

If space insufficient, attach list

TOTAL CLAIMS 11

OFFICE USE ONLY

PROJECTS SECTION

Res. Geol. ____ Qualifications ____

Previous Surveys ____

Checked by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 535 Number of Readings 535

Station interval 100'

Line spacing 400' and 200'

Profile scale or Contour intervals

(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency

(specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

Type of electrode

NORTH

L 24 W | L 20 W | L 16 W | L 12 W | L 10 W | L 8 W | L 6 W | L 4 W | L 2 W | L 0 | L 2 E | L 4 E | L 6 E | L 8 E | L 10 E | L 12 E | L 16 E | L 20 E | L 24 E | L 28 E

Spruce

Jackpine, poplar, birch

Sand and gravel

PAZHIG LAKE

Jackpine

PYRITE Creek

Pit

3 2 3 0 0 0

3 1 7 3 7 7

3 1 7 3 7 6

3 2 2 9 9 9

3 2 3 0 0 1

Spruce, birch, poplar

Pine, spruce, birch, poplar

Birch and poplar

Trail

Sand and gravel

Spruce

BASE LINE

3 2 3 3 3 2

Jackpine

Spruce, birch

Spruce, birch

Spruce, birch, poplar

Creek

3 2 3 3 3 3

3 2 3 3 3 4

CHALCOPYRITE PYRRHOTITE

40 MILE POST

3 1 7 3 7 8

Spruce

Spruce

Birch, poplar

PYRITE

PYRITE

3 1 7 3 8 1

3 1 7 3 8 0

3 1 7 3 7 9

Birch and poplar

Creek

Spruce

Beulah Twp.

5 M. | 4 M.

Shelley Twp. | 5 M.

Pazhig Lake

317377	317376	322999	323000	323001
317378	323334	323333	323332	
317379	317380	317381		

NORTH

R. C. N. R.

MARSHAY TWP.

INDEX MAP

SCALE : 1 INCH = 40 CHAINS

LEGEND

- Swamp
- Outcrop
- Strike and dip of shearing
- G — Granodiorite
- Db — Diabase
- D — Altered diorite
- Overburden
- Geological contact assumed

GEOLOGY SURVEY

METRON EXPLORATION LIMITED

MARSHAY TWP, ONT.

Scale : 1 " = 200 '

J. G. Willars Nov. 4/71.

J. G. Willars B.A.Sc, P.Eng. Oct. 1971.

41P03NW0016 2.727 MARSHAY

200


NORTH
L 24 W
L 20 W
L 16 W
L 12 W
L 10 W
L 8 W
L 6 W
L 4 W
L 2 W
L – 0
L 2 E
L 4 E
L 6 E
L 8 E
L 10 E
L 12 E
L 16 E
L 20 E
L 24 E
L 28 E
PAZHIG LAKE
3 2 3 0 0 0
3 2 3 0 0 1
3 1 7 3 7 7
3 1 7 3 7 6
3 2 2 9 9 9
3 2 3 3 3 2
3 2 3 3 3 3
3 2 3 3 3 4
3 1 7 3 7 8
3 1 7 3 8 1
3 1 7 3 8 0
3 1 7 3 7 9
BASE LINE
Trail
Creek
Pits
Pit
C. N. R.
48 MILE POST
Beulah Twp.
Shelley Twp.
Pazhig Lake
317377 317376 322999 323000 323001
317378 323334 323333 323332
317379 317380 317381
MARSHAY TWP.
INDEX MAP
SCALE: 1 INCH = 40 CHAINS

MAGNETIC DATA

Contour interval 200 gammas

Normal correction - none

Instrument used Sharpe MF-1 fluxgate

Above 1000 gammas — red

Below 0 gammas — blue

GEOMAGNETIC SURVEY

METRON EXPLORATION LIMITED

MARSHAY TWP., ONT.

