32D04SW0104 2.7584 SKEAD

010

GEOLOGICAL SURVEY REPORT
ON THE
CATHARINE PROJECT
CATHARINE 51

CATHARINE AND SKEAD TOWNSHIPS
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

FOR

ALEXANDER H. PERRON

RECEIVED
DEC 18 1984
MINING LANDS SECTION

DECEMBER 15, 1984

MARY GREER
GEOLOGICAL TECHNICIAN

32D04SW0104 2.7584 SKEAD

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ILLUSTRATIONS

Accompanying Plan Maps In Back Pockets

Scale: 1 inch to 200 feet

Date: November 1984

Catharine 51

Catharine Project

Geological Survey

Drawing No. C-51-84-Geo-1

Drawing No. C-51-84-Geo-2

Drawing No. C-51-84-Geo-3

Drawing No. C-51-84-Geo-4

Drawing No. C-51-84-Geo-5

Drawing No. C-51-84-Geo-6

GEOLOGICAL SURVEY REPORT
ON THE
CATHARINE PROJECT
CATHARINE 51

CATHARINE AND SKEAD TOWNSHIPS

LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

INTRODUCTION

The Catharine Project consists of four (4) groups of mining claims found in Catharine and Skead townships. For the purpose of this report, a geological survey was completed only on the Catharine 51 claims. For recording dates see Appendix found in the back of the report.

During the period of August 1, 1984 to September 20, 1984, a geological survey was completed describing topography and any visible outcrops.

The geological survey was completed by 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 obtained in said surveys.

The outcrops detected therefrom are shown on the accompanying

plan maps at a scale of one inch to 200 feet, and form an integral part of this report.

PROPERTY DESCRIPTION

Catharine 51 Group consists of a contiguous block of fifty-one (51) unpatented mining claims, located in Catharine and Skead townships, Larder Lake Mining Division, District of Timiskaming, Ontario, and are further described in the Appendix found in the back of the report.

Ownership of the forementioned claims has been attested to by: John E. Perron and Alexander H. Perron of 103 Government Road East, Kirkland Lake, Ontario, and was not independently ascertained by the writer.

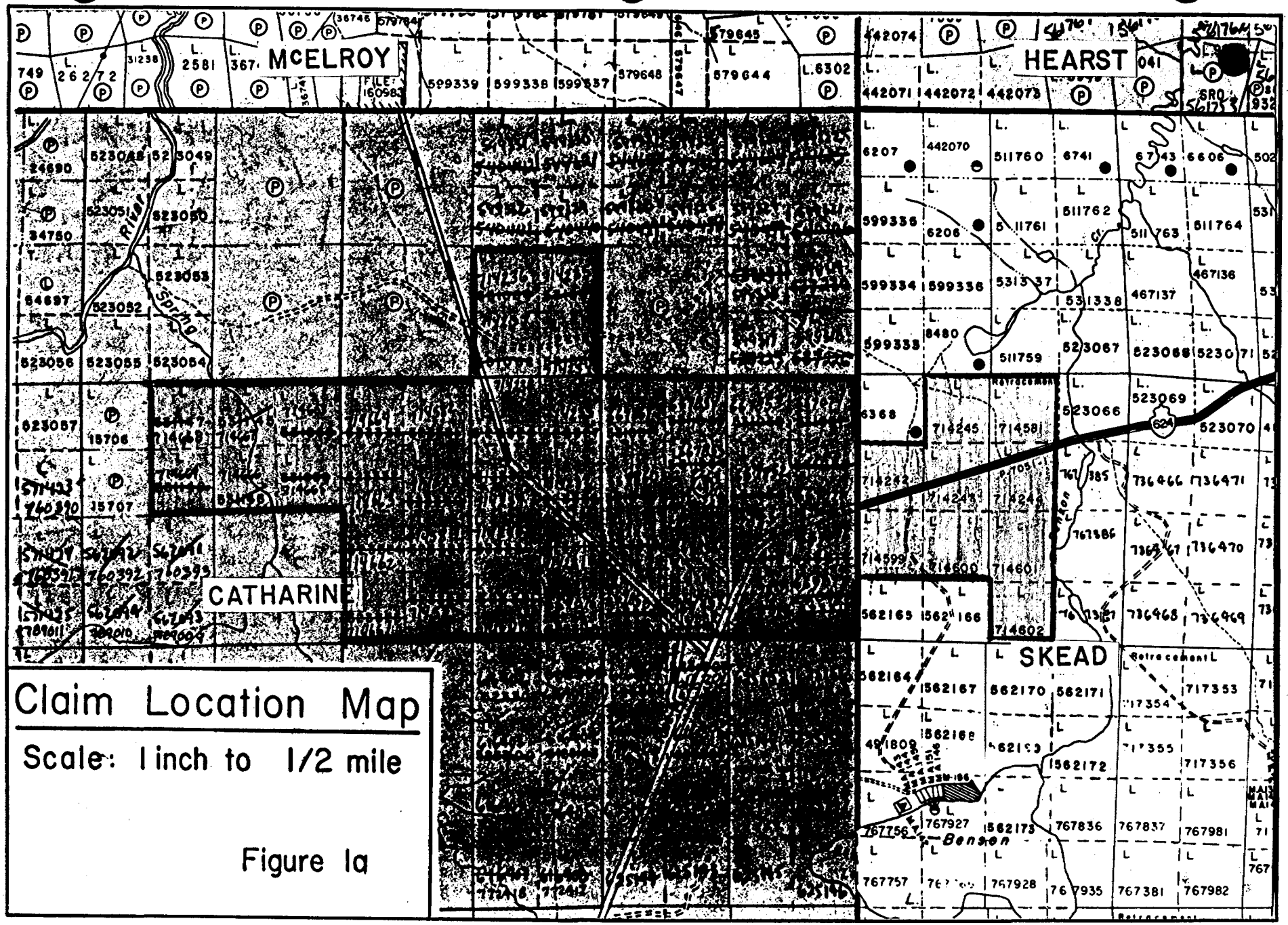
LOCATION AND ACCESS

The Catharine 51 Group is found in the eastern part of Catharine township and the western part of Skead township, to the north of Benson Lake. (See figure 1a).

