

32D04SW0275 2.8078 CATHARINE

010

GEOLOGICAL SURVEY REPORT  
ON THE  
PERRON PROPERTY  
CATHARINE TEN GROUP  
CATHARINE TOWNSHIP  
LARDER LAKE MINING DIVISION  
DISTRICT OF TIMISKAMING, ONTARIO

FOR

ALEXANDER H. PERRON

MAY 6, 1985

MARY GREER  
GEOLOGICAL TECHNICIAN

**RECEIVED**

MAY 9 - 1985

MINING LANDS SECTION



32D04SW0275 2.8078 CATHARINE

010C

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ILLUSTRATIONS

Location Map - (Figure 1 a). . . . . 2 a)

Location Map - (Figure 1 b). . . . . 2 b)

Accompanying Plan Maps. . . . . In Back Pocket

Scale: 1 inch to 200 feet

Date: May 1985

Catharine Ten Group

Geological Survey

West Half

Map No. 85-10W-3

Geological Survey

East Half

Map No. 85-10E-3

GEOLOGICAL SURVEY REPORT  
ON THE  
PERRON PROPERTY  
CATHARINE TEN GROUP  
CATHARINE TOWNSHIP  
LARDER LAKE MINING DIVISION  
DISTRICT OF TIMISKAMING, ONTARIO

INTRODUCTION

The Catharine Ten Group was recorded on April 22, 1983.

A geophysical grid at a 400 foot line spacing was subsequently established by A.H. Perron in January 1984. During the period of March 1984, a geophysical survey (magnetic) was completed over the group.

In July - August of 1984, a geological survey was completed describing topography and the visible outcrops.

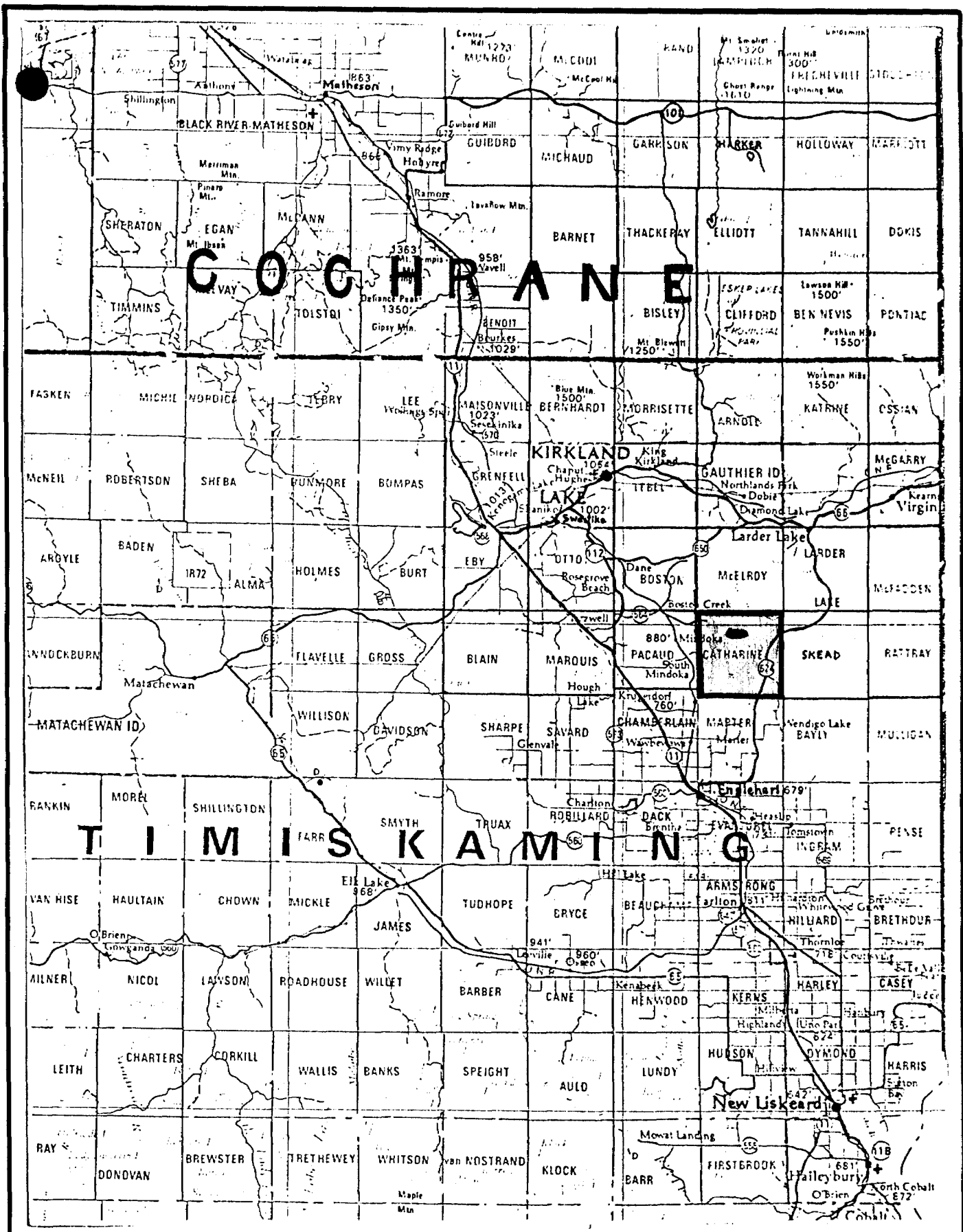
This work was conducted by Tom Obradovich of Kirkland Lake, Ontario.

