GEOPHYSICAL REPORT

INDUCED POLARIZATION

MAGNETOMETER SURVEY

DETOUR DN-1 PROPERTY

LOCATED IN

WEST SUNDAY LAKE AREA, ONTARIO

for

PELANGIO LARDER MINES LIMITED

Submitted by: R.J. Meikle
Geophysical Engineering & Surveys Inc.
Dec., 1997

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INTRODUCTION

This report deals with the logistics and interpretation of a Magnetometer and I.P. Survey on the Detour DN-1 Property, located in the West Sunday Lake Area, Ontario.

The surveys were carried out on a contract basis by Rayan Exploration Ltd, Timmins, Ontario, for Pelangio Larder Mines Inc.

PROPERTY LOCATION AND ACCESS

The present DN1 claim block consists of four contiguous claims comprised of 22 units. This project is located in the West of Sunday Lake Area of Northern Ontario, approximately 190 road kilometers northwest of Iroquois Falls, Ontario or approximately 10km northeast of the Detour Lake Mine Site. (Figs. 1 & 2).

PERSONNEL

The Magnetometer and I.P. Surveys were carried out by the following personnel:

R. Meikle.....Timmins, Ontario
L. Anderson.....Timmins, Ontario
M. Chouinard.....Timmins, Ontario
J. Dubroy.....Timmins, Ontario
J. Peterson.....Timmins, Ontario
J. Hussey.....Timmins, Ontario

Ontario

GEOLOGY AND PRINCIPAL MINERALS OF ONTARIO

HUDSON BAY

JAMES BAY

MANITOBA

PELANGIO DNI PROPERTY

Moosonee

Kenora

Geraldton

Timmins

Kirkland Lake

Cobalt

Sault Ste. Marie

QUEBEC

Ottawa

Toronto

London

Windsor

U.S.A.

L. SUPERIOR

L. MICHIGAN

L. HURON

L. ERIE

L. ONTARIO

Major Mineral Deposits
Past and Present

- Gold
- Silver
- Iron
- Copper-Nickel
- Zinc-Copper
- Platinum-Palladium
- Uranium
- Industrial Minerals

Scale 1 : 8 000 000

50 0 50 100 150 200 Kilometres

50 0 50 100 150 Miles

LEGEND[a]

PHANEROZOIC

MESOZOIC

CRETACEOUS

Sedimentary rocks

PALEOZOIC

DEVONIAN

Sedimentary rocks

SILURIAN

Sedimentary rocks

ORDOVICIAN

Sedimentary rocks

CAMBRIAN

Sedimentary rocks

PRECAMBRIAN

GRENVILLE PROVINCE

PROTEROZOIC

NEO- TO MESOPROTEROZOIC

Migmatitic rocks and gneisses

Mafic to ultramafic plutonic rocks

Felsic plutonic rocks, derived gneisses and migmatites

Metavolcanic and metasedimentary rocks

SUPERIOR AND SOUTHERN PROVINCES

NEO- TO MESOPROTEROZOIC

Felsic intrusive rocks

Mafic intrusive rocks

Volcanic and sedimentary rocks

PALEOPROTEROZOIC

Mafic intrusive rocks

Metasedimentary and metavolcanic rocks

SUPERIOR PROVINCE

ARCHEAN

NEO- TO MESOARCHEAN

Massive to foliated granodiorite to granite

Foliated to gneissic tonalite to granodiorite

Metasedimentary rocks and derived gneisses

Metavolcanic and metasedimentary rocks

MESOARCHEAN

Metavolcanic and metasedimentary rocks

[a] Phanerozoic units are lithostratigraphic, whereas Precambrian units are lithologic.

FIG.1: GENERAL LOCATION MAP

PROPERTY HISTORY

Assessment file data and O.G.S. Report 199 show that the Detour Lake Area has been actively explored for both base metals and gold since the late 1950's. A renewed exploration effort was initiated with the discovery of gold at the Detour Lake Mine in 1978.

The subject property was owned and explored previously by both Noranda Exploration and Dome Exploration. The work done by Noranda and Dome is documented as follows:

Noranda Exploration (Asses. File T-1697):

In 1967 Noranda Exploration cut a control grid over the majority of the current subject property. They utilized this grid to carry out a verticle loop electromagnetic survey and magnetic survey. Noranda outlined a number of weak anomalies, but no drilling was carried out on these zones. The ground was allowed to lapse.

Dome Exploration (Asses. File T-2349):

In 1983 Dome carried out an electromagnetic survey and magnetic survey over the entire current subject property. Dome also drilled a single hole in what is now the central portion of claim 1212940. No significant gold mineralization was detected and the ground was allowed to lapse.

GENERAL AREA AND PROPERTY GEOLOGY

The last geological report and map of the Detour Lake Area was published by G.W. Johns(1982) on behalf of the Ontario Geological Survey (Report 199). A substantial amount of work has been carried out in the Detour Lake Area since this report was published. This work includes extensive diamond drilling and airborne geophysical surveys. This author has taken data from assessment files showing this information and incorporated it into the data base provided by Johns. A modified version of Johns original geological map is shown in the accompanying Fig. 2A. This map provides a reasonable representation of the basic rock types and structure in the Detour Lake Area.

According to Johns(1982) the Detour Lake Area is part of the Early Precambrian Abitibi Belt of the Superior Province.

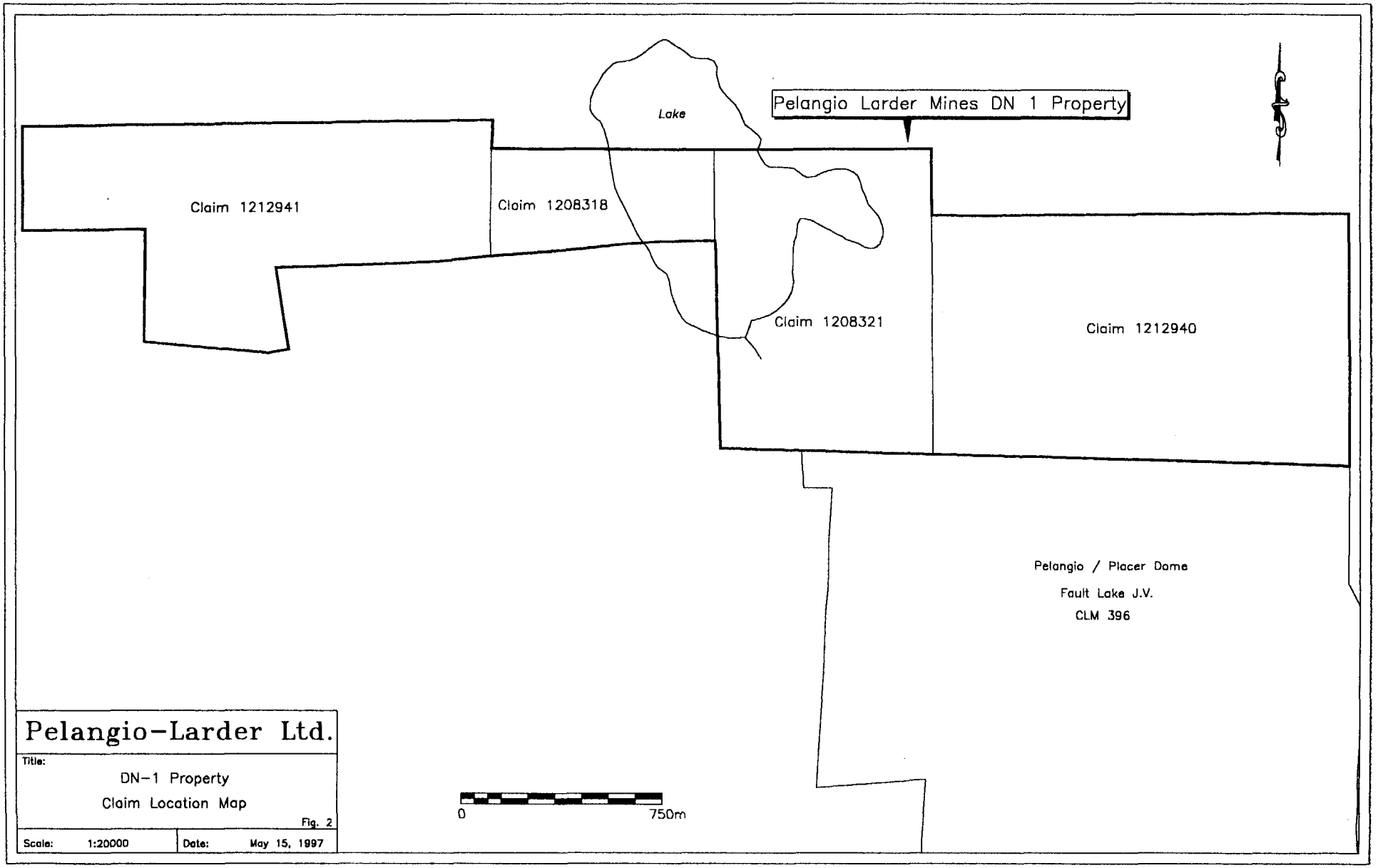
Johns has interpreted the lowest unit in the metavolcanic-metasedimentary sequence to be the felsic to intermediate metavolcanics. This unit appears to be overlain by a thin clastic metasedimentary unit which is in turn overlain by mafic to intermediate flows and pyroclastics. Lastly, Johns suggests that the mafics are overlain by a generalized unit containing in decreasing abundance; intermediate to felsic metavolcanics, mafic to intermediate metavolcanics and fine grained metasediments. This generalized sequence grades laterally to the northwest into metasediments which may have some mafic metavolcanic flows within the package. Within this generalized capping sequence, graphitic tuffs and metasediments, commonly with large amounts of associated sulphide mineralization, are common.

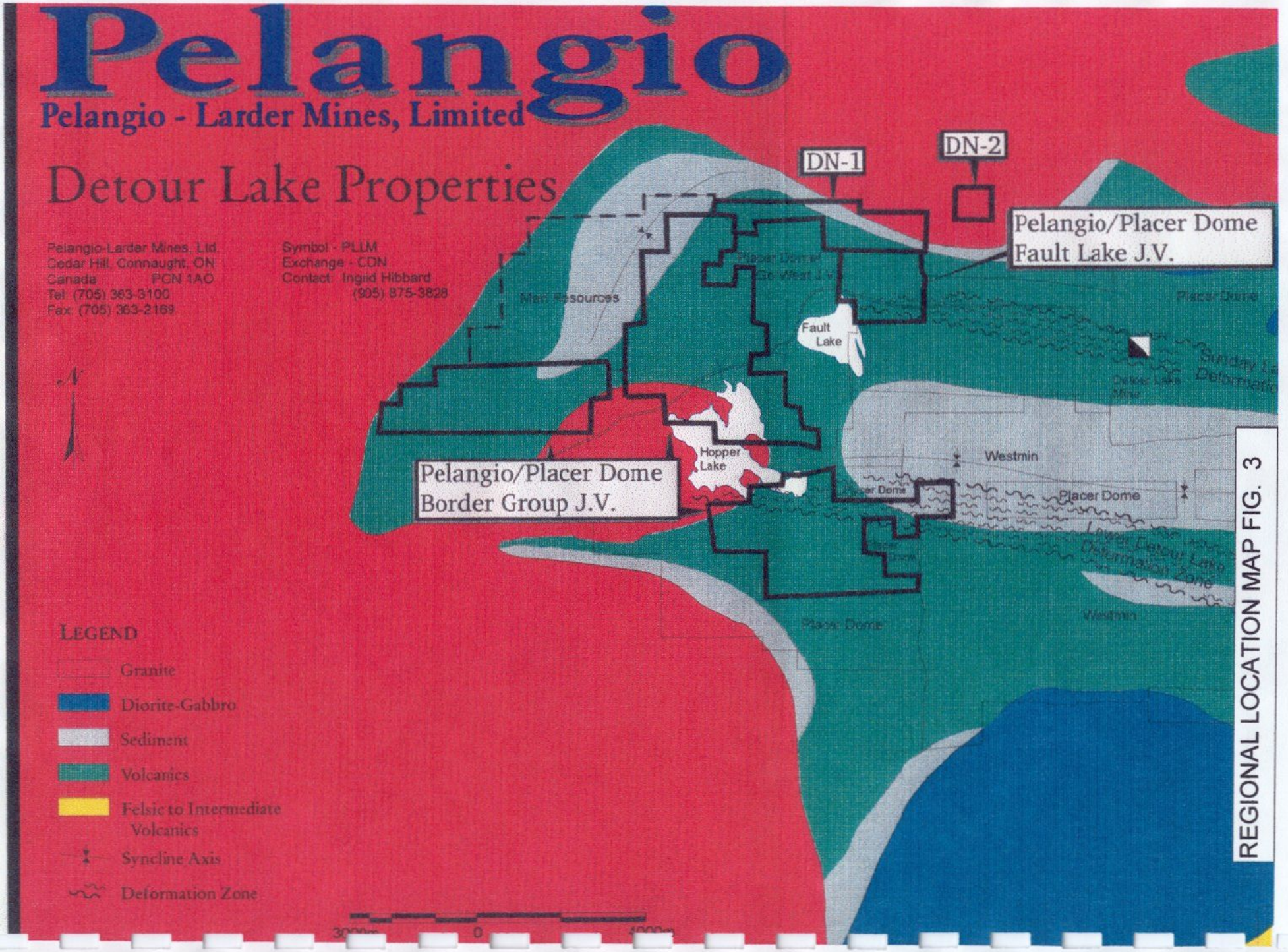
This volcanic sequence has been intruded by various intrusives ranging in composition from ultramafic to felsic. All of the aforementioned units were intruded by late diabase dykes.

