



## REPORT ON VLF-EM SURVEYS

SKEAD AND HEARST TOWNSHIPS, ONTARIOIntroduction

A VLF-Em survey was carried out in two areas in Skead and Hearst Township. The results are shown on the enclosed plans.

Location, Access and Ownership

The claims covered by the survey are located in lots 4 and 5 Concession 6 and lots 8 and 9 Concession 6 Skead township and the south-central boundary of Hearst township. The claims are numbered L 476671 to 476677; L 476687 to 476688 inclusive and L 476679. They are recorded in the name of Lucien Lacasse, Larder Lake, Ontario.

Access can be had from Highway 624 about 7 miles south of Larder Lake, Ontario and from old logging roads leading from the highway.

Previous Exploration

There are a number of pits scattered throughout the claims on which no records are available. Two diamond drill holes were also located during the survey for which no records have been filed with the Provincial Geologist's office. During 1972 Noranda Mines Ltd. cut lines and ran V.L.E.M. and Magnetometer surveys over the easterly claim block. These lines are now almost completely overgrown.

Geology

The property is underlain by a volcanic sequence of rocks, overlain and in some places interbedded with sediments. The volcanic and sedimentary rocks are cut by later intrusive dykes and stocks.

Survey Procedure

A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Annapolis, Maryland (21.4 KHz). Readings were taken at 100 foot intervals using the procedure outlined in Appendix 1. The looping method was used for control of variation, the same as described for the magnetometer survey excepting that the time was noted for each station. an attempt was made to follow the previously cut lines, however these are largely overgrown. Pace and compass was used where old lines were not visible.

Survey Procedure (Continued)

On the westerly 2 claims, lines were run by pace and compass south from the south boundary of 2 surveyed claims and along the surveyed concession line by pace and compass.

Conclusions

On the two westerly claims a strong anomaly crosses the extreme north-east corner. This is a continuation of a strong anomaly found to the south-east which is overburden covered and unexplained, but may be a fault.

The easterly group of claims show a large number of cross-overs, some of which coincide with the V.L.E.M. anomalies found by Noranda; some are offset from the Noranda anomalies while others did not show on the V.L.E.M. survey. Both graphite and sulphides have been noted in the area. As well, some of the VLF-EM anomalies may be due to topographic effects. Several rock outcrops are quite steep leading into swamps.

Further follow-up is indicated by the presence of sulphides although some of the anomalies will undoubtedly prove to be graphite.

Respectfully submitted



R.A. MacGregor, P. Eng.

September 18, 1978



Ministry of Natural Resources

GEOPHYSICAL - GEOLOGIC TECHNICAL DATA



32004SE0282 2.2807 HEARST

900

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) VLF-EM
Township or Area Skead
Claim Holder(s) L. Lacasse
Survey Company
Author of Report R.A. MacGregor
Address of Author 134 Palace Drive, Sault Ste. Marie
Covering Dates of Survey June, September, 1978
Total Miles of Line Cut

MINING CLAIMS TRAVERSED
List numerically

L 476674
L 476675
L 476676
L 476677
L 476687
L 476688
L 476679
L 476671
L 476672
L 476673

SPECIAL PROVISIONS
CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

Geophysical
-Electromagnetic 20
-Magnetometer
-Radiometric
-Other
Geological
Geochemical

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

Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: Sept. 18, 1978 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. L.D. Qualifications 2. 1102 + m
this file

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS 10

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 559 Number of Readings 563
Station interval 100 ft Line spacing 400 feet
Profile scale 1" = 40'
Contour interval