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 outcrops detected therefrom are shown on the accompanying plan maps at a scale of one inch to 200 feet, that form an integral part of this





Location Map

Miles 10



Figure 1b

report.

PROPERTY DESCRIPTION

The Catharine Ten Group consists of a contiguous block of ten, 40 acre, unpatented mining claims located in Catharine Township, Larder Lake Mining Division, District of Timiskaming, Ontario, and are further described as follows:

<u>Claim No.</u>	<u>No. of Claims</u>
L-760384 - L-760393 (inclusive)	10

Ownership of the aforementioned claims have been attested to by Alexander H. Perron of 103 Government Road East, Kirkland Lake, Ontario, and was not independently ascertained by the writer. (See figure 1a).

LOCATION AND ACCESS

The Catharine Ten Group encompasses Conc. V, Lots 6, 7 and 8, Catharine Township, approximately 12 miles southeast of the town of Kirkland Lake, Ontario.

This property is accessible via a secondary road that extends eastward approximately three miles from the village of Boston Creek to the Misema River which can be crossed by canoe. Boston Creek is located approximately 15 miles southeast of Kirkland Lake and may be reached via highway 112 and 564.

The aforementioned secondary road is easily travelled by standard drive in the summer and snowmobile in the winter. (See Figure 1b).

### PREVIOUS WORK

In November 1980, a magnetic survey was carried out for Dome Exploration (Canada) Limited. The magnetic relief and trend was described. Some diamond drilling was also carried out on the property as well as a number of other geophysical surveys. (See Regional Assessment Files).

### SURVEY PROCEDURE

A northwest baseline was established from the common post of claims L-760389 and L-760390.

A grid system of picket lines 400 feet apart with stations each 100 feet, was established at right angles to the baseline.

Visible outcrops were noted along the picket lines, and compass and pace lines connected areas between the lines.

### TOPOGRAPHY

The general terrain of this property varies from jack pine covered sand ridges to the southeast section of the property, to gently sloping poplar, birch and spruce spotted with small outcrops to the northwest section. The difference in elevation averages 75 feet. The Misema River flows west along the northern boundary.

### GENERAL GEOLOGY

O.D.M. Geological Map 2043, covering Catharine and Marter townships, at a scale of one inch to one-half mile, indicates that the bedrock is underlain by Keewatin volcanics. This includes intermediate to acidic volcanics



that are mainly pyroclastic. The local exposed outcrops are classified as a carbonatized fragmented andesite.