Some general information on structure in the Detour Lake Area is also shown in the accompanying map. The most prominent feature is a major syncline axis running parallel to the strike of the sedimentary package in the central portion of Fig.2A. Further, work by Placer Dome and Newmont has shown that the greenstone belt extends further to the west. There is another sedimentary package here that makes up the centre of another syncline. Exploration work by Placer has shown that there are also two major deformation zones which strike parallel or subparallel to the main metasedimentary-metavolcanic contact as shown in Fig. 2A. These have been designated the Sunday Lake Deformation Zone and The Lower Detour Lake Deformation Zone.

The metavolcanic and metsedimentary rocks that underlie this area have undergone regional and contact metamorphism that ranges from upper greenschist to almandine-amphibolite facies rank.

From the general geology map Fig.2A the reader can see that the DN1 property lies along the extreme northern extremity of the greenstone belt. Like the vast majority of the Detour Lake Area this prospect has little to non existent rock exposure, due to an extensive layer of glacial debris and muskeg. Limited drilling, and geophysical information suggest that all of the DN1 property is underlain by metavolcanics and metasediments with the exception of the extreme NE portion of the property. The NE portion of the property is underlain by a portion of a large felsic batholith which surrounds most of the greenstone belt at Detour.


Pelangio Larder Mines DN 1 Property
Lake
Claim 1212941
Claim 1208318
Claim 1208321
Claim 1212940
Pelangio / Placer Dome
Fault Lake J.V.
CLM 396
0
750m
Pelangio-Larder Ltd.
Title:
DN-1 Property
Claim Location Map
Fig. 2
Scale: 1:20000
Date: May 15, 1997


Pelangio
Pelangio - Larder Mines, Limited
Detour Lake Properties
Pelangio-Larder Mines, Ltd.
Cedar Hill, Connaught, ON
Canada P0N 1A0
Tel: (705) 363-3100
Fax: (705) 363-2169
Symbol - PLLM
Exchange - CDN
Contact: Ingrid Hibbard
(905) 875-3828
DN-1
DN-2
Pelangio/Placer Dome
Fault Lake J.V.
Pelangio/Placer Dome
Border Group J.V.
Fault Lake
Hopper Lake
Westmin
Placer Dome
Placer Dome
Placer Dome
Placer Dome
Westmin
LEGEND
Granite
Diorite-Gabbro
Sediment
Volcanics
Felsic to Intermediate Volcanics
Syncline Axis
Deformation Zone
0
REGIONAL LOCATION MAP FIG. 3

SURVEY PARAMETERS

Magnetometer Survey:

A total of 32 km of Total Field Magnetometer Survey was carried out on grid lines

The following is a brief description of the Geophysical Survey Method used:

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

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

This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic responses can be interpreted for dip, depth and width estimates after profiling the data. The following parameters were employed for the survey:

Instrument - GSM-19 Proton Magnetometer
Station Interval - 12.5m, Line Interval - 100m
Diurnal Correction Method - GSM-19 Recording Base Station
Data Presentation - Magnetic Data Posting and Contour Map
- 1:5000

Induced Polarization Survey

The following is a brief description of the I.P. method and the parameters used for the survey:

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

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

Electrode Array

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

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

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

I.P. Survey Parameters

The IP survey was carried out using the following parameters:

Method: Time Domain
Electrode Array: Pole-Dipole
"a" spacing: 25 meters
Number of Dipoles Read: 1-4 inclusive
Pulse Duration: 2 seconds on, 2 seconds off
Delay Time: 310 milliseconds
Integration Time: 140 milliseconds
Receiver: Scintrex IPR-12
Transmitter: Scintrex TSQ-3 3KVA.
Data Presentation:
- Psuedosections, plates 1-3, 1:2500
- Contoured Fraser Filtered Chargeability plan map
- Contoured Fraser Filtered Resistivity plan map

SURVEY RESULTS

Magnetometer Survey

The Magnetometer Survey indicates a relatively uniform magnetic susceptability over the grid with the southeast corner having a slightly lower background. Exceptions to this are several prominent linear grid east-west striking magnetic anomalies, two of which appear to be coincident with I.P. Anomalies 'A' and 'C', described under I.P. Results.

The magnetic response associated with I.P. Anomaly 'A' is a narrow, linear response from L2e/625s - L3e/625s. A follow up drill program to the current surveys, reported pyhrrotite mineralization which explains the anomaly.

There is a narrow weak magnetic high coincident with Anomaly 'C' on L14e - L16e. This anomaly is still unexplained.

I.P. Survey

The I.P. Survey was carried out on all of or parts of Lines 3w - 18e. The survey outlined several I.P. Anomalies, the more prominent ones labelled 'A' - 'D' on the plan, filtered, chargeability map. They are described below:

Anomaly 'A'

- L2e/612s - L4e/620s, open to the east and west.
- approx. 2x chargeability background, resistive.
- narrow, weak, coincident mag on L2e, L3e, described above.

Anomaly 'B'

- L3w/500s - L7e/500s, open to the east and west.
- approx. 4-5x chargeability background.
- resistivities are lower than background along strike but are noticeably higher on L2e and L3e.

Anomaly 'C'

- L14e/550n - L17e/550n, open to the east.
- chargeability approx. 2-3x background, resistive.
- coincident magnetic correlation on L14e, L15e, L16e.

Anomaly 'D'

- L12e/75n - L16e/125n.
- broad, weakly chargeable, resistive anomaly.
- indicative of a bedrock ridge.

CONCLUSIONS AND RECOMMENDATIONS

Follow up drilling of I.P. Anomaly 'A' and 'B' indicated highly anomalous gold values associated with Anomaly 'B'. This anomaly was only drill tested on L2e and L3e and should be drilled along strike in both directions.

Anomaly 'C' is somewhat similar to 'A' and 'B' with a coincident magnetic correlation. The anomaly has a slightly lower chargeability background and is more resistive. It is apparently untested and as such should be a priority drill target.

Anomaly 'D' could possibly be caused by a bedrock ridge but should be explained to determine this. During the course of the I.P. Survey, it was reported that the electrodes may have hit bedrock within five feet of surface. This anomaly may be able to be trenched by a backhoe.

CERTIFICATION

I, Raymond Joseph Meikle of Timmins, Ontario hereby certify that:

1. I hold a three year Technologist Diploma from the Haileybury School of Mines, Haileybury, Ontario, obtained in May 1975.

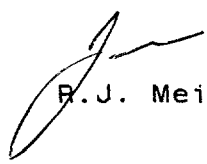
2. I have been practising my profession since 1973 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Manitoba, Germany and Chile.

3. I have been employed directly with Teck Corporation, Metallgessellschaft Canada Ltd. Sabina Industries, R.S. Middleton Exploration Services Ltd., self employed 1979-1996 (Rayan Exploration Ltd.) and currently with Geophysical Engineering and Surveys Inc.

4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the field work conducted on the property during 1997.

5. I hold no interest, directly or indirectly in this property, nor do I expect to receive any interest or considerations other than professional fees for services rendered.

Dated this 10th day of Mar., 1998
at Timmins, Ontario.



R.J. Meikle

APPENDIX A

SCINTREX IPR-12 RECEIVER

SCINTREX

IPR-12 Time Domain Induced Polarization/Resistivity Receiver

Brief Description

The IPR-12 Time Domain IP/Resistivity Receiver is principally used in exploration for precious and base metal mineral deposits. In addition, it is used in geoelectrical surveying for groundwater or geothermal resources, often to great depths. For these latter targets, the induced polarization measurements may be as useful as the high accuracy resistivity results since it often happens that geological materials have IP contrasts when resistivity differences are absent.

Due to its integrated, lightweight, microprocessor based design and its large, 16 line display screen, the IPR-12 is a remarkably powerful, yet easy to use instrument. A wide variety of alphanumeric and graphical information can be viewed by the operator during and after the taking of readings. Signals from up to eight potential dipoles can be measured simultaneously and recorded in solid-state memory along with automatically calculated parameters. Later, data can be output to a printer or a PC (direct or via modem) for processing into profiles and maps.

The IPR-12 is compatible with Scintrex IPC and TSQ Transmitters, or others which output square waves with equal on and off periods and polarity changes each half cycle. The IPR-12 measures the primary voltage (Vp), self potential (SP) and time domain induced polarization (Mi) characteristics of the received waveform. Resistivity, statistical and Cole-Cole parameters are calculated and recorded in memory with the measured data and time.

Scintrex has been active in induced polarization research, development, manufacturing, consulting and surveying for over thirty years. We offer a full range of instrumentation, accessories and training.

The IPR-12 Receiver measures spectral IP signals from eight dipoles simultaneously then records measured and calculated parameters in memory.

Benefits

Speed Up Surveys

The IPR-12 saves you time and money in carrying out field surveys. Its capacity to measure up to eight dipoles simultaneously is far more efficient than older receivers measuring a single dipole. This advantage is particularly valuable in drillhole logging where electrode movement time is minimal.

The built-in, solid-state memory records all information associated with a reading, dispensing with the need for any hand written notes. PC compatibility means rapid electronic transfer of data from the receiver to a computer for rapid data processing.

Taking a reading is simple and fast. Only a few keystrokes are virtually needed since the IPR-12 features automatic circuit resistance checks, SP buckout and gain setting.

High Quality Data

One of the most important features of the IPR-12 in permitting high quality data to be acquired, is the large display screen which allows the operator easy real time access to graphic and alphanumeric displays of instrument status and measured data. The IPR-12 ensures that the operator obtains accurate data from field work.

The number and relative widths of the IP decay curve windows have been carefully chosen to yield the transient information required for proper interpretation of spectral IP data. Timings are selectable to permit a very wide range of responses to be measured.

APPENDIX B

SCINTREX TSQ-3 TRANSMITTER

SCINTREX TSQ-3 3000 W

Time and Frequency Domain IP and Resistivity Transmitter

Function

The TSQ-3 is a multi-frequency, square wave transmitter suitable for induced polarization and resistivity measurements in either the time or frequency domain. The unit is powered by a separate motor-generator.

The favourable power/weight ratio and compact design of this system make it portable and highly versatile for use with a wide variety of electrode arrays. The medium range power rating is sufficient for use under most geophysical conditions.

The TSQ-3 has been designed primarily for use with the Scintrex Time Domain and Frequency Domain Receivers, for combined induced polarization and resistivity measurements, although it is compatible with most standard time domain and frequency domain receivers. It is also compatible with the Scintrex Commutated DC Resistivity Receivers for resistivity surveying. The TSQ-3 may also be used as a very low frequency electromagnetic transmitter.

Basically the transmitter functions as follows. The motor turns the generator (alternator) which produces 800 Hz, three phase, 230 V AC. This energy is transformed upwards according to a front panel voltage setting by a large transformer housed in the TSQ-3. The resulting AC is then rectified in a rectifier bridge. Commutator switches then control the DC voltage output according to the waveform and frequency selected. Excellent output current stability is ensured by a unique, highly efficient technique based on control of the phase angle of the three phase input power.

Features

Current outputs up to 10 amperes, voltage outputs up to 1500 volts, maximum power 3000 VA.

Solid state design for both power switching and electronic timing control circuits.

