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32D04SW0223 2.1146 MCELROY

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FEB 12 1973

PROJECTS  
SECTION

REPORT OF THE MAGNETOMETER SURVEY  
MacGREGOR OPTION  
CATHERINE AND MCELROY TOWNSHIPS  
DISTRICT OF TIMASKAMING  
ONTARIO

by

SELCO MINING CORPORATION LIMITED

SELCO MINING CORPORATION LIMITED

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REPORT OF THE MAGNETOMETER SURVEY, MacGREGOR OPTION,  
CATHERINE AND McELROY TOWNSHIPS, ONTARIO

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INTRODUCTION

A programme of magnetic surveying was carried out during December 1972 on the MacGregor Option claims in Catherine and McElroy Townships. The claims are found on claim maps M.336 and M.366 in the Larder Lake Mining Division of Ontario. The claims covered by this survey are:

Catherine Township - L.339071  
L.339074

McElroy Township - L.282856-61 6  
L.283253  
L.321182-83  
L.339073  
L.339075-81  
L.341825

GENERAL

The grid consists of lines cut, chained and picketed with pickets every 100 feet. Lines are in a north-south direction with a nominal line separation of 400 feet. East-west tie lines have been cut at four levels across the grid. In all, 19.6 line miles of lines were cut on this grid.

The magnetic survey was carried out using a Scintrex MF-1 fluxgate magnetometer. This magnetometer detects the vertical component of the earth's magnetic field to an accuracy of 10 gammas. Diurnal variations were controlled using the looping around technique using base stations on the base lines and the lines as control. Base station locations are indicated on the map. In this procedure the operator describes a loop in effect by starting at a base line then

takes readings along a nearby line to the next tie line, reads along that tie line to the adjacent line then back to the starting tie line where a reading at the base station concludes the loop. Corrections are made in time on the intervening data on any changes occurring at the base station reading. Base stations were tied together by proceeding from a reading at one base station directly to the next base station.

All magnetic readings were taken on a 50 foot interval. Both north-south lines and east-west base and tie lines were surveyed for a total production within claim boundaries of 2,085 readings or 19.6 line miles.

#### DETAIL

Strong magnetic highs are seen to lie in a northwest direction across the area. Two of these from the south end of line 20E to the north end of 44W and from the south end of 40E to the north end of 24W are strongly and irregularly magnetized. Both are likely due to peridotite intrusions. Other more uniform highs both north and south of the main zones may be due to peridotite as well, however these may reflect gabbroic phases of an intrusive sequence. A flexure or fold structure is seen to transect the central portion of the area in a northeast direction.

#### CONCLUSIONS

The magnetometer survey has outlined several ultrabasic bodies extending in a northwest direction through these claims.



*Laurie E. Reed*  
Laurie E. Reed  
Chief Geophysicist.

February 7, 1973  
LER/eip.





32D04SW0223 2.1146 NCELR0Y

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File L 1146

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.

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PROJECTS SECTION

Type of Survey Ground Magnetic

Township or Area Catherine & McElroy Twp.

Claim holder(s) Robert MacGregor

134 Palace Dr, Sault Ste. Marie, Ont.

Author of Report L.E. Reed

Address 6th Floor - 55 Yonge St., Toronto

Covering Dates of Survey Dec. 1972 to Feb. 7, 1973  
(linecutting to office)

Total Miles of Line cut 19.6 line miles

**MINING CLAIMS TRAVERSED**  
List numerically

L.....	339071
(prefix).....	(number)
L.....	339074
L.....	282856
L.....	282857
L.....	282858
L.....	282859
L.....	282860
L.....	282861
L.....	283253
L.....	321182
L.....	321183
L.....	339073
L.....	339075
L.....	339076
L.....	339077
L.....	339078
L.....	339079
L.....	339080
L.....	339081
L.....	341825

*1/4 Not covered*

*not covered  
No credits being requested  
for that claim.*

TOTAL CLAIMS 20

If space insufficient, attach list

**SPECIAL PROVISIONS  
CREDITS REQUESTED**

DAYS  
per claim

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

ENTER 20 days for each  
additional survey using  
same grid.

- Geophysical
  - Electromagnetic 40
  - Magnetometer 40
  - Radiometric \_\_\_\_\_
  - Other \_\_\_\_\_
- Geological \_\_\_\_\_
- Geochemical \_\_\_\_\_

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: Feb 7, 1973 SIGNATURE: J. Reed  
Author of Report

**PROJECTS SECTION**

Res. Geol. \_\_\_\_\_ Qualifications L. 62

Previous Surveys 63.1370, 63.902 Airborne 63.193 Geology  
and Geophysical L.D.