The property is twelve (12) miles south from the town of Larder Lake, Ontario, on highway No. 624. Larder Lake is located sixteen (16) miles west from the town of Kirkland Lake, Ontario, on highway No. 66. (See figure 1a and 1b).

PREVIOUS WORK

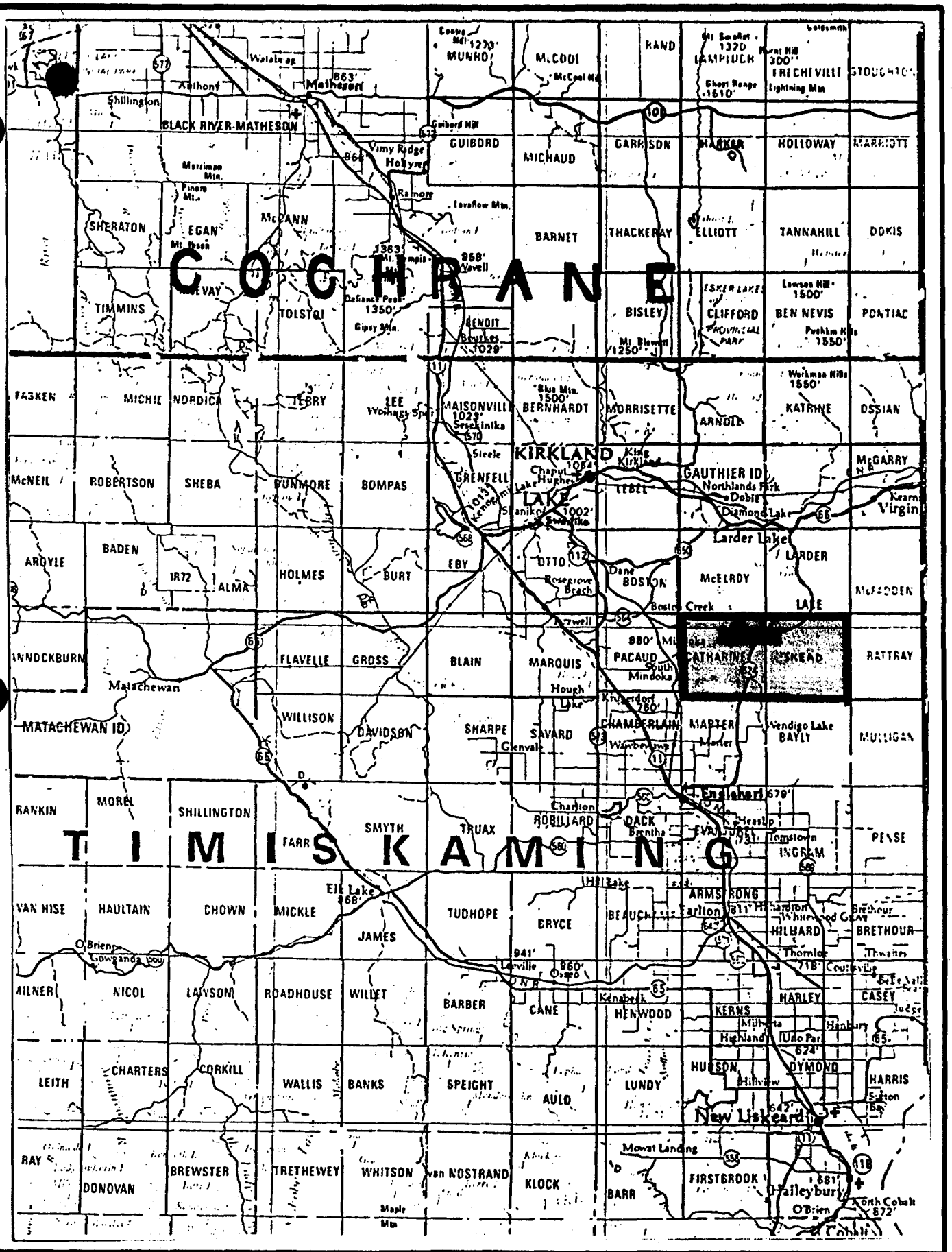
In 1980, Queenston Gold Mines Limited carried out a geophysical survey on the claims found in Catharine township. (See Regional Geologists Files).



Claim Location Map

Scale: 1 inch to 1/2 mile

Figure 1a



Location Map

Figure 1b

SURVEY PROCEDURE

The geological survey was carried out by using compass and pace traverse lines. Any topographical features or outcrop were then noted along the traverse lines. All roads found on the property were also traversed.

TOPOGRAPHY

The general terrain of the Catharine 51 Group is flat to gently rolling ridges of sand and gravel. The western claims are dissected by a number of large ravines with small creeks.

