HEMLO GOLD MINES INC.

REPORT ON INDUCED POLARIZATION AND MAGNETIC SURVEYS AT THE SHANE OPTION

NTS 52 M/1

RED LAKE DISTRICT

NORTHWESTERN ONTARIO DIVISION

2.16880

Matthew Johnston

Table of Contents

List of Figures

List of Maps

1.0 Summary

The Shane Option was partially gridded and subjected to induced polarization and magnetic surveys during January and February 1996.

2.0 Property Location and Access

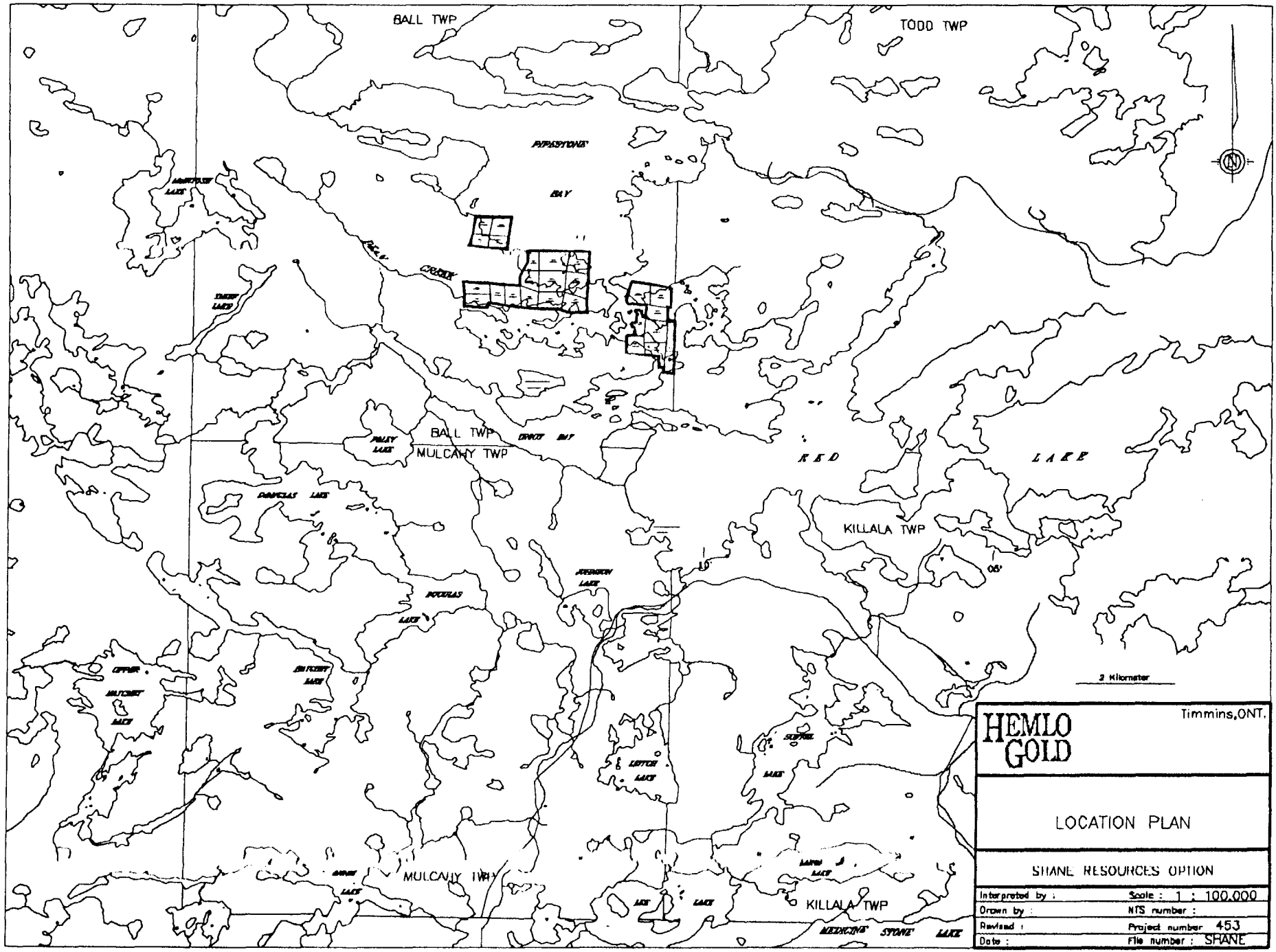
The property is comprised of three separate blocks of patented and unpatented mining claims situated on Pipestone Bay and Middle Bay, at the west end of Red Lake, Ontario within NTS 52 M/1 (figure 1). Figure 1 locates the property in relation to the Red Lake townsite. Access is by water, approximately 35 km from town.

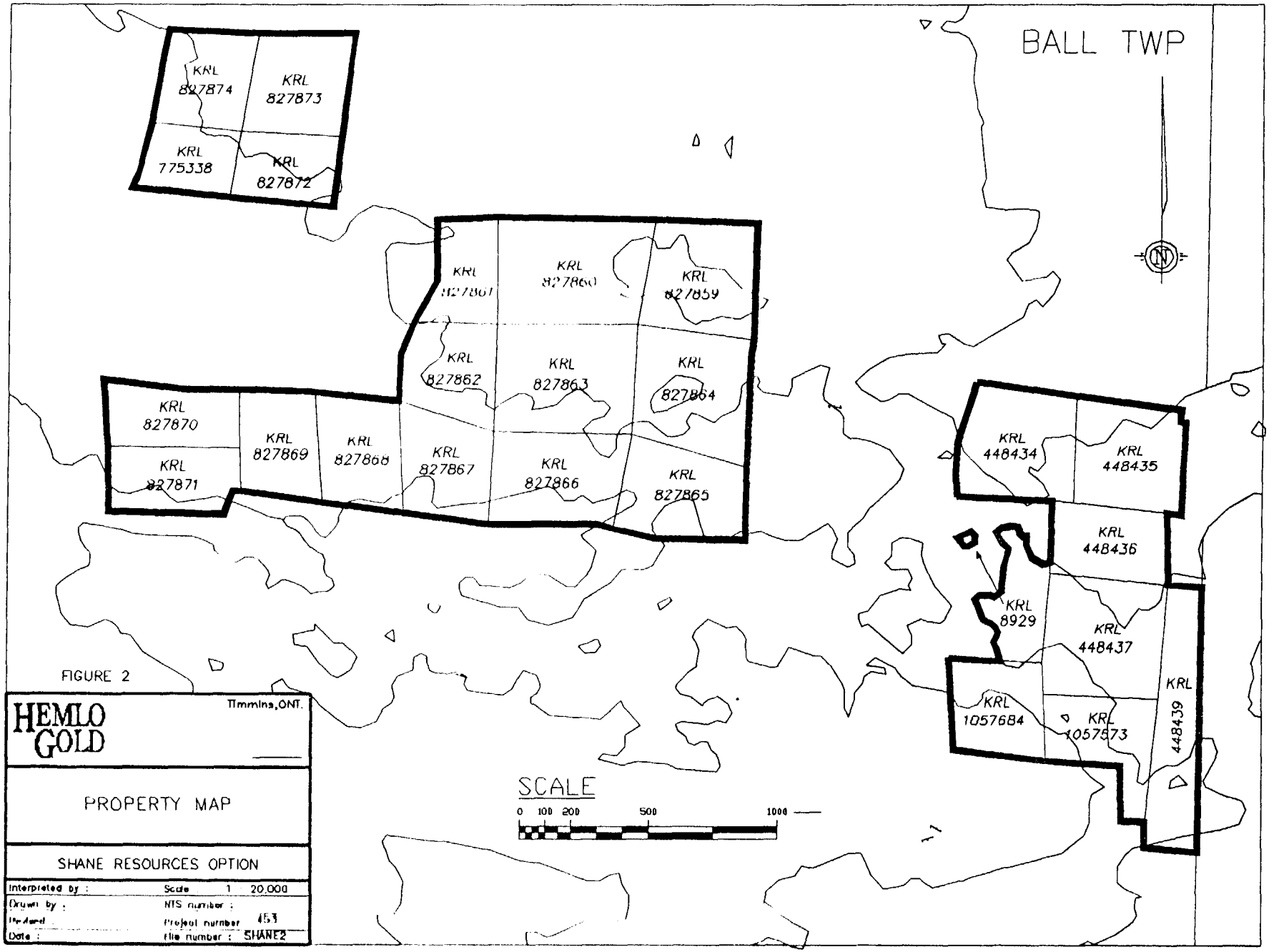
3.0 Claims

The Shane Option property consists of twenty-five patented and unpatented mining claims as illustrated in figure 2; and summarized below.

KRL 8929
KRL 448434 to 448437 (inclusive)
KRL 827859 to 827874 (inclusive)
KRL 448439
KRL 775338
KRL 1057573
KRL 1057684

The geophyscial program at the Shane Option property was carried out January 30, 1996 and February 15, 1996


BALL TWP
TODD TWP
BALL TWP
MULCAHY TWP
KILLALA TWP
MULCAHY TWP
KILLALA TWP
RED LAKE
2 Kilometer
HEMLO GOLD
Timmins,ONT.
LOCATION PLAN
SHANE RESOURCES OPTION
Interpreted by :
Drawn by :
Revised :
Date :
Scale : 1 : 100,000
NTS number :
Project number 453
File number : SHANE


BALL TWP
KRL 827874
KRL 827873
KRL 775338
KRL 827872
KRL 827861
KRL 827860
KRL 827859
KRL 827862
KRL 827863
KRL 827864
KRL 827870
KRL 827869
KRL 827868
KRL 827867
KRL 827866
KRL 827865
KRL 827871
KRL 448434
KRL 448435
KRL 448436
KRL 8929
KRL 448437
KRL 1057684
KRL 1057673
KRL 448439
SCALE
0 100 200 500 1000
FIGURE 2
HEMLO GOLD
Timmins, ONT.
PROPERTY MAP
SHANE RESOURCES OPTION
Interpreted by :
Scale 1 20,000
Drawn by :
NTS number :
Revised
Project number 453
Date :
File number : SHANE2

4.0 Previous Work

1930-1934: National Gold Syndicate: prospecting, shaft sinking to 7.3 meters.

1934-1958: West Red Lake Gold Mines Ltd: shaft sank to 66 meters; 220 meters underground development; prospecting; numerous short diamond drill holes.

1980: W. Hermiston: one diamond drill hole (144 meters)

1986-1988: Shane Resources Ltd: prospecting, humus sampling, magnetometer and VLF-EM surveys; numerous diamond drill holes in the vicinity of KRL 8929, KRL 448437 and KRL 448439.

5.0 Geophysics

The geophyscial program at the Shane Option property was carried out January 30, 1996 and February 15, 1996. The program consisted of 10.7 km of linecutting, 10.7 km of total field magnetic surveying and 6 km of induced polarization and resistivity surveying.

The line-cutting was carried out by Stares Contracting of Thunder Bay, Ontario and the induced polarization survey was completed by Belanger Geophysics Ltd. of Rouyn, P.Q. The total field magnetic survey was completed by B. Maclachlan of Hemlo Gold Mines Inc. All of the data has been plotted at a scale of 1:5000.

