

2.3118

RECEIVED

NOV 21 1979

MINING LANDS SECTION



32055E0054 2.3118 BEN NEVIS

010

HARPER CLAIMS  
SILVER-GOLD PROSPECT  
BEN NEVIS TOWNSHIP, ONTARIO

NOVEMBER 19, 1979

H. G. HARPER, P.ENG.  
CONSULTING GEOLOGIST

HARPER CLAIMS  
SILVER-GOLD PROSPECT  
BEN NEVIS TOWNSHIP, ONTARIO

INTRODUCTION

This Report covers magnetic and electromagnetic surveys on nine claims located in Ben Nevis Township, Larder Lake Mining Division, Ontario. The claims are owned by H.G. Harper, P.Eng. The surveying was done during the late Fall of 1979 and, during most of the survey period, the ground was covered by several inches of snow. At the end of the survey, the weather changed and the snow melted.

PROPERTY AND LOCATION

The nine claims are located in Ben Nevis Township, Larder Lake Mining Division, Ontario, and are numbered as follows:

L 537914 to L 537919 inclusive and,  
L 544466 to L 544468 inclusive.

$\frac{6}{3} = 9$

The property has an area of about 300 acres.

## ACCESS AND FACILITIES

Access to the property from the Town of Larder Lake, Ontario is via a Ministry of Natural Resources resource access road which runs northward immediately east of the town. The resource access road ends about the middle of Ben Nevis Township some seventeen miles north of Highway 66. It is an all weather, gravel road. During the winter it is snowploughed only as required by logging operations.

The claim group lies  $1\frac{1}{2}$  miles northeast of the end of the resource access road and is reached by a well blazed walking trail.

During the course of the survey a grid system of picket lines 400 feet apart were cut and chained over all of the claims. These lines are in serviceable condition and can be used for further exploration requirements. There are no other mining facilities on the property.

## HISTORY AND DEVELOPMENT

The general area north of the Canagau Mine was first prospected in the 1920's. During the 1930's more prospecting and considerable trenching was done. In 1964 Dome Explorations (Canada) Ltd. and Frobox Limited drilled six holes totalling

1971 linear feet encountering silver values over substantial core lengths. Subsequently Amax Explorations Inc. drilled 3 cross section holes about  $\frac{1}{4}$  mile east of the Frobex silver value location. These holes encountered minor amounts of copper, lead, and silver in quartz veins. No assay data is available. In 1979 the Ontario Ministry of Natural Resources published airborne input and magnetic surveys of the entire township.

#### GENERAL GEOLOGY

The general geology of Ben Nevis Township was published on Map 2283 by the Ontario Ministry of Natural Resources. The general geology indicates that the claims are underlain by intermediate and felsic volcanics, with a major andesite-rhyolite contact striking roughly east-west through the claim group. A major north-east trending linear (several miles in length) cuts through the claim group. Basic and acid intrusives occur in the immediate area.

#### SURVEY RESULTS AND INTERPRETATION

The airborne input and magnetic surveys completed this year in Ben Nevis Township showed absolutely no positive

responses over the claim area. The magnetics are flat and the fault linear did not respond to the input survey. Obviously there are no large iron formations, sulphide conductors, or graphitic shears within the claim area.

The ground surveys were done on lines 400 feet apart with readings at 50 foot intervals on the picket lines.

#### MAGNETIC SURVEY

The maximum magnetic change is 700 gammas and this is a one-reading location. However, it lies on the north flank of a very well defined VLF conductor. There are two other one-reading locations showing magnetic highs of the order of 400 to 600 gammas about the surrounding area and at one of these locations a large boulder of diabase was observed. The identification of diabase is not certain because the surveyor had no iron tools to break rocks. Therefore he identified the rock by its weathered surface.

There are several isolated readings and 3 areas showing magnetic intensities of from 100 to 300 gammas above the general background. These bear no significant relationship to VLF conductors and, in themselves, create no exploration interest.

#### VLF ELECTROMAGNETIC SURVEY

Some very strong conductors are associated with the creeks in the northwest and southwest corners of the property. These

conductors are probably caused by overburden rather than bedrock conditions.

No VLF or magnetic response was detected in the vicinity of the gossan zone at 13N on Line 4E.

There are two areas in which VLF conductors are concentrated: the east central area and the north easterly quarter.

