42A01SE0014 2.6734 TECK

010

GEOPHYSICAL SURVEY REPORT
ON THE
PERRONS' 83 LIMITED PROPERTY
WEDGE CLAIMS

TECK TOWNSHIP
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

FOR

ALEXANDER H. PERRON

RECEIVED
MAY 9 1984
MINING LANDS SECTION

MAY 1, 1984

MARY GREER
GEOPHYSICAL TECHNICIAN

42A01SE0014 2.6734 TECK

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Scale: 1 inch to 200 feet

Date: May 1984

Wedge Claims

Ground VLF-EM Survey

Map No. 84-W-1a

Ground Magnetometer Survey

Map No. 84-W-2a

GEOPHYSICAL SURVEY REPORT

ON THE

PERRONS' 83 LIMITED PROPERTY

WEDGE CLAIMS

TECK TOWNSHIP

LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

INTRODUCTION

The Wedge Claims were recorded on July 12, 1982 for claims L-642539 - 540, and on November 22, 1982 for L-666099.

A geophysical grid was established in April, 1984, on the Teck claims.

During the period of April 11-12, 1984, two geophysical surveys (electromagnetic, magnetic) were conducted over the entire group. The instruments used for these surveys were a Geonics EM-16 and a Geometrics G-816.

This work was conducted by and under the active supervision of Mary Greer with Alexander Perron assisting.

All drafting and interpretation was completed by Mary Greer.

The purpose of this report is to briefly describe the results

attained in said surveys.

The anomalies detected are shown on the accompanying maps, at a scale of one inch to 200 feet, that form an integral part of this report.

PROPERTY DESCRIPTION

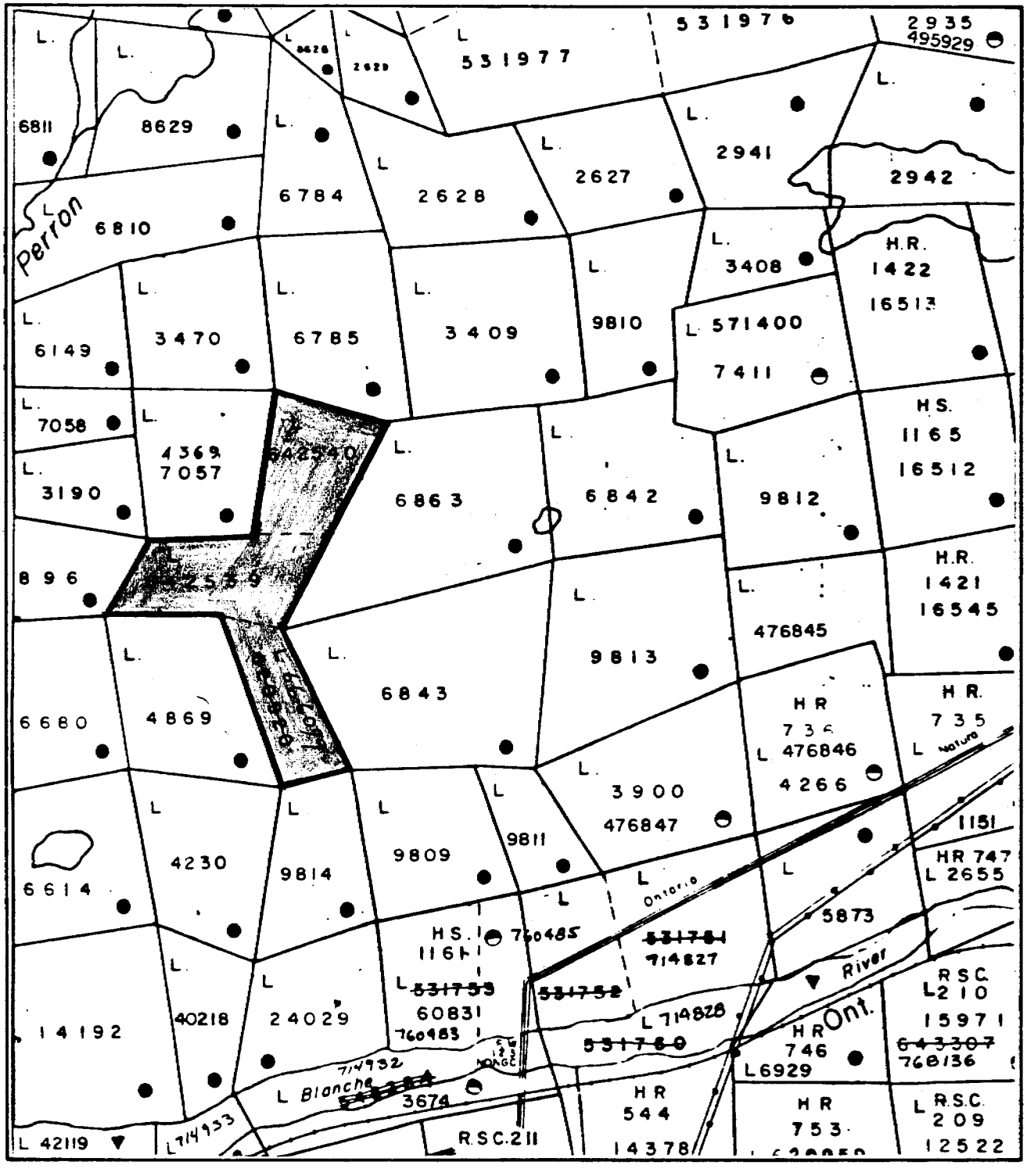
The Wedge Claims consist of a contiguous block of three (3) unpatented mining claims located in Teck township, Larder Lake Mining Division, District of Timiskaming, Ontario, and are further described as follows:

Claim No.	No. of Claims
L-642539 - L-642540	2
L-666099	1
Total number of claims	3

Ownership of the aforementioned unpatented mining claims has been attested to by Alexander H. Perron of 103 Government Road East, Kirkland Lake, Ontario. (See figure 1a).

LOCATION AND ACCESS

The Wedge Claims are found in the very southwest quarter of Teck township, lying 4,000 feet north of the Blanche River and 4,000 feet south of Perron Lake. The claims are approximately five (5) miles from the town of Kirkland Lake.



Claim Location Map

Scale: 1 inch to 1/4 mile

(Taken from a May 1984 claim map)

Figure 1a

The claims are accessible only by walking trails extending northward from the Blanche River or the natural gas line bearing east-west from the town of Swastika. (See figure 1b).

PREVIOUS WORK

Scattered old trenching can be found throughout the property, however no records of these trenches are available. There is one diamond drill hole on claim L-642539 and a magnetometer survey was performed on claim L-666099 by Queenston Gold Mines Limited. (See Regional Assessment Files).

SURVEY PROCEDURE

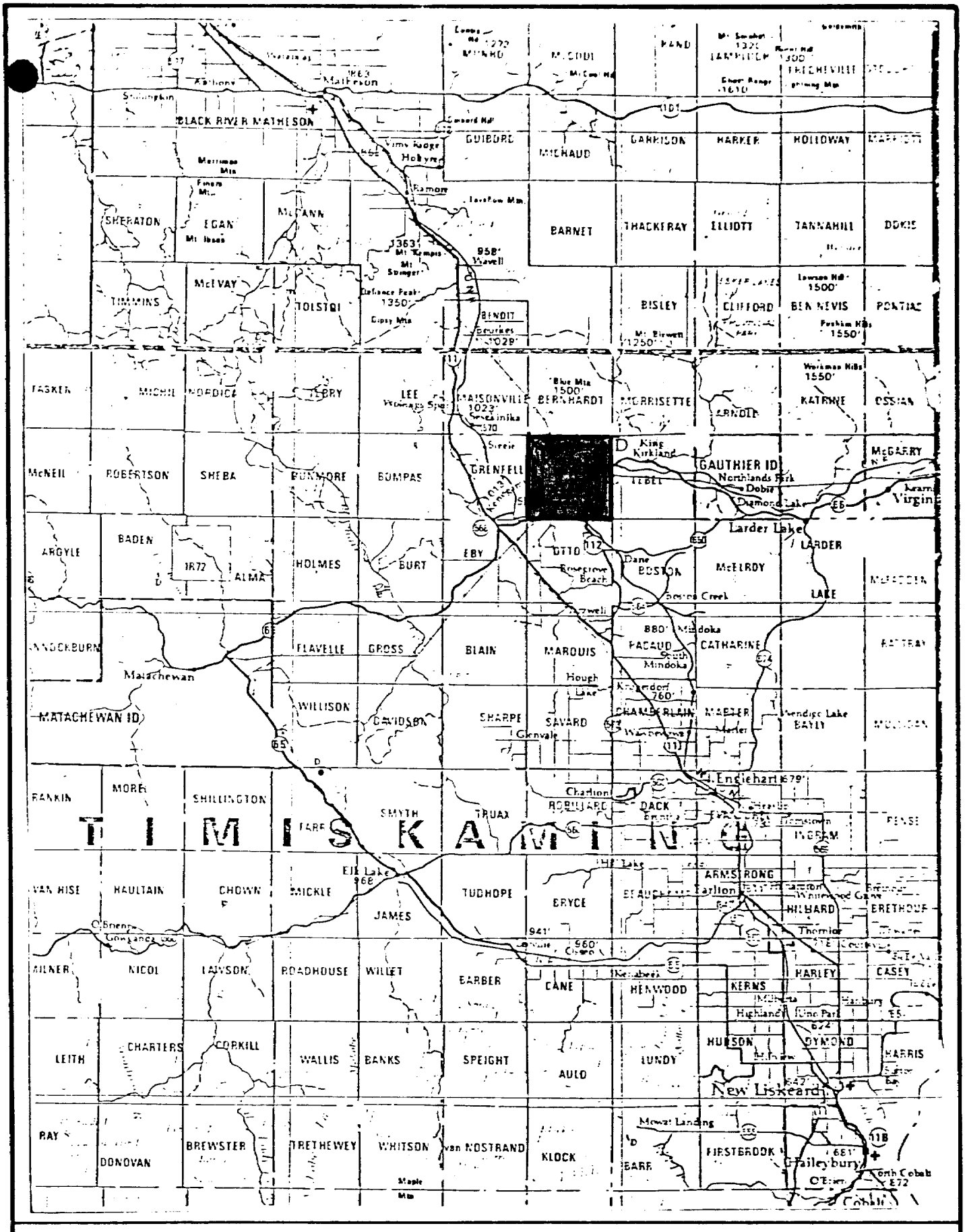
An east-west baseline was established north of the No. 2 post of claim L-642539.

