



52F10NW0080 2.188 CONTACT BAY (WABIGOO)

010

REPORT  
ON  
GEOMAGNETIC SURVEY  
HARRISON-HANSON CLAIM GROUP  
DRYDEN, ONTARIO

SUMMARY

J. Harrison and G. Hanson staked 52 claims during December, 1969, and January and March, 1970 at Mile Lake, seven air miles south of Dryden, Ontario. The claims partially cover a basic to ultrabasic gabbroic rock intruding intermediate to acid volcanics. Two shallow pits on mining claim K-203509 uncovered low grade copper-nickel mineralization and subsequent prospecting discovered other similar occurrences all containing approximately uniform metal values equal to 0.86% copper equivalent.

The mineralized locations have varying magnetic susceptibility and it was deemed advisable to conduct a magnetometer survey over that part of the claim group where sulphide mineralization had been noted, to outline anomalous areas for future exploration by rock trenching. Two anomalous zones, one striking through the pit areas, and a second roughly coinciding with the contact aureole, have been delineated.

During the period August 1 - 31, 1970 the results of the magnetometer survey conducted over the bulk of the land portions of the claim group were evaluated, and the two principal anomalous areas prospected and explored by twenty-two shallow pits in bedrock. The pits were located at sites of abnormal magnetic intensity.

Only two of the pits encountered pyrrhotite and chalcopyrite mineralization. The remaining pits uncovered barren rock or only pyrite and magnetite mineralization.

The copper-nickel mineralization is too erratically distributed to be considered a potential orebody on the mining claims explored by geophysics and test pitting. Prospecting and preliminary exploration on the remaining land claims do not indicate any improvement.

### INTRODUCTION

The Dryden-Wabigoon area has been explored for gold from 1870 to 1940, and recently has had a resurgence when base metal discoveries were made to the northeast at Sturgeon Lake, and to the southwest near Atikwa Lake. The Harrison-Hanson claim group is well situated, just seven miles southeast of Dryden, Ontario, an established papermill community. Hydro, natural gas, transportation, housing and a labour pool are all closeby.

The mining claims were staked by J. Harrison and G. Hanson during December, 1969, and January and March, 1970, and are in good standing until a year after recording. Harrison brought the claim group to the attention of Steep Rock Iron Mines Limited during the spring of 1970, and subsequently an option to purchase was negotiated, but not consummated. The option was for three years and the total purchase price was \$75,000 payable in installments, the stakers to retain a non-assessable ten percent interest.

### GEOLOGY

The general Dryden-Wabigoon region is underlain by intermediate to acid volcanics with intercalated sediments, all intruded by basic to ultrabasic plugs of the gabbro-norite variety.

Locally the claims cover a porphyritic hornblende gabbro and parts of the intruded volcanics. The gabbro is massive but shear structures have been developed in the surrounding volcanics.

Sulphide mineralization as disseminations has been found within the gabbro mass and has been reported as shear fillings and replacements in the volcanics.

Mineralization is primarily pyrrhotite which in places is nickeli-ferous accompanied by varying quantities of chalcopyrite and pyrite. The nickel-bearing mineral has not been identified but is probably pentlandite.

### EXPLORATION

The claims are undoubtedly restaking of previous claims since pre-existing lines are visible. It has been reported that Falconbridge Nickel Mines Limited conducted a vertical loop electromagnetic survey over some of the previous claims about 1953 but the results are not available. It is doubtful if this method of survey would be successful in outlining zones of disseminated sulphides.

Harrison and Hanson sank two shallow test pits and encountered disseminated copper-nickel mineralization. Subsequent prospecting discovered other similar occurrences with relatively equal amounts of sulphide mineralization. Representative samples from three locations all contain copper and nickel. The paucity of pyrite has inhibited weathering and the formation of gossans. As a result there is no indication of sulphides on the rock surface although they are discernible on the freshly-broken surfaces.

Since the areas of known mineralization are slightly