Circuit boards are removable for easy servicing.

Switch selectable wave forms: square wave continuous for frequency domain and square wave interrupted with automatic polarity change for time domain.

Switch selectable frequencies and pulse times.

Overload, underload and thermal protection for maximum safety.

Digital readout of output current.

Programmer is crystal controlled for very high stability.

Low loss, solid state output current regulation over broad range of load and input voltage variations.

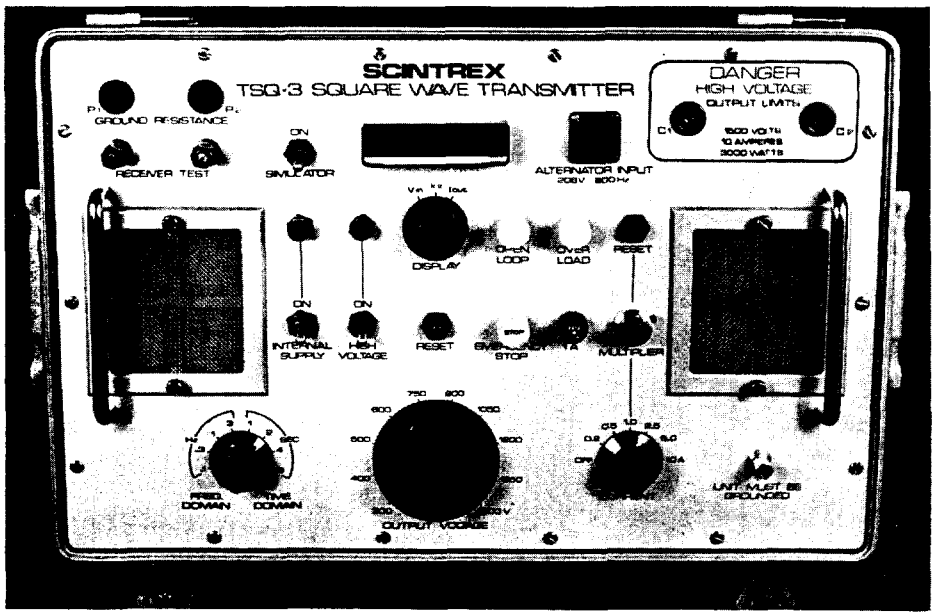
Rectifier circuit is protected against transients.

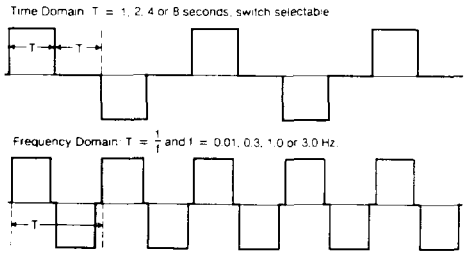
Excellent power/weight ratio and efficiency.

Designed for field portability; motor-generator is installed on a convenient frame and is easily man-portable. The transmitter is housed in an aluminum case.

The motor-generator consists of a reliable Briggs and Stratton four stroke engine coupled to a brushless permanent magnet alternator.

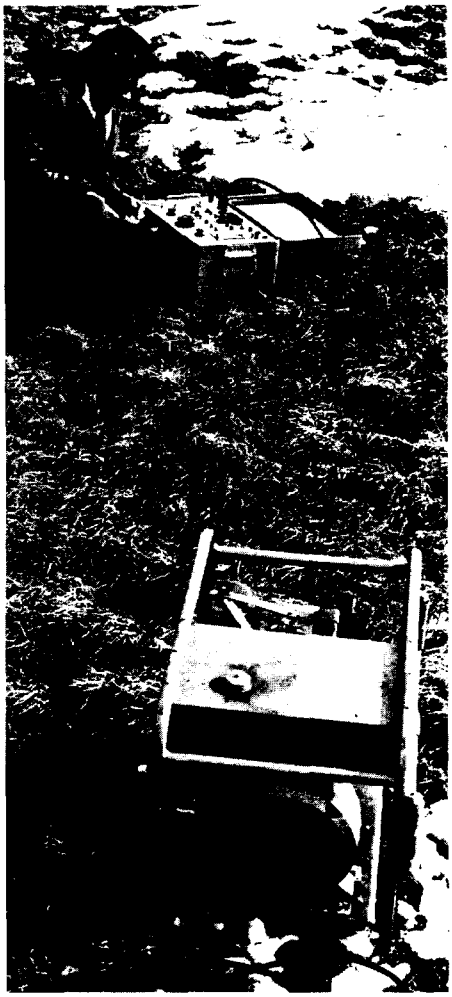
New motor-generator design eliminates need for time domain dummy load.





Waveforms output by the TSQ-3

Technical Description of TSQ-3/3000W Time and Frequency Domain IP and Resistivity Transmitter



TSQ-3 transmitter with portable motor generator unit

Transmitter Console	
Output Power	3000 VA maximum
Output Voltages	300, 400, 500, 600, 750, 900, 1050, 1200, 1350 and 1500 volts, switch selectable
Output Current	10 amperes maximum
Output Current Stability	Automatically controlled to within ±0.1% for up to 20% external load variation or up to ±10% input voltage variation
Digital Display	Light emitting diodes permit display up to 1999 with variable decimal point; switch selectable to read input voltage, output current, external circuit resistance. Dual current range, switch selectable
Absolute Accuracy	±3% of full range
Current Reading Resolution	10 mA on coarse range (0-10A) 1 mA on fine range (0-2A)
Frequency Domain Waveform	Square wave, continuous with approximately 6% off time at polarity change
Frequency Domain Frequencies	Standard: 0.1, 0.3, 1.0 and 3.0 Hz, switch selectable Optional: any number of frequencies in range 0 to 5 Hz.
Time Domain Cycle Timing	t:t:t:t;on:off:on:off;automatic
Time Domain Polarity Change	each 2t; automatic
Time Domain Pulse Durations	Standard: t = 1, 2, 4 or 8 seconds Optional: any other timings
Time and Frequency Stability	Crystal controlled to better than .01%
Efficiency	.78
Operating Temperature Range	−30°C to +50°C
Overload Protection	Automatic shut-off at 3300 VA
Underload Protection	Automatic shut-off at current below 75mA
Thermal Protection	Automatic shut-off at internal temperature of +85°C
Dimensions	350 mm x 530 mm x 320 mm
Weight	25.0 kg.
Power Source	
Type	Motor flexibly coupled to alternator and installed on a frame with carrying handles.
Motor	Briggs and Stratton, four stroke, 8 H.P.
Alternator	Permanent magnet type, 800 Hz, three phase 230 V AC
Output Power	3500 VA maximum
Dimensions	520 mm x 715 mm x 560 mm
Weight	72.5 kg
Total System	
Shipping Weight	150 kg includes transmitter console, motor generator, connecting cables and re-usable wooden crates

SCINTREX

222 Snidercroft Road
Concord Ontario Canada
L4K 1B5

Telephone: (416) 669-2280
Cable: Geoscint Toronto
Telex: 06-964570

Geophysical and Geochemical
Instrumentation and Services

APPENDIX C

GSM - 19 MAGNETOMETER

INSTRUMENT SPECIFICATIONS

MAGNETOMETER / GRADIOMETER

Resolution:	0.01 nT (gamma), magnetic field and gradient.
Accuracy:	0.2 nT over operating range.
Range:	20,000 to 120,000 nT.
Gradient Tolerance:	Over 10,000 nT/m
Operating interval:	3 seconds minimum, faster optional. Readings initiated from keyboard, external trigger, or carriage return via RS-232-C.
Input/Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12 V, 200 mA peak (during polarization), 30 mA standby. 300mA peak in gradiometer mode.
Power Source:	Internal 12 V, 2.6 Ah sealed lead-acid battery standard, others optional. An External 12V power source can also be used.
Battery Charger:	**Input:** 110 VAC, 60 Hz. Optional 110/220 VAC, 50/60 Hz. **Output:** dual level charging.
Operating Ranges:	Temperature: **-40 °C to +60 °C.** Battery Voltage: **10.0 V minimum to 15V maximum.** Humidity: **up to 90% relative, non condensing.**
Storage Temperature:	-50°C to +65°C
Display:	**LCD**: 240 x 64 pixels, or 8 x 30 characters. Built in heater for operation below -20°C
Dimensions:	**Console:** 223 x 69 x 240mm. **Sensor staff:** 4 x 450mm sections. **Sensor:** 170 x 71mm dia. **Weight:** Console 2.1kg, Staff 0.9kg, Sensors 1.1kg each.

VLF

Frequency Range:	15 - 30.0 kHz.
Parameters Measured:	Vertical In-phase and Out-of-phase components as percentage of total field. 2 components of horizontal field. Absolute amplitude of total field.
Resolution:	0.1%.
Number of Stations:	Up to 3 at a time.
Storage:	Automatic with: time, coordinates, magnetic field/gradient, slope, EM field, frequency, in- and out-of-phase vertical, and both horizontal components for each selected station.
Terrain Slope Range:	0° - 90° (entered manually).
Sensor Dimensions:	14 x 15 x 9 cm. (5.5 x 6 x 3 inches).
Sensor Weight:	1.0 kg (2.2 lb).

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Transaction Number (office use): W9860.00748
Assessment Files Research Imaging

Subsections 66(2) and 66(3), R.S.O. 1990

Subsections 66(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this work and correspond with the mining land holder. Questions about this collection at and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

32L04SW2002 2.18702 WEST OF SUNDAY LAKE 900

- Please type or print in ink.

2.18702

1. Recorded holder(s) (Attach a list if necessary)

Name: PELANGIO LARDER MINES LIMITED	Client Number: 180621
Address: 539 Moorlands Cr. Milton Ontario	Telephone Number: 905 875 3828
	Fax Number: 905 875 3829
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

- [✓] Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
- [ ] Physical: drilling stripping, trenching and associated assays
- [ ] Rehabilitation

		Office Use
Work Type: INDUCED POLARIZATION & MAGNETIC SURVEYS		Commodity
		Total $ Value of Work Claimed: 52426
Dates Work Performed: From 1 2 97 To 9 12 97 (Day / Month / Year)		NTS Reference
Global Positioning System Data (if available)	Township/Area: WEST OF SUNDAY LAKE	Mining Division: Tim
	Man G-Plan Number: G-1680	Resident Geologist District

Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

RECEIVED
AUG 17 1998
10:00
GEOSCIENCE ASSESSMENT OFFICE

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: Ray Meikle	Telephone Number: 268-4866 or 264-1803
Address: Timmins Ontario	Fax Number: 360-7733
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

RECEIVED
AUG 14 1998
PORCUPINE MINING DIVISION

4. Certification by Recorded Holder or Agent

I, Kevin Filo (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Kevin Filo		Date: Aug 10/98
Agent's Address: 535 Ban Gamma St.	Telephone Number: 705 268 0371	Fax Number: 705 268 5834

8/11/98 4:24

Deemed NOV. 12/1998

W9860.00748

			Schedule of Work Conducted After Recording of Claim			
	Claim#	Units	Work Done on This Claim	Work Applied To This Claim	Value Assigned From Claim	Reserve For Future
	1208318	2	6562	0	0	6562
	1208321	6	19656	0	0	19656
	1212940	8	26208	0	0	26208
Totals	**3**	**16**	**52426**	**0**	**0**	**52426**

2.18702

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W9860.00748

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
MAG & I.P. GEOPHYSICS	32 km	1448.9375	44426.40
LINECUTTING	32 km	250	8000.00
Associated Costs (e.g. supplies, mobilization and demobilization).		2.187 02	
Transportation Costs			
Food and Lodging Costs			
		Total Value of Assessment Work	52426.40

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2:00 PM
PORCUPINE MINING DIVISION

RECEIVED
AUG 17 1998
GEOSCIENCE ASSESSMENT OFFICE

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, J. K. FILO (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as AGENT (recorded holder, agent, or state company position with signing authority). I am authorized to make this certification.