A grid system of picket lines 200 feet apart with stations every 100 feet, was established at right angles to the baseline.

Readings were taken at 50 foot intervals on all picket lines and the baseline. A primary magnetic base station was set up at BL 0 + 00 with secondary check stations established at each 200 foot interval along the baseline. The time interval between each secondary base check was within fifteen (15) to thirty (30) minutes.

TOPOGRAPHY

The general terrain of this property varies from rugged high outcrop hills to low flat swamps. The boundaries of the property follow



Location Map

Miles 10 0 10 20

Figure 1b

higher rough ground. Claim L-666099 consists of large areas of outcrop and high hills, claims L-642539 & L-642540 have a large swamp occurring in the centre of the claims. (See figure 2).

GENERAL GEOLOGY

O.D.M. Geological Map 1945-1, covering Teck township, at a scale of one inch to 1,000 feet, indicates that the bedrock is predominantly sediments, which are conglomerates, tuffs and agglomerates of the Timiskaming series. The tuffs and agglomerates occur on Claim L-666099, they are laced with syenites and syenite porphyry.

The northern claims are underlain by the conglomerates. A Post-Algoman diabase dyke occurs north-south through the centre claim. An east-west fault lies along the south boundary of claim L-642539. This fault is recognized to be part of the Kirkland Lake-Larder Lake break which is part of an east plunging synclinorium. (See Figure 2).

ECONOMIC GEOLOGY

Gold was first discovered in the vicinity of Larder Lake in 1903, and claims were staked for gold in the vicinity of Kirkland Lake and Swastika during the gold rush of 1906.

The main Kirkland Lake gold camp started mining in 1913 and was the second largest producer of gold in Ontario and Canada. The bulk of the gold ore came from the eastern part of Teck Township mined by famous mines such as Kirkland Lake Gold, Teck-Hughes, Lakeshore, Wright Hargreaves, Sylvanite and Toburn.



Geology Map

Scale: 1 inch to 1000 feet

POST-ALGOMAN

Diabase

ALGOMAN

A9 Syenite, quartz feldspar porphyry

A5 Basic syenite

TIMISKAMING

T4 Tuff and agglomerate

T3 Tuffaceous conglomerate

T2 Conglomerate

Figure 2

As previously mentioned, the Kirkland Lake «Main Break» is an east plunging synclinorium located between the Lake Abitibi Batholith and the Round Lake Batholith. The Kirkland Lake-Larder Lake Fault zone marks the south location of the synclinorium and the Destor-Porcupine Fault zone marks the north. The major gold producing mines are found in these zones.

Presently, the only producing mine is the Wilroy Mines Limited, Macassa Division. The Macassa Mine is only two miles northeast along strike from the Perron Property.

The Kirkland Lake «Break» is mapped out to cross the northern boundary of L-666099.