The conductors in the east central area of the claims trend about N75W and are chiefly twin conductors; that is, two parallel conductors lying about 100 feet apart. They could be marking the contacts of a rock formation.

The conductors in the north central quarter of the claims present a more complex problem since they occur close to the known mineralization and their correlation from line to line does not correspond to the observed lines of weakness, or breaks, in the rock formations. In short, the line to line correlation gives a N80W strike whereas the strike of the topographic breaks is N65E. The conductors in this area are not strong but they are very definite and have good quadrature relationships. What is required is surveying at lines of much less than 400 feet apart so as to permit accurate correlation of the conductors.

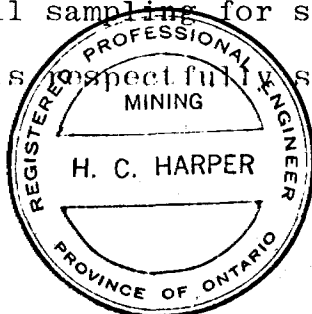
#### CONCLUSIONS AND RECOMMENDATIONS

1. The magnetic survey has located little of interest. The

strong one-reading magnetic anomaly at 1500N on Line 4W lies on the flank of a good VLF conductor of low intensity. This area warrants further investigation geologically and geochemically.

2. There are two areas with which there are VLF conductors having interesting characteristics. Each area warrants further investigation by other methods to try and determine if these conductors warrant drilling.
3. Further magnetic and VLF surveys should be done by cutting and chaining lines 2E, 6E, 10E, and 14E. This would involve approximately 2 line miles of work.
4. The claims should be mapped geologically with special attention paid to the topography and the several linears which trend north east.
5. The claims should be prospected in conjunction with the geological mapping. Many areas of well pyritized rhyolite and dacite were observed. These zones require grab sampling for gold and silver values.
6. Upon completion of the geological mapping and prospecting, it may be useful to carry out humus soil sampling for gold and standard soil sampling for silver, lead, and zinc.

This Report is respectfully submitted.



*H. G. Harper*

H. G. Harper, P.Eng.  
Consulting Geologist

Willowdale, Ontario  
November 19, 1979



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 & Magnetic
Township or Area Ben Nevis Twp.
Claim Holder(s) H.G. Horpe, P. Eng.
314 Henderson Ave Willowdale
Survey Company
Author of Report as above
Address of Author
Covering Dates of Survey Oct 18 - Nov 19/79
(linecutting to office)
Total Miles of Line Cut 8

Table with 2 columns: SPECIAL PROVISIONS CREDITS REQUESTED and DAYS per claim. Includes entries for Electromagnetic (40), Magnetometer (20), Radiometric, and Other.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric
DATE: Nov 19/79 SIGNATURE: H.G. Horpe

Res. Geol. L.D. Qualifications 63.1058

Table with 4 columns: File No., Type, Date, Claim Holder. Includes header 'Previous Surveys'.

MINING CLAIMS TRAVERSED
List numerically
Table listing claim numbers: 537 914, 537 915, 537 916, 537 917, 537 918, 537 919, 544 466, 544 467, 544 468. Total claims 9.

OFFICE USE ONLY

If space insufficient, attach list



GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 564 Number of Readings 1692
Station interval 50' Line spacing 400'
Profile scale VLF 1" = 30%
Contour interval

MAGNETIC

Instrument McPhar MSUV A
Accuracy - Scale constant 5 gamma maximum
Diurnal correction method Check back on control & base stations
Base Station check-in interval (hours) 1/2 to 1 hour
Base Station location and value L12W 0700 B.L.

ELECTROMAGNETIC

Instrument Ronke EM16
Coil configuration fixed hor. & vert.
Coil separation n/a.
Accuracy +/- 1%
Method: [X] Fixed transmitter [ ] Shoot back [ ] In line [ ] Parallel line
Frequency 17.80 kHz Cutler Me. (specify V.L.F. station)
Parameters measured Vert in phase & out of phase components

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

Tannahill Twp.(M.390)

2.3118 THE TOWNSHIP OF BEN NEVIS

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (C.S.)
- LEASES (L)
- LOCATED LAND (Loc.)
- LICENSE OF OCCUPATION (L.O.)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- TRAILS