#### ECONOMIC GEOLOGY

Situated to the immediate northwest of the claim group, along the McElroy-Catharine township line, lies the Cathroy-Larder Mine property.

Cathroy-Larder Mines was incorporated in 1943 to succeed Yama Gold Mines. Yama Gold Mines produced 22,250 tons grading 0.14 oz. Au/ton between 1938 to 1942. A new gold zone was discovered by Cathroy-Larder about 1,000 feet south of the shaft. After considerable underground development, including surface and underground diamond drilling, ore reserves were calculated at 280,000 tons grading 0.20 oz Au/ton.

Mirado Nickel optioned the property in 1960 conducting additional surface and underground drilling. In 1980 the property was optioned by Canamax (Amax) and further surface diamond drilling was performed as well as surface stripping over the south ore body.

The rocks within the mine area belong to the Skead-Group which are mainly dacites, andesites, rhyolite flows and pyroclastics. These rocks are cut by small dikes of syenite, lamprophyre and diorite.

The ore is stratabound within pyroclastic units. The shaft ore body is at or near the upper contact of the Skead pyroclastics. The south ore bodies are approximately 1,500 feet from the top of the Skead group.

The upper contact of the Skead group within the mine area strike

about S 70° E and dip steeply north to vertical. The ore zones consist of many narrow quartz-calcite-sulphide and massive sulphide seams. The sulphides are pyrite, chalcopyrite and sphalerite, gold is found in fractures in the pyrite.

## PRESENTATION OF FIELD RESULTS

The field data is presented on two map sheets, at a horizontal scale of one inch to 200 feet, Map No. 85-10W-3 and No. 85-10E-3, found in the back pocket of this report.

For the purpose of this presentation, refer to the accompanying plan map for the outcrop locations.

### i) Topography:

There was little change in the topography over the whole grid. The grid was covered by mixed forests of spruce, balsam fir and poplar, birch combinations. Some minor low areas were found to have a larger percentage of alder and willow. This was particularly noticed along the banks of the Misema River.

### ii) Geology:

Two different rock types, of the Keewatin Series were found on the property. These were a pyroclastic volcanic rock being an agglomerate and aphanitic tuff of a dacite or andesite origin.

The agglomerate had a weathered surface of grey white and was difficult to break with a hammer.

The agglomerate was composed of angular to subrounded pebbles of an assorted materials. The matrix was a grey-green colour which contained visible grains of pyrite.

The aphanitic tuff had the same composition as the agglo-

merate, without the agglomerates.

The tuff weathers a light grey, was not magnetic and easily scratched by a knife.

CONCLUSIONS AND RECOMMENDATIONS

Little outcrop was found on the property. They occurred as small areas sticking out of the glacial overburden.

Due to the larger amount of overburden most of which is related to glacial deposits, a reverse circulation program is proposed. This would help delineate any gold bearing areas for further examination.

Respectfully submitted,

A handwritten signature in cursive script that reads "Mary Greer". The signature is written in dark ink and is positioned above the typed name.

May 6, 1985

Mary Greer  
Geological Technician

BIBLIOGRAPHY

James A. Grant

1963: Geological Report No. 18,  
Catharine and Marter Townships:  
Ontario Department of Mines.

C E R T I F I C A T E

I, Mary Greer, of Kirkland Lake, Ontario, do hereby certify:

- 1) That I am a Geophysical Technician and reside at:  
49 McKelvie Avenue, Kirkland Lake, Ont. P2N 2K6.
- 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 for 18 months.
- 4) That I have been practising my profession for a  
period of five (5) years and I am qualified to write  
this report.
- 5) That I supervised and participated in this survey.