INSTRUMENTATION

i) Electromagnetic Survey:

The VLF-EM method uses as a source, one of the main submarine communications transmitters in the 15 to 25 kHz band found throughout the world. These submarine communication radio waves travel in a single mode parallel to the surface of the earth along the earth-air interface.

Without vertical conductors and travelling over flat ground, the magnetic field component of this radio or surface wave is horizontal and perpendicular to it's direction of travel.

VLF instruments are capable of picking up these structures that change the direction of the waves by measuring the tilt angle of the major axis of the polarization ellipse. This is illustrated by the tilt angle being zero on flat ground, but when a conductor is present the tilt angle will acquire a finite value. The direction of tilt indicates the direction of the conductor. Calculations of such parameters as depth, depth extent, dip and width of the conductor is very minimal.

The VLF easily illustrates the location of the upper limit of dipping structures which can be seen or plotted as VLF profiles as areas of greatest change in tilt angle per unit of distance.

The instrument used for this survey was a Geonics VLF-EM16 unit. The sensitivity of this unit is $\pm$ 1% for the in-phase and

± 1% for the quadrature. The operating frequency for the EM16 is from 15 - 25 kHz and the station selection is made by plug-in units.

For the purpose of this survey the station used was Cutler, Maine, which has a frequency of 24.0 kHz.

All readings were taken perpendicular to the station and the topography was noted for further use in the interpretation of the EM results.

ii) Magnetic Survey:

This system uses a backward motion of spinning protons of a hydrogen atom within a fluid of hydrogen and carbon. These spinning magnetic protons are caused to have two opposite poles by applying a magnetic field using a current within a coil of wire. When the current is stopped, the protons precess about the earth's magnetic field and in turn generate a small current in the wire. This frequency of precession is proportional to the earth's total magnetic field.

This instrument is read directly in gammas which is the absolute value of the earth's total field for that station.

The instrument used for this survey was a Geometrics G-816 Proton Magnetometer, this instrument has a one gamma sensitivity.

The diurnal variation was monitored by closing each loop

at any secondary check station, at a gridline-baseline intersection.

Diurnal corrections were applied by linear distribution of any observed variation over the time between base stations. The corrections were calculated by using a time vs drift graph.

PRESENTATION AND DISCUSSION OF RESULTS

i) Electromagnetic Survey:

The field data is presented on a map at a horizontal scale of one inch to 200 feet, map number 84-W-1a, found in the back pocket of this report.

The VLF-EM data is illustrated as profiled data along the survey lines and is plotted at a vertical scale of one inch = $\pm$ 40% with the in-phase to the left and quadrature to the right.

There are several conductors found on the three (3) claims, some, as in the conductors found on the north claim, extend over a large area. The Fraser Filter contouring method was applied to this survey and the conductors clearly outlined. One conductor following just south of the baseline is north of the known fault that crosses the property.

The Fraser Filter method shows the conductive zone over the three major swamps on the property.

ii) Magnetic Survey:

The field data is presented on a map at a horizontal scale of one inch to 200 feet, map number 84-W-2a.

The magnetic data is illustrated as isomagnetic contours (contour interval: 100 gammas) on a map of corrected magnetic values recorded at each station.

The southern claim (L-666099) shows greater magnetic relief than the northern two (2) claims.

In the northern claims the magnetic trend appears to be in a northeast-southwest direction. With a greater variation to the west of claim L-642539. There is a magnetic low from L 0 + 00 1 + 00 S to 2 + 00 S to L 4 + 00 W 4 + 50 S. A higher magnetic relief occurs south of this low and the trend appears to be in a more east-west direction.

CONCLUSIONS AND RECOMMENDATIONS

The VLF-EM data is possibly due to the swamps found on the property. The conductive area outlined by the Fraser method follows the swamp boundaries as outlined on the geological map and from the swamp boundary crossings occurring on the picket lines as determined by the field notes.

The magnetic low appears to «divide» the property in half. It may represent the fault crossing the claims although it is mapped out on the magnetometer map in a slightly different place than on the geological map. (See figure 2). The greater magnetic relief found on claim L-666099 may be due to the different rock types found on the property. The underlying bedrock is basically tuffs and the bedrock is closer to the surface with more exposed outcrop which may affect the readings taken.

The diabase dyke may be indicated on L 4 + 00 W 6 + 00 S to 8 + 00 S although it is not clearly illustrated to the north. In this

survey the diabase dyke appears as a magnetic low.