NOTES

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

SAND AND GRAVEL

QUARRY PERMIT

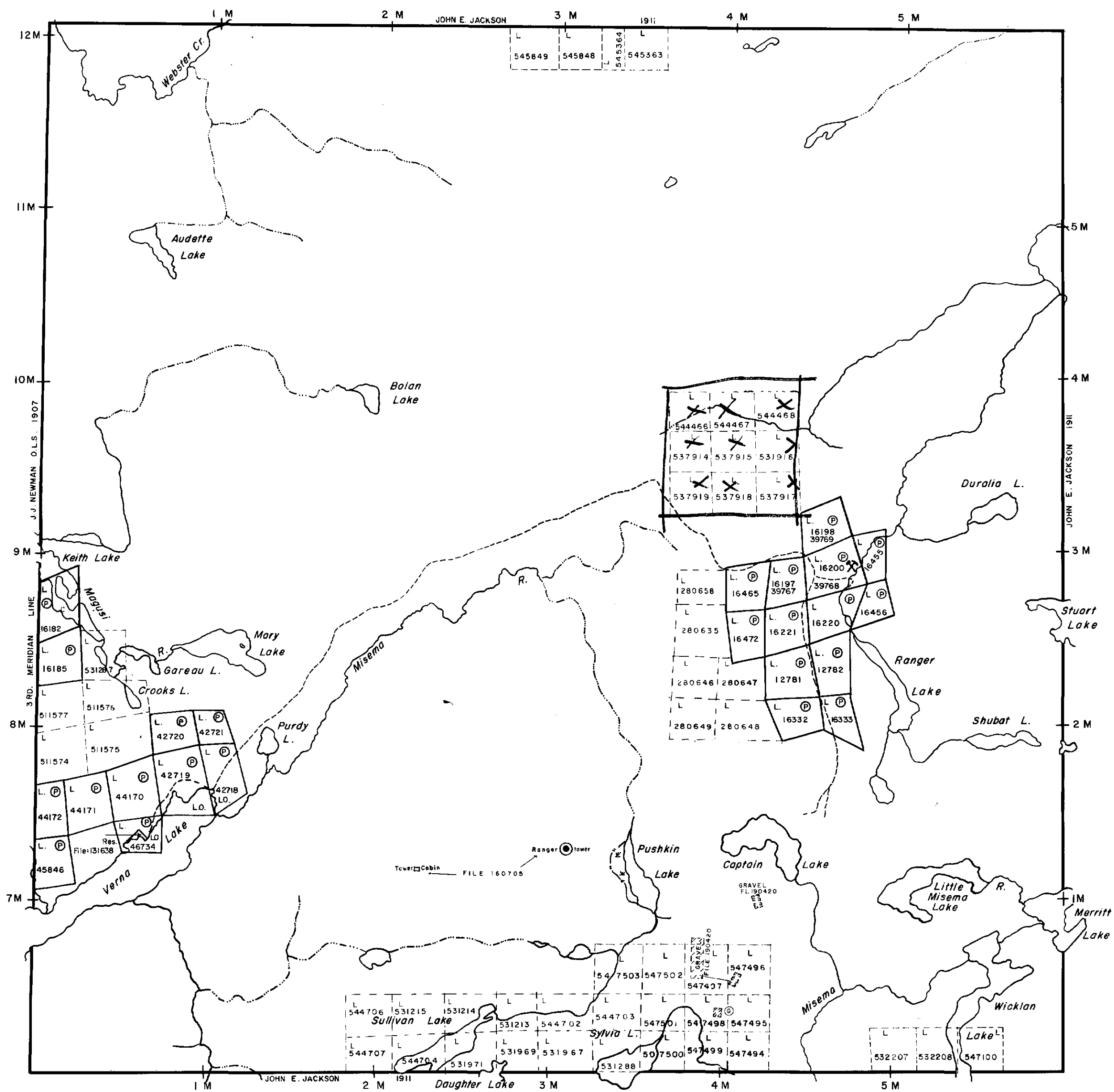
DATE OF ISSUE NOV 23 1979 SURVEYS AND MAPPING BRANCH