Induced Polarization Survey

A number of strong IP and resistivity anomalies were detected over the Shane Option roperty. These anomalous horizons are illustrated on both the stacked pseudo-sections of phase and resistivity, and ~~will~~ are summarized below.

IP Anomalies	Comments
Line 157E/10200N Line 157E/10470N	Moderate strength phase anomalies
Line 160E/10180N Line 160E/10775N Line 160E/10680N Line 160E/10250N	Srong well defined phase anomalies
Line 162E/11060N Line 162E/10520N Line 162E/10215N	moderate strength phase anomalies
Line 164E/10430N	strong near surface phase anomlay
Line 166E/11400N Line 166E/10950N Line 166E/10490N	weak to moderate strength anomalies
Line 168E/11050N	weak phase anomlay

All of the IP anomalies outlined above should be considered to be originating within the underlying bedrock and should be considered for ground follow-up by prospecting or geological mapping to determine their source lithology. Induced polarization anomalies may reflect graphitic horizons or possibly disseminated accumulations of sulphide minerals, both of which are sometimes associated with gold mineralization. Some of the anomalies appear to have good line to line correlation and these are indicated on the stacked pseudo section maps.

Total Field Magnetics

Total field magnetic amplitudes in the survey area vary between 56211 and 62471 nT with the majority of readings between 58500 and 59800 nT. The isomagnetic contour pattern over the Shane Option grid indicates that the underlying lithology is striking in an northeast-southwest direction between 040° and 45° over the claim groups. Two distinct magnetic domains are evident within the magnetic data. These consist of linear east-west striking magnetic highs ranging up to 3000 nT above background interspersed within a generally quiescent magnetic background of approximately 59000 nT. These magnetic highs may reflect mafic to ultramafic stratigraphy within the felsic stratigraphy.

6.0 Conclusions and Recommendations

The induced polarization survey at the Shane Option property has outlined several anomalous trends primarily characterized by moderate to strong phase anomalies. The magnetic survey has delineated local strike of the underlying lithology and possibly indicates several areas of mafic to ultramafic lithology within the regional felsic stratigraphy.

It is recommended to test the best induced polarization anomalies by drilling when supported by geological, geochemical or more detailed geophysical data.

Respectively Submitted
Hemlo Gold Mines Inc.

Matthew Johnston
Geophysicist

Statement of Qualifications

This is to certify that: MATTHEW JOHNSTON

I am a resident of Timmins; province of Ontario since June 1, 1995.

I am employed as an Exploration Geophysicist by Hemlo Gold Mines Inc., based in Timmins, Ontario.

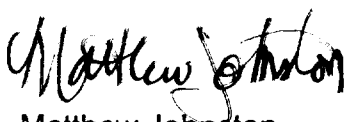
I have received a B.Sc. in geophysics from the University of Saskatchewan; Saskatoon, Saskatchewan in 1986.

I have been employed as a professional geophysicist in mining exploration since 1986.

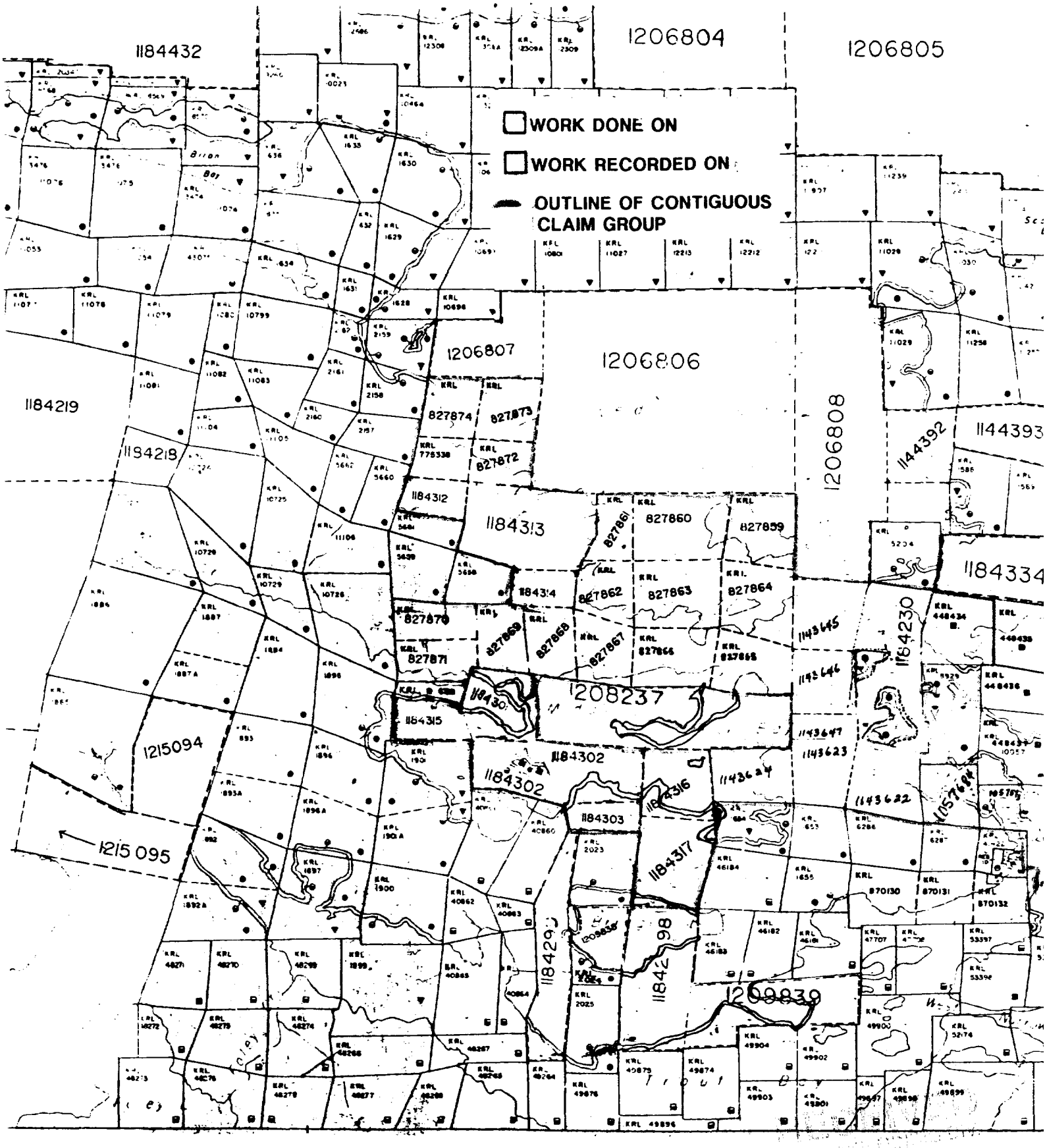
I do not hold nor do I expect to receive any interest of any kind in these claims held under option by; or wholly by Hemlo Gold Mines Inc.

Signed in Timmins, Ontario, this October 10, 1996.

By:



Matthew Johnston


WORK DONE ON
WORK RECORDED ON
OUTLINE OF CONTIGUOUS CLAIM GROUP
1184432
1206804
1206805
1206807
1206806
1206808
1184219
1184218
1144392
1144393
827874
827873
827872
1184312
1184313
827861
827860
827859
1184314
827862
827863
827864
827870
827869
827868
827867
827866
827865
827871
1143645
1143646
1184230
1184334
1208237
1184315
1143647
1143623
1143624
1143622
1215094
1184302
1184302
1184316
1184303
1184317
1215 095
1184298
1184299
1209839
870130
870131
870132

Induced Polarization Surveys

This is currently the most powerful and commonly used galvanic method in mineral exploration. Originally designed in the post-war period for use in porphyry copper exploration, it has evolved into a tool of much wider application.

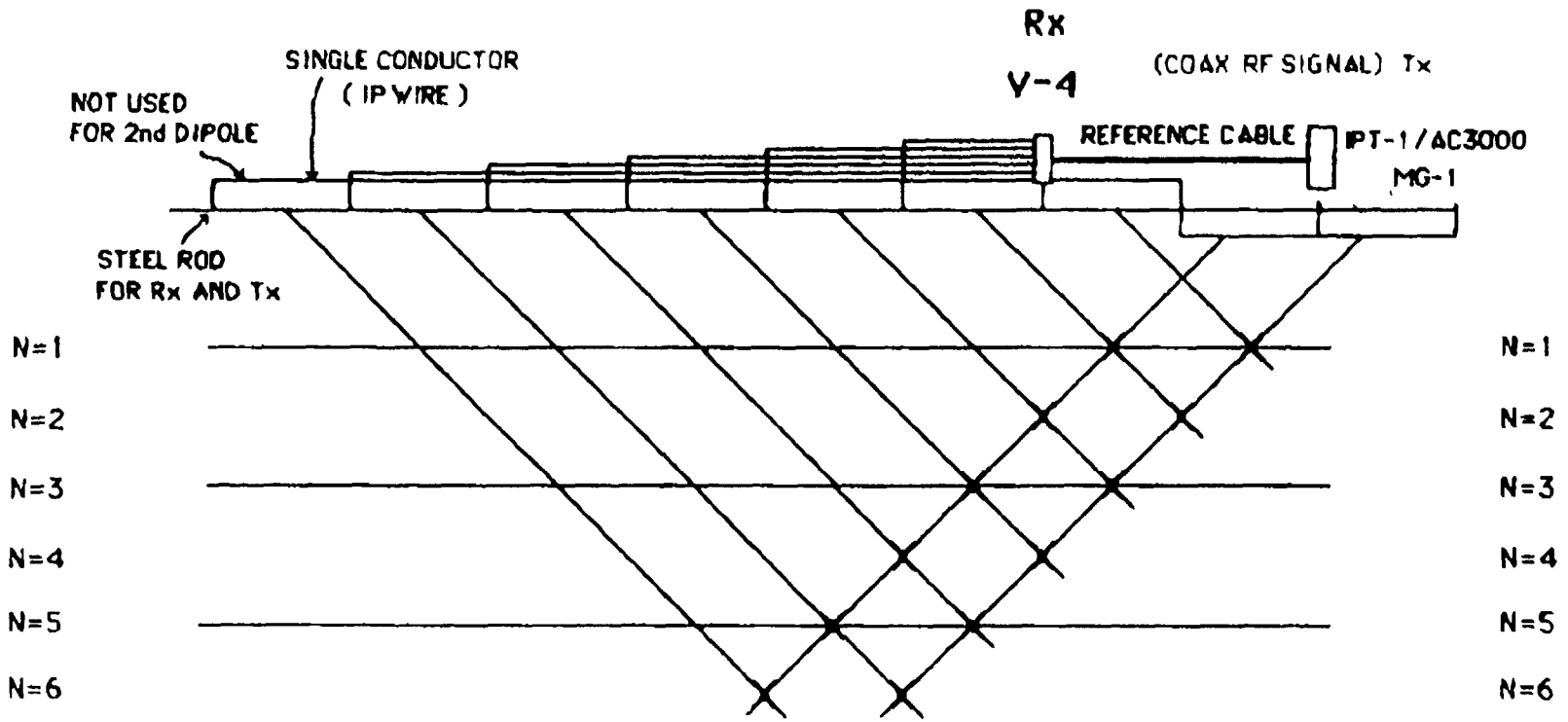
The method depends on the fact that if the voltage near a pair of current electrodes is observed as the current is turned off, it often decreases gradually to zero rather than dropping instantly. This behavior is what is know as the induced polarization (IP) effect. other equivalent manifestations of IP are a drop in resistance to an AC current with increasing frequency and **a phase shift of measured voltage relative to signal current**. The effect is caused by current-induced ionic disequilibrium at conductor surfaces and in certain clays such as montmorillonite. The return to chemical equilibrium when the current is shut off is diffusion-controlled, producing the observed slow decay. The electrical analogy often furnished is that of a capacitor discharging current following a charge period.