It is recommended that the magnetic low be further examined with a more detailed magnetic survey. The different rock types on L-666099 can also be picked up by changing the spacing on the lines to 25 foot spacing from 50 foot spacing, and running intermediate lines at 100 foot spacings. Drilling along the magnetic low would also verify where the fault was located.

Respectfully submitted

Mary Greer

May 1, 1984

Mary Greer
Geophysical Technician

BIBLIOGRAPHY

Ontario Department of Mines

Maps

Vol. LVII 1948, Part V

Map 1945 - 1

C E R T I F I C A T E

I, Mary Greer, of Lynden, Ontario, do hereby certify:

1. That I am a Geophysical Technician and reside at: 49 McKelvie Avenue, Kirkland Lake, Ontario

2. That I graduated from Sir Sandford Fleming College at Lindsay, Ontario, in 1978, with a diploma as a Geological Technician.

3. That I was employed as a Geophysical Technician by H.E. Neal and Associates Limited for 18 months.

4. That I have been practising my profession for a period of four (4) years and I am qualified to write this report.

5. That I supervised and participated in this survey.

May 1/84
Date

Mary Greer
Mary Greer
Geophysical Technician

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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

Type of Survey(s) ELECTROMAGNETIC GEOPHYSICAL SURVEY - MAGNETIC

Township or Area TOWNSHIP OF TECK

Claim Holder(s) ALEXANDER H. PERRON
103 GOV'T RD.E., KIRKLAND LAKE,ONT.P2N1A9

Survey Company PERRONS' 83 LIMITED

Author of Report MARY GREER

Address of Author 49 MCKELVIE AVE., KIRKLAND LAKE, ONT.

Covering Dates of Survey 01/04/84 - 01/05/84
(linecutting to office)

Total Miles of Line Cut APPROXIMATELY THREE (3) MILES

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

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

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

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

DATE: May 1/84 SIGNATURE: Mary Greer
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	642539
L	642540
L	666099

TOTAL CLAIMS 3

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 153 Number of Readings MAG - 306 VLF-EM - 272

Station interval 100 FEET Line spacing 200 FEET

Profile scale + - 40%

Contour interval 100 GAMMAS

MAGNETIC

Instrument GEOMETRICS G-816 PROTOR MAGNETOMETER

Accuracy – Scale constant 1 GAMMA

Diurnal correction method CLOSED LOOPS

Base Station check-in interval (hours) APPROXIMATELY EVERY 15 TO 30 MINUTES

Base Station location and value BL 0 + 00 58247 GAMMAS

ELECTROMAGNETIC

Instrument GEONICS VLF-EM 16

Coil configuration VERTICAL & HORIZONTAL

Coil separation INFINITY

Accuracy + - 1%

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

Frequency 24.0 kHz CUTLER, MAINE (specify V.L.F. station)

Parameters measured IN-PHASE AND QUADRATURE

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION / RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

Ministry of Natural Resources

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

W8408 00158

2..

42A01SE0014 2.6734 TECK

900

(Prefix L 666099)

The M

Township or Area: TECK

Type of Survey(s): GEOPHYSICAL SURVEY (electromagnetic, Magnetic)

Claim Holder(s): ALEXANDER H. PERRON

Prospector's Licence No.: K 19026

Address: 103 Government Rd. E. Kirkland Lake, Ontario

Survey Company: Perrons' 83 Ltd.

Date of Survey (from & to): 01 04 84 (Day Mo. Yr.) to 12 04 84 (Day Mo. Yr.)

Total Miles of line Cut: 3.0 miles

Name and Address of Author (of Geo-Technical report): Mary Greer 49 McKelvie Ave, Kirkland Lake Ontario

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	120
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	666099				
	642539				
	642540				

LAND RECEIVED MAY - 7 1984 MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed: MAY 15 1984

Performed on Claim(s): MINING LANDS SECTION

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 3

For Office Use Only		
Total Days Cr. Recorded: 120	Date Recorded: MAY - 7 1984	Mining Recorder
	Date Approved as Recorded: 84.7.16	Provincial Director

Date: May 7 /84

Recorded Holder or Agent (Signature): Mary Greer

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: MARY GREER 49 McKelvie Ave. Kirkland Lake Ontario

Date Certified: May 7 /84

Certified by (Signature): Mary Greer

1362 (81/9)

Mining Lands Section

File No 2.6734

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

Checked

LGD LD

D. Hurst

Signature of Assessor

July 10/84

Date

1984 05 18

Your File: 158
Our File: 2.6734

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic & Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 642539 et al in the Township of Teck.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-6918