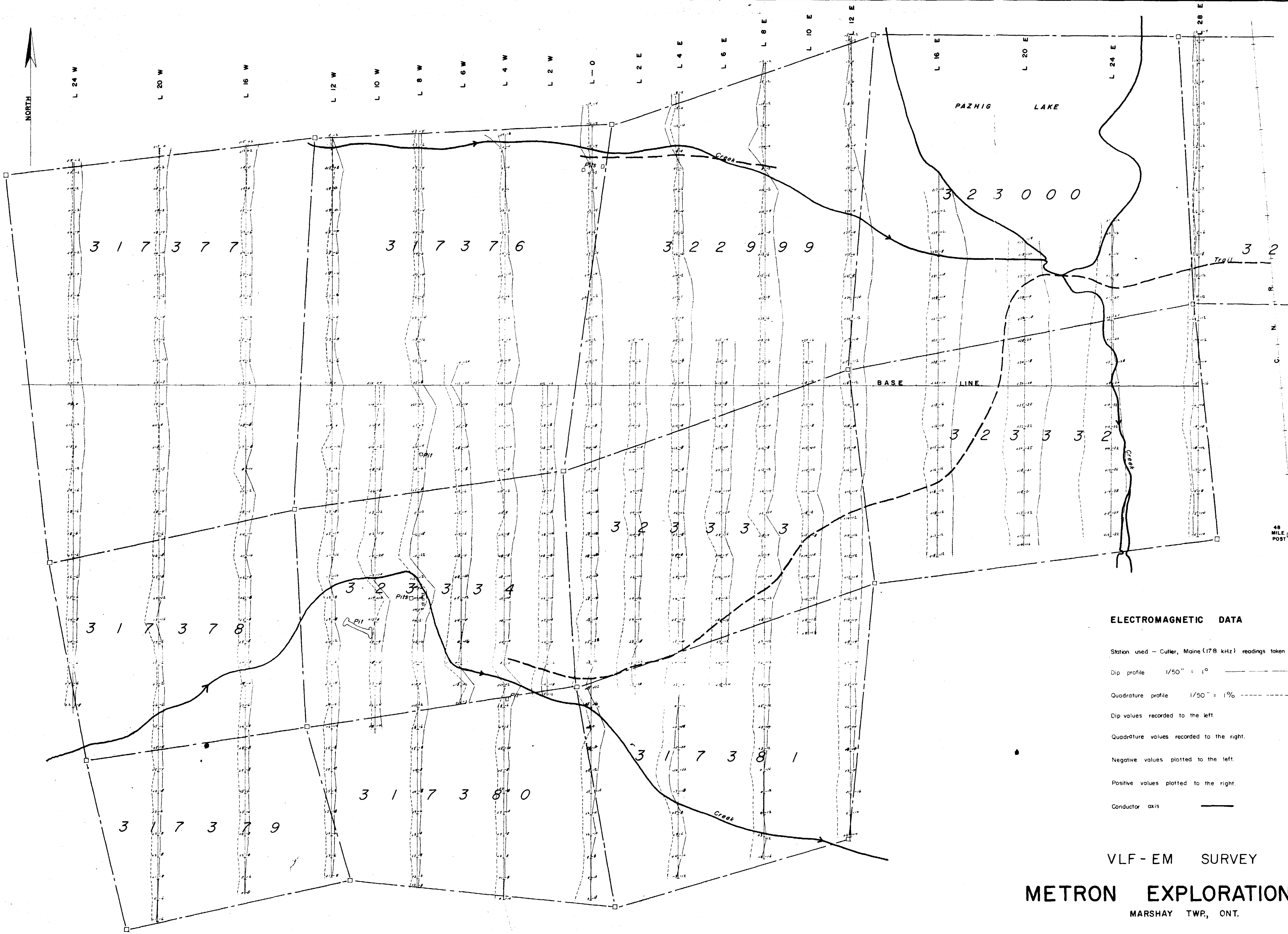
Scale 1" = 200'