Much of the ground has been previously timbered and replanted with jack pine and open areas of young regeneration of poplar. The remainder of the grid consists of stands of jack pine and areas of spruce, balsam and poplar scrub brush.

The claims are intersected with forestry access roads of various conditions.

GENERAL GEOLOGY

O.D.M. Geological Map 2043, covering Catharine and Marter townships, at a scale of one inch to one-half mile, and Map No. 1949-3, covering Skead township, at a scale of 1 inch to 1,000 feet; indicates the bedrock is intermediate to acid volcanics, which are predominantely fragmental. These rocks consist of porphyritic dacite and andesite, mostly crystal tuff. There is also agglomerate present and isolated felsite and some dacite and andesite. The bedrock also is indicated to be predominantly basic to intermediate lava flows of the Keewatin Series. The lavas are light coloured, fine grained

andesite.

A large portion of the centre of the Catharine 51 Group is covered by a thick deposit of sand and gravel, making the geological interpretation of the underlying bedrock difficult.

ECONOMIC GEOLOGY

The property was examined by Queenston Gold Mines Limited, (1980) using VLF-EM and Magnetic methods.

A number of VLF-EM responses were found in the extreme east and west sections. There were a number of magnetic anomalies found as well and some of them had associations with VLF-EM responses. These anomalies were found in the north-easterly section of the property.

The Cathroy Larder Gold Mine, optioned to Mirado Nickel Mines Limited in 1960, is located two miles west along strike from the Catharine 51 Group.

Mirado Nickel Mines Limited carried out about 15,000 feet of underground, and 14,000 feet of surface, diamond drilling.

According to the Geological Report No. 18 of Catharine and Marter townships; James A. Grant, 1963; James M. Baker, mining geologist, reports to the company:

..... *There are several flat or gently dipping fracture zones on echelon contained in an area 400 feet (north-south) and*

200-250 feet (east-west). The zones are lying in a cross structure with a southerly dip, essentially in the fragmentals, which appear to be confirming to the regional strike of the formations (north-westerly).....

Some of the gold values obtained from the drilling are 0.29 oz/ton over 6.1 feet (over-all uncut average) for the northern part, and 0.10 oz/ton over 20 feet to 5.7 oz/ton over 5 feet (over-all uncut average) for the southern part.

PRESENTATION OF FIELD RESULTS

The field data is presented on six (6) maps at a horizontal scale of one inch to 200 feet, Drawing No. C-51-84 - Geo-1, Geo-2, Geo-3, Geo-4, Geo-5, Geo-6, found in the back pockets of this report.

For the purpose of this presentation, refer to the accompanying plan maps for the outcrop locations. The topography will also be described in greater detail.

i) Topography

The central section of the Catharine 51 Group has been previously logged and replanted. The vegetation is fairly open with new growth of jack pine and a growth of young poplar and cherry.

The central claims are covered by a large esker deposit and supports stands of heavy bush and replanted pine. The western part of the claim group is covered with a mixed forest of poplar, spruce and birch, as well as other sections scattered throughout the property. (See accompanying plan maps).

The Pleistocene geology is composed of mainly glaciofluvial sands, gravels, clays and tills. Some glacial striae and grooves indicate that the direction of the ice was about 155° to 160 ° south.

ii) Geology

Two types of exposed outcrops were found on the Catharine 51 Group, both of the Keewatin Series. The two different types were noted as porphyritic andesite or dacite, an agglomerate tuff and a dioritic

to gabbroic lava. These rock types are further described as follows:

a) Agglomerate

The matrix of the agglomerate is a greenish grey matrix similar to that of plagioclase and other intermediate minerals. The agglomerate is primarily composed of angular to subrounded fragments which vary in size from 2 feet in diameter to pebble size and smaller. These fragments are primarily composed of andesite and dacite.

The agglomerate weathers a soft chalky white, is extremely pock-marked, can be easily scratched by a knife and is not magnetic.

Due to the glacial till these outcrops are scattered over the claim group and have little visible exposed rock.

b) Porphyritic andesite and dacite tuff

This rock type was mainly composed of dark grey phenocrysts of plagioclase (possibly altered) in a greenish grey matrix similar to the agglomerate. Some smaller fragments found may possibly be small percentages of chlorite, quartz, carbonate and other dark minerals.

The rock surface was weathered a light grey with some pock-marked weathering. The rock is soft, it can easily be scratched by a knife and is not magnetic.

c) Dioritic, gabbroic lava

The exposed outcrops were found in a very massive exposed formation. The essential minerals are probably plagioclase and potash feldspar, with some biotite and pyroxene.

They weather a light grey colour and cannot be scratched by a knife on a fresh surface. The rock was extremely hard to break and the texture could be described as dioritic texture.

CONCLUSIONS AND RECOMMENDATIONS

Due to the small amount of visible outcrop found on the property and the greater amount of glacial tills, sands and gravels, an overburden drilling program should be established to further define any gold potential. The previous magnetic survey shows the general trend of the underlying bedrock. A baseline should be cut parallel to the general trend and lines cut at right angles to the baseline. This may help to further define any underlying features if a magnetic survey is proposed.