IP measurements are used to located disseminated conductors such as typical porphyry copper deposits. IP can distinguish zones of electrolytic conductivity from conductive minerals. IP surveys are often useful as a geological mapping tool in areas of thick overburden, and can sometimes provide information on clay alteration. They are invariably combined with resistivity surveys, both measurements being made with the same electrode setup. The technique has found a place in **gold exploration** due to its increasing ability to sense very minor sulphides (1-2%) associated with vein types of gold occurrences.

The measured primary voltage, which increases with time, can be regarded as being shifted in time with respect to the transmitted current. That is, there is a phase shift. This shift, expressed in milliradians, is the parameter measured in phase IP. The received square wave is digitized and filtered, and the phase shift of the desired frequency (fundamental or harmonic) is measured relative to the transmitted signal or a synchronous digital clock. The voltage is recorded for use in calculating the resistivity. Many cycles of signal can be averaged, thus increasing the signal to noise ratio and thereby simulating the effect of higher current.

The most advanced instruments measure amplitude and phase shift of the voltage at a wide range of frequencies. This is the so-called spectral IP, multifrequency IP, or complex resistivity technique. These systems are all microprocessor-controlled, and the large amounts of data they produce require digital storage systems. The same information is available from time-domain systems with multiple time gates.

All these systems require some way of synchronizing transmitter and receiver. The easiest method, applicable to time and frequency domain systems, is to synchronize on the received signal. This is feasible if the signal is much stronger than ambient noise. Otherwise, crystal clocks or a cable link must be employed.



NOTE: V-4 CAN READ N-1 to N-6 SIMULTANEOUSLY FROM Tx DIPOLE
WHEN 2nd Tx DIPOLE IS READ EVERYTHING MOVES AHEAD 2 SEPARATIONS
THIS METHOD CAN BE USED FOR DIPOLE-DIPOLE OR POLE-DIPOLE CONFIGURATIONS

ADVANTAGES :

- ONLY 2 HIGH VOLTAGE WIRES (REDUCES COUPLING)
- REDUCED SETUP TIME (WIRES CAN BE PULLED LINE TO LINE)
- NO OVERLAP OF SETUPS TO FILL IN DEEPER (N) VALUES
- REFERENCE CABLE ELIMINATES CALIBRATION ERRORS AND DATA CORRECTION

TURBO V-4

A NEW DIMENSION IN INSTRUMENTATION

PHOENIX

Cost-effectiveness through multiple functions: five controlled-source geophysical techniques plus generalized data acquisition/processing/control in a rugged, battery-powered, portable package.

The Turbo V4 is an upgraded version of the V4 receiver, with a new, high-performance CPU board.

The Turbo V4 processor is 50 times faster than the original V4 processor, and features 12 times as much ROM/RAM memory for stored programs and data.

Programs for the Turbo V4 are written in high-level languages; the data processing is therefore much more efficient and intelligent than on the old CPU, which used assembler language only.

Also, the new CPU is programmable*. Users can develop their own programs in FORTRAN or C language using the IBM PC (or compatible), then download them into the V4. This capability means the V4 will remain up-to-date for years, and can be matched precisely to the user's applications.

*** Optional.**

SPECIFICATIONS

Analog Section

Number of channels	2, 4, 6 or 8 (in pairs)
Dynamic range	± 10 volts
Frequency range	1024 sec to 4 kHz (SIP); 4 sec to 4 kHz (CSAMT) in binary or 2/3 binary steps.
Input impedance	More than 100 megohms at low frequencies.
Powerline filtering	Triple notch 40 db powerline filter for 1/3/5 harmonics of 50/60 Hz. Switchable in/out.
Other filtering	Bad sample rejection; offset adjustment; programmable anti-alias filters; slope correction (TDIP) all under processor and/or manual control.
Gain	Automatic or manual control, range of 1 to 640.
DC offset	Processor controlled DC offset control, range: ± 2.5 volts.
Calibration	Manual external calibration; processor-controlled, internal calibration with built-in calibration/test signals: 1/128 Hz to 4 kHz ±5 v, 200 ohm impedance; 50% or 100% duty cycle.
Sensitivity	Sufficient for stand alone controlled source applications.

Digital Section

Processor/CPU board	32/16 bit NS32C016 with NS32081 maths coprocessor. Clock rate 6-10 MHz. Programmable interrupt controller with 16 request lines. MULTIBUS interface. DIN connectors. On-board real time clock.
Monitor firmware	Monitor firmware interfaces to National 32000 series software development tools. Also provides run time environment, terminal handler, debugger execute module, floating point support module and interrupt handler.
Applications firmware	Initially offered with geophysical applications firmware, for IP in time, frequency, or phase domain; spectral IP; resistivity; and CSAMT. Other offerings (such as FDEM) may become available from time to time. The user may develop proprietary applications in FORTRAN 77, PASCAL or C on VAX, IBM PC or compatibles and download into the V4.
CPU board memory	Up to 576 Kbyte RAM + 320 Kbyte ROM.
Serial I/O	Optional RS-232 port with selectable baud rate. Can drive RS-232 printer.
Parallel I/O	8 bit port with max 1/2 MHz transfer rate. For vest-pocket printer or external computer.
Timing	Internal crystal clock; processor-controlled resetting for synchronized operation with transmitters. Optional external precision clock.
A-D conversion	16-bit resolution, 12.5 kHz conversion rate.

Mechanical

Weight	approx. 13 kg
Dimensions	32 × 36 × 27 cm high
Case	resilient, tough PVC alloy
Connectors	3 multipin connectors for analog inputs, 2 of which have power for external sensors.

Environmental

Operating temperature	−10°C to +50°C (−20°C with LCD heater)
Storage temperature	−50°C to +60°C
Humidity	Splashproof, may be operated in light rain
Shock and vibration	Suitable for transport in bush vehicles.

Battery

12 v / 6 Ah rechargeable battery. Nominal 10 h continuous operation at +20°C. Provision for external 12V battery supply.

Inputs

Signal channel	Three multipin connectors for 8 analog inputs. (6 + 1 + 1)
Battery	Multipin connector for external battery or for charging of the internal battery @ 12 V, approx 1.2 A.
Remote clock signal	Optional input.
Current Monitor	Twin plugs for RF modulated signal from transmitter (for real-time deconvolution)

Outputs

Analog meters	Eight analog meters
Display	16 char × 4 lines LCD
Analog outputs	8 outputs for analog recorders, etc. ±5V range. (Optional)
External isolated transmitter drive	Via special purpose isolated RF link.
Calibration signal	Twin connectors

Switches and Controls

Keyboard	20-key alphanumeric/command keypad (waterproof).
On/off	2 position rotary.
Meter Mode	2 position toggle, AC or DC
Battery test	2 position toggle.
Input Select	2 position rotary

Note : Specifications subject to change. Customized configurations are available.

IPT-1 TRANSMITTER

Induced Polarization (Time Domain or Frequency Domain), CSAMT, Time Domain EM, Resistivity

Lightweight: 12 kg

Low cost

Wide range of power sources: 50Hz, 60Hz or 400Hz motor generators or mains power; or 12V batteries

DC-8192Hz, Time Domain or Frequency Domain

The most versatile geophysical transmitter ever made

PHOENIX GEOPHYSICS

Applications

The IPT-1 is a highly versatile, multipurpose geophysical power source which may be used for several different geophysical techniques. The IPT-1 accommodates either inductive loads (loops) used in the TDEM, or FDEM techniques, or grounded dipoles as used in IP and CSAMT techniques.

The IPT-1 design is based on more than 35 years experience of Phoenix transmitter designers, and it has been used in countless field surveys under every climatic condition worldwide.

The IPT-1 may be equipped with three different internal power modules. The BPS-3 module utilizes rechargeable gel-cell batteries. The AC3006 and AC3007 modules utilize AC power provided by motor generators or mains power supply. When equipped with an optional inverter, the AC3006 and AC3007 may also utilize 12V batteries.

One of the most beneficial features of the IPT-1 is its ability to use a wide range of input power sources. These include standard geophysical 3-phase 400Hz motor generators, such as Phoenix MG-1, MG-2 or MG-3 units; commercially available single-phase 50Hz or 60Hz motor generators; 50Hz or 60Hz mains power supply; or 12V batteries. The ability to use commercially available 50Hz/60Hz motor generators means that the user can easily obtain spare parts/service for the motor generator almost anywhere in the world.

The motor generators may be of any power up to 3.5KVA, with output frequency in the range 50Hz to 1,000Hz. The actual output power of the IPT-1 is limited by the input power.

The IPT-1 is lightweight and highly portable: 13 kG with BPS-3 power module; 12Kg with either AC3006 or AC3007 power modules.

Specifications

Dimensions	20 x 40 x 55 cm (9 x 16 x 22 in.)
Weight	13 Kg (29 lb) with internal battery pack 12 Kg (27 lb) with AC3006 or AC3007 power modules
Environmental	Operable over the temperature range -40°C to +50°C Thermal protection for over-temperature Note: BPS-3 battery capacity is significantly reduced at lower ambient temperatures
	CONTROLS, METERS, REGULATION
Ammeter	6 ranges 30mA, 100mA, 300mA, 1A, 3A, 10A full scale
Meter display	A function switch selects display of: current, regulation status, input frequency, output voltage, control voltage, line voltage
Current regulation	Output current change is controlled to ±0.2% for ±10% change in input voltage or electrode impedance. Regulation is done internally, without connection to MG unit
Protection	Overcurrent (150% of full scale) Undercurrent (5% of full scale) Overvoltage (130% of full scale) Undervoltage (10% of full scale)
Output voltage:	100, 200, 300, 500, 800V nominal (BPS-3) 300, 600, 1200V nominal (AC3006) 200, 400, 800V nominal (AC3007)
Output power	Maximum 3 Kw (AC3006, AC3007); 250 W (BPS-3) Limited by maximum available input power
Output current	3mA to 3A (BPS-3); 20mA to 10A (AC3006, AC3007)
Timing options	A wide range of internal and external timing options is available, for both frequency domain waveforms (square wave) or time domain waveforms (50% duty cycle square wave). The time domain waveforms are suitable for Time Domain IP and (in AC3007) for Time Domain EM. Standard internal timing is based on crystal oscillators with frequency stability of nominal ±50 ppm. The IPT-1 may also be slaved to an external timing source. This may be accomplished by cable link to any suitable geophysical receiver. For receiver operation without connection to the transmitter, any suitable "transmitter controller" may be utilized, with or without precision oscillators, as required. Contact Phoenix for details of timing options.
TDEM operation	The turn-off time of AC3007 into a resistive load is approximately 3 microseconds. The turnoff time into a typical 100m x 100m loop as used in TDEM is a linear ramp of duration approximately 100 microseconds.
Frequency range	DC-8192Hz (AC3007) DC-4HZ (BPS-3, AC3006)