A. Barr:sc

cc: Alexander H. Perron
103 Government Rd E
Kirkland Lake, Ont
P2N 2E8

cc: Mary Greer
49 McKelvie Ave
Kirkland Lake, Ont
P2N 2K6

49 McKelvie Avenue,
Kirkland Lake, Ontario

REGISTERED MAIL

May 1, 1984

RECEIVED
MAY 9 1984
MINING LANDS SECTION

Mr. Fred Matthews,
Lands Administration Branch,
Mining Lands Section,
Ministry of Natural Resources,
Room 6450, Whitney Block,
Queen's Park,
Toronto, Ontario
M7A IW3

Dear Sir:

RE: Technical Report for
Teck Township
Larder Lake Mining Division

Enclosed herewith please find a duplicate copy of the following:

- Report dated May 1, 1984, by Mary Greer entitled:

  Geophysical Survey Report
  On the Perrons' 83 Limited Property
  Wedge Claims
  Teck Township
  Larder Lake Mining Division
  District of Timiskaming, Ontario

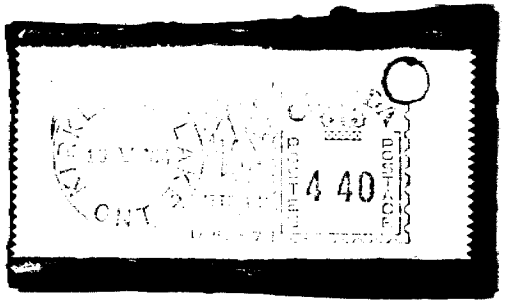
I trust this is the information required to correspond with the Report of Work filed concerning the above noted township.

Yours truly,

Mary Greer
Geophysical Technician

MG/p

Encl.


CANADA POSTAGE
4 40

Bernhardt Twp. M.327

Grenfell Twp. M.351

Lebel Twp. M.359

Otto Twp. M.379

THE TOWNSHIP OF TECK

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 20 CHAINS

DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS
- " , SURFACE RIGHTS ONLY
- " , MINING RIGHTS ONLY
- LEASE, SURFACE AND MINING RIGHTS
- " , SURFACE RIGHTS ONLY
- " , MINING RIGHTS ONLY
- LICENCE OF OCCUPATION
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Areas shown thus ▭ for slime disposal.

Mining claim L.5779 — Mining Rights subject to Sec. 36 of the Mining Act. (R.S.O. 1950).