May 6 / 85  
Date

Mary Greer  
Mary Greer  
Geological Technician





32D04SW0275 2.8078 CATHARINE

900

Mining Lands Section

File No 2.8078

Control Sheet

TYPE OF SURVEY

GEOPHYSICAL

GEOLOGICAL

GEOCHEMICAL

EXPENDITURE

MINING LANDS COMMENTS:

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*Lpd.*  
*L.D.*

*Dennis*

Signature of Assessor

*May 10 / 85*

Date







GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 381 Number of Readings

Station interval 100 FEET Line spacing 400 FEET

Profile scale

Contour interval

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: Fixed transmitter Shoot back In line Parallel line

Frequency (specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method Time Domain Frequency Domain

Parameters - On time Frequency

- Off time Range

- Delay time

- Integration time

Power

Electrode array

Electrode spacing

Type of electrode

**SELF POTENTIAL**

Instrument \_\_\_\_\_ Range \_\_\_\_\_

Survey Method \_\_\_\_\_

Corrections made \_\_\_\_\_

**RADIOMETRIC**

Instrument \_\_\_\_\_

Values measured \_\_\_\_\_

Energy windows (levels) \_\_\_\_\_

Height of instrument \_\_\_\_\_ Background Count \_\_\_\_\_

Size of detector \_\_\_\_\_

Overburden \_\_\_\_\_  
(type, depth - include outcrop map)

**OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)**

Type of survey \_\_\_\_\_

Instrument \_\_\_\_\_

Accuracy \_\_\_\_\_

Parameters measured \_\_\_\_\_

Additional information (for understanding results) \_\_\_\_\_

**AIRBORNE SURVEYS**

Type of survey(s) \_\_\_\_\_

Instrument(s) \_\_\_\_\_  
(specify for each type of survey)

Accuracy \_\_\_\_\_  
(specify for each type of survey)

Aircraft used \_\_\_\_\_

Sensor altitude \_\_\_\_\_

Navigation and flight path recovery method \_\_\_\_\_

Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_

Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken \_\_\_\_\_

Total Number of Samples \_\_\_\_\_

Type of Sample \_\_\_\_\_  
(Nature of Material)

Average Sample Weight \_\_\_\_\_

Method of Collection \_\_\_\_\_

Soil Horizon Sampled \_\_\_\_\_

Horizon Development \_\_\_\_\_

Sample Depth \_\_\_\_\_

Terrain \_\_\_\_\_

Drainage Development \_\_\_\_\_

Estimated Range of Overburden Thickness \_\_\_\_\_

**SAMPLE PREPARATION**

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis \_\_\_\_\_

General \_\_\_\_\_

**ANALYTICAL METHODS**

Values expressed in: per cent   
p. p. m.   
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others \_\_\_\_\_

Field Analysis (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Field Laboratory Analysis

No. (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Commercial Laboratory (\_\_\_\_\_ tests)

Name of Laboratory \_\_\_\_\_

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

General \_\_\_\_\_



103 GOVERNMENT ROAD EAST - KIRKLAND LAKE, ONTARIO - P2N 1A9 - (705) 567-7057

May 6, 1985

Mr. Fred Matthews,  
Lands Administration Branch,  
Mining Lands Section,  
Ministry of Natural Resources,  
Room 6450, Whitney Block,  
Queen's Park,  
Toronto, Ontario  
M7A 1W3

**RECEIVED**

MAY 9 - 1985

**MINING LANDS SECTION**

Dear Sir:

RE: Geological Survey Report  
Catharine Township  
Larder Lake Mining Division

Enclosed herewith please find a duplicate copy of the following:

- Report dated May 6, 1985, by Mary Greer entitled:

Geological Survey Report  
Perron Property  
Catharine Ten Group  
Larder Lake Mining Division  
District of Timiskaming, Ontario

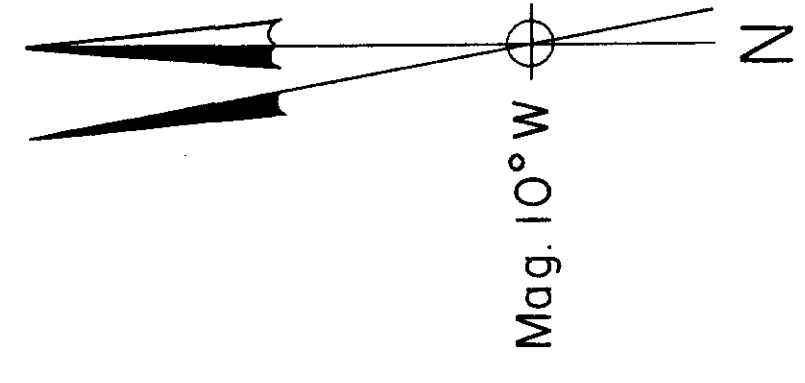
I trust this is the information required to correspond with the Report of Work filed concerning the above noted township.