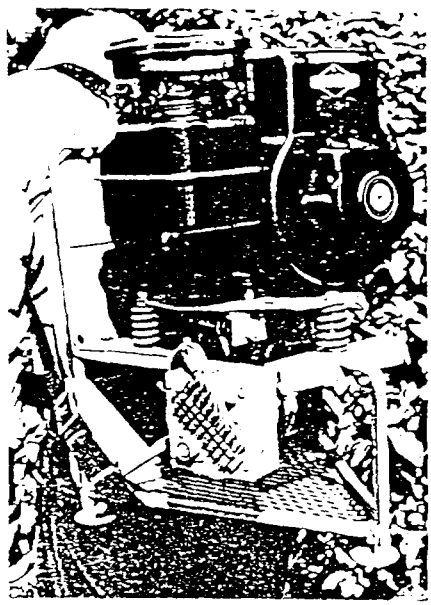
PHOENIX GEOPHYSICS LIMITED
3781 Victoria Park Avenue, Unit 3, Scarborough, Ontario, Canada M1W 3K5
Telephone: (416) 491-7340 Fax: (416) 491-7378 Telex: 06-986856 Cable: PHEXCO-TORONTO

Printed in Canada

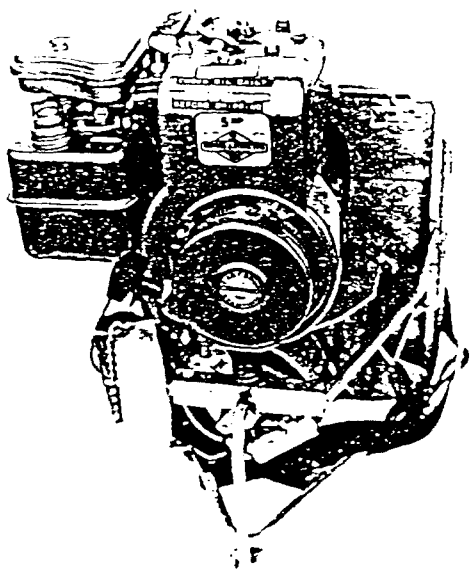
Motor Generators

There are three motor generators, differing in weight and power, which can be used with the transformer power modules. All three supply three phase 400 Hz (350 to 600 Hz), 60V (45V to 80V). The voltage is regulated by feedback from the transmitter.

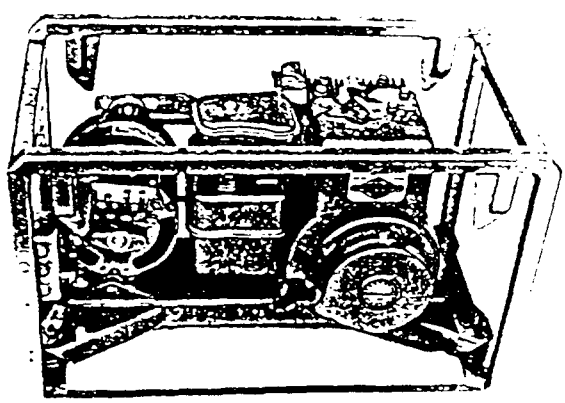
MG - 1 : This lightweight unit is designed for easy portability in areas of moderately high resistivity. It is well suited for massive sulfide exploration in Northern Canada, Europe and Asia, as well as general IP and resistivity surveys in rugged, mountainous areas around the world. The motor is a 4-cycle Briggs and Stratton which produces 3 HP at 3600 rpm. The dimensions of the unit, including packframe, are 40 x 45 x 60 (16 x 18 x 24 in). Total weight is 25 kg (55 lb).



MG - 2 : 2KVA motor generator. This versatile unit is adequate for the vast majority of IP and resistivity surveys conducted worldwide. It is light enough to be carried by one man, yet powerful enough for most survey requirements. The motor is a 4-cycle Briggs and Stratton which produces 5 HP at 3600 rpm. The dimensions of the unit, including packframe, are 40 x 45 x 60 cm (16 x 18 x 24 in). Total weight is 34 kg (75 lb).



MG - 3 : 3KVA motor generator. This two-man portable unit is designed for surveys in areas which require additional power. The motor is a 4-cycle Briggs and Stratton which produces 8 HP at 3600 rpm. The unit is mounted in a square frame with dimensions 40 x 48 x 75 cm (16 x 19 x 29 in). Total weight is 55 kg (120 lb).



Magnetic Surveying

Theory:

The magnetic method is based on measuring alteration in the shape and magnitude of the earth's naturally occurring magnetic field caused by changes in the magnetization of the rocks in the earth. These changes in magnetization are due mainly to the presence of the magnetic minerals, of which the most common is magnetite, and to a lesser extent ilmenite, pyrrhotite, and some less common minerals. Magnetic anomalies in the earth's field are caused by changes in two types of magnetization: (1) Induced, caused by the magnetic field being altered and enhanced by increases in the magnetic susceptibility of the rocks, which is a function of the concentration of the magnetic minerals. (2) Remnant magnetism is independent of the earth's magnetic field, and is the permanent magnetization of the magnetic particles (magnetite, etc.) in the rocks. This is created when these particles orient themselves parallel to the ambient field when cooling. This magnetization may not be in the same direction as the present earth's field, due to changes in the orientation of the rock or the field. The **unit** of measurement (variations in intensity) is commonly known as the Gamma which is equivalent to the nanotesla (nT).

Method:

The magnetometer, **OMNI IV** with an proton precession sensor measures the **Total Magnetic Field** (TFM) perpendicular to the earth's field (horizontal position in the polar region). The unit has no moving parts, produces an absolute and relatively high resolution measurement of the field and displays the measurement on a digital lighted display and is recorded (to memory). Initially, the tuning of the instrument should agree with the nominal value of the magnetic field for each particular area. The proton procession magnetometer collected the data with a **0.5 nanoTesla accuracy.** The operator read each and every line at a **12.5m** interval with the sensor attached to the top of three (56cm), aluminum tubing sections. The readings were corrected for changes in the earth's magnetic field (diurnal drift) with a similar OMNI IV magnetometer, >>base station<< which automatically read and stored the readings at every 30 seconds. The data from both units was then downloaded to PC and base corrected values were computed.

OMNI-IV MAGNETOMETER SYSTEM
Technical Specifications

(from OMNI-IV MAGNETOMETER Operating Manual)

Physical Dimensions	**Wt(kg):**	**w x h x d(mm)**
Instrument console only	3.8:	122 x 246 x 210
Battery belt	1.8:	540 x 100 x 40
Battery cartridge	1.8:	138 x 95 x 75

Sensors

Magnetometer remote sensor	1.2:	56 dia x 220
Magnetometer gradient sensor	2.1:	56 dia x 220

Environment

Magnetometer Sensors

Temperature range	-45°C to +55°C
Relative humidity	0 to 100 % (weather proof)

Standard Memory Capacity

Field unit	1300 sets of readings
Tie-line points	100 sets of readings
Base station	5500 sets of readings

Electronics

RS-232C serial I/O	300 to 9600 baud (programmable); 8 data bits, 2 stop bits; no parity
Electronics console	Enclosure contains electronics and battery pack (if not contained in separate belt). Front panel includes liquid crystal display (LCD), and keypad.
Power Supply	Internal battery pack or external battery belt; or 12V car battery (base station).

Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9620.00124

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.16880

Instructions: - Please type or print and submit in duplicate.
- Refer to th ment work or consult the Mining Recorder.
- A separate
- Technical
- A sketch, 900 his form.

52M01SE0068 2.16880 BALL

Recorded Holder(s)		Client No.
Shane Resources Ltd.		193283
Address		**Telephone No.**
2nd Floor, 901 - 3rd Avenue North, Saskatoon, Sask S7K2K1		(306) 664-3928
Mining Division	**Township/Area**	**M or G Plan No.**
Red Lake	Ball	G 3740
Dates Work Performed From: January 4, 1996	To: February 23, 1996	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	Linecutting, Magnetometer & IP Survey
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

RECEIVED
NOV 7 1996
MINING LANDS BRANCH

GJK

Total Assessment Work Claimed on the Attached Statement of Costs $ ~~12,829.60~~ 12116.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address	
Stares Contracting (LC)	1124 West Arthur Street, Thunder Bay, Ont.	P7E 6L2
Belanger Geophysics (IP)	37 5th Street, PO Box 1196, Rouyn-Noranda, PQ	J9X 6E3
Bruce MacLachlan (Mag)	c/o PO Box 1205, 60 Shirley St. South, Timmins, Ont	P4N 7J5
Matthew Johnston (Author & IP Interpretation)	"	

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	Oct 25, 1996	George J. Kolacze

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: Stephen Conquer c/o PO Box 1205, 60 Shirley St. South, Timmins, Ont. P4N 7J5

Telepone No.	Date	Certified By (Signature)
(705) 268-9600	October 25/1996	

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
$ 12,116.00	October 29/96	Barbara Thompson	RECEIVED RED LAKE MINING DIV. OCT 29 1996 AM 7,8,9,10,11,12,1,2,3,4,5,6 PM
	Deemed Approval Date: January 27/97	Date Approved	
	Date Notice for Amendments Sent		

0241 (03/91)

Work Report# for Applying Reserve	Claim Number (see note 2)	# of Claim Units	Value of Assesment Work Done on this Claim	Value Applied to this Claim	Values Assigned from this Claim	Reserve:Work to be Claimed at a Future Date
✓	KRL 0.008.929	✓1	1.101.00		1.101.00	
✓	KRL 0.448.434	✓ 1	2.158.00		2.158.00	
✓	KRL 0.448.435	✓ 1	1.841.00		1.841.00	
✓	KRL 0.448.436	✓ 1	1.318.00		1.318.00	
✓	KRL 0.448.437	✓ 1	2.467.00		2.467.00	
✓	KRL 0.448.439	✓1	1.240.00		1.240.00	
	KRL 0.775.338	1	0.00	996.00		
	KRL 0.827.859	1	0.00	595.00	2.16880	
	KRL 0.827.860	1	0.00	595.00		
	KRL 0.827.861	1	0.00	595.00		
	KRL 0.827.862	1	0.00	595.00		
	KRL 0.827.863	1	0.00	595.00		
	KRL 0.827.864	1	0.00	595.00		
	KRL 0.827.865	1	0.00	595.00		
	KRL 0.827.866	1	0.00	595.00		
	KRL 0.827.867	1	0.00	595.00		
	KRL 0.827.868	1	0.00	595.00		
	KRL 0.827.869	1	0.00	595.00		
	KRL 0.827.870	1	0.00	595.00		
	KRL 0.827.871	1	0.00	595.00		
	KRL 0.827.872	1	0.00	595.00		
	KRL 0.827.873	1	0.00	595.00		
	KRL 0.827.874	1	0.00	595.00		
	KRL 1.057.573	✓ 1	1.040.00	800.00	240.00	
	KRL 1.057.684	✓ 1	951.00	800.00	151.00	
	25		12.116.00	12.116.00	10.516.00	0.00
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse affects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (x) one of the following:

1. [ ] Credits are to be cut back starting with the claims listed last, working backward.
2. [x] Credits are to be cut back equally over all claims contained in this report of work.
3. [ ] Credits are to be cut back as priorized on the attatched appendix.
4. [ ] Credits are to be cut back starting with the claims that have reserve credits.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial Interest are unrecorded transfers, option payments, memorandum of agreements, etc., with respect to the mining claims.
Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date
		Oct 25, 1996

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction: W9620.00012

2.16880

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente form recueillis en vertu de la Loi sur les mines et serviront à tenir à jour ur des concessions minières. Adresser toute quesiton sur la collec renseignements au chef provincial des terrains miniers, mini Développement du Nord et des Mines, 159, rue Cedar, 4e étage, (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	1544.00	
	Field Supervision Supervision sur le terrain		1544.00
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type LC	3659.00	
	IP	6109.00	
			9768.00
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type Magnetometer	139.00	
			139.00
	Total Direct Costs Total des coûts directs		11451.00

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work Indirect costs are nc allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, le coûts indirects ne sont pas admissibles en tant que travau d'évaluation.