Checked by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

OFFICE USE ONLY

**GEOPHYSICAL TECHNICAL DATA**

**GROUND SURVEYS**

Number of Stations 1042 Number of Readings 2085  
Station interval 50 feet  
Line spacing 400 feet  
Profile scale or Contour intervals 1000 gammas  
(specify for each type of survey)

**MAGNETIC**

Instrument Scintrex MF-1 Fluxgate  
Accuracy - Scale constant 10 gammas  
Diurnal correction method base station looping  
Base station location \_\_\_\_\_

**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**

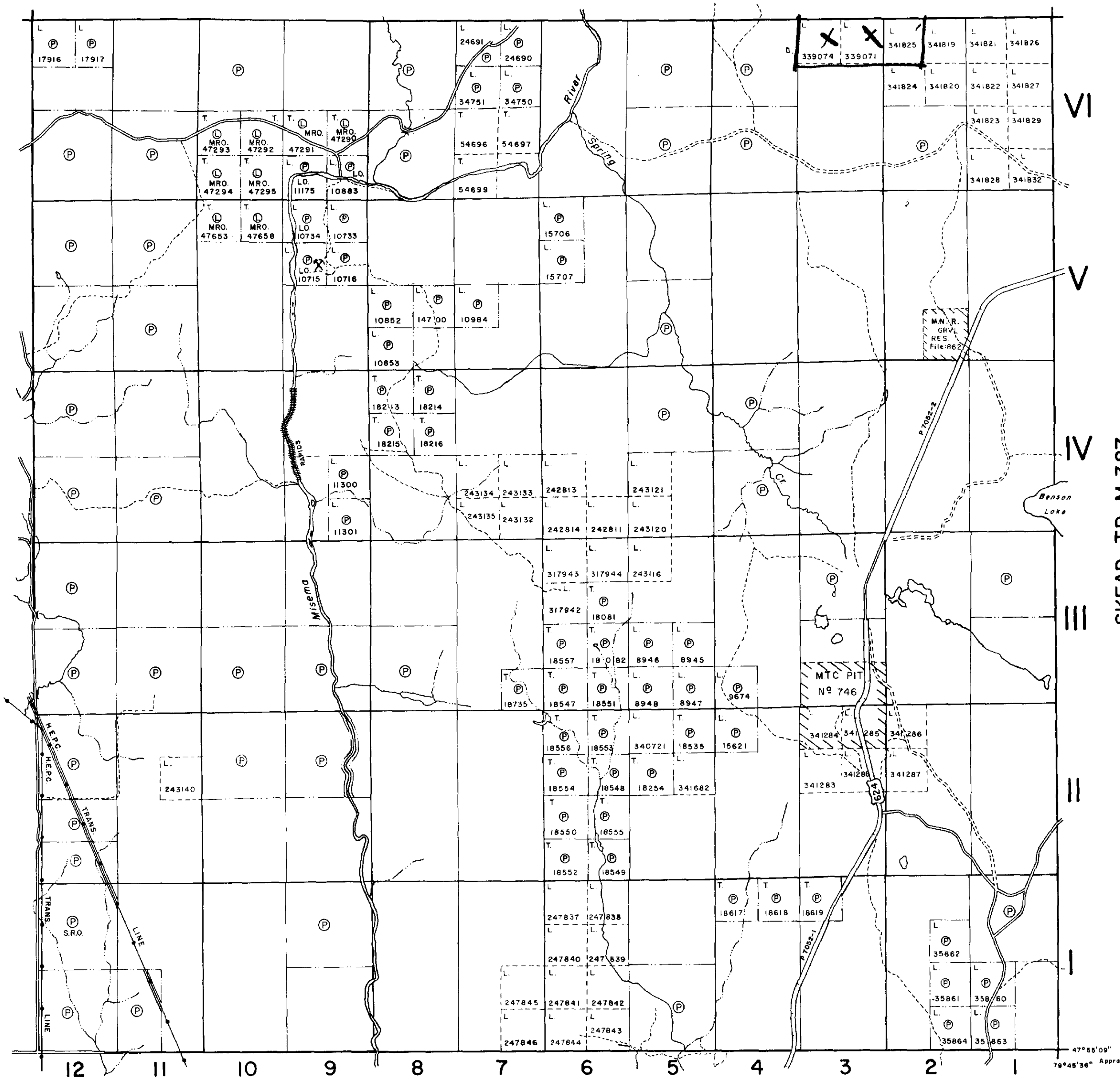
Instrument \_\_\_\_\_  
Time domain \_\_\_\_\_ Frequency domain \_\_\_\_\_  
Frequency \_\_\_\_\_ Range \_\_\_\_\_  
Power \_\_\_\_\_  
Electrode array \_\_\_\_\_  
Electrode spacing \_\_\_\_\_  
Type of electrode \_\_\_\_\_



McELROY TP M.366

PACAUD TR. M.380

SKEAD TR. M.387



NOTES

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

MINING LANDS -  
DATE OF ISSUE  
FEB 13 1973  
MINISTRY  
OF NATURAL RESOURCES

LEGEND

- PATENTED LAND (P) or \*
  - PATENTED FOR SURFACE RIGHTS ONLY (P) or \*
  - 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. (Hwy symbol)
  - ROADS (Road symbol)
  - TRAILS (Trail symbol)
  - RAILWAYS (Railway symbol)
  - POWER LINES (Power line symbol)
  - MARSH OR MUSKEG (Marsh symbol)
  - MINES (Mine symbol)
- \*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. PLAN NO. **M. 336**  
DATE JUNE '72

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

MARTER TP. M. 543



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