Yours truly,

PERRONS

Mary Greer,  
Geological Technician  
MG/p

Encls.

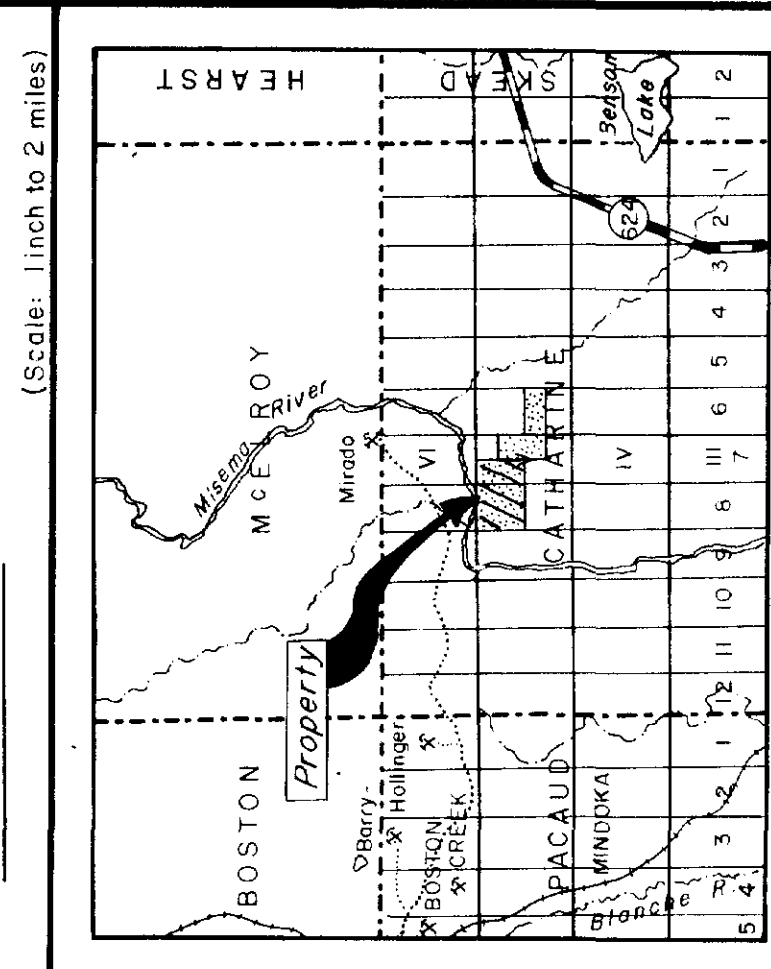


- SYMBOLS**
- Outcrop
  - - - Geological boundary (inferred)
  - Trench
  - Forest boundary
  - ⌈ Poplar / Birch
  - ⌋ Alder & Spruce/Balsam fir
  - ≡ Swamp / wet areas
  - ▬ River
  - Claim post
  - - - Claim line
  - ⋯ Trail

**LEGEND**

- CENOZOIC**
- PLEISTOCENE**
- Glacial tills, sands, clays and gravels indicated by the lighter colours on map
- Precambrian**
- KEEWATIN**
- Dacite and andesite, ophanitic tuff
  - Agglomerate