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

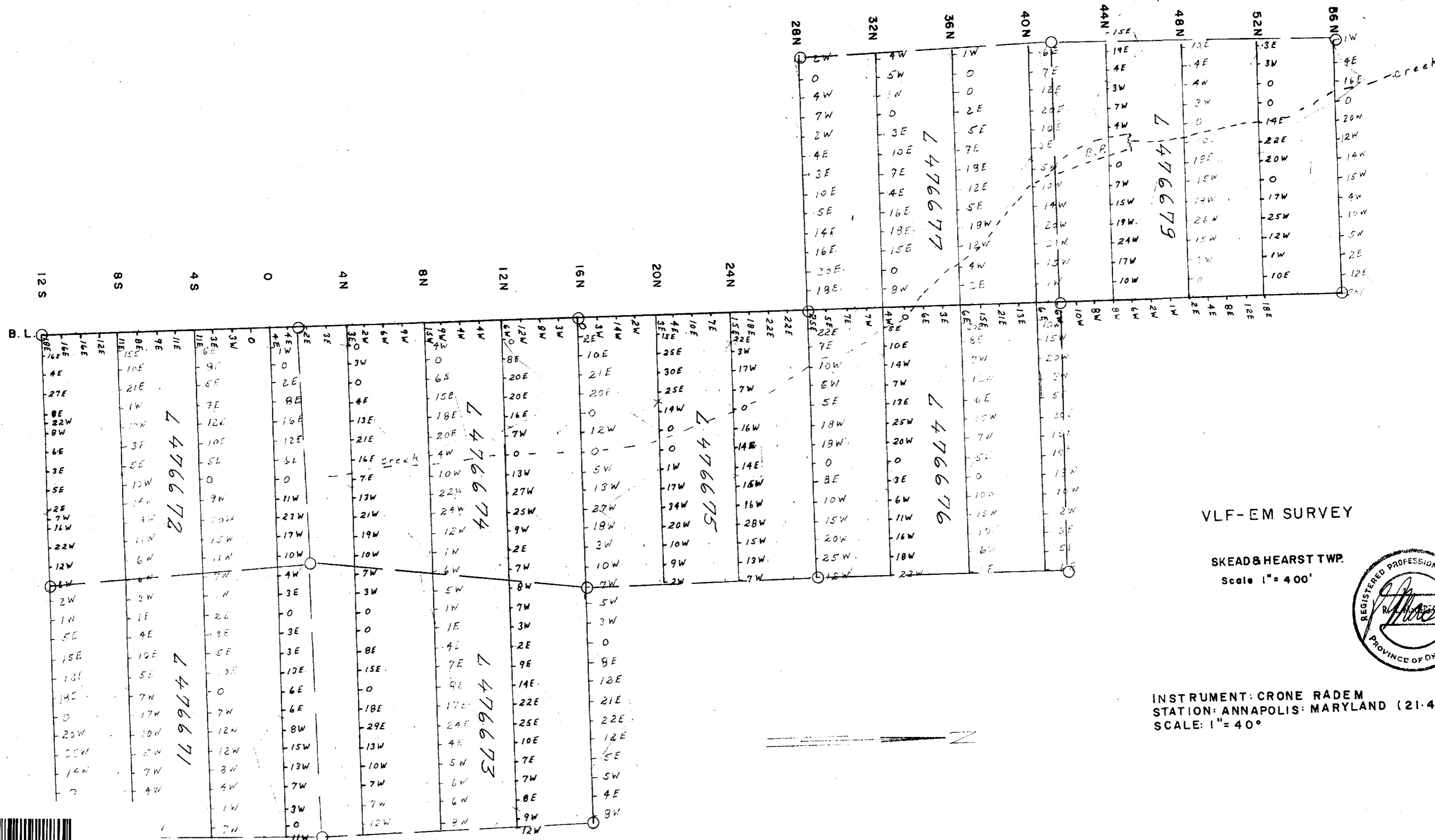
Instrument Crome Radem
Coil configuration N/A
Coil separation N/A
Accuracy +/- 4'
Method: [X] Fixed transmitter [ ] Shoot back [ ] In line [ ] Parallel line
Frequency Annapolis Maryland (21.4 KHz)
Parameters measured Dip Angle of the Resultant field

GRAVITY

Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

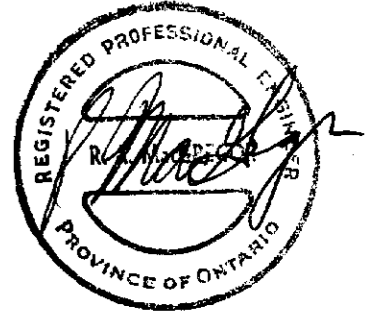
Instrument
Method [ ] Time Domain [ ] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode

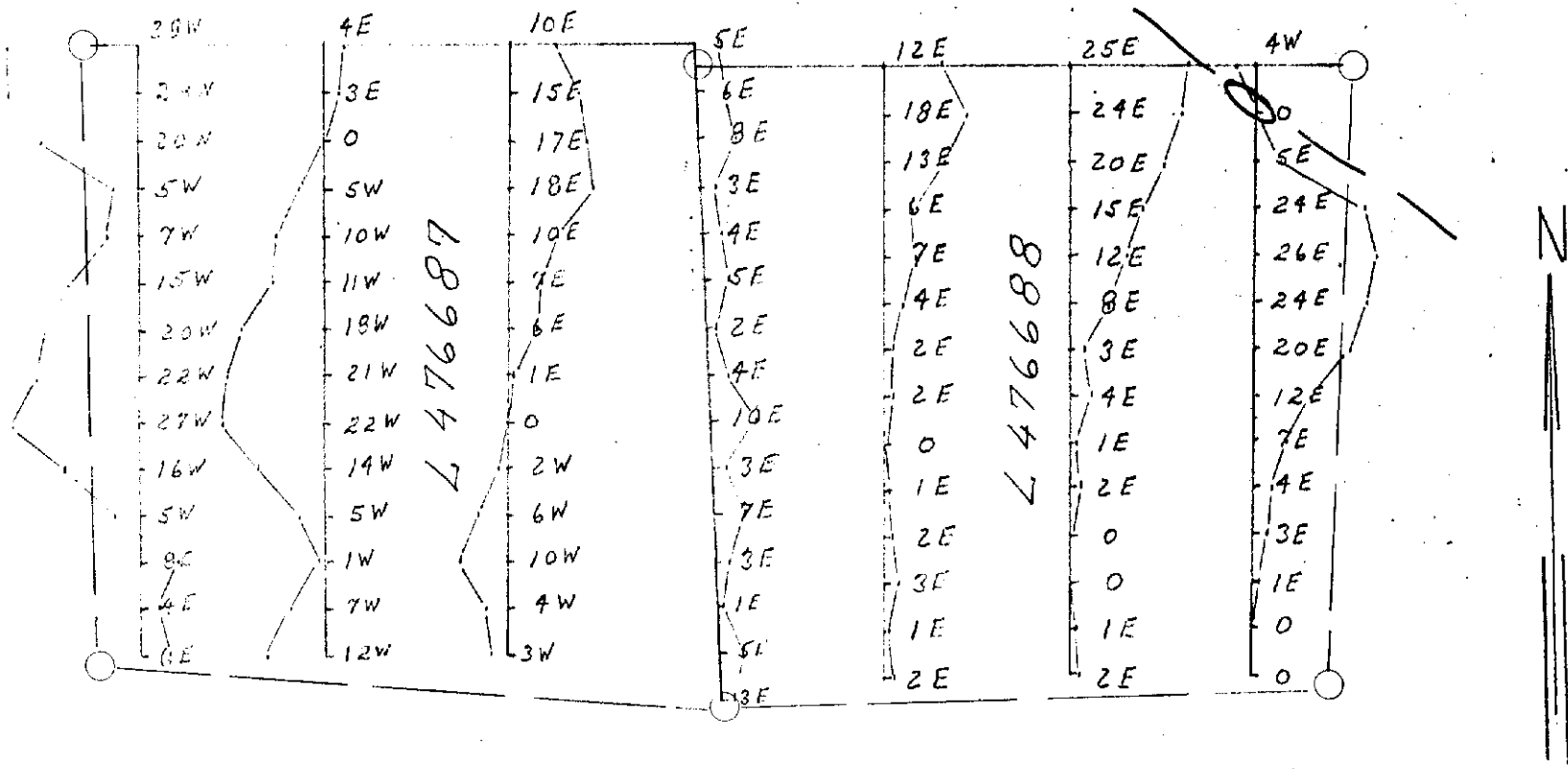


VLF-EM SURVEY

SKEAD & HEARST TWP.  
Scale 1" = 400'

INSTRUMENT: CRONE RADEM  
STATION: ANNAPOLIS; MARYLAND (21.4KHZ)  
SCALE: 1" = 40'





INSTRUMENT: CRONE RADEM  
 STATION: ANNAPOLIS, MARYLAND (21.4 KH<sub>z</sub>)  
 SCALE: 1" = 40'



VLF-EM SURVEY  
 LOTS 5&6 CONCESSION 6  
 SKEAD TOWNSHIP  
 Scale 1" = 400'



32004SE0282 2.2807 HEARST

McVITTIE TWP. M-370

MCELROY TWP. M-366

McFADDEN TWP. M-368

SKEAD TWP. M-387

THE TOWNSHIP  
OF  
2.2807

HEARST

DISTRICT OF  
TIMISKAMING

LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH - 40 CHAINS


LEGEND

- PATENTED LAND ● or ⊕
- CROWN LAND SALE C.S.
- LEASES ⊕
- 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 ————
- PATENTED S.R.O. ————

NOTES

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

Township of Hearst lies entirely within the CORPORATION of the TOWNSHIP of LARDER LAKE. File: 129282.