Respectfully submitted,

Mary Greer

December 15, 1984

Mary Greer
Geological Technician

APPENDIX

CLAIM NO.	TOWNSHIP	OWNERSHIP	RECORDING DATE
L-667074	CATHARINE	JOHN PERRON	MARCH 22, 1983
L-667075	"	JOHN PERRON	MARCH 22, 1983
L-667076	"	JOHN PERRON	MARCH 22, 1983
L-667077	"	JOHN PERRON	MARCH 22, 1983
L-667078	"	JOHN PERRON	MARCH 22, 1983
L-667850	"	JOHN PERRON	MARCH 22, 1983
L-667851	"	JOHN PERRON	MARCH 22, 1983
L-667852	"	JOHN PERRON	MARCH 22, 1983
L-667853	"	JOHN PERRON	MARCH 22, 1983
L-667854	"	JOHN PERRON	MARCH 22, 1983
L-667855	"	JOHN PERRON	MARCH 22, 1983
L-667856	"	JOHN PERRON	MARCH 22, 1983
L-667857	"	JOHN PERRON	MARCH 22, 1983
L-667858	"	JOHN PERRON	MARCH 22, 1983
L-667859	"	JOHN PERRON	MARCH 22, 1983
L-667860	"	JOHN PERRON	MARCH 22, 1983
L-667861	"	JOHN PERRON	MARCH 22, 1983
L-714231	"	JOHN PERRON	MARCH 22, 1983
L-714232	"	JOHN PERRON	MARCH 22, 1983
L-714233	"	JOHN PERRON	MARCH 22, 1983
L-714234	"	JOHN PERRON	MARCH 22, 1983
L-714235	"	JOHN PERRON	MARCH 22, 1983
L-714236	"	JOHN PERRON	MARCH 22, 1983
L-714237	"	JOHN PERRON	MARCH 22, 1983
L-714238	"	JOHN PERRON	MARCH 22, 1983
L-714239	"	JOHN PERRON	MARCH 22, 1983
L-714240	"	JOHN PERRON	MARCH 22, 1983
L-714241	"	JOHN PERRON	MARCH 22, 1983

CONT'D.

APPENDIX

CLAIM NO.	TOWNSHIP	OWNERSHIP	RECORDING DATE
L-714242	SKEAD	JOHN PERRON	MARCH 30, 1983
L-714243	"	JOHN PERRON	MARCH 30, 1983
L-714582	CATHARINE	JOHN PERRON	MARCH 30, 1983
L-714583	"	JOHN PERRON	MARCH 30, 1983
L-714584	"	JOHN PERRON	MARCH 30, 1983
L-714585	"	JOHN PERRON	MARCH 30, 1983
L-714599	SKEAD	JOHN PERRON	MARCH 30, 1983
L-714600	"	JOHN PERRON	MARCH 30, 1983
L-714601	"	ALEXANDER H. PERRON	MARCH 30, 1983
L-714602	"	ALEXANDER H. PERRON	MARCH 30, 1983
L-714603	CATHARINE	JOHN PERRON	MARCH 30, 1983
L-714661	"	JOHN PERRON	MARCH 30, 1983
L-714662	"	JOHN PERRON	MARCH 30, 1983
L-714663	"	JOHN PERRON	MARCH 30, 1983
L-714664	"	JOHN PERRON	MARCH 30, 1983
L-714665	"	JOHN PERRON	MARCH 30, 1983
L-714666	"	JOHN PERRON	MARCH 30, 1983
L-714667	"	JOHN PERRON	MARCH 30, 1983
L-714668	"	JOHN PERRON	MARCH 30, 1983
L-714669	"	JOHN PERRON	MARCH 30, 1983
L-714244	SKEAD	ALEXANDER H. PERRON	MARCH 30, 1983
L-714245	"	ALEXANDER H. PERRON	MARCH 30, 1983
L-714581	"	ALEXANDER H. PERRON	MARCH 30, 1983

BIBLIOGRAPHY

James A. Grant

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

D. F. Hewitt

Fifty-eighth Annual Report of the Ontario Department of Mines Vol. LVIII, Part VI, 1949 Geology of Skead Township, Larder Lake Area

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.

Dec. 15/84
Date

Mary Greer
Mary Greer
Geological Technician

Ministry of Natural Resources
Ontario

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

W840 & 495

(Prelim L667074)

Minin

32D04SW0104 2.7584 SKEAD

900

Type of Survey(s)	Township or Area
GEOLOGICAL	CATHARINE & SKEAD

Claim Holder(s)	Prospector's Licence No.
JOHN PERRON	K-18983

Address: 103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONTARIO P2N 1A9

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
PERRONS' INC.	01 Day | 08 Mo. | 84 Yr. — 20 Day | 09 Mo. | 84 Yr.	

Name and Address of Author (of Geo-Technical report): MARY GREER, 49 MCKELVIE AVE., KIRKLAND LAKE, ONTARIO P2N 2K6

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions: For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	
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.

Date	Recorded Holder or Agent (Signature)
Nov. 7/84	Mary Greer

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	667074	
	667075	
	667076	
	667077	
	667078	
	667850	
	667851	
	667852	
	667853	
	667854	
	667855	
	667856	
	667857	
	667858	
	667859	
	667860	
	667861	
	714231	
	714232	
	714233	
	714234	
	714235	
	714236	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	714237	
	714238	
	714239	
	714240	
	714241	
	714242	
	714243	
	714582	
	714583	
	714584	
	714585	
	714599	
	714600	
	714601	
	714602	
	714603	
	714661	
	714662	
	714663	
	714664	
	714665	
	714666	
	714667	

Total number of mining claims covered by this report of work: 48

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	NOV - 8 1984	
	Date Approved as Recorded: Dec 24/84	Branch Director:

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, ONT. P2N 2K6

Date Certified	Certified by (Signature)
Nov 7/84	Mary Greer

1362 (81/9)

L- 714668
L- 714669

W8408 ·496

Landr / [illegible handwriting]

(2.15.84) (File L714242)

Jan 7/85 #496

Ministry of Natural Resources Ontario

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

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): GEOLOGICAL

Township or Area: CATHARINE & SKEAD

Claim Holder(s): ALEX H. PERRON

Prospector's Licence No.: K-19026

Address: 103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONTARIO P2N IA9

Survey Company: PERRONS' INC.