Type	Description	Amount Montant	T Tota
Transportation Transport	Type Rental truck & gas	219.00	
			2
Food and Lodging Nourriture et hébergement	Red Dog Inn- Red Lake	328.00	3
Mobilization and Demobilization Mobilisation et démobilisation	IP Crew	118.00	1
	Sub Total of Indirect Costs Total partiel des coûts indirects		6
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		6
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles		121

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demand le présent état des coûts dans les 30 jours suivant une demar effet. Si la vérification n'est pas effectuée, le ministre peut rej ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
x 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèveme remboursés à 100 % de la valeur totale susmentionnée du crédit d'é

2. Les travaux déposés trois, quatre ou cinq ans après leur aché sont remboursés à 50 % de la valeur totale du crédit d'év susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale dem
x 0,50 =	

RECEIVED
RED LAKE MINING DIV.
OCT 29 1996
PM
1,2,3,4,5,6,7,8,9,10,11,12,1,2,3,4,5,6

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Agent (Recorded Holder, Agent, Position in Company) I am authorized to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et c dépenses ont été engagées pour effectuer les travaux d'éva sur les terrains indiqués dans la formule de rapport de travail

Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis a

à faire cette attestation.

Signature	Date
	Oct 25, 1996

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: (705) 670-5853
Fax: (705) 670-5863

February 3, 1997

Scott A. Rivett
Mining Recorder
Ontario Government Building
227 Howey Street, Box 324
Red Lake, ON
P0V 2M0

Dear Sir or Madam:

Submission Number: 2.16880

Subject: Transaction Number(s):	Status
W9620.00124	Approval After Notice

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.

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

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jerome_l@torv05.ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY
Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

Correspondence ID: 10544
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.16880

Date Correspondence Sent: February 03, 1997 **Assessor:** Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9620.00124	8929	BALL	Approval After Notice	January 31, 1997

Section:

14 Geophysical IP
14 Geophysical MAG

Correspondence to:

Mining Recorder
Red Lake, ON

Resident Geologist
Red Lake, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

George J. Koleszar
TIMMINS, ONTARIO

SHANE RESOURCES LTD.
SASKATOON, SASKATCHEW

Correspondence ID: 10544

G-3740

EAST TWP

AREAS WITHDRAWN FROM DISPOSITION

MRO [illegible]

SRO [illegible]

M+S [illegible]

Disposition	Order No.	Date	Disposition	File
[illegible]			SRO	[illegible]
(R1) LAND LAKE RES. REOPENING		12 FEB 91	SRO	
~~(R2) SEC. 36 W.70/87~~		~~5 JUL 87~~	~~MRO~~	
(R2) SEC 36	58802.001	14 SEP 88	MRO	

INDIAN HOUSE LAKE G 1796

TODD G 1789

1184432

1206804

1206805

1184475

1206807

1206806

1184221

1184219

1184220

1184218

1206808

1144392

1144393

1184334

1215096

1184312

1184313

1184314

1184230

1143645

1143646

1208237

1143647

1143623

1184315

1184302

1143624

1143622

1184303

1184316

1184317

1215094

1215095

1184299

1184298

1208838

1208839

WOODLAND - CARIBOU PROVINCIAL PARK

MULCAHY TOWNSHIP G 31756

TODD TOWNSHIP G 1789

2.16880 MAG IP.

[redacted]

LEGEND

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT — SYMBOL

NOTE

SCALE 1:20 000

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.

TOWNSHIP

BALL

M N R ADMINISTRATIVE DISTRICT

RED LAKE

MINING DIVISION

RED LAKE

LAND TITLES / REGISTRY DIVISION

KENORA (Patricia Portion)

52M01SE0068 2.16880 BALL

200

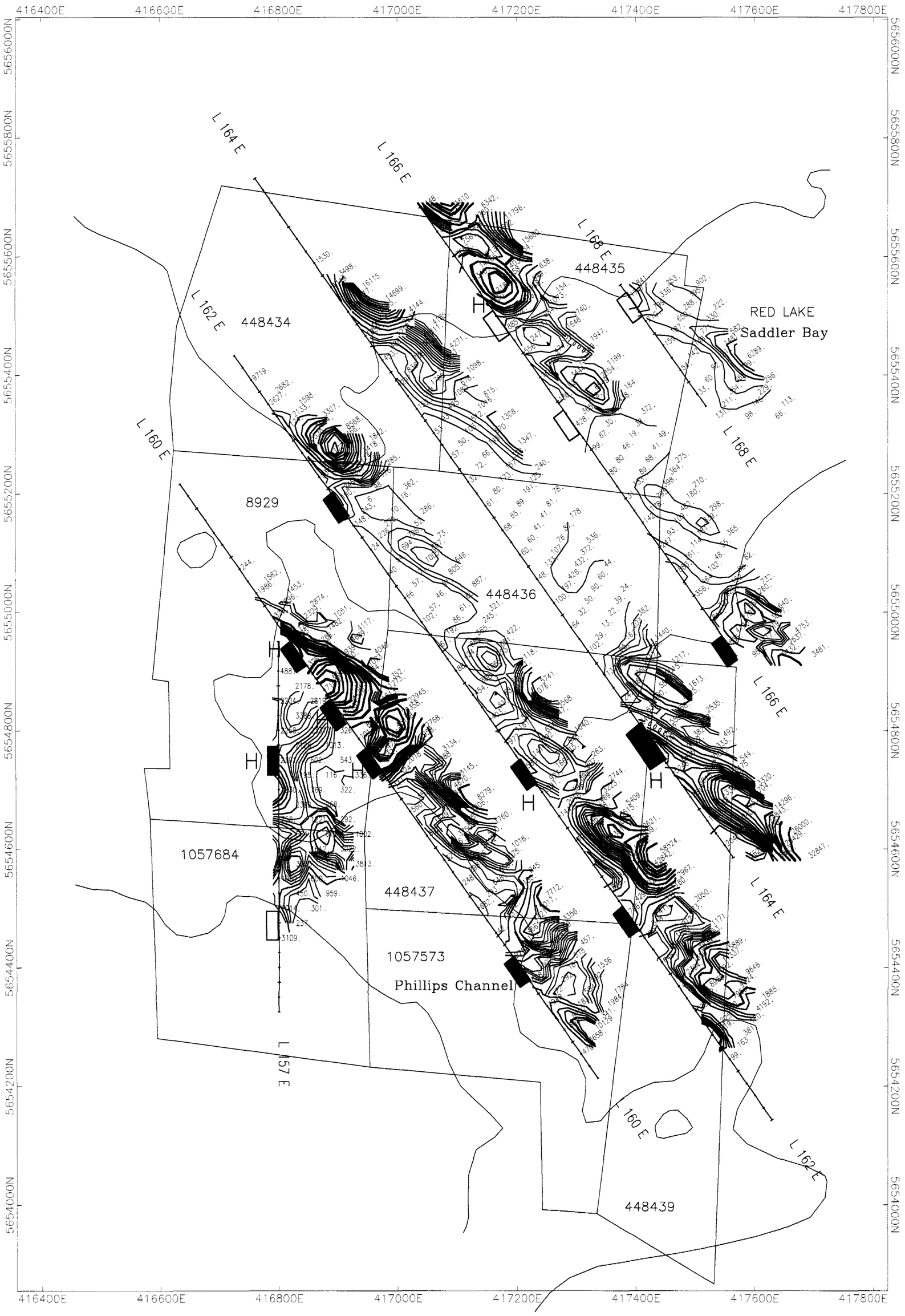
SEPTEMBER 1986

Number

G-3740

WEST TWP

G-3740



2.16880

Strong Phase Anomaly

Low to Moderate Phase

H High Resistivity

Scale 1:5000

100 0 100 200 300

(metres)

52M01SE0068 2.16880 BALL

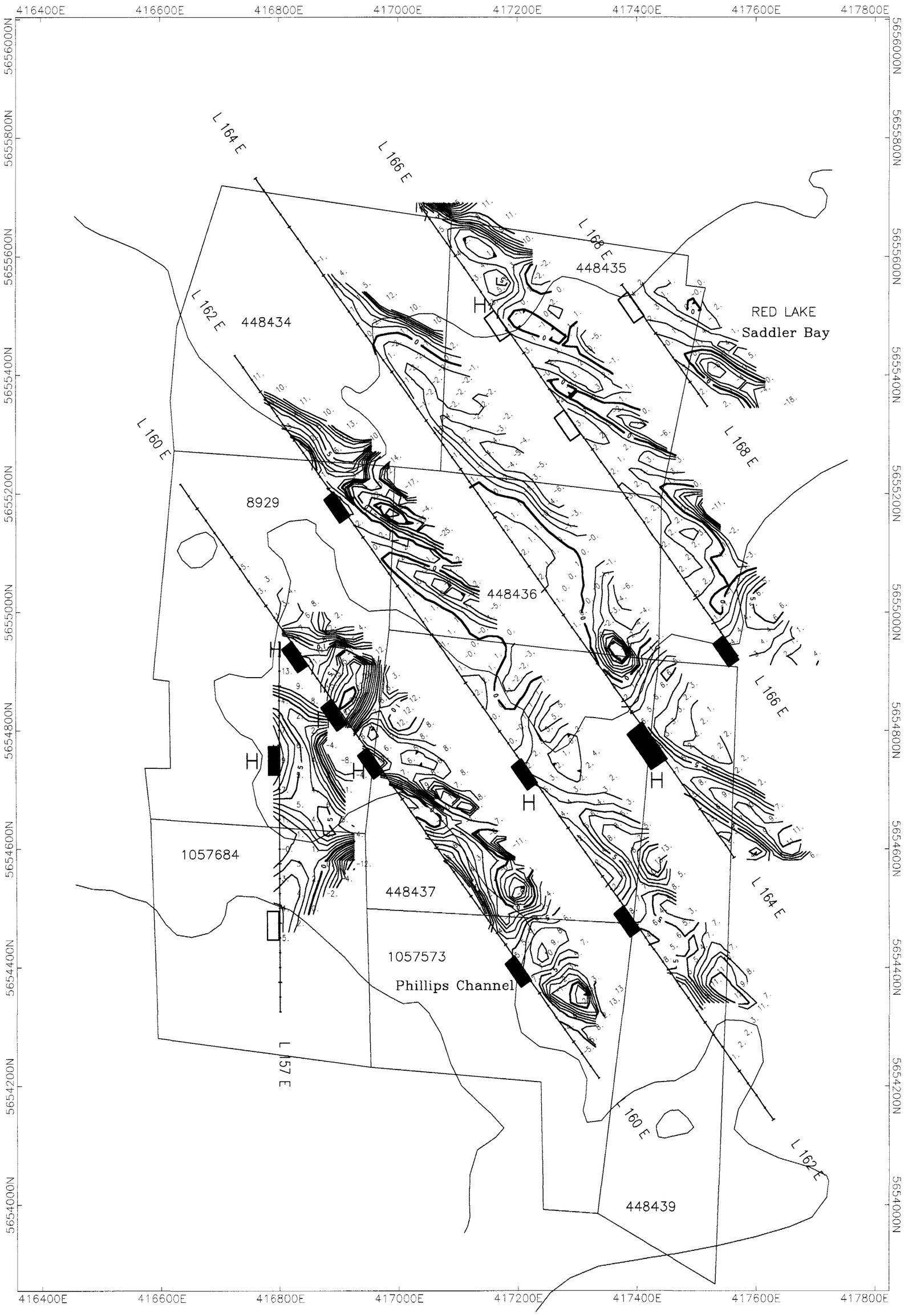
210

HEMLO GOLD MINES INC.