Signature | Date Aug 10/98

2.19709

RECEIVED
AUG 17 1998
10:00
GEOSCIENCE ASSESSMENT

RECEIVED
AUG 14 1998
PORCUPINE MINING DIVISION

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

October 5, 1998

PELANGIO - LARDER MINES, LIMITED
539 Moorlands Cr.
Milton, Ontario
L9T 4B2

Dear Sir or Madam:

Submission Number: 2.18702

Subject: Transaction Number(s):		**Status**
	W9860.00748	Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jeromel2@epo.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 12904

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.18702

Date Correspondence Sent: October 05, 1998 **Assessor:** Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9860.00748	1208318	WEST OF SUNDAY LAKE	Deemed Approval	September 29, 1998

Section:
14 Geophysical IP
14 Geophysical MAG

Correspondence to:
Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
Kevin Filo
TIMMINS, ONTARIO, CANADA

PELANGIO - LARDER MINES, LIMITED
Milton, Ontario

KATTAWAGAMI RIVER G-1639

NEWNHAM CREEK G-1658

SUNDAY LAKE G-1677

HOPPER LAKE G-1636

80°00'

79°45'

50°07'30"

50°00'

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

2.18702
IP, MAG

1218733
1218734
1218711
1218710
1212942
4 UNITS
1212941
6 UNITS
1212940
6 UNITS
1204275
1213630
1213629
1234946
1234945
1234944
1206872
(16 UNITS)
1206873
(4 UNITS)
1206871
(4 UNITS)
1213245
(9 UNITS)
1189628
(12 UNITS)
1189627
(6 UNITS)
1213246
(6 UNITS)
1206870
(13 UNITS)
1199624
(16 UNITS)
1218750
(12 UNITS)
1189626
(2 UNITS)
1189905
(2 UNITS)
1189906
1189631
(12 UNITS)
1160200
CLM 362
CLM 363
CLM 364
CLM 228
CLM 229
CLM 230
CLM 231
CLM 596
CLM

501794

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

AREA REOPENED BY ORDER # NRO 27/85
JULY 22, 1985 S.R.O.

DATE OF
OCT 06 1998
PROVINCIAL
OFFICE - SUDBURY

Received Aug 18/83

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	▬
" , MINING RIGHTS ONLY	▬
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	R
CANCELLED	⊗
SAND & GRAVEL	R

NOTE MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

✦ REMOTE TOURIST CAMP

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

AREA

WEST OF SUNDAY LAKE

M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE

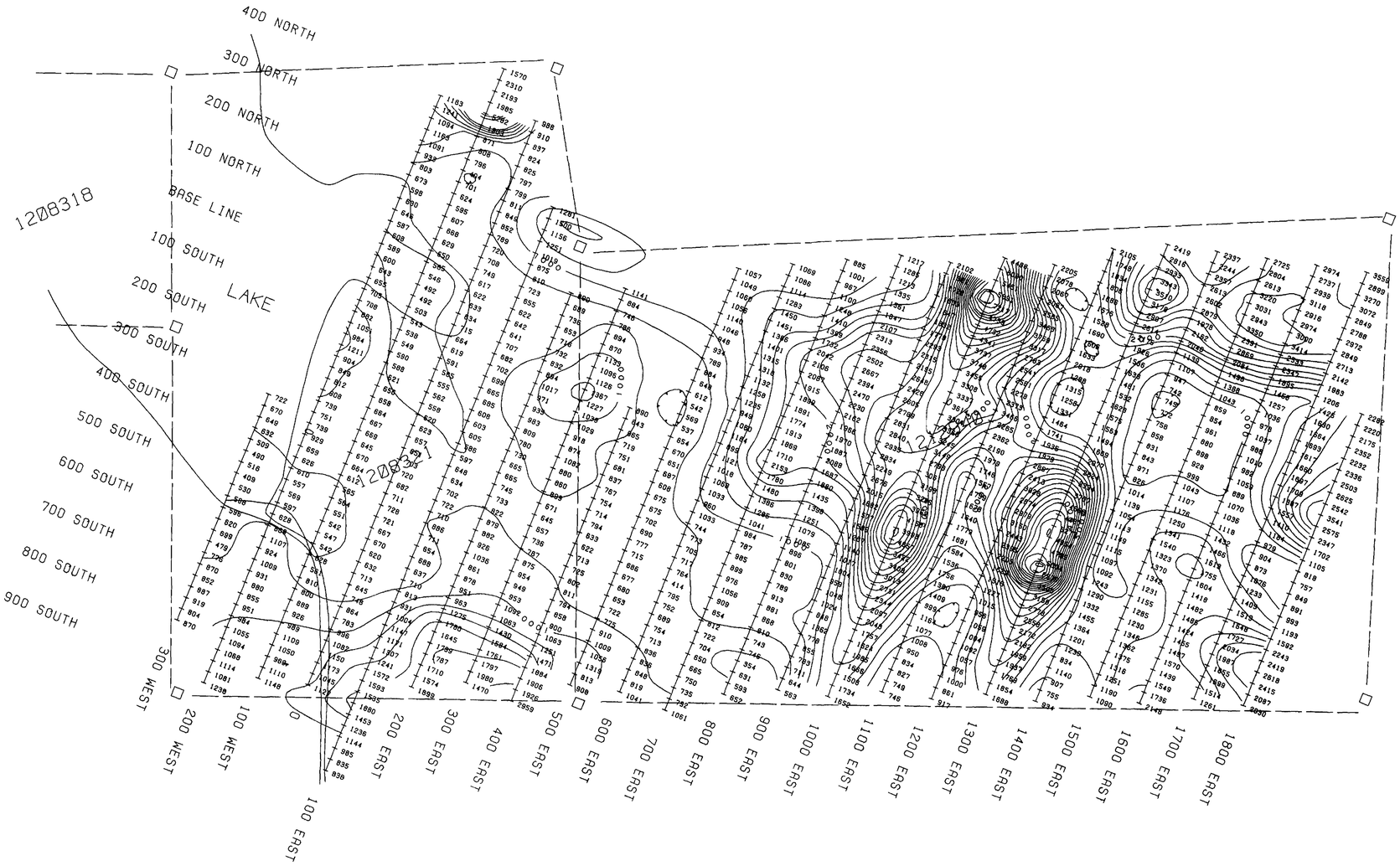
MINING DIVISION
PORCUPINE

LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources — Land Management Branch
Ontario

Date DECEMBER 1982

Number G-1680



N

LEGEND

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2sec ON 2sec OFF
PLOTTED WINDOW: SLICE #9
TRANSMITTER: SCINTREX TSQ-3 3KVA
POLE - DIPOLE
CONTOUR INTERVAL: 200 ohms/meter
A SPACING: 25 M

PLOTTED DATA = FRASER FILTERED (B), RESISTIVITY

200 100 0 50 100 200

Client: PELANGIO LARDER MINES LTD

Property: DN1 PROPERTY

Title: CONTOURED FILTERED I.P. RESISTIVITY PLAN

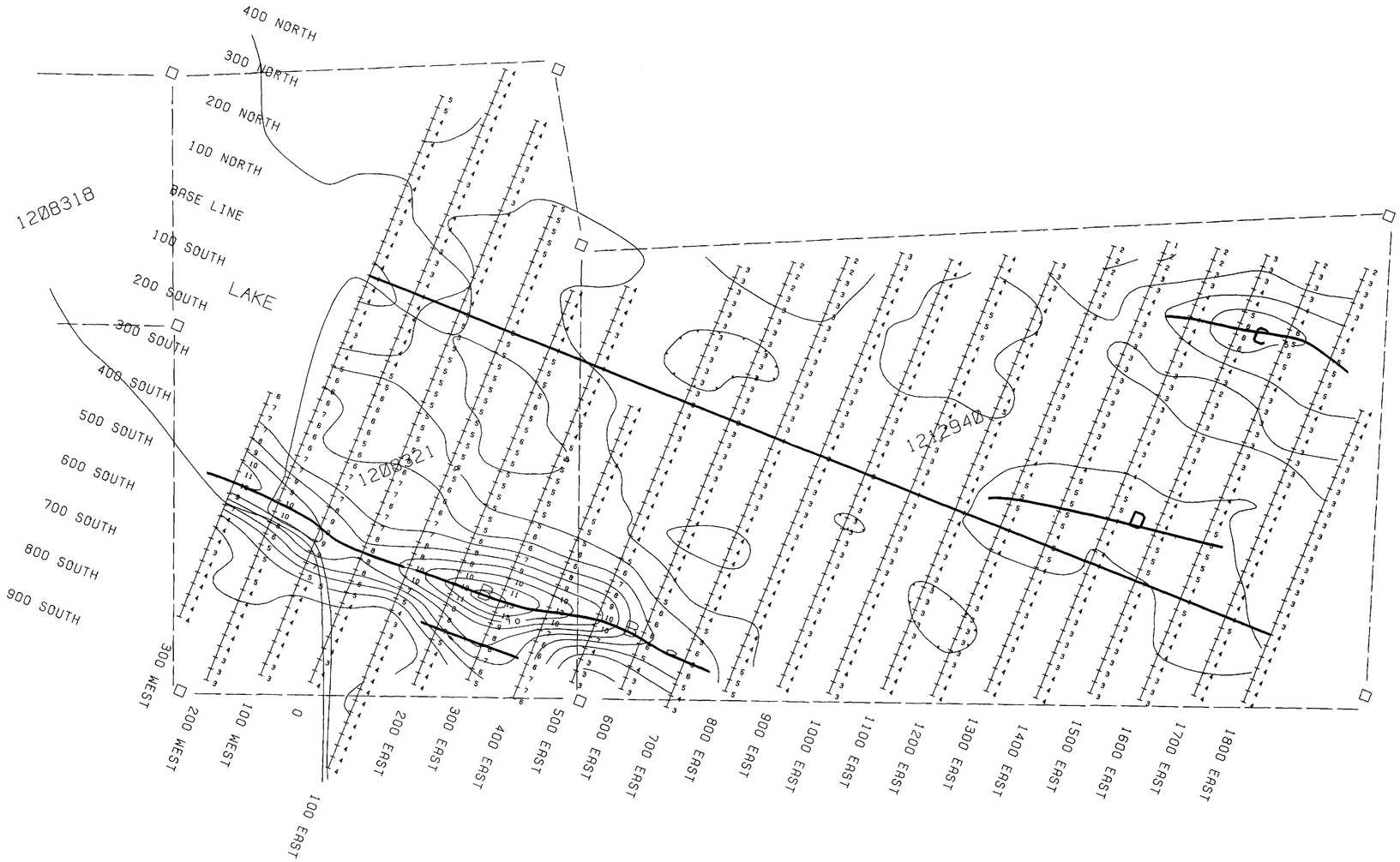
Processed: KBG	Checked: RJM
Date: MAR.1997	Township: WEST SUNDAY LAKE AREA
Province: ONT	N.T.S.:
Scale: 1:5.000	Drawing: FILTRES

RAYAN
EXPLORATION LTD.
CONTRACT/CONSULTING GEOPHYSICS
TIMMINS, ONTARIO
(705)-268-4866

RECEIVED
AUG 17 1998
GEOSCIENCE ASSESSMENT OFFICE

2.18702

32L04SW2002 2.18702 WEST OF SUNDAY LAKE 210



LEGEND

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2sec ON 2sec OFF
PLOTTED WINDOW: SLICE #9
TRANSMITTER: SCINTREX TSQ-3 3KVA
POLE - DIPOLE
CONTOUR INTERVAL: 1 ms
A SPACING: 25 M

PLOTTED DATA = FRASER FILTERED (B). CHARGEABILITY

I.P. ANOMALY AXIS:

200 100 0 50 100 200

Client: PELANGIO LARDER MINES LTD

Property: DN1 PROPERTY

Title: CONTOURED FILTERED I.P. CHARGEABILITY PLAN

Processed: KBG	Checked: RJM
Date: MAR.1997	Township: WEST SUNDAY LAKE AREA
Province: ONT	N.T.S.:
Scale: 1:5,000	Drawing: FILTCHG

RAYAN EXPLORATION LTD.
CONTRACT/CONSULTING GEOPHYSICS
TIMMINS, ONTARIO
(705)-268-4866

RECEIVED
AUG 17 1998
GEOSCIENCE ASSESSMENT OFFICE

32L04SW2002 2.18702 WEST OF SUNDAY LAKE 220

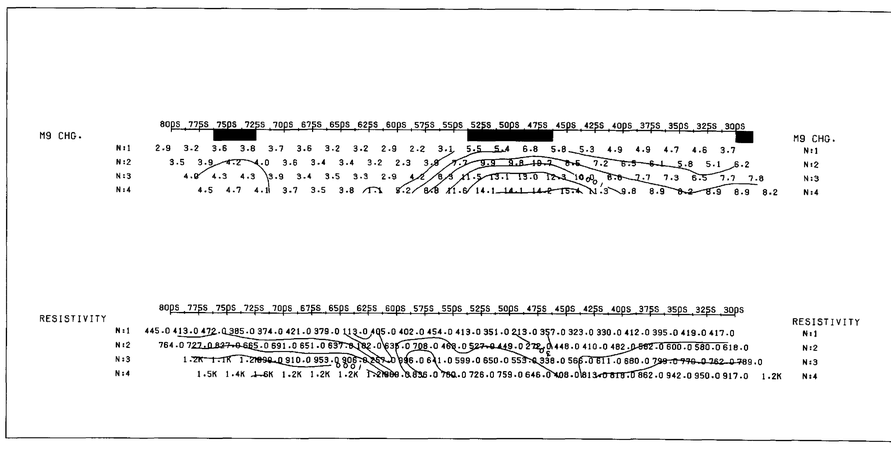
PELANGIO LARDER MINES LTD.