PLAN NO. M.325

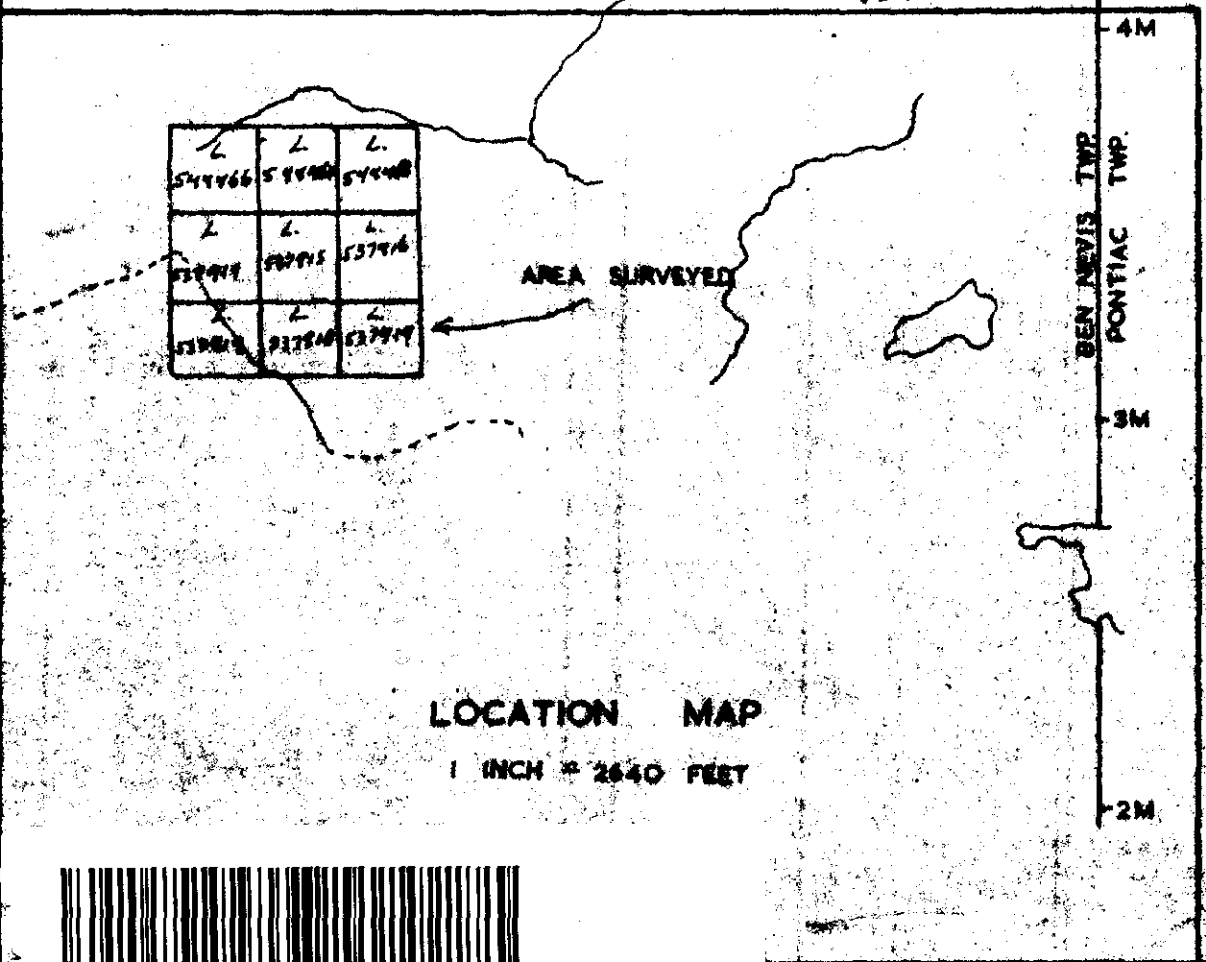
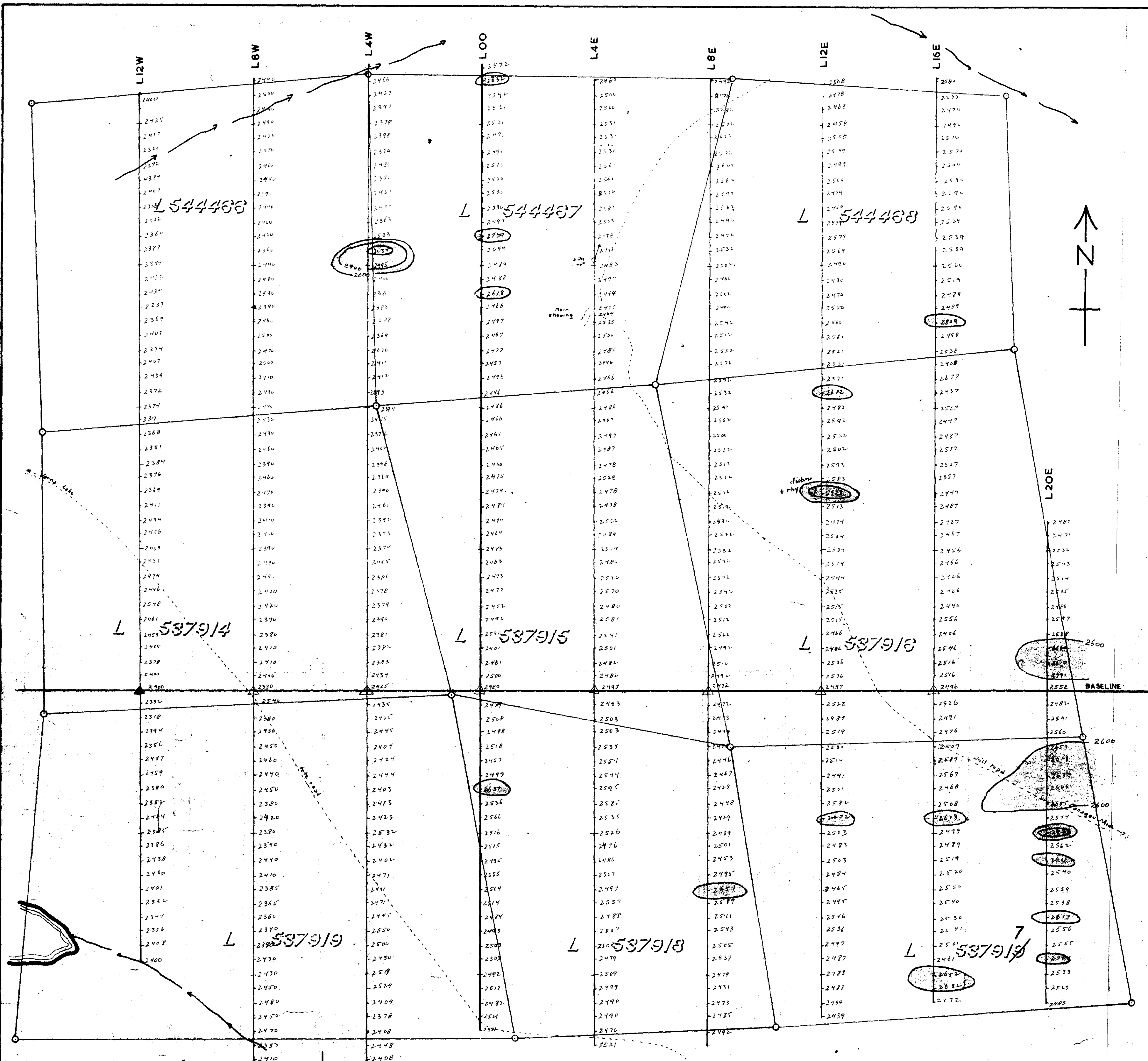
ONTARIO MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH

Clifford Twp.(M.338)

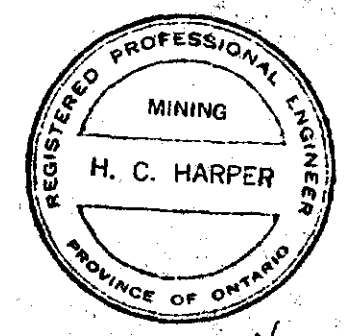
Pontiac Twp.(M.382)



Katrine Twp.(M.357)



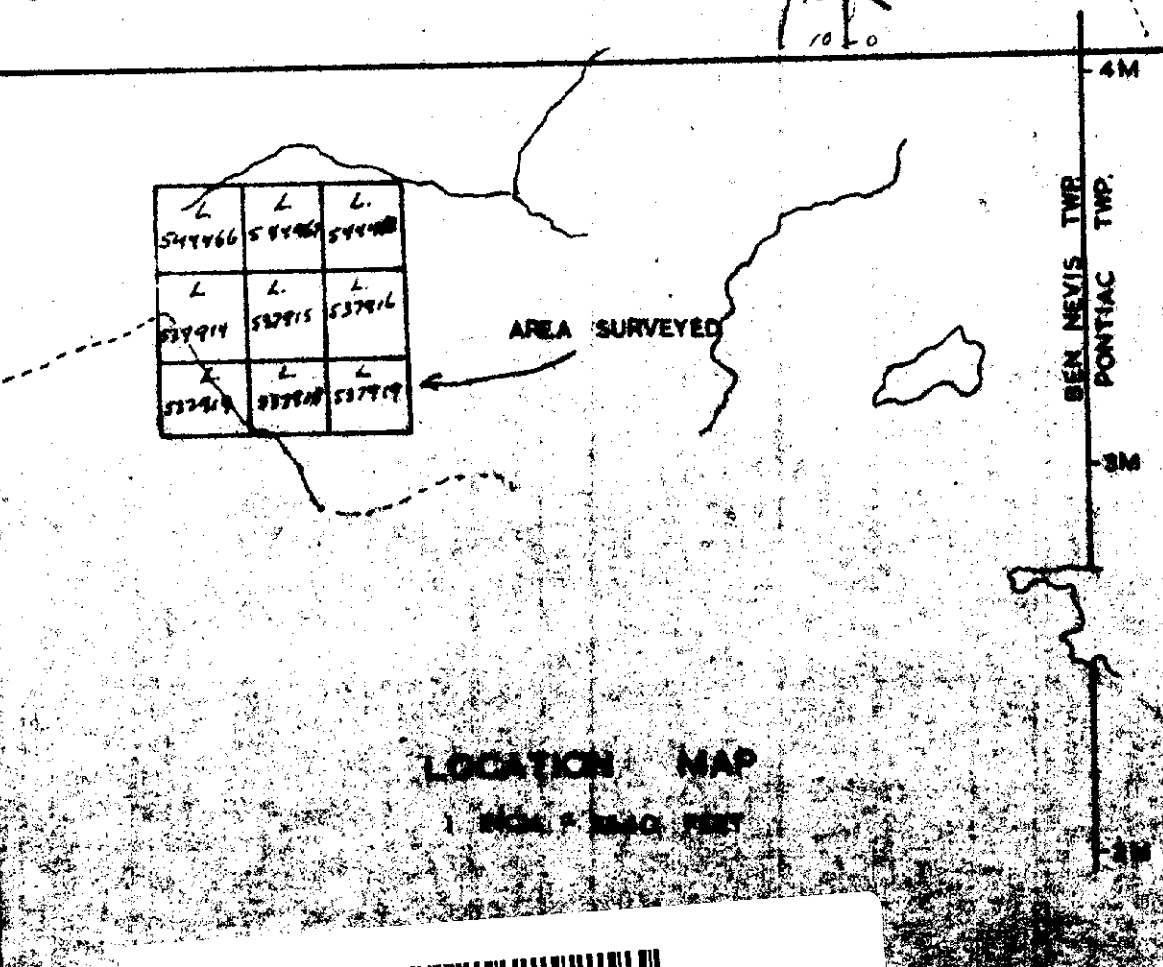