SHANE PROPERTY
INDUCED POLARIZATION SURVEY
PSEUDO PLAN MAP - RESISTIVITY

RED LAKE MINING DISTRICT
NTS 52 M/1
INSTRUMENT: PHOENIX V4 & IPT1

BELANGER GEOPHYSICS LTD



2.16880

Strong Phase Anomaly

Low to Moderate Phase

H High Resistivity

Scale 1:5000

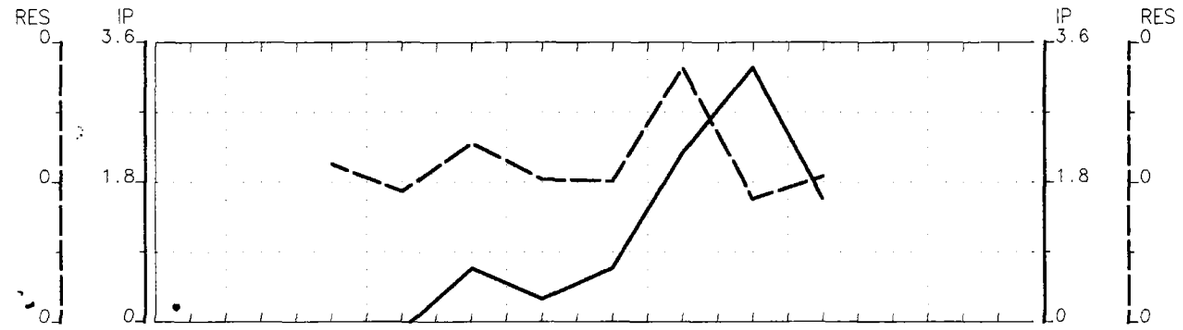
100 0 100 200 300

(metres)

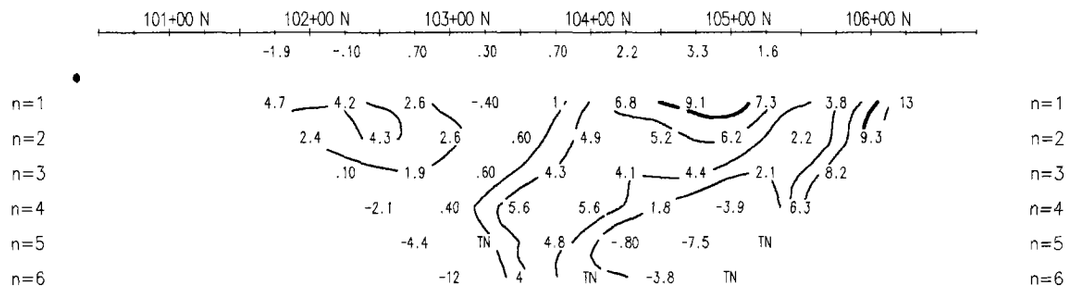
52M01SE0068 2.16880 BALL

220

HEMLO GOLD MINES INC.
SHANE PROPERTY INDUCED POLARIZATION SURVEY PSEUDO PLAN MAP – PHASE
RED LAKE MINING DISTRICT NTS 52 M/1 INSTRUMENT: PHOENIX V4 & IPT1
BELANGER GEOPHYSICS LTD

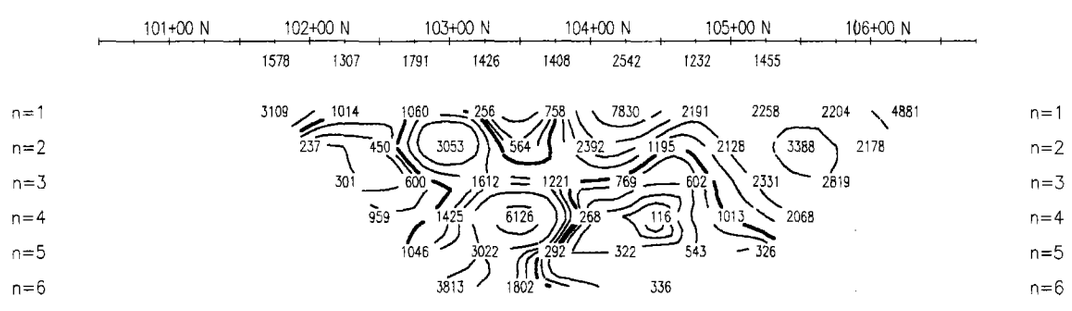


PHASE
mRad



PHASE
mRad

APPARENT
RESISISTIVITY
ohm-m

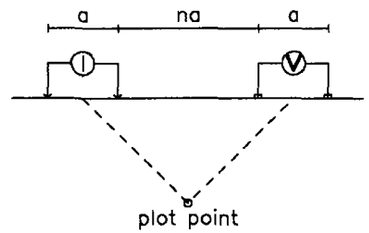


APPARENT
RESISISTIVITY
ohm-m

230

Filter

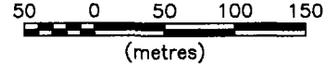
Dipole-Dipole Array



DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments : 2.16880
Phase
Interval 2%, 10%
RESISTIVITY
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,..

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000



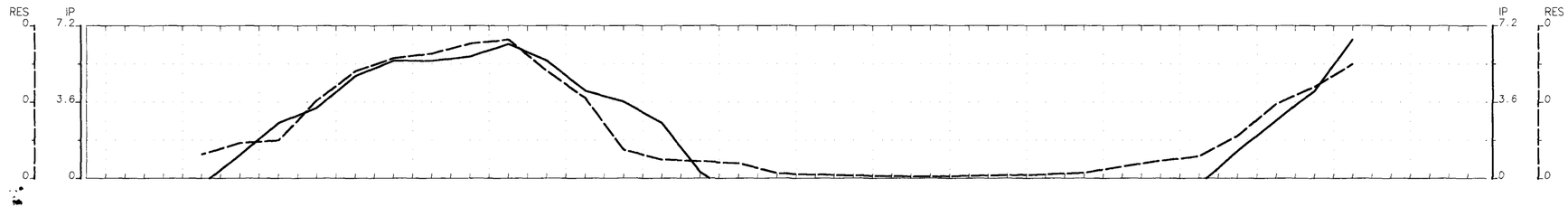
SHANE PROPERTY

INDUCED POLARISATION

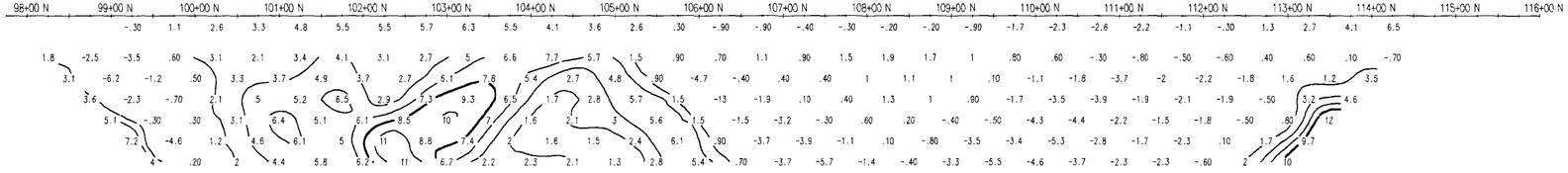
LINE 157E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc

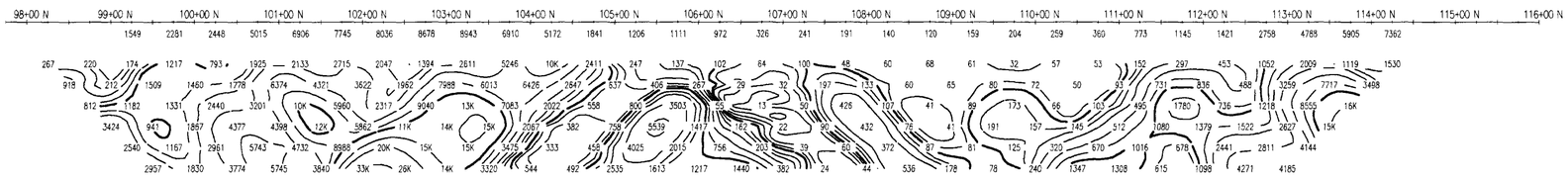


PHASE
mRad



PHASE
mRad

APPARENT
RESISTIVITY
ohm-m

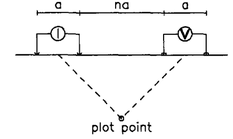


APPARENT
RESISTIVITY
ohm-m

240

Filter

Dipole-Dipole Array



DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments :

Phase
Interval 2% ; 10%
RESISTIVITY
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,..