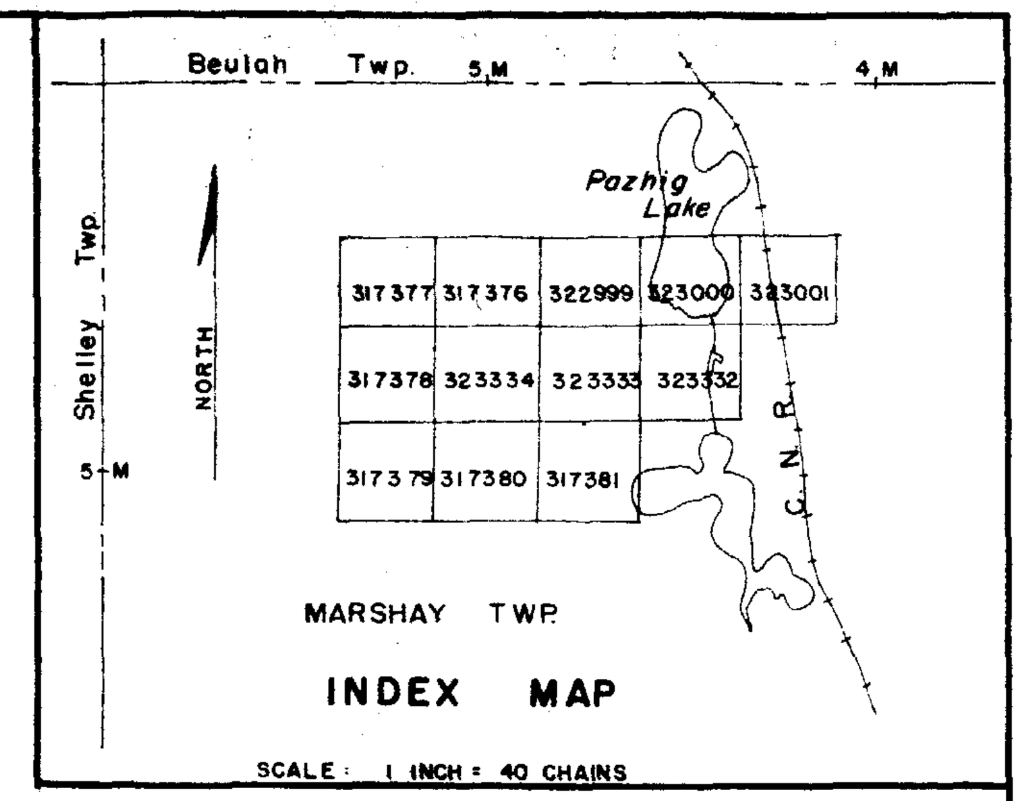
J. G. Willars Nov. 4/71.

J. G. Willars B.A.Sc., P.Eng. Oct. 1971.

41P03NW0016 2.727 MARSHAY

210





ELECTROMAGNETIC DATA

Station used – Cutler, Maine (17.8 kHz) readings taken facing north

Dip profile 1/50" = 1°

Quadrature profile 1/50" = 1%

Dip values recorded to the left.

Quadrature values recorded to the right.

Negative values plotted to the left.

Positive values plotted to the right.

Conductor axis

VLF - EM SURVEY

METRON EXPLORATION LIMITED

MARSHAY TWP., ONT.