IP PSUEDOSECTIONS

DN1 PROJECT

DETOUR LAKE

PLATE 1 of 4



LINE : 300 W

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

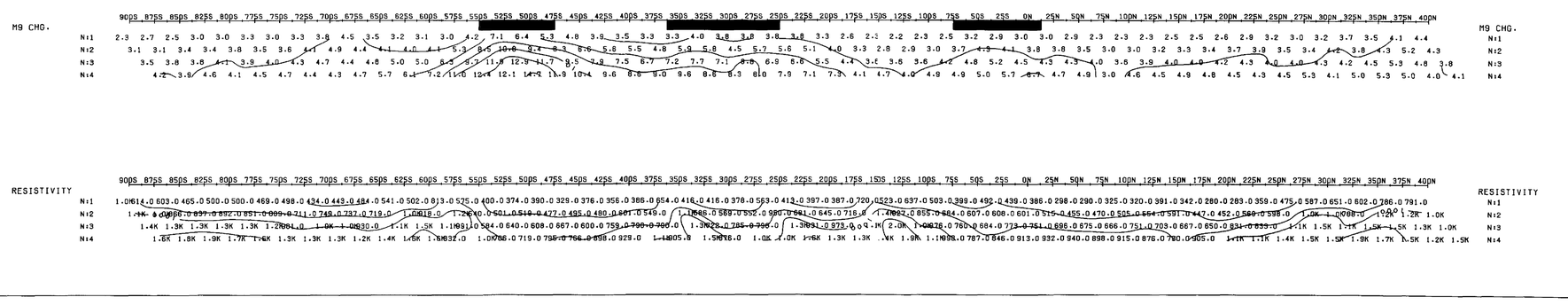
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

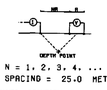
RAYAN EXPLORATION LIMITED



LINE : 200 W

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

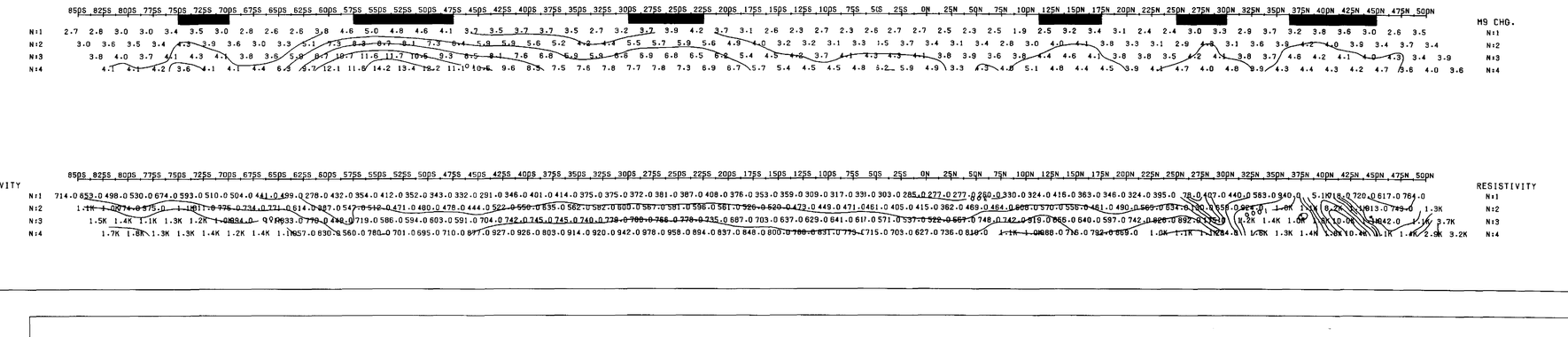
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

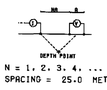
RAYAN EXPLORATION LIMITED



LINE : 100 W

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

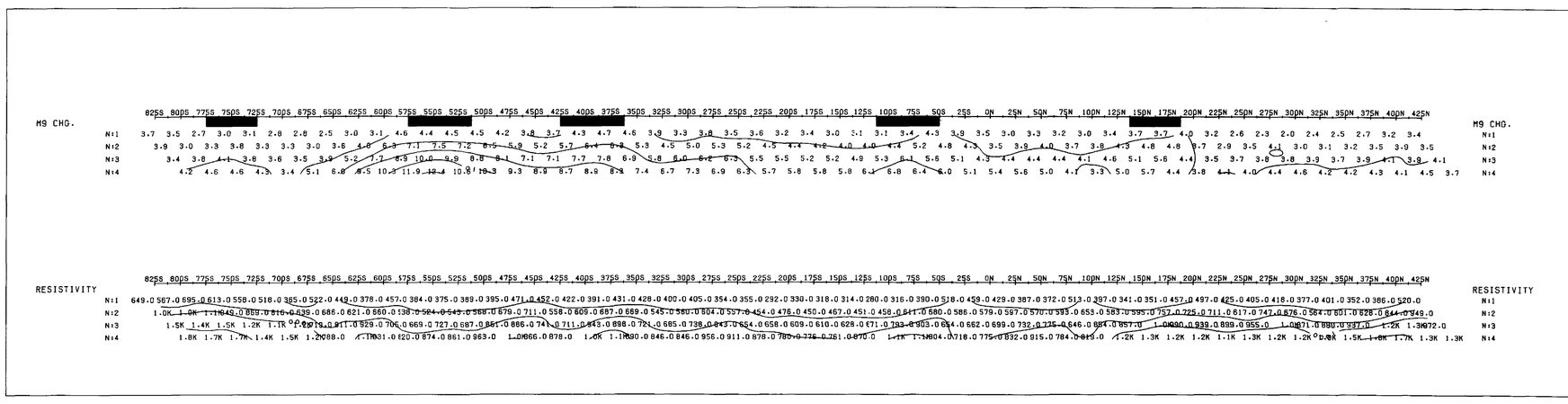
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED



LINE : 0 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

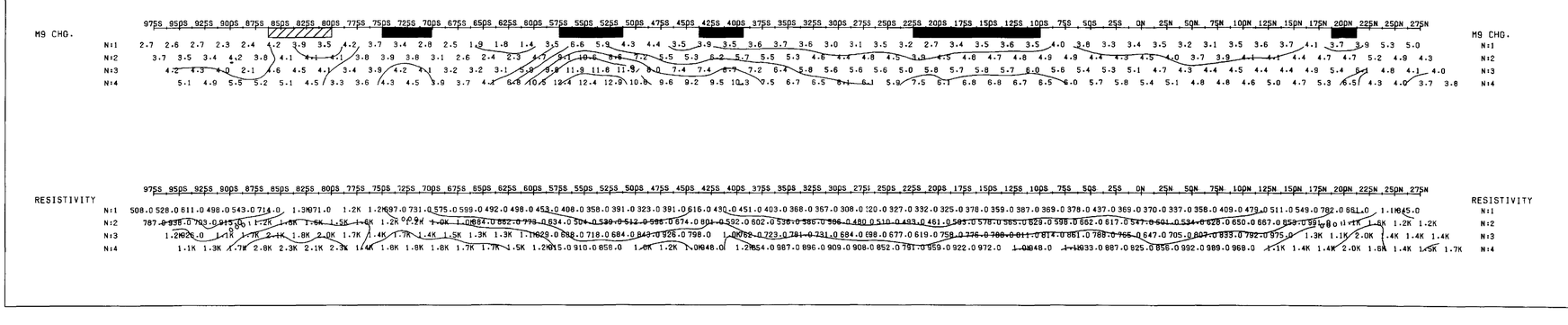
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED



LINE : 100 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

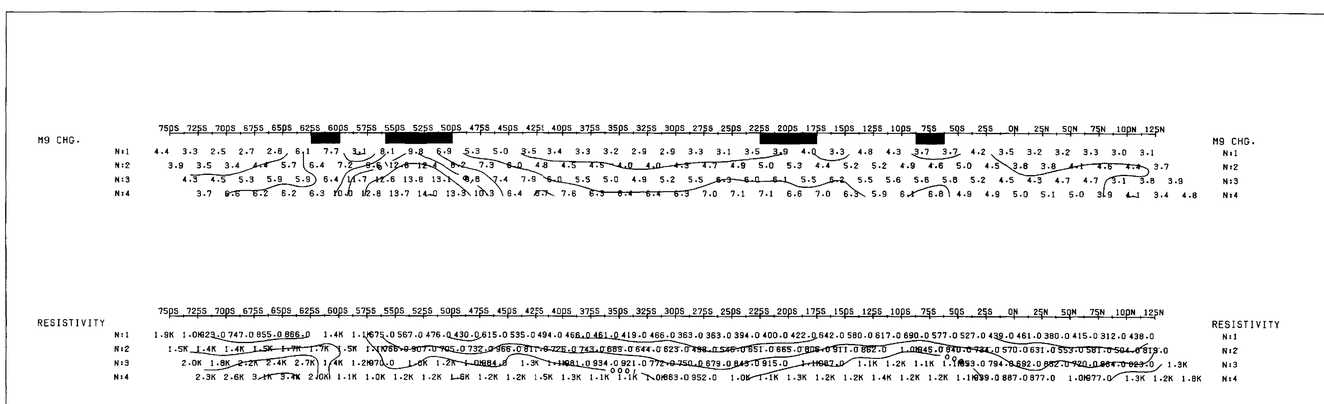
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED



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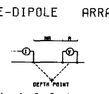
INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED

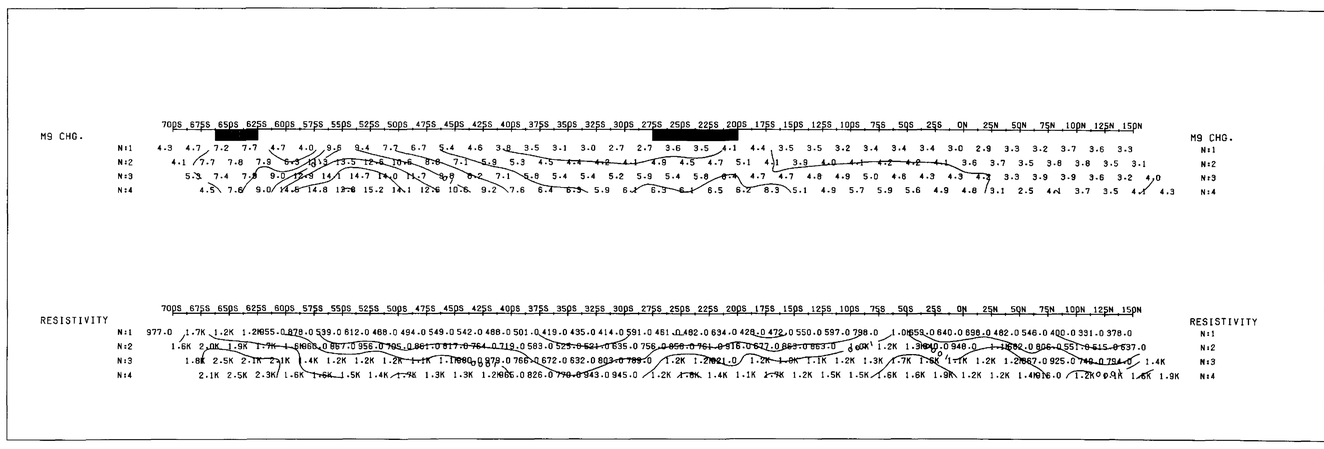
PELANGIO LARDER MINES LTD.