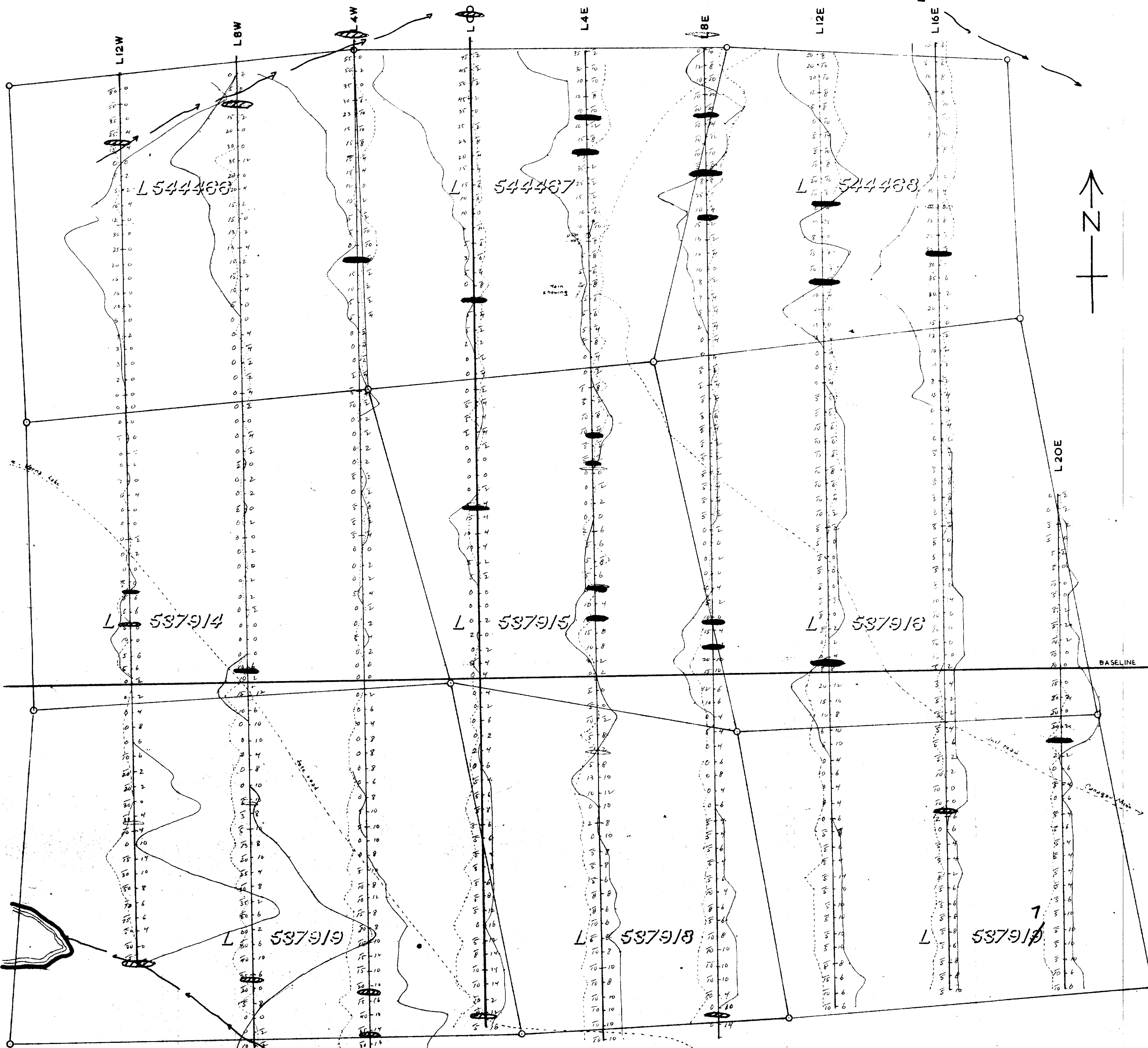
- under 2600 GAMMAS
- 2600 TO 2900 GAMMAS
- over 2900 GAMMAS
- ▲ BASE STATION
- △ CONTROL STATION