Date of Survey (from & to): 01 08 84 | 20 09 84 (Day Mo. Yr. | Day Mo. Yr.)

Total Miles of line Cut: -

Name and Address of Author (of Geo-Technical report): MARY GREER, 49 MCKELVIE AVENUE, KIRKLAND LAKE, ONTARIO P2N 2K6

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	
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	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	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	714244 ✓	
	714245 ✓	
	714581 ✓	

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

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: 60	Date Recorded: NOV - 8 1984	Mining Recorder: [signature]
	Date Approved as Recorded: Dec. 24/84	Branch Director: [signature]

Date: Nov. 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 AVENUE, KIRKLAND LAKE, ONTARIO P2N 2K6

Date Certified: Nov. 7/84 Certified by (Signature): Mary Greer

1362 (81/9)

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) GEOLOGICAL SURVEY

Township or Area CATHARINE & SKEAD TOWNSHIPS

Claim Holder(s) ALEXANDER H. PERRON & JOHN PERRON
103 GOV'T RD. E., KIRKLAND LAKE, ONT. P2N 1A9

Survey Company PERRONS' INC.

Author of Report MARY GREER

Address of Author 49 McKELVIE AVE., KIRKLAND LAKE, ONT. P2N 2K6

Covering Dates of Survey AUG. 1/84 - SEPT. 20/84
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

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

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

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

DATE: Dec. 15/84 SIGNATURE: Mary Greer
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4529

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

L-	667074
L-	667075
L-	667076
L-	667077
L-	667078
L-	667850
L-	667851
L-	667852
L-	667853
L-	667854
L-	667855
L-	667856
L-	667857
L-	667858
L-	667859
L-	667860
L-	667861
L-	714231
L-	714232
L-	714233
L-	714234
L-	714235

TOTAL CLAIMS 51

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 _____ Number of Readings _____

Station interval _____ Line spacing _____

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 _____

RECEIVED
Land Management Branch
CIRCULATE ☐
COMMENTS PLEASE ☐
BY

DEC 18 1984

S. E. YUNDT
J. R. MORTON
J. C. SMITH
W. L. GOOD
M. J. HOGAN
W. P. BROOK

RETURN TO R. 6643

103 Government Road East,
Kirkland Lake, Ontario
P2N IA9

December 15, 1984

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

Dear Sir:

RE: Geological Survey Report for
Catharine and Skead Townships
Larder Lake Mining Division

Enclosed herewith please find a duplicate copy of the following:

- Report dated December 15, 1984, by Mary Greer entitled:

  Geological Survey Report
  Catharine Project
  Catharine 51
  Catharine and Skead Townships
  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

Mary Greer
Geological Technician

MG/p
Encls.

RECEIVED
DEC 13 1984
MINING LANDS SECTION

Mining Lands Section

File No 2.7584

Control Sheet

TYPE OF SURVEY

____ GEOPHYSICAL

__✓__ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

Signature of Assessor

19/12/84

Date

NOTES

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

All unpatented mining claims accepted subject to survey, Section 118 of the Mining Act (R.S.O. 1970).