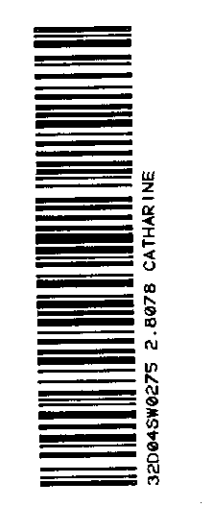
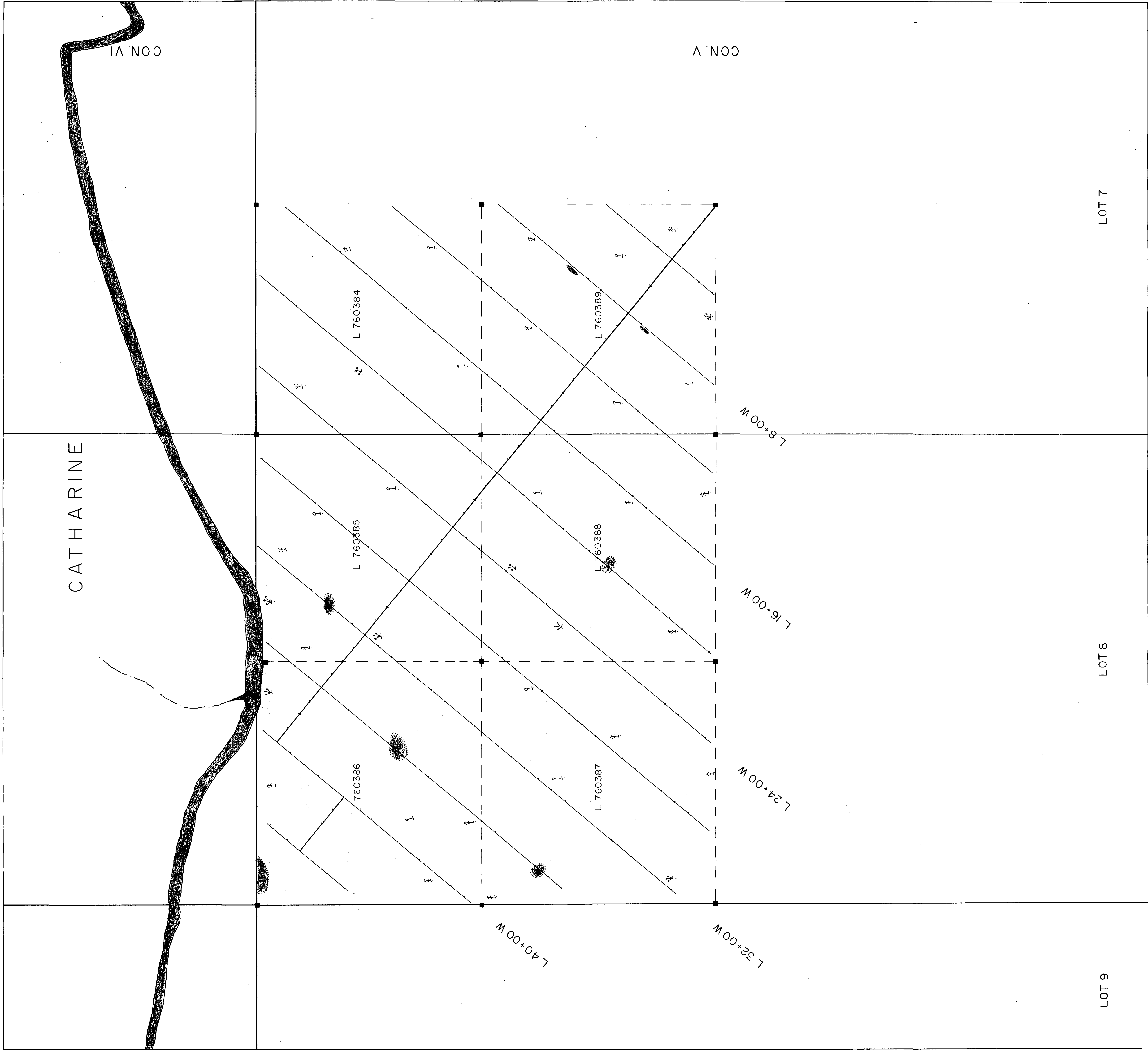
**KEY MAP**



**CATHARINE TEN GROUP**  
*28/18*  
**GEOLOGICAL SURVEY - WESTHALF**  
 CATHARINE TOWNSHIP  
 LARDER LAKE MINING DIVISION  
 DISTRICT OF TIMISKAMING, ONTARIO