AREAS WITHDRAWN FROM STAKING

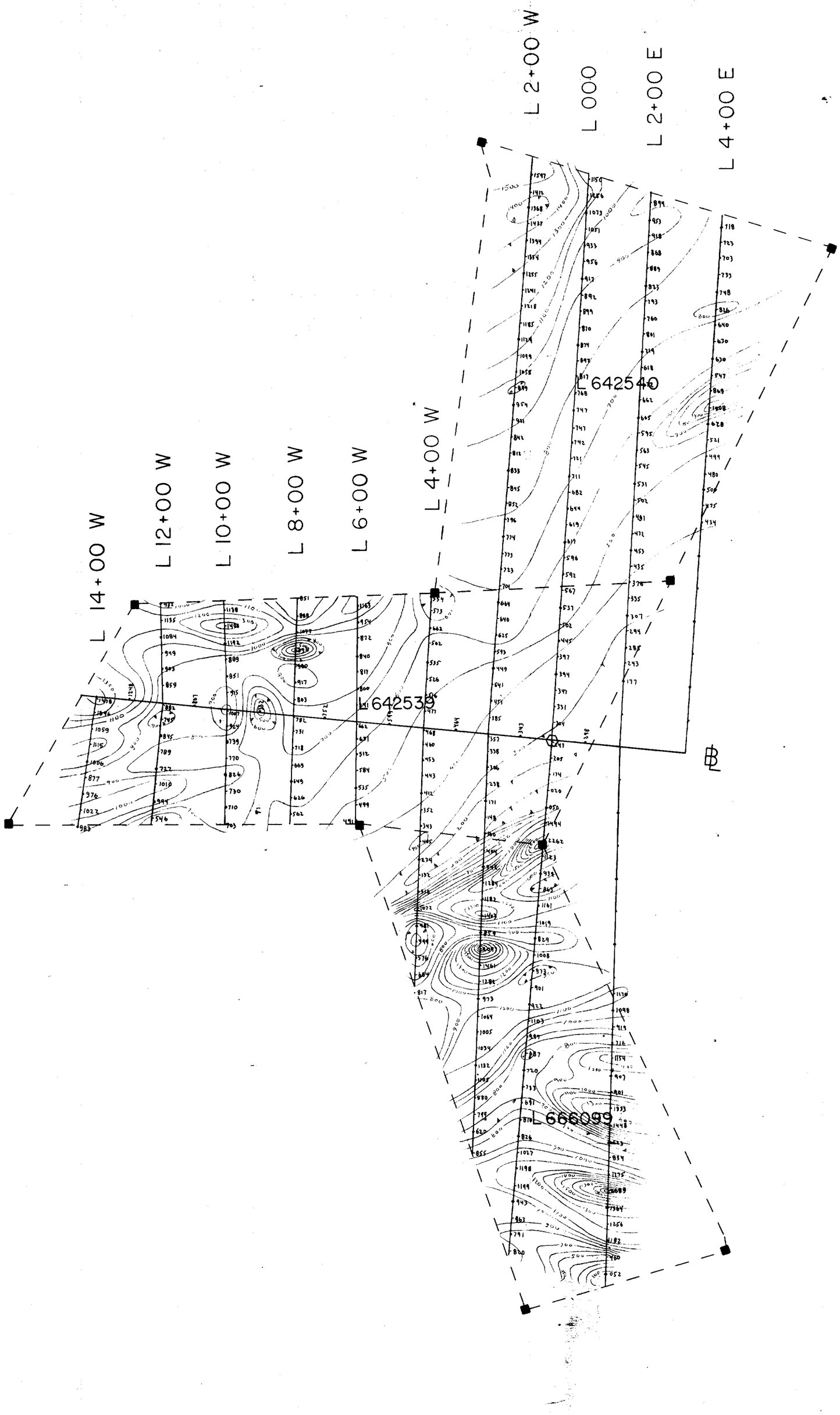
S.R. — SURFACE RIGHTS	SECTION	ORDER No.	DATE	DISPOSITION	M.R. — MINING RIGHTS FILE
(S)	43 (R.S.O. 1970)	W.76/80	7/2/80	S.R.	17760
(S)	36 (R.S.O. 1980)	W.108/82	12/2/82	S.R.&M.R.	15478
(S)	SEC. 36/80	W.61/81	19/9/83	M.R.	

PLAN NO.-M. 392

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH



Mag. 10° W

SYMBOLS

Base station ⬡

Isomagnetic contours

Claim post ■

Claim line — — — —

INSTRUMENTATION

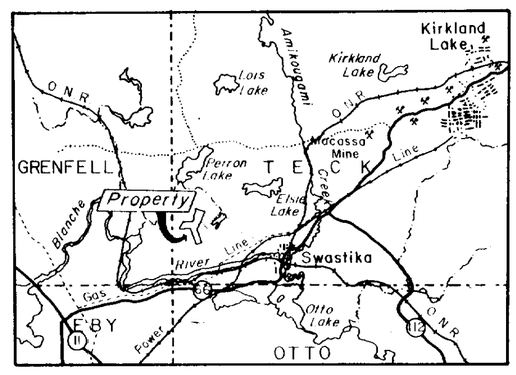
GEOMETRICS G 816
PROTON MAGNETOMETER

Contour interval 100 gammas

Contoured by: Mary Greer

KEY MAP

(Scale: 1 inch to 2 miles)