SAND and GRAVEL

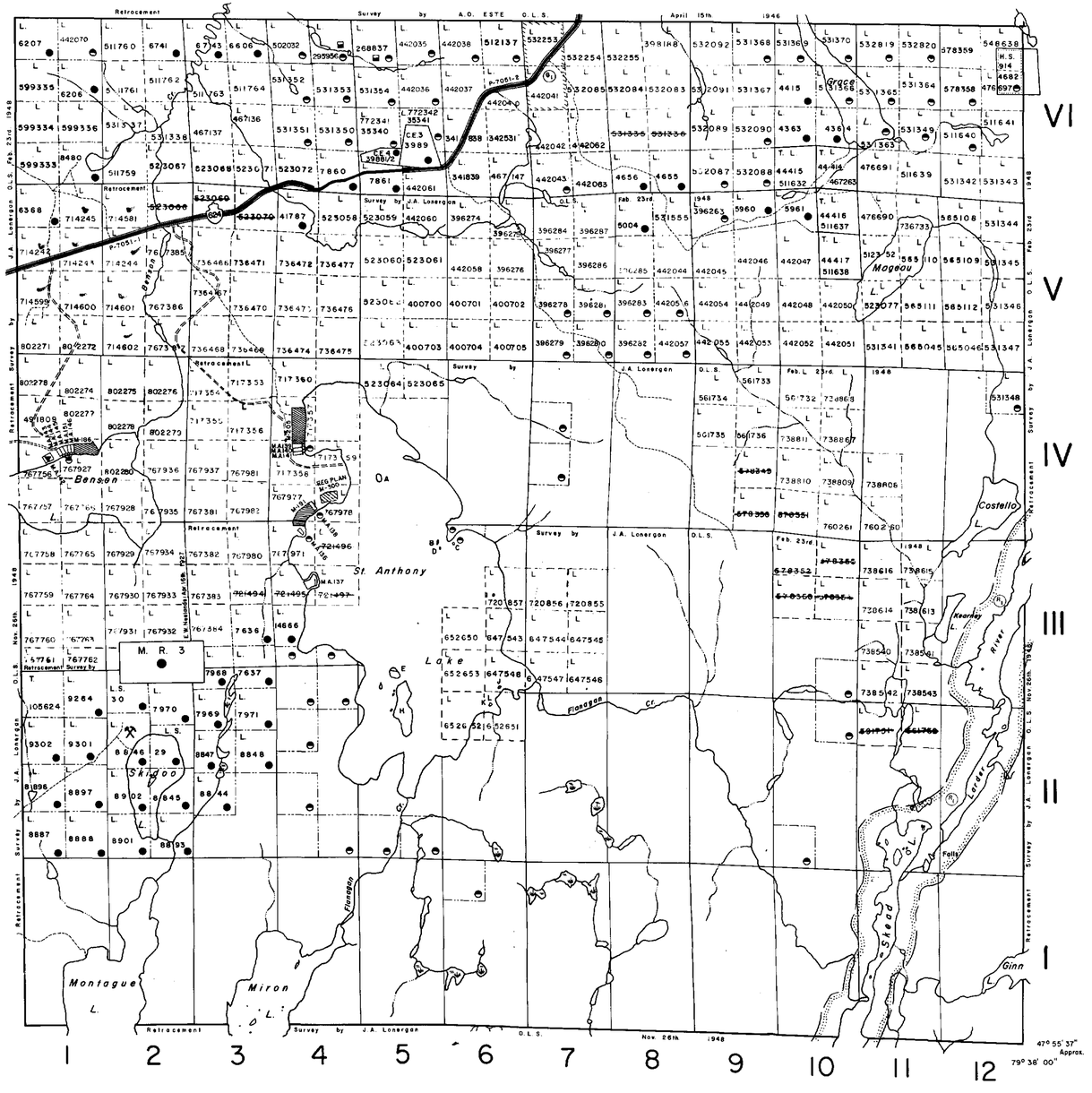
(R) M.T.C. PIT No. 1230

Areas withdrawn from staking under Sec 43 of the Mining Act.

	File	Date	Disposit
(R)	W11/79	188522 June 19'79	surface & mining rights.

NATURAL RESOURCES
JAN 17 1980
TITLES SECTION

HEARST TP. M.354



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
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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	▼
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	(X)
SAND & GRAVEL	(E)

SCALE : 1 INCH = 40 CHAINS

FEET 0 500 1000 2000 4000 6000 8000
METRES 0 200 400 600 800 1KM 2KM

ACRES	HECTARES
40	16

TOWNSHIP

SKEAD

DISTRICT

TIMISKAMING

MINING DIVISION

LARDER LAKE

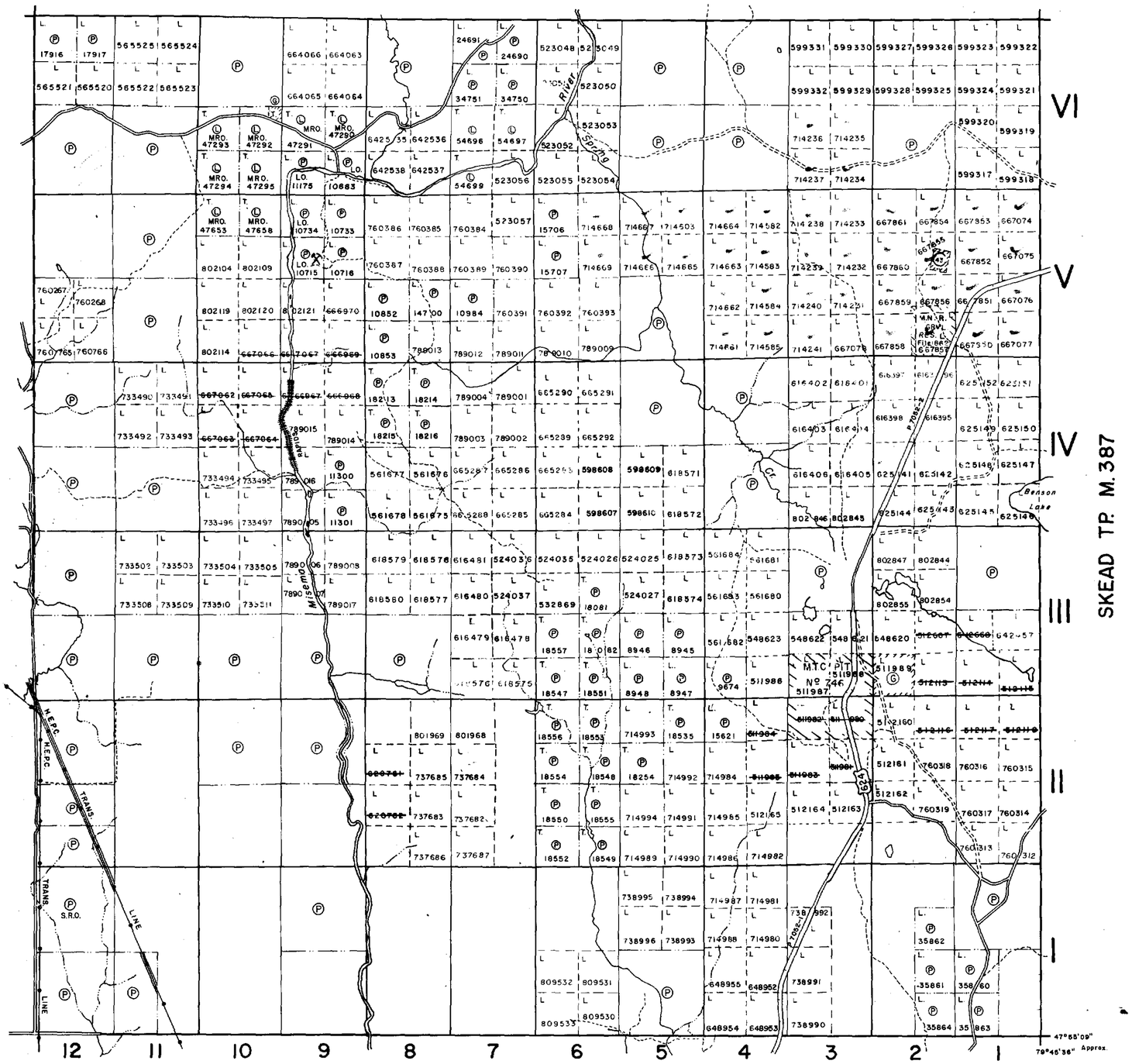
Ministry of Natural Resources
Ontario Surveys and Mapping Branch