IP PSUEDOSECTIONS

DN1 PROJECT

DETOUR LAKE

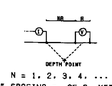
PLATE 2 of 4



LINE : 300 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

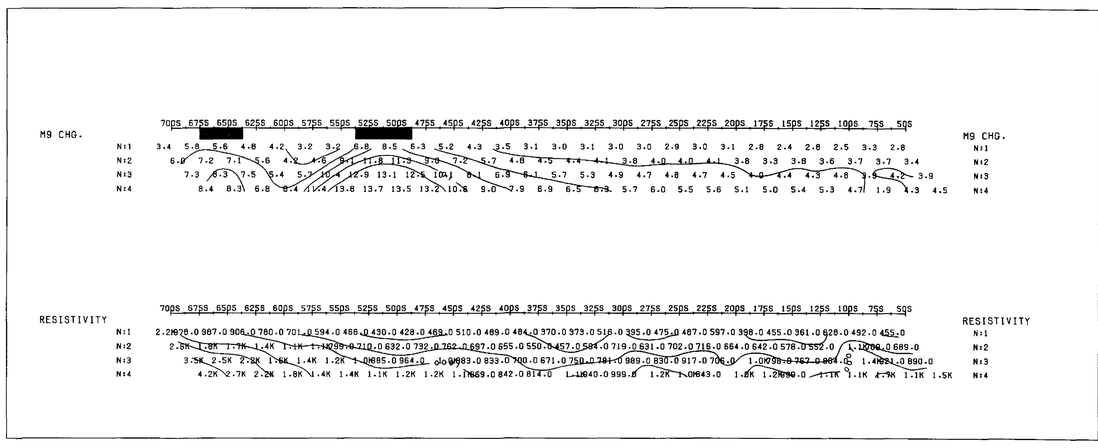
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

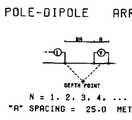
RAYAN EXPLORATION LIMITED



LINE : 400 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

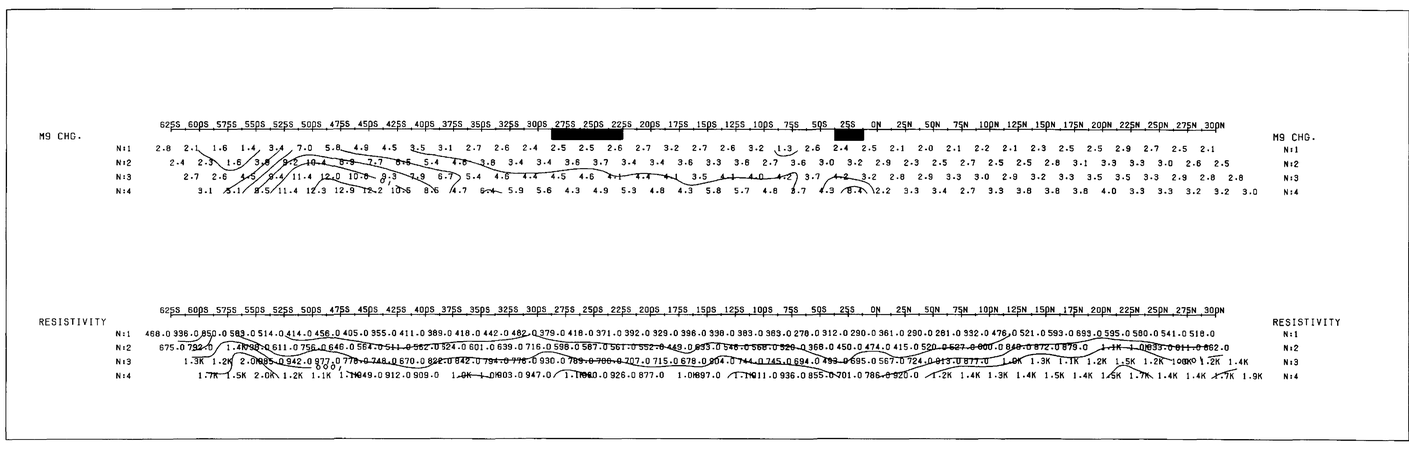
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

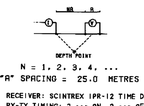
RAYAN EXPLORATION LIMITED



LINE : 500 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

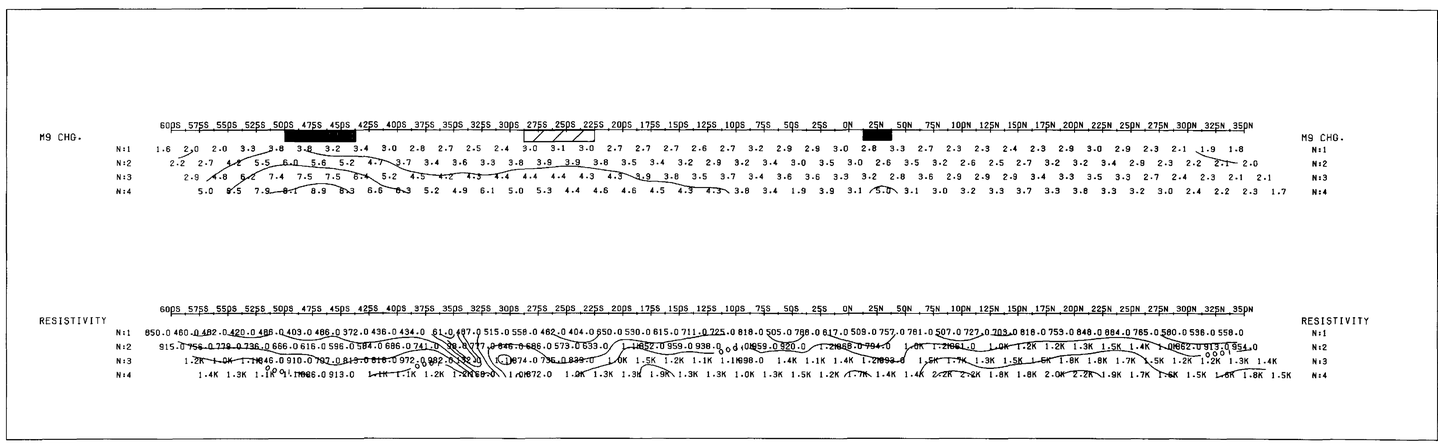
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

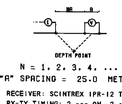
RAYAN EXPLORATION LIMITED



LINE : 600 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

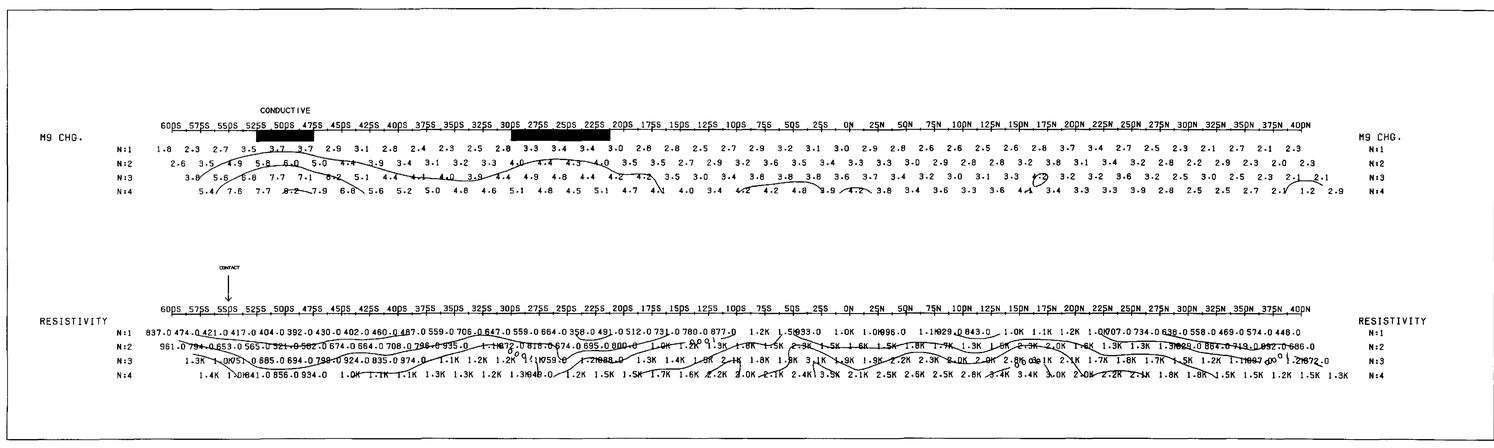
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

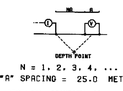
RAYAN EXPLORATION LIMITED



LINE : 700 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

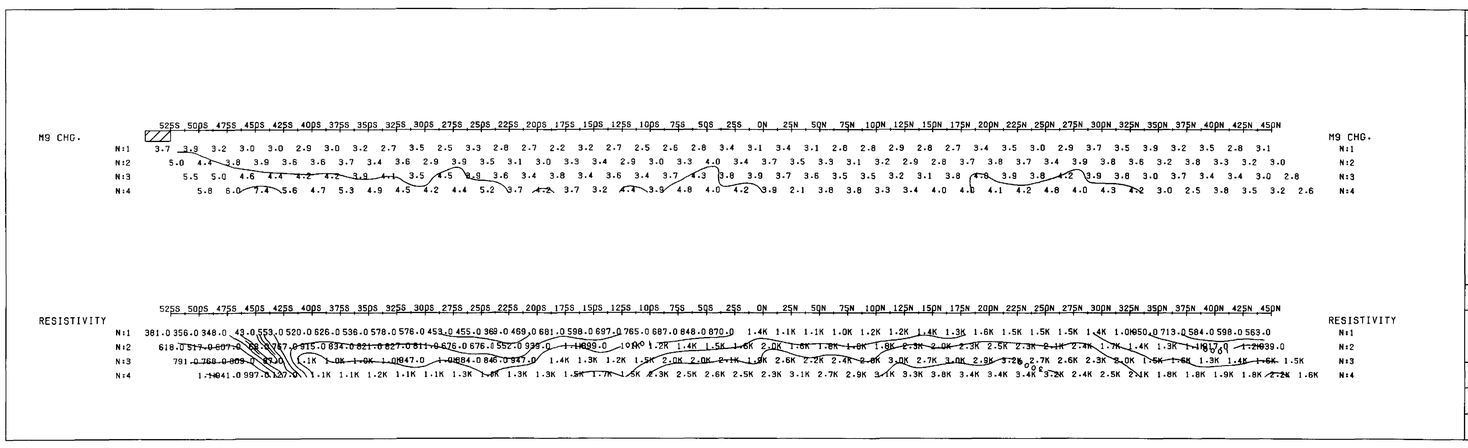
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

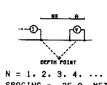
RAYAN EXPLORATION LIMITED



LINE : 800 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED

2.18702

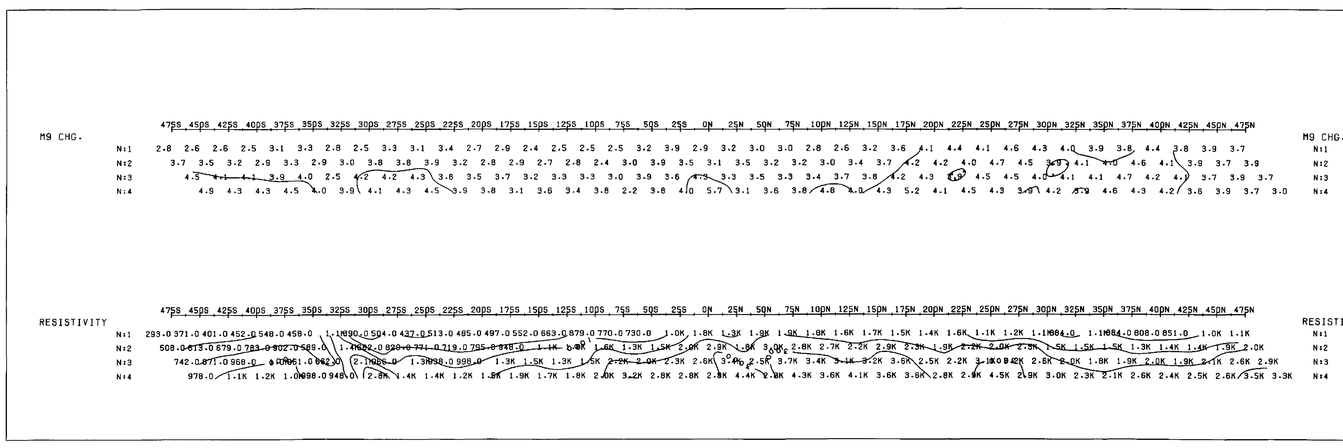
PELANGIO LARDER MINES LTD.