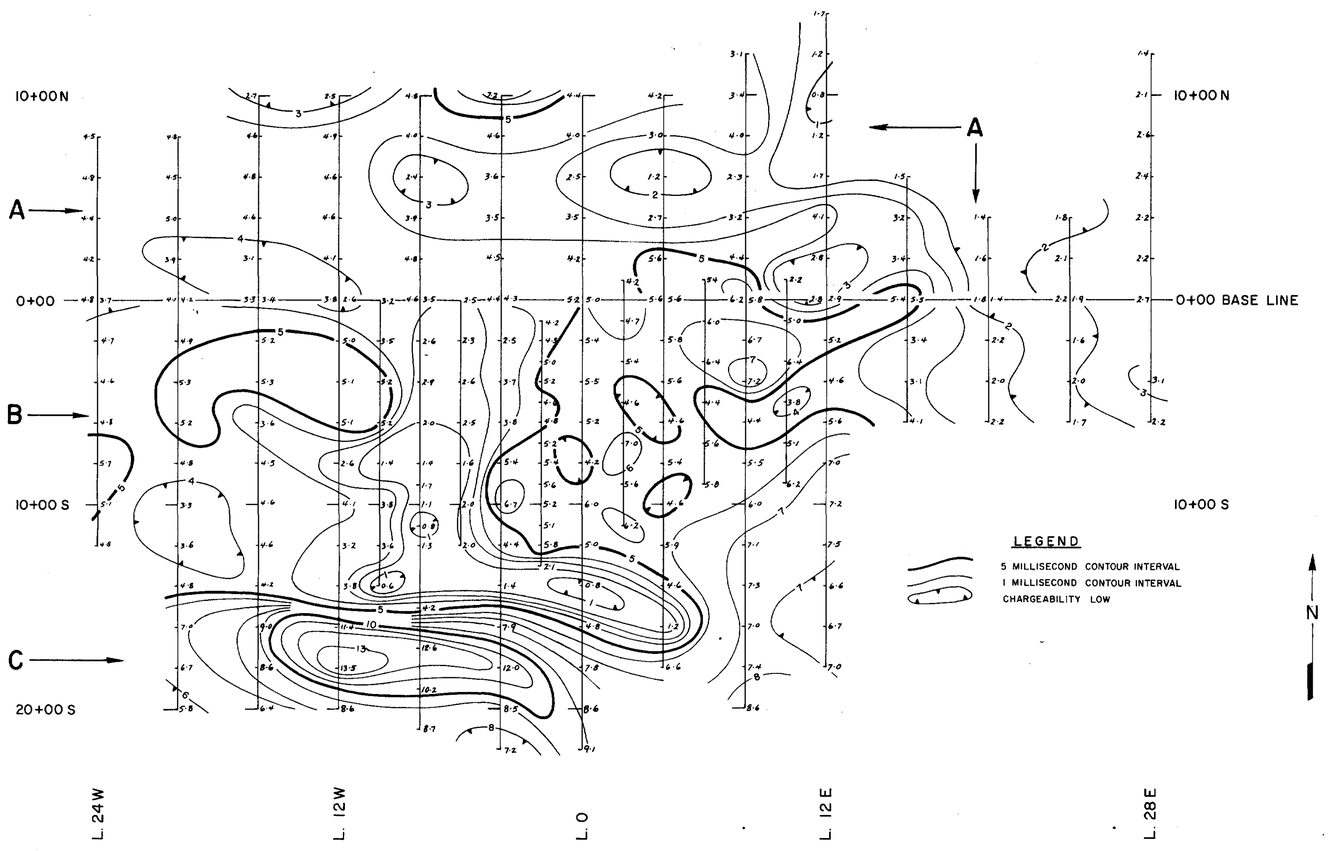
Scale: 1" = 200'

J. G. Willars Nov. 4/71

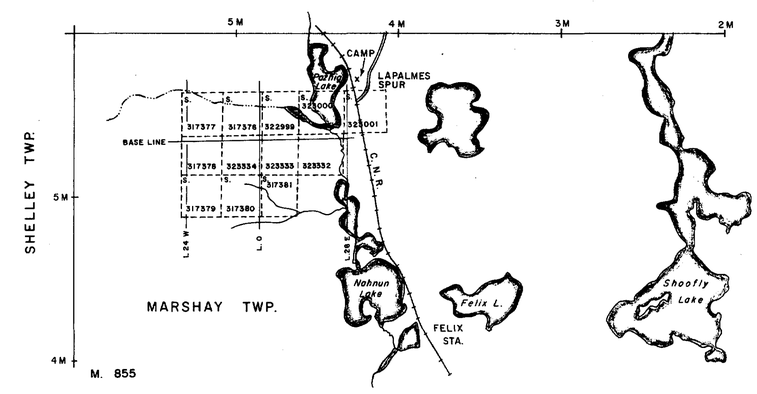
J. G. Willars B.A.Sc., P.Eng. Oct. 1971.