Date	Plan No.
10/4/74	M.387

Whitney Block
Queen's Park, Toronto

32084SW0104 2.7584 SKEAD

McELROY TP. M.366



NOTES

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

[redacted] was withdrawn from staking under Section [redacted] of the Mining Act

	File	Date	Disposition
(43) W.54/74	26940	10/10/74	S.R.O.

NATURAL RESOURCES
JAN 17 1985
TITLES SECTION

LEGEND

PATENTED LAND	P or ●
PATENTED FOR SURFACE RIGHTS ONLY	◒
LEASE	L
LICENSE OF OCCUPATION	L.O.
CROWN LAND SALES	C.S
LOCATED LAND	Loc.
CANCELLED	C.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
HIGHWAY & ROUTE NO.	17
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
QUARRY PERMIT	

*used only with summer resort locations or when space is limited

TOWNSHIP OF

CATHARINE

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. K.K.I.
DATE JUNE '72
PLAN NO. M. 336

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

32D04SW0104 2.7584 SKEAD

Conc. VI

L 714245

L 714581

L 714242

L 714243

L 714244

Highway No. 624

Sand Ridge

open area - scarified

open scarified area

L 714599

L 714600

L 714601

L 714602

Conc. V

Catharine Township

Skead Township

Lot 1

Lot 2

Conc. IV

Mag. N 10° W

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp, Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek, Gully
- Esker boundary - sand ridges
- Glacial striae
- Claim line, Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

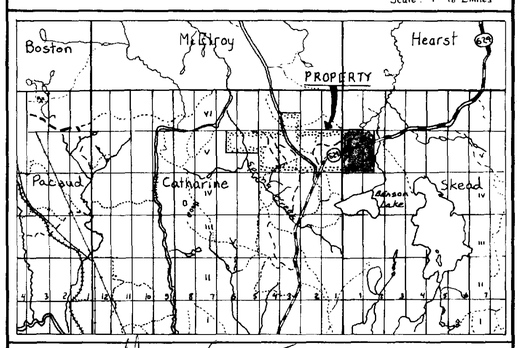
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite (1b)

KEY MAP

Scale: 1" to 2 miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

CONC. V

LOT 1 W½ LOT 2

SKEAD TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON

KIRKLAND LAKE CANADA

DRAWN BY: M.M.G.	DRAWING NO.: C51-84 Geo-1	DATE: November 1984

32D04SW0104 2.7584 SKEAD

Conc. VI

L 667854

L 667853

L 667074

Sand Ridges

L 667855

L 667852

L 667075

L 667856

L 667851

L 667076

Sand Ridges

Conc. V

Highway No. 624

L 667857

L 667850

L 667077

Catharine Township

Skead Township

E ½ Lot 2

Lot 1

Conc. IV

Mag. N 10° W

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp
- Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek
- Gully
- Esker boundary - sand ridges
- Glacial striae
- Claim line ■ Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

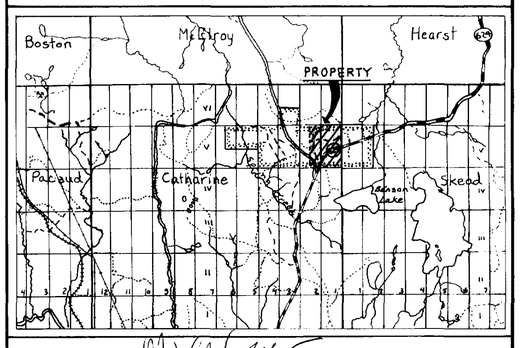
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite (1b)

KEY MAP

Scale: 1" to 2miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

CONC. V

E½ LOT 2 LOT 1

CATHARINE TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON

KIRKLAND LAKE CANADA

DRAWN BY: M.M.G.	DRAWING NO.: CSI-84 Geo-2	DATE: November 1984

320845W0184 2.7584 SKEAD

230

2274

Conc. VI

L 714238

L 714233

L 667861

Sand Ridges

L 714239

L 714232

L 667860

Conc. V

L 714240

L 714237

L 667859

Sand Ridges

L 714241

L 667078

L 667858

Lot 3

W ½ Lot 2

Conc. IV

Mag. N 10°W

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp, Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek, Gully
- Esker boundary - sand ridges
- Glacial striae
- Claim line, Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