IP PSUEDOSECTIONS

DN1 PROJECT

DETOUR LAKE

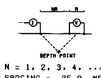
PLATE 3 of 4



LINE : 900 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

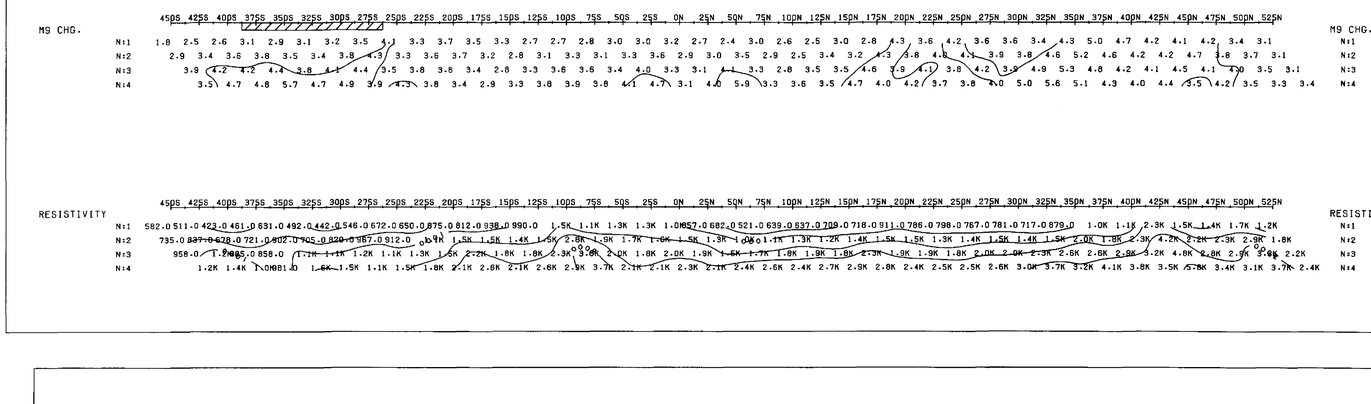
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

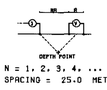
RAYAN EXPLORATION LIMITED



LINE : 1000 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

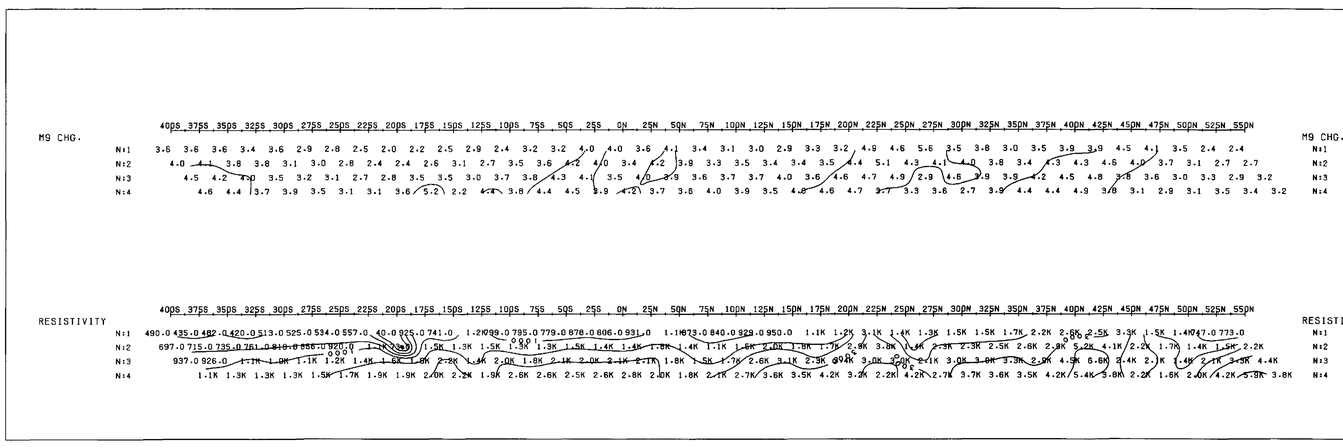
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE, ONTARIO

DATE : MARCH, 1977 | REF : R374

SCALE = 1: 2500

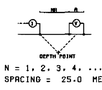
RAYAN EXPLORATION LTD.



LINE : 1100 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

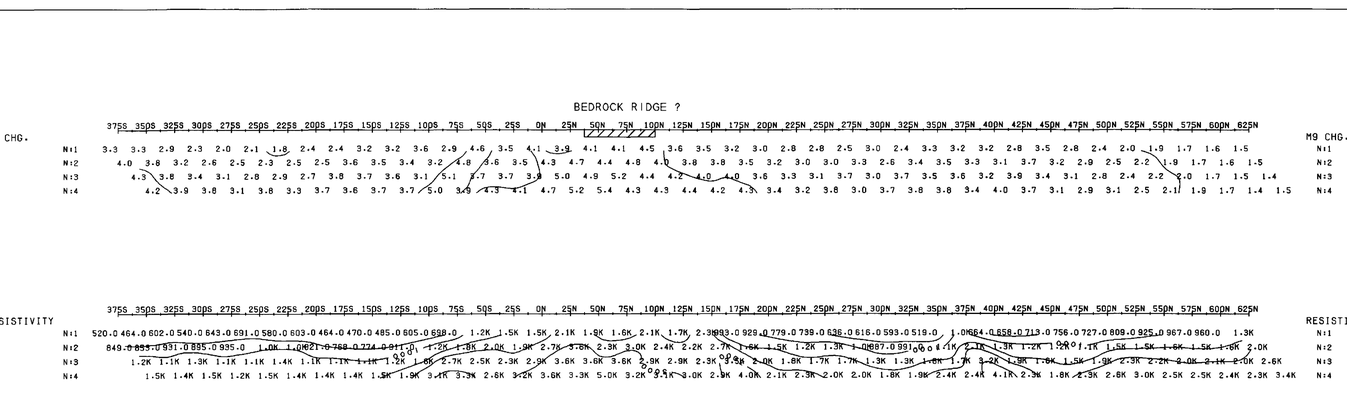
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED



LINE : 1200 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

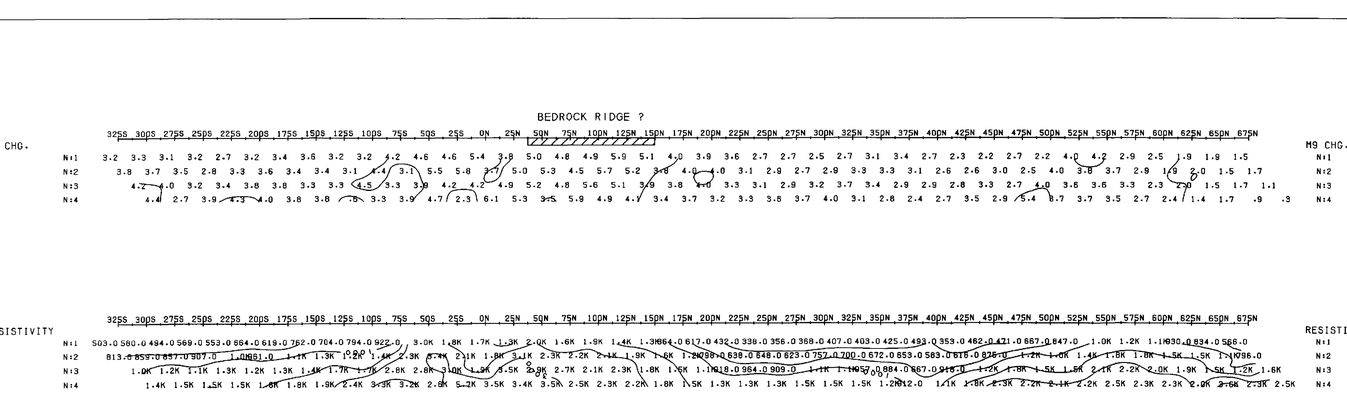
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

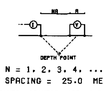
RAYAN EXPLORATION LIMITED



LINE : 1300 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

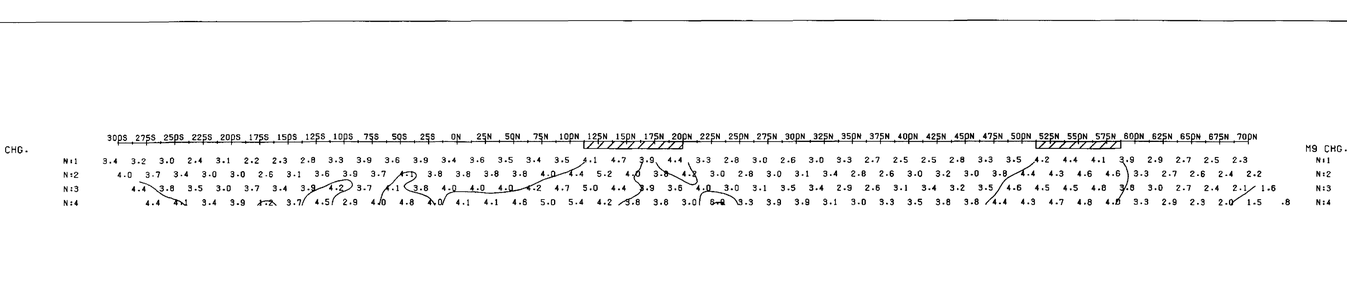
PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE, ONTARIO

DATE : MARCH, 1977 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LTD.



LINE : 1400 E

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

RECEIVER: SCINTREX IPR-12 TIME DOMAIN
RX-TX TIMING: 2 sec ON 2 sec OFF
TRANSMITTER: SCINTREX TSQ-3 3KVA
SLICE TIMING: 310-405 ms
PLOTTED WINDOW: SLICE #9

PELANGIO LARDER MINES LTD

DN1 PROJECT
DETOUR LAKE

DATE : MARCH 1997 | REF : R374

SCALE = 1: 2500

RAYAN EXPLORATION LIMITED

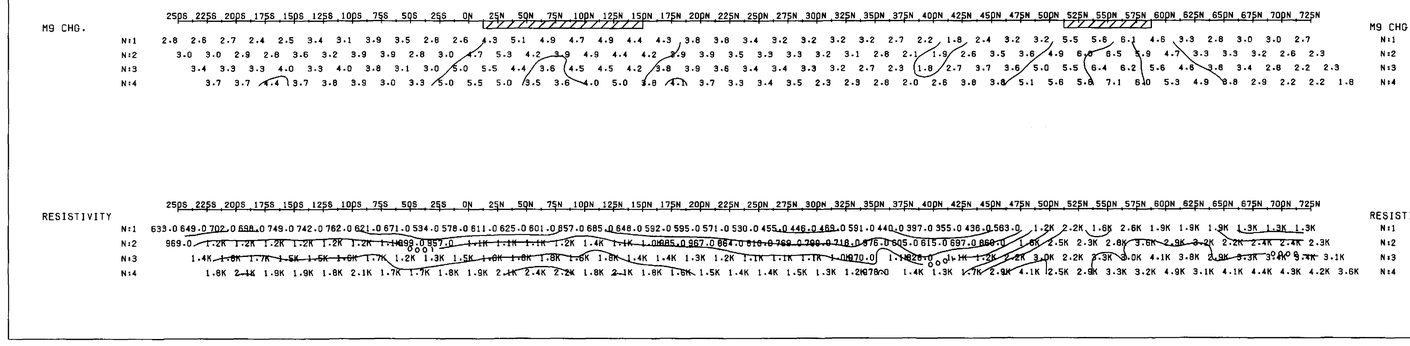
PELANGIO LARDER MINES LTD.