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000

50 0 50 100 150
(metres)

52M01SE0068 2.16880 BALL

2.16880

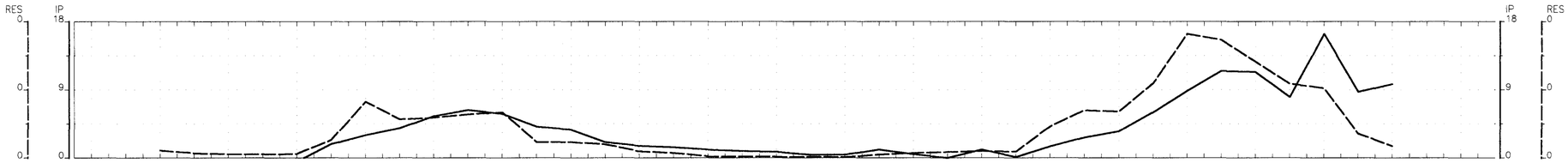
SHANE PROPERTY

INDUCED POLARISATION

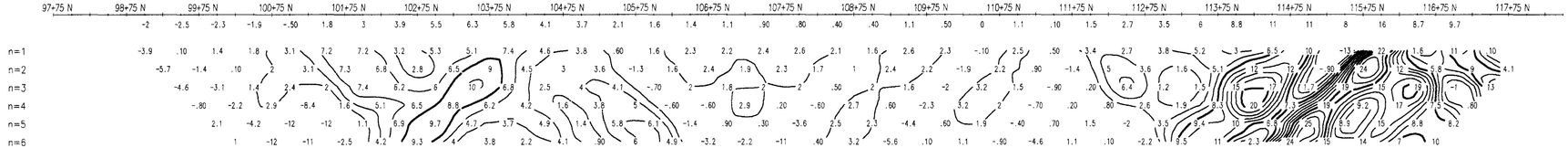
LINE 164E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc

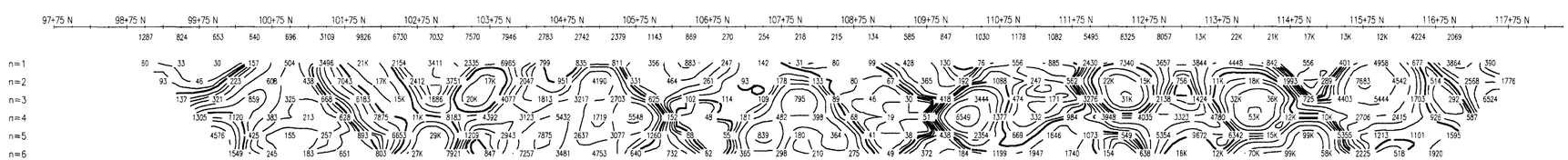


PHASE
mRad



PHASE
mRad

APPARENT
RESISISTIVITY
ohm-m

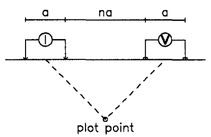


APPARENT
RESISISTIVITY
ohm-m

250

Filter

Dipole-Dipole Array



DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments :

Phase
Interval 2%, 10%
RESISTIVITY
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,..

2.16880

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000

50 0 50 100 150
(metres)

52M01SE0098 2.16880 BALL

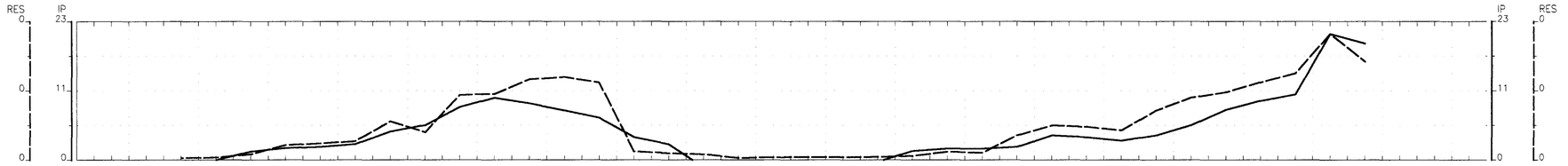
SHANE PROPERTY

INDUCED POLARISATION

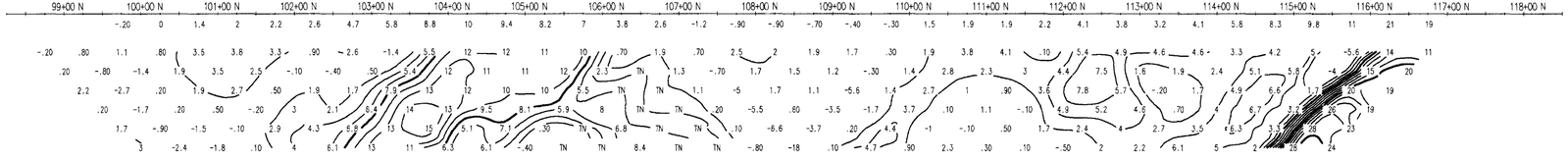
LINE 166E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc

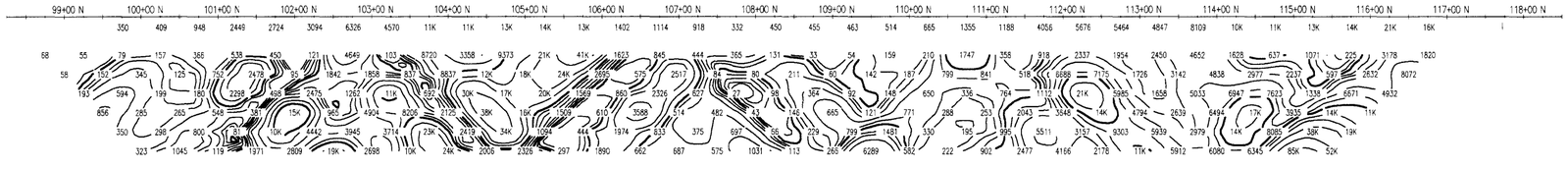


PHASE
mRad



PHASE
mRad

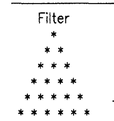
APPARENT
RESISISTIVITY
ohm-m



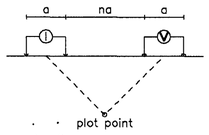
APPARENT
RESISISTIVITY
ohm-m

260

Filter



Dipole-Dipole Array



DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments : 2.16880

Phase
Interval 2%, 10%
RESISTIVITY
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,..

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000

50 0 50 100 150
(metres)

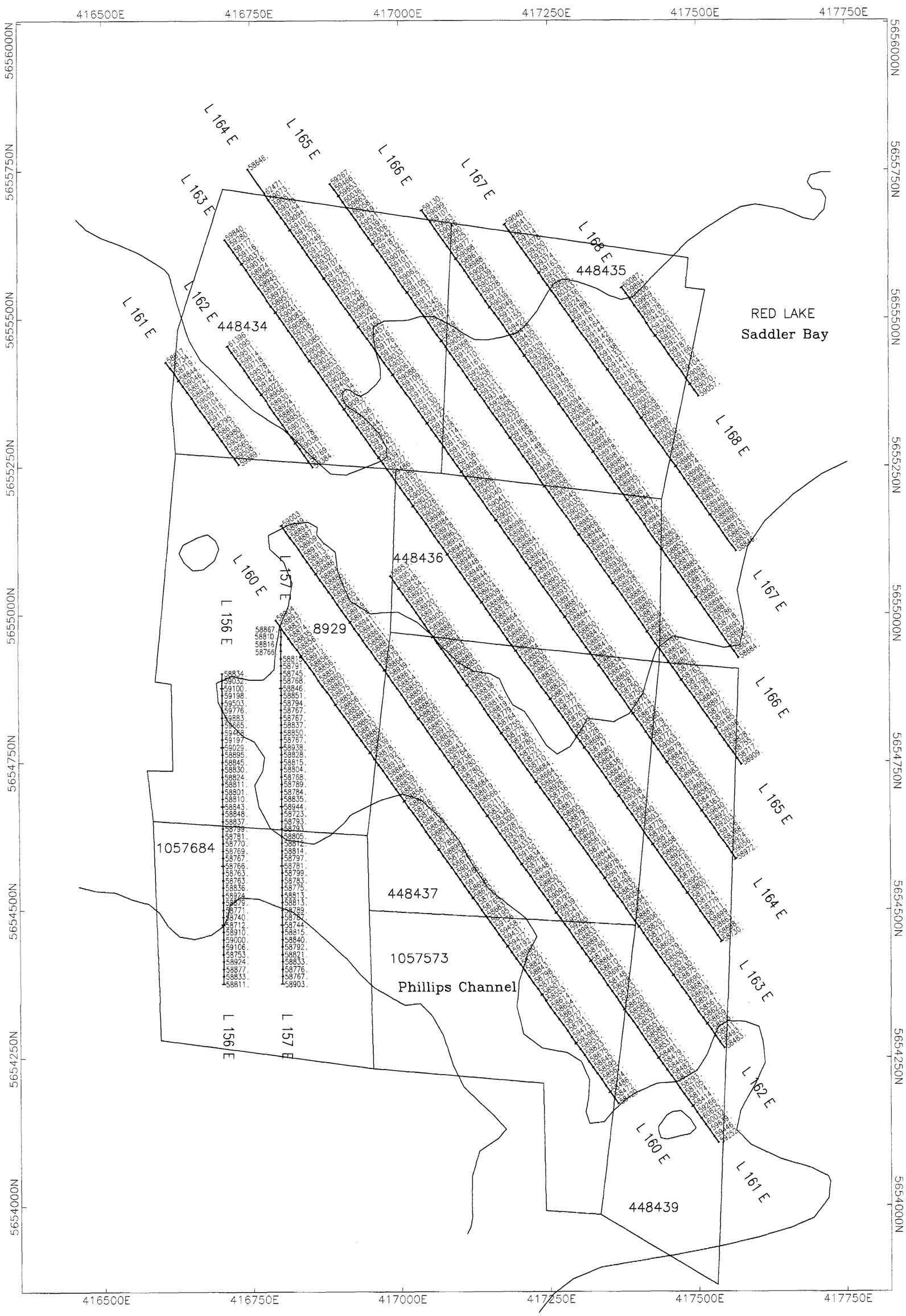
SHANE PROPERTY

INDUCED POLARISATION

LINE 168E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc



2.16880

Scale 1:5000

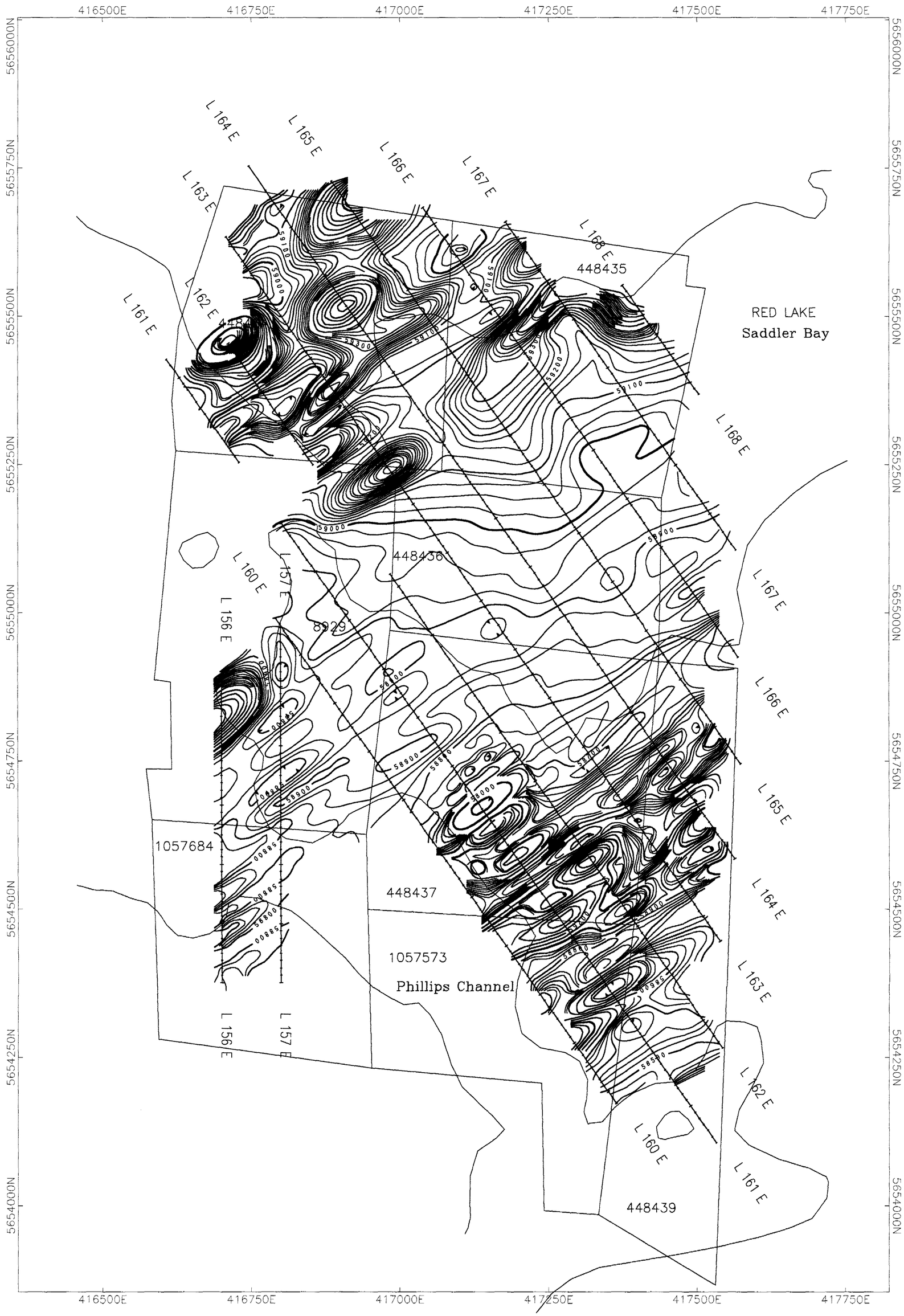
100 0 100 200 300

(metres)