Mary Greer

WEDGE CLAIMS

GROUND MAGNETOMETER SURVEY

TECK TOWNSHIP
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600

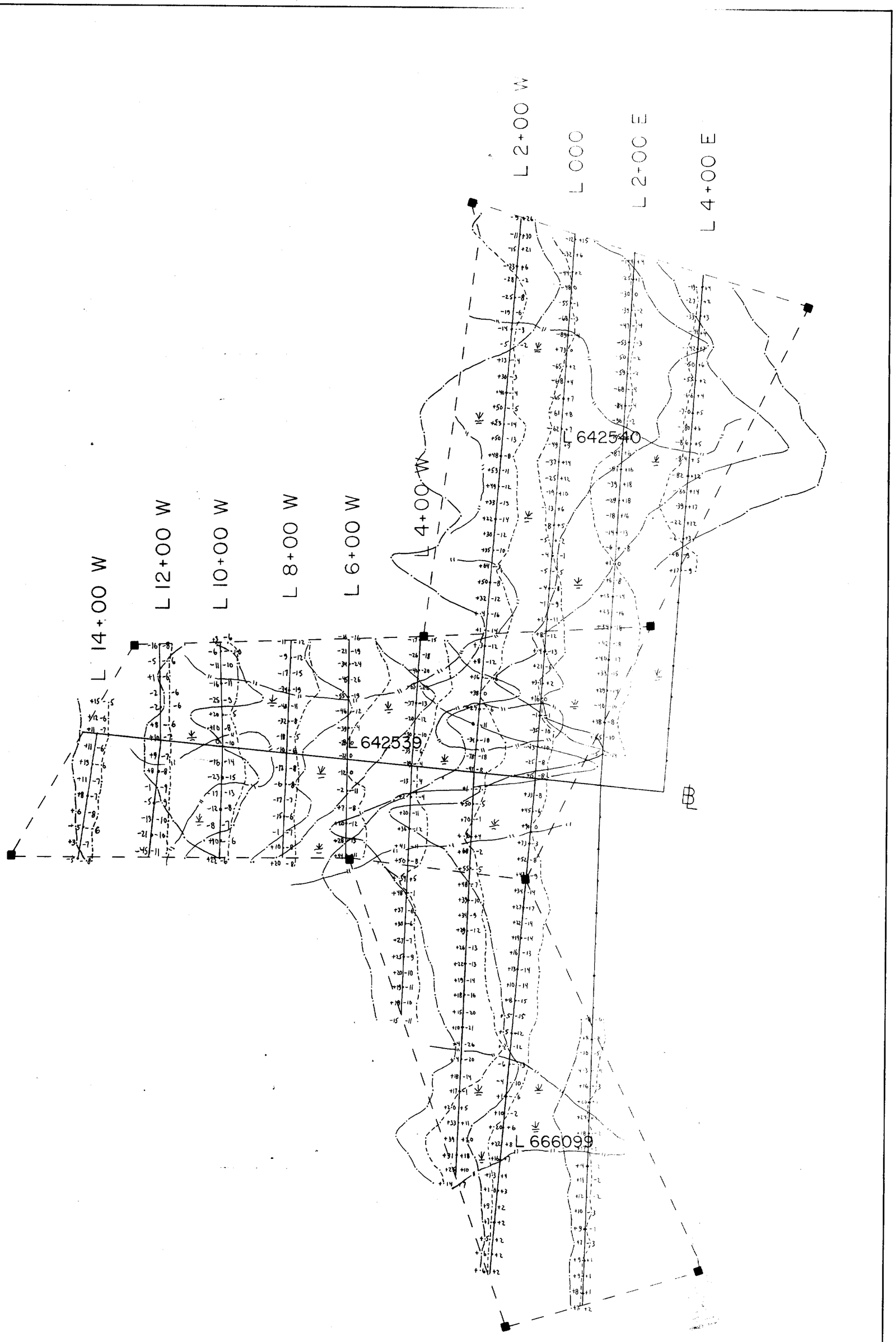
Scale: 1 inch to 200 feet

PERRONS' 83 LTD.
KIRKLAND LAKE CANADA

Drawn by: Mary Greer | Map No. 84-W-2a | Date: May 1984

2.6734

42A01SE0014 2.6734 TECK



Mag. 10° W

SYMBOLS

- In-phase
- Quadrature
- Claim post
- Claim line
- Swamp

INSTRUMENTATION

GEONICS VLF-EMI6

Station used: NAA Cutler, Maine

Frequency: 24.0 kHz

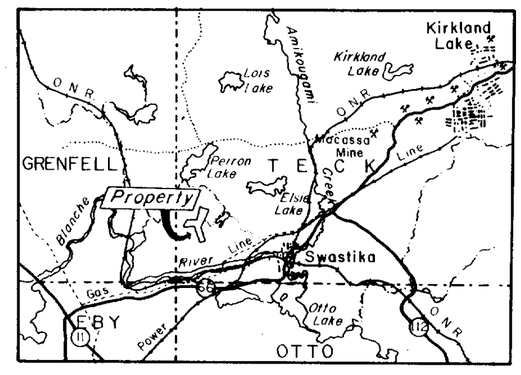
Vertical scale: 1 inch = ± 40%

Positive | Negative

Positive | Negative

KEY MAP

(Scale: 1 inch to 2 miles)



Mary Greer

WEDGE CLAIMS

GROUND VLF-EM SURVEY

TECK TOWNSHIP
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600

Scale: 1 inch to 200 feet

PERRONS' 83 LTD.
KIRKLAND LAKE CANADA

Drawn by: Mary Greer	Map No.: 84-W-1a	Date: May 1984

42A01SE0014 2.6734 TECK

2.6734