Scale: 1 inch to 200 feet

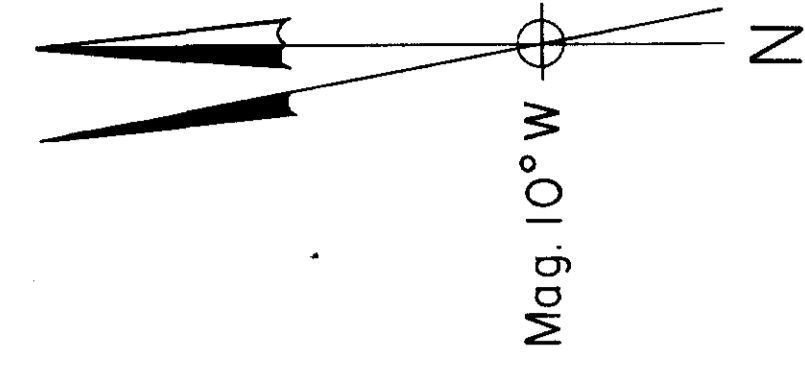
**PERRONS' 83 LTD.**  
 KIRKLAND LAKE CANADA  
 Drawn by: Mary Greer | Map No. 10W.3 | Date: May 1985



CATHARINE

CON. VI

CON. V



**SYMBOLS**

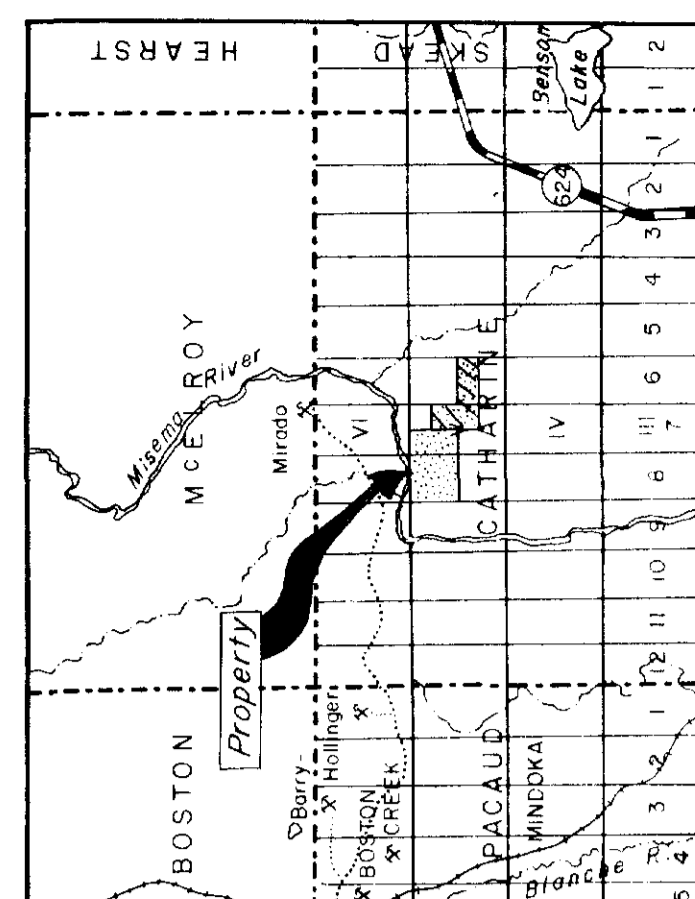
- Outcrop
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- Alder / Spruce / Balsam fir
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**LEGEND**

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- Precambrian**
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- Dacite and andesite, ophanitic tuff
- Agglomerate