52M01SE0068 2.16880 BALL

270

HEMLO GOLD MINES INC.
TOTAL FIELD MAGNETIC SURVEY - POSTED DATA SHANE PROPERTY
RED LAKE MINING DISTRICT NTS 52 M/1 INSTRUMENT: SCINTREX OMNI IV REFERENCE FIELD: 58,000 nT
DATA SOURCE: HEMLO GOLD MINES INC.



280

2.16880

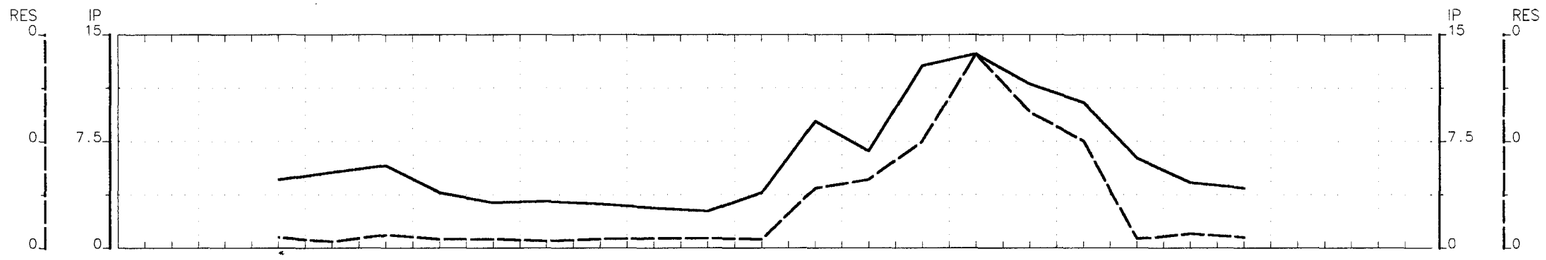
Scale 1:5000

100 0 100 200 300

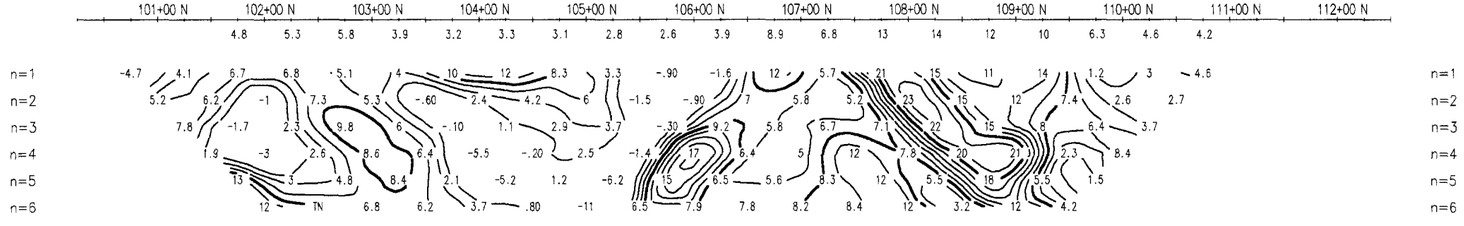
(metres)

CONTOUR INTERVALS: 25, 100, 1000 nT

HEMLO GOLD MINES INC.
TOTAL FIELD MAGNETIC SURVEY - CONTOURS SHANE PROPERTY
RED LAKE MINING DISTRICT NTS 52 M/1 INSTRUMENT: SCINTREX OMNI IV REFERENCE FIELD: 58,000 nT
DATA SOURCE: HEMLO GOLD MINES INC.

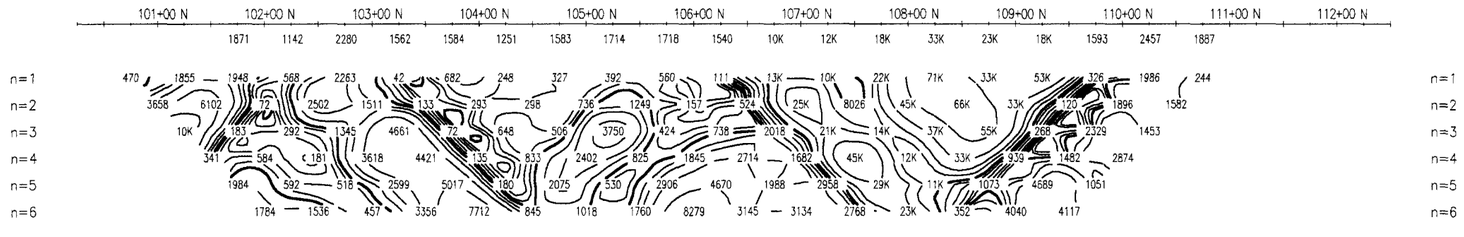


PHASE
mRad



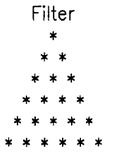
PHASE
mRad

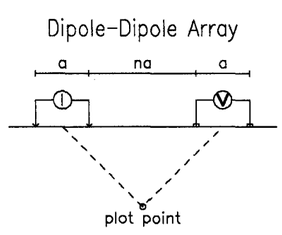
APPARENT
RESISISTIVITY
ohm-m



APPARENT
RESISTIVITY
ohm-m

290





DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments :

Phase
Interval 2%, 10%

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

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000

50 0 50 100 150
(metres)

52M01SE0068 2.16880 BALL

2.16880

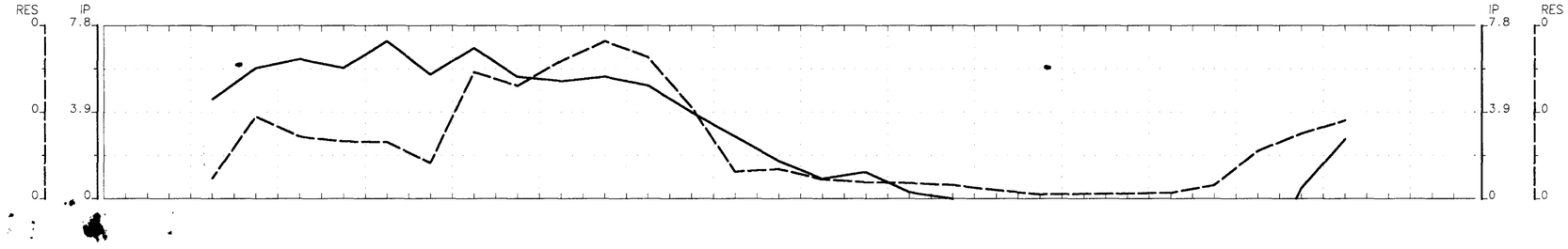
SHANE PROPERTY

INDUCED POLARISATION

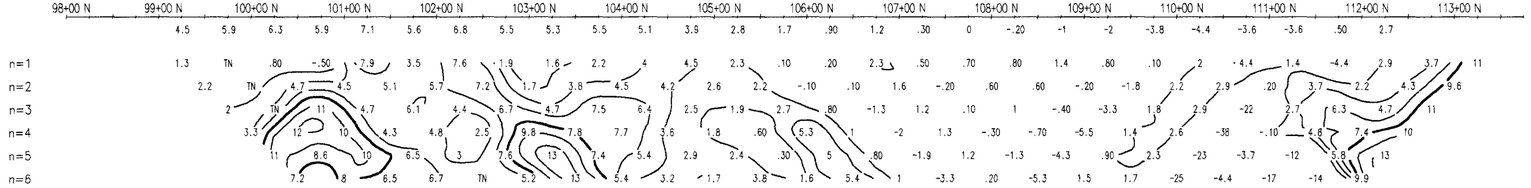
LINE 160E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc

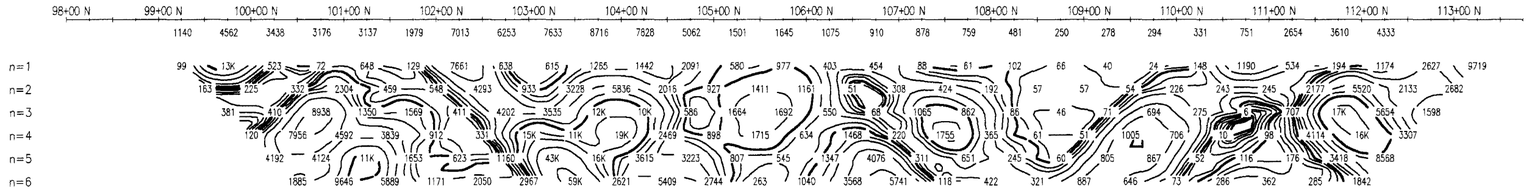


PHASE
mRad



PHASE
mRad

APPARENT
RESISISTIVITY
ohm-m

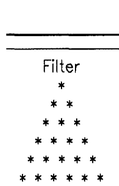


APPARENT
RESISISTIVITY
ohm-m

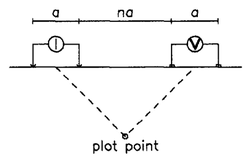
300

52M015EO068 2.16880 BALL

Filter



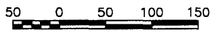
Dipole-Dipole Array



DIPOLE LENGTH : a=50m
DIPOLE SPACINGS : n = 6
Comments : **2.16880**
Phase
Interval 2%, 10%
RESISTIVITY
Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,..

INSTRUMENTS
RECEIVER : PHOENIX V4
TRANSMITTER : PHOENIX IPT1

Scale 1:5000



SHANE PROPERTY

INDUCED POLARISATION

LINE 162E

Date : JANUARY 1995
Property : SHANE
NTS : 52 M/1
Survey by : BELANGER GEOPHYSICS LTD

hemlo gold
Mines Inc