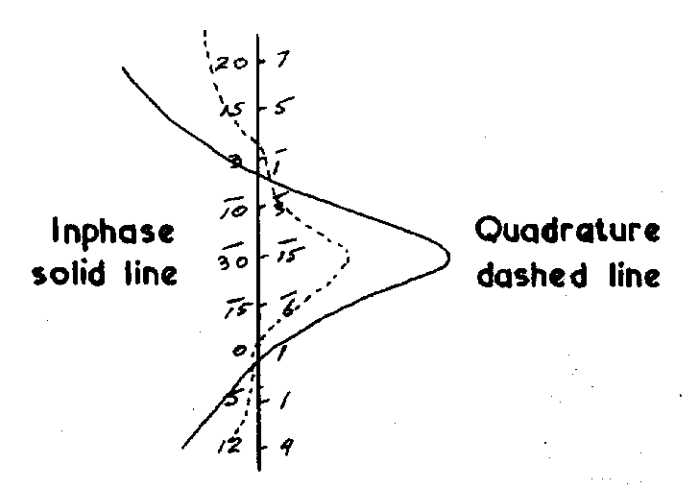
**HARPER CLAIMS**  
 BEN NEVIS TWP.  
**Magnetometer Survey**



*H. C. Harper*





RONKA EM16



-  GOOD CONDUCTOR
-  POOR CONDUCTOR

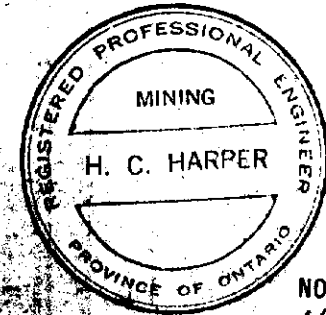
# HARPER CLAIMS

BEN NEVIS TWP.

## Electromagnetic Survey

Profile Scale: 1" = 30%

Transmitting Station: CUTLER, MAINE



NOV 19 70  
H. C. Harper