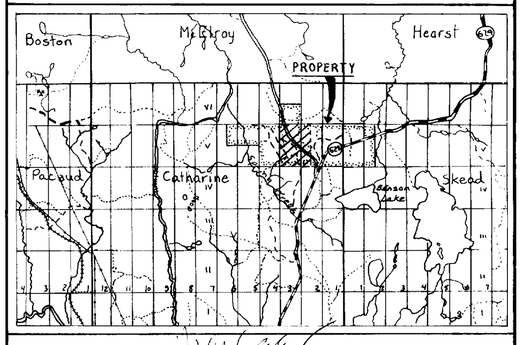
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite(lb)

KEY MAP

Scale: 1" to 2miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

CONC. V

LOT 3 W½ LOT 2

CATHARINE TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON
KIRKLAND LAKE CANADA

DRAWN BY: M.M.G	DRAWING NO.: C51-84 Geo-3	DATE: November 1984

320045W0184 2.7584 SKEAD

Conc. VI

L 714603

L 714664

L 714582

L 714665

L 714663

L 714583

Conc. V

L 714662

L 714584

L 714661

L 714585

Lot 5

Lot 4

Conc. IV

Mag. N 10° W

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp, Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek, Gully
- Esker boundary - sand ridges
- Glacial striae
- Claim line, Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

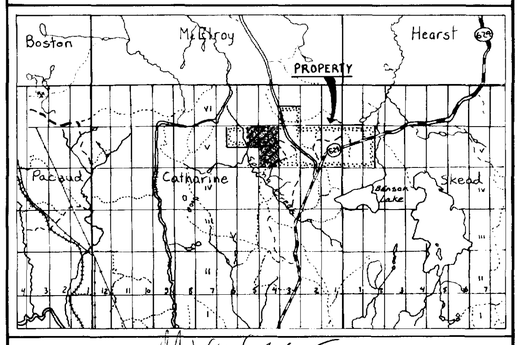
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite (Ib)

KEY MAP

Scale: 1" to 2miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

CONC. V

NE ½ LOT 5 LOT 4

CATHARINE TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON

KIRKLAND LAKE CANADA

DRAWN BY	DRAWING NO.	DATE
M.M.G.	C51-84 Geo-4	November 1984

320845#0104 2.7584 SKEAD

250

Conc VI

L 714668

L 714667

L 714669

L 714666

Conc. V

Lot 6

Lot 5

Conc. IV

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp, Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek, Gully
- Esker boundary · sand ridges
- Glacial striae
- Claim line ■ Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

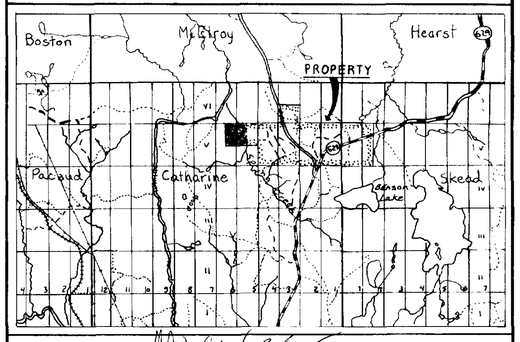
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite (1b)

KEY MAP

Scale: 1" to 2miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

NE½ LOT 6 NW½ LOT 5
CATHARINE TOWNSHIP
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON
KIRKLAND LAKE CANADA

DRAWN BY: M.M.G.	DRAWING NO.: C51-84 Geo-5	DATE: November 1984

32D04SW0104 2.7584 SKEAD

McElroy Township

Catharine Township

Conc. VI

L 714236

L 714235

L 714237

L 714234

Lot 3

Conc. V

Mag. N 10° W

N

SYMBOLS

- Outcrop
- Geological boundary - defined
- Geological boundary - inferred
- Swamp, Alder
- Poplar, birch bush
- Spruce, balsam fir bush
- Planted pine
- Creek, Gully
- Esker boundary - sand ridges
- Glacial striae
- Claim line ■ Claim post
- Highway
- Secondary access road
- Bush road
- Traverse lines

LEGEND

QUATERNARY

Pleistocene

Clay, sand and gravel indicated by the lighter colours on map

PRECAMBRIAN

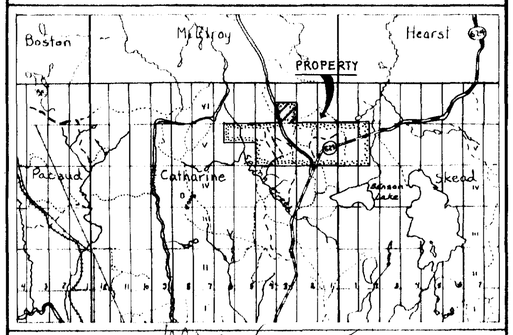
Keewatin

Greenstone dioritic, gabbroic lava

Agglomerate, porphyritic dacite and andesite (1b)

KEY MAP

Scale 1" to 2 miles



CATHARINE 51

CATHARINE PROJECT

GEOLOGICAL SURVEY

CONC. VI

S½ LOT 3

CATHARINE TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600 feet

1 inch to 200 feet

ALEXANDER H. PERRON

KIRKLAND LAKE CANADA

DRAWN BY	DRAWING NO.	DATE
M M G	C51-84 Geo-6	November 1984

32D04SW0104 2.7584 SKEAD