**KEY MAP**

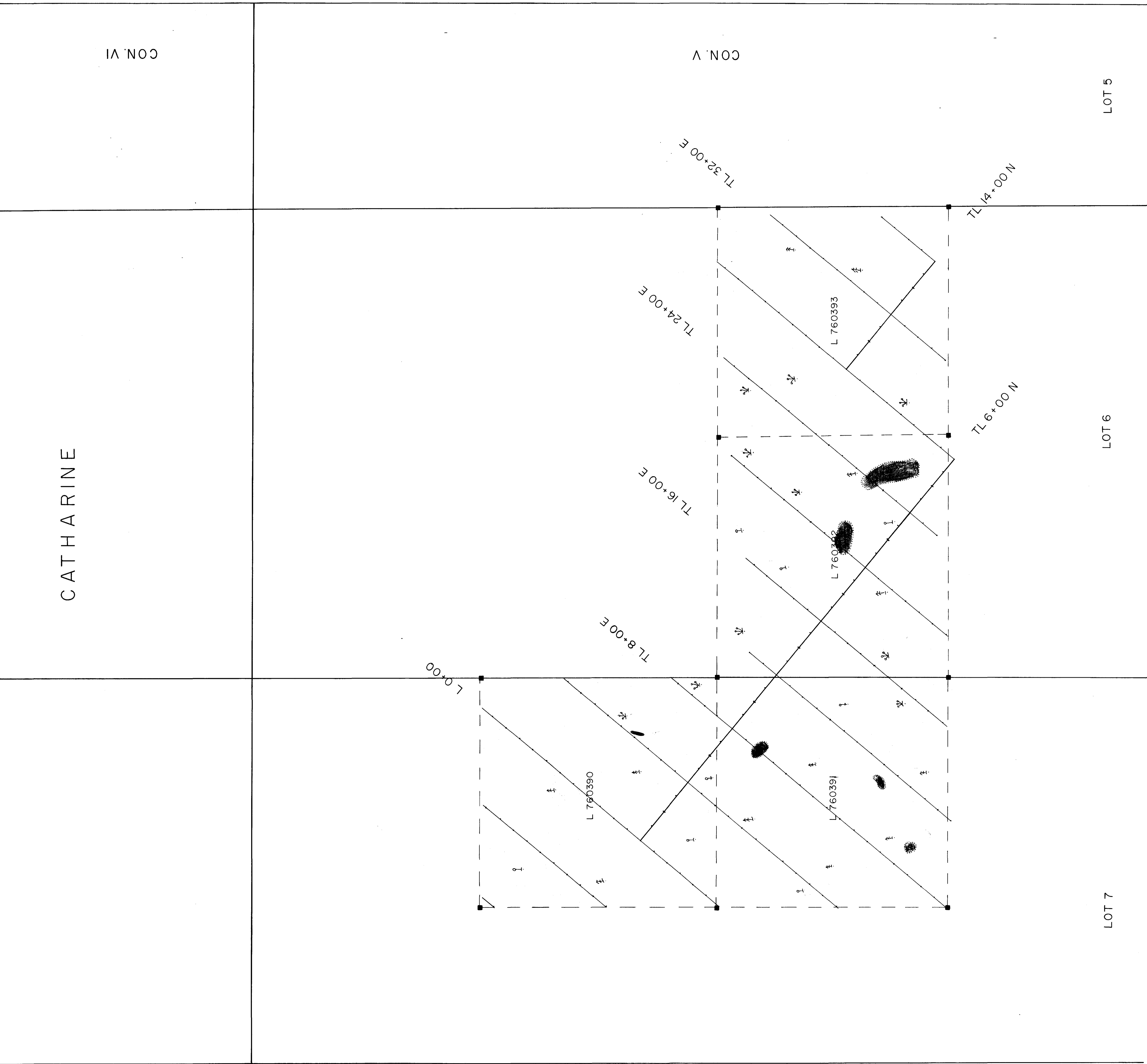
(Scale: 1 inch to 2 miles)



**CATHARINE TEN GROUP** 28878  
**GEOLOGICAL SURVEY - EAST HALF**  
 CATHARINE TOWNSHIP  
 LARDER LAKE MINING DIVISION  
 DISTRICT OF TIMISKAMING, ONTARIO

Scale: 1 inch to 200 feet

**PERRONS' 83 LTD.**  
 KIRKLAND LAKE, CANADA  
 Drawn by: Mary Greer | Map No. 10E-3 | Date: May, 1985



LOT 7

LOT 6

LOT 5