IP PSUEDOSECTIONS

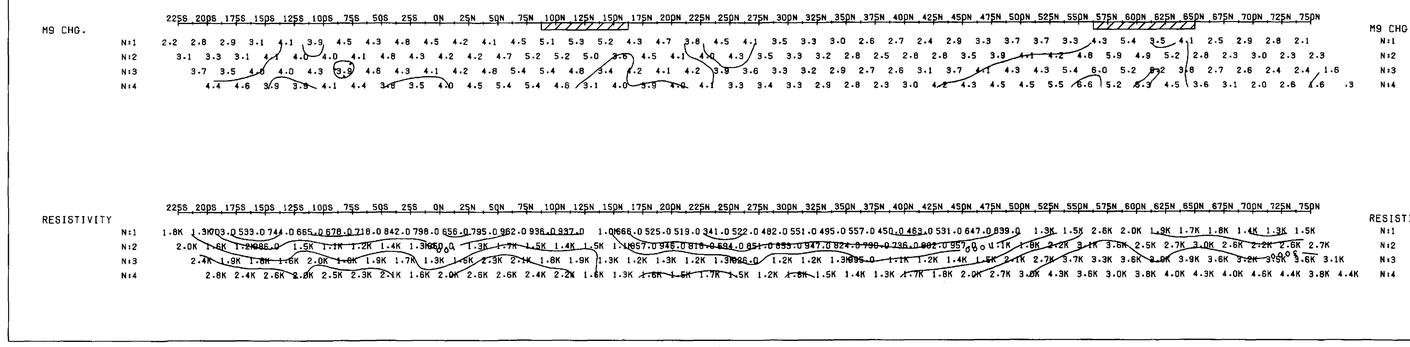
DN1 PROJECT

DETOUR LAKE

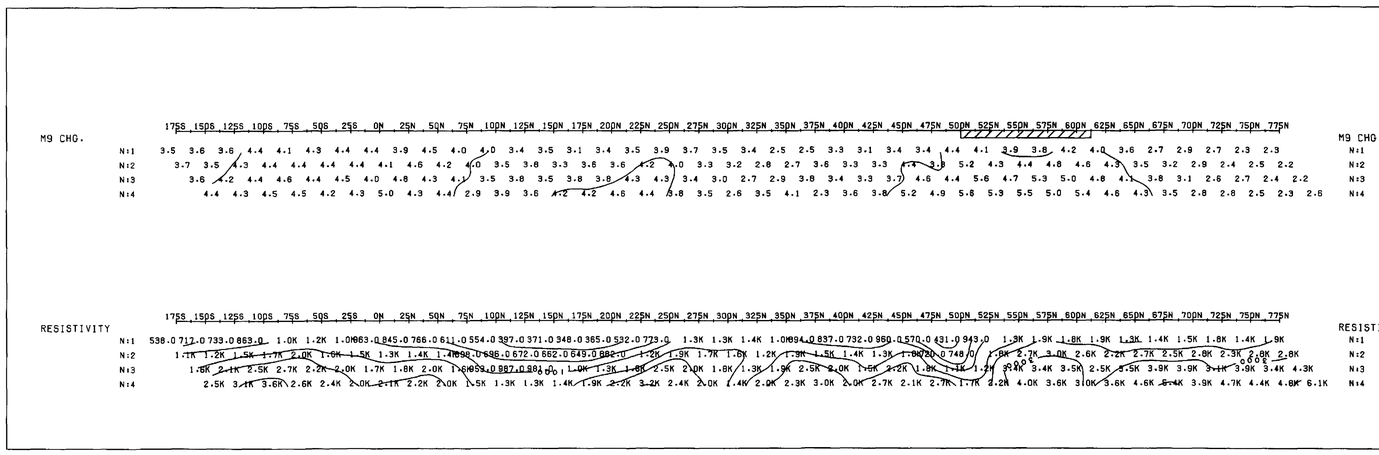
PLATE 4 of 4



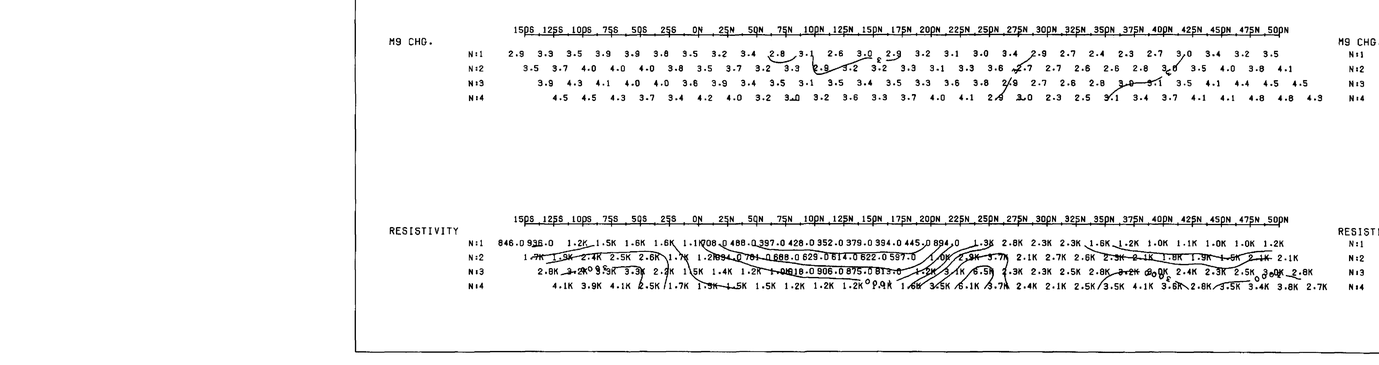
LINE : 1500 E
INDUCED POLARIZATION SURVEY
POLE-DIPOLE ARRAY
N = 1, 2, 3, 4, ... "A" SPACING = 25.0 METRES
RECEIVER: SCINTREX IPR-12 TIME DOMAIN RX-TX TIMING: 2 sec ON 2 sec OFF TRANSMITTER: SCINTREX TSQ-3 3KVA SLICE TIMING: 310-405 ms PLOTTED WINDOW: SLICE #9
PELANGIO LARDER MINES LTD
DN1 PROJECT DETOUR LAKE
DATE : MARCH 1997 | REF : R374
SCALE = 1: 2500
RAYAN EXPLORATION LIMITED



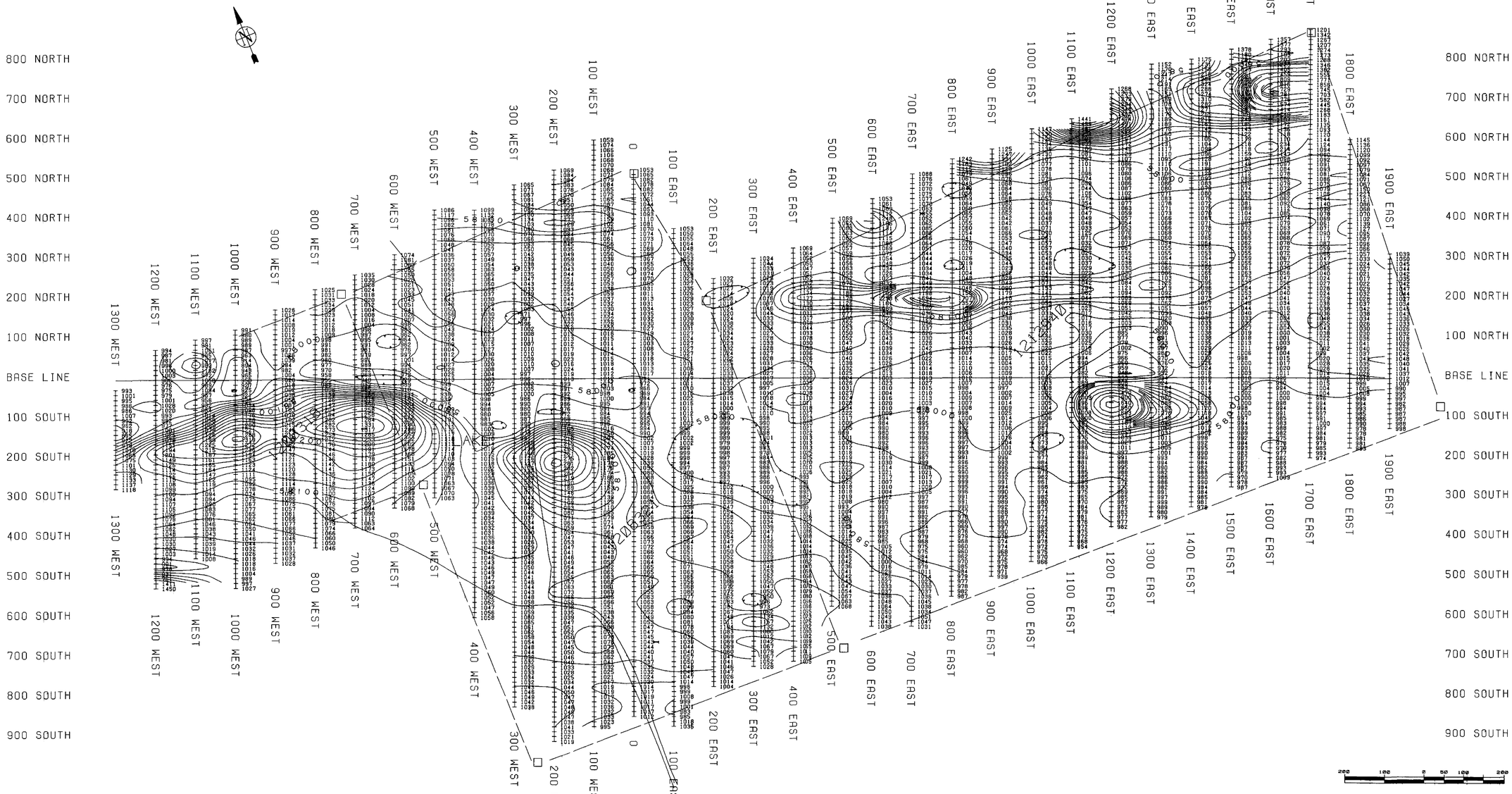
LINE : 1600 E
INDUCED POLARIZATION SURVEY
POLE-DIPOLE ARRAY
N = 1, 2, 3, 4, ... "A" SPACING = 25.0 METRES
RECEIVER: SCINTREX IPR-12 TIME DOMAIN RX-TX TIMING: 2 sec ON 2 sec OFF TRANSMITTER: SCINTREX TSQ-3 3KVA SLICE TIMING: 310-405 ms PLOTTED WINDOW: SLICE #9
PELANGIO LARDER MINES LTD
DN1 PROJECT DETOUR LAKE
DATE : MARCH 1997 | REF : R374
SCALE = 1: 2500
RAYAN EXPLORATION LIMITED



LINE : 1700 E
INDUCED POLARIZATION SURVEY
POLE-DIPOLE ARRAY
N = 1, 2, 3, 4, ... "A" SPACING = 25.0 METRES
RECEIVER: SCINTREX IPR-12 TIME DOMAIN RX-TX TIMING: 2 sec ON 2 sec OFF TRANSMITTER: SCINTREX TSQ-3 3KVA SLICE TIMING: 310-405 ms PLOTTED WINDOW: SLICE #9
PELANGIO LARDER MINES LTD
DN1 PROJECT DETOUR LAKE
DATE : MARCH 1997 | REF : R374
SCALE = 1: 2500
RAYAN EXPLORATION LIMITED



LINE : 1800 E
INDUCED POLARIZATION SURVEY
POLE-DIPOLE ARRAY
N = 1, 2, 3, 4, ... "A" SPACING = 25.0 METRES
RECEIVER: SCINTREX IPR-12 TIME DOMAIN RX-TX TIMING: 2 sec ON 2 sec OFF TRANSMITTER: SCINTREX TSQ-3 3KVA SLICE TIMING: 310-405 ms PLOTTED WINDOW: SLICE #9
PELANGIO LARDER MINES LTD
DN1 PROJECT DETOUR LAKE
DATE : MARCH 1997 | REF : R374
SCALE = 1: 2500
RAYAN EXPLORATION LIMITED



LEGEND

INSTRUMENT: GEM GSM-19 PROTON MAGNETOMETER
PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLAS)
READING INTERVAL: 12.5 M
CONTOUR INTERVAL: 20 NANO TESLAS
DIURNAL CORRECTION METHOD: RECORDING BASE STATION
DATUM SUBTRACTED: 57000 nT

Client: PELANGIO LARDER MINES LTD.

Property: DETOUR LAKE DN-1 PROPERTY

Title: TOTAL FIELD MAGNETOMETER SURVEY

Processed: RJM	Checked: RJM
Date: APRIL 1997	Township: WEST SUNDAY LAKE
Province: ONT.	N.T.S.:
Scale: 1:5,000	Drawing: MAGDATCNT

RAYAN EXPLORATION LTD.
CONTRACT/CONSULTING GEOPHYSICS
TIMMINS, ONTARIO
(705)-268-4866