220

41P03NW0016 2.727 MARSHAY



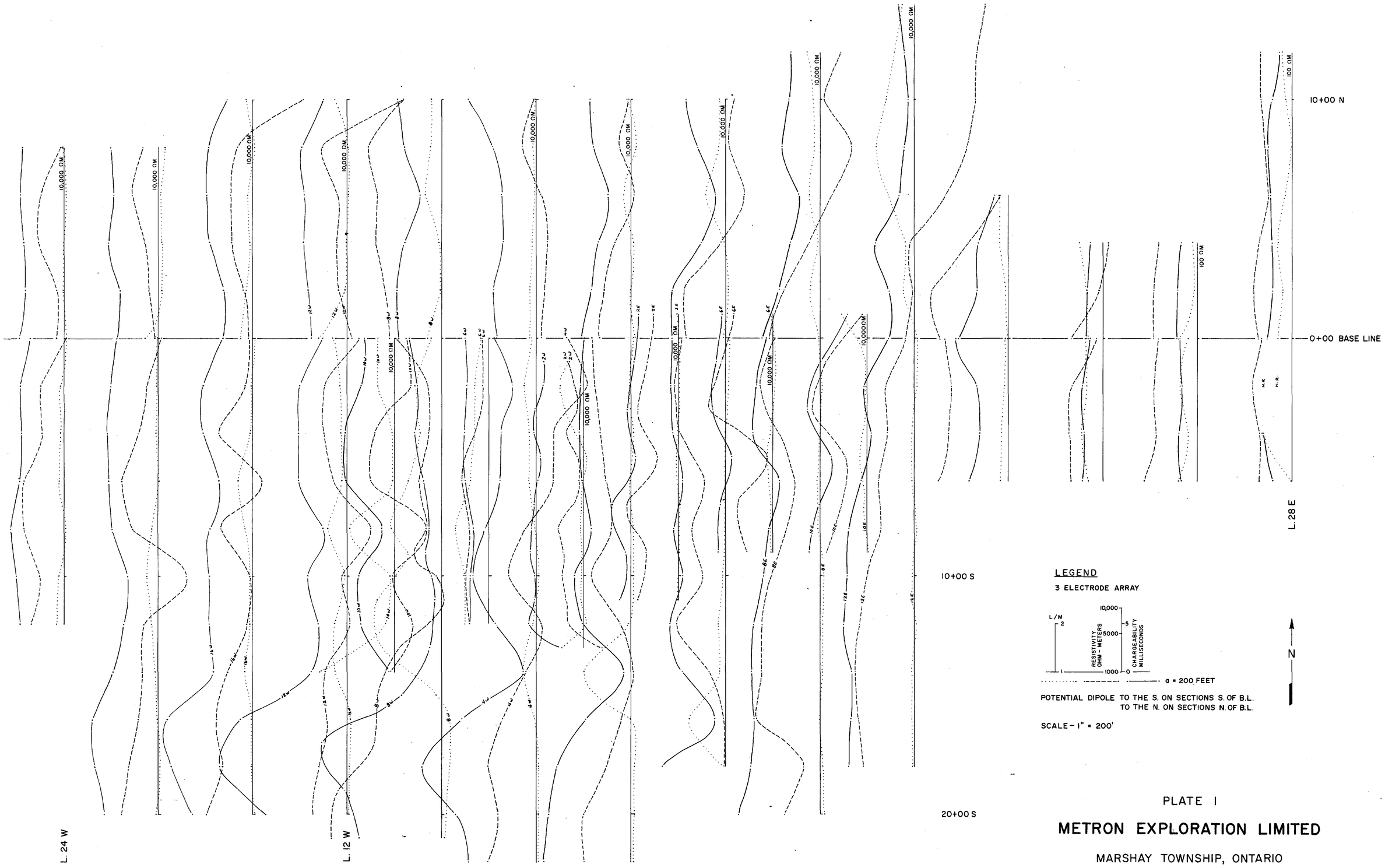
SCALE - 1" = 400'



CLAIM AND LOCATION MAP

MARSHAY TOWNSHIP, ONTARIO

SCALE - 1" = 2640'



SCALE - 1" = 200'

PLATE I

METRON EXPLORATION LIMITED

MARSHAY TOWNSHIP, ONTARIO

INDUCED POLARIZATION SURVEY

SCINTREX MARK VII 2.5 kW UNIT

SCALE : 1" = 200'

SURVEY BY SEIGEL ASSOCIATES LIMITED

SEPTEMBER-OCTOBER 1971