Staking of mining claims within the Town of Larder Lake shown thus  subject to Sec. 37(b) of the Mining Act (R.S.O. 1970).

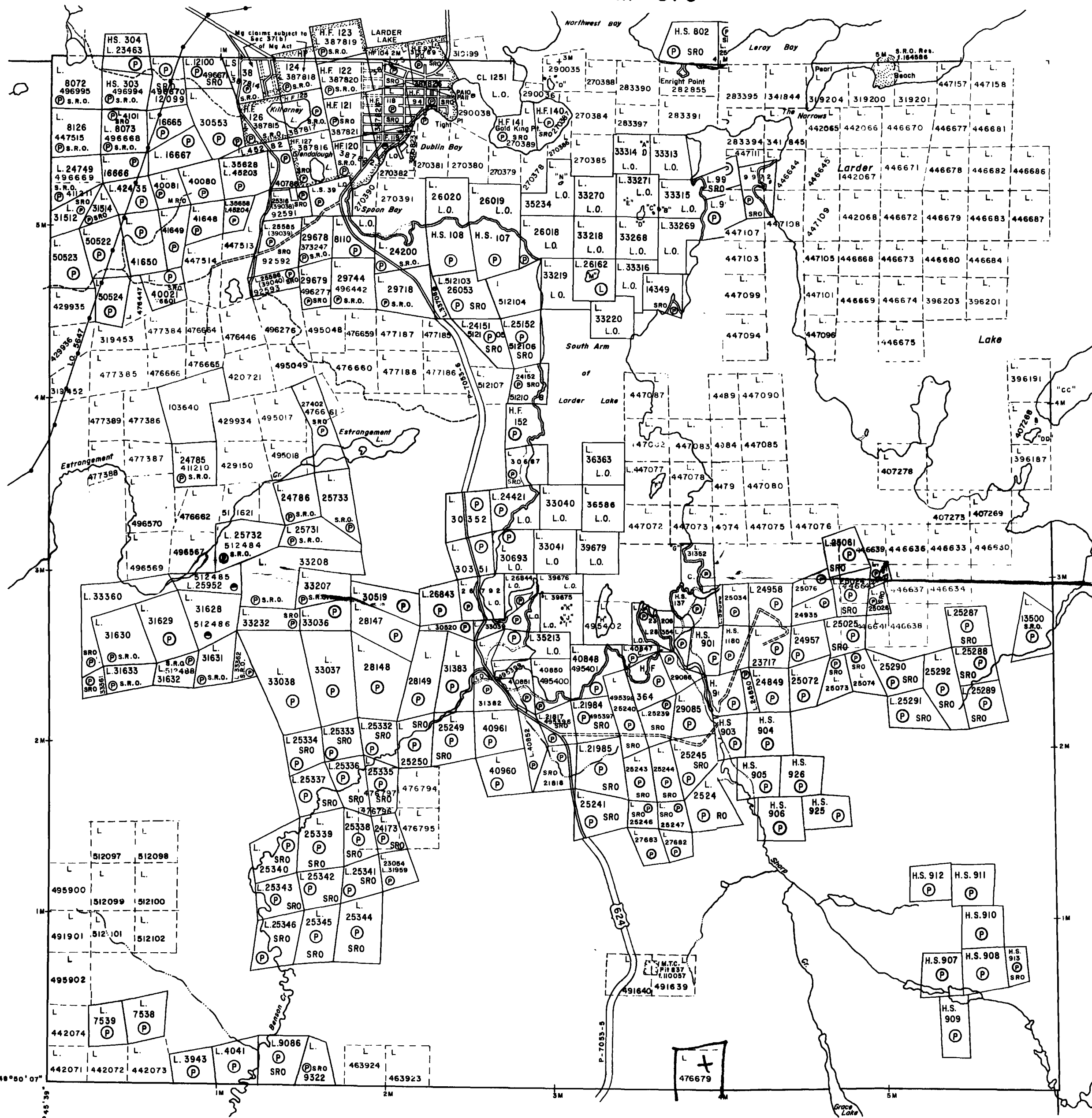
DATE OF ISSUE

JAN 17 1971

SURVEYS AND MAPPING  
BRANCH

PLAN NO. M-354

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



NOTES

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

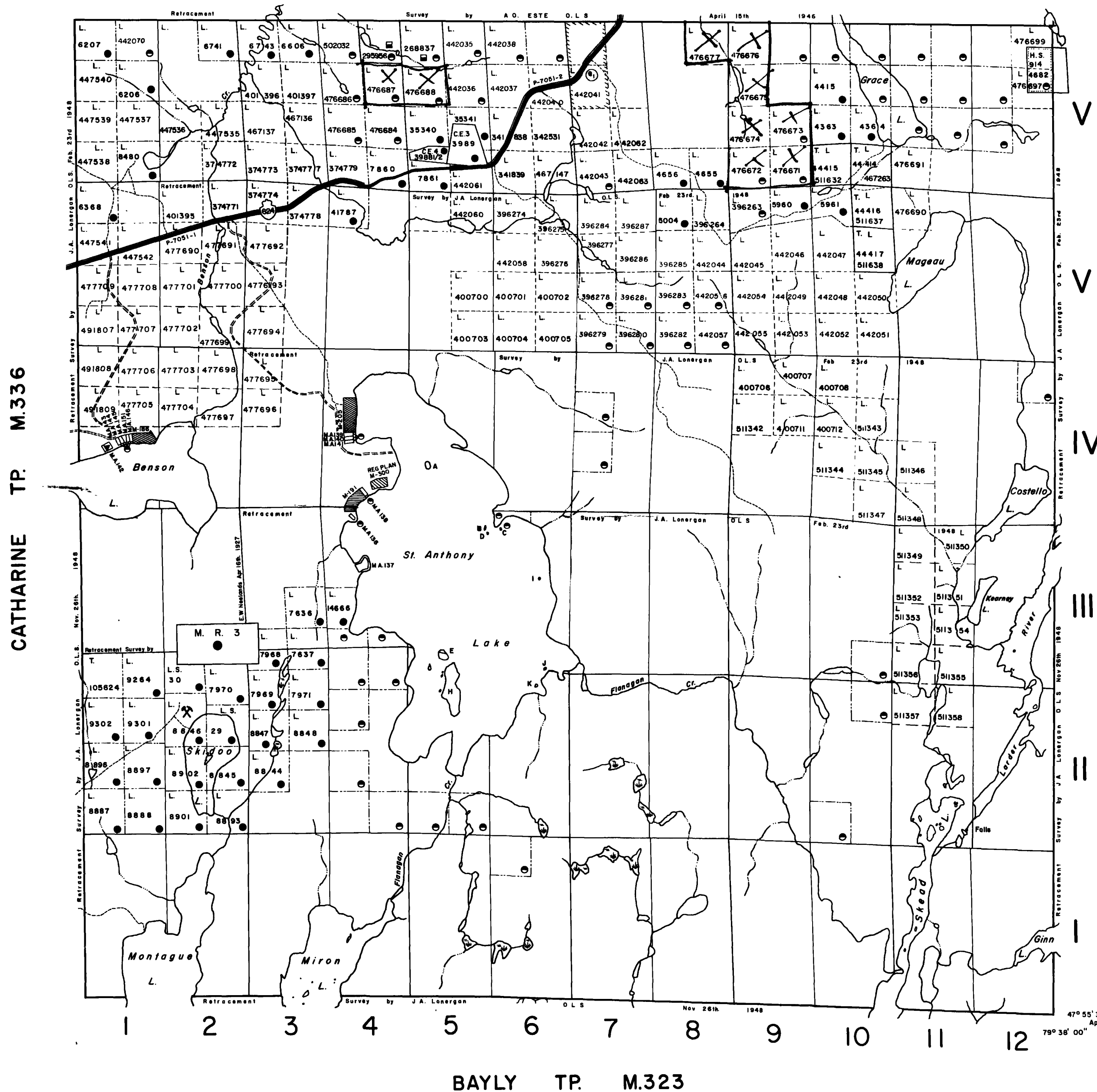
All unpatented mining claims accepted subject to survey, Section 118 of the Mining Act (R.S.O. 1970).

SAND and GRAVEL

M.T.C. PIT No. 1230

DATE OF ISSUE  
SEP 29 1978  
SURVEYS AND MAPPING  
BRANCH

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	
CANCELLED	
SAND & GRAVEL	

SCALE : 1 INCH = 40 CHAINS



ACRES	HECTARES
40	16

TOWNSHIP 2.2807  
**SKEAD**  
DISTRICT  
TIMISKAMING  
MINING DIVISION  
LARDER LAKE L.D.

Ministry of Natural Resources  
Ontario Surveys and Mapping Branch  
Date 10/4/74 Plan No. **M.387**  
Whitney Block  
Queen's Park, Toronto



32D04SE0282 2.2807 HEARST

210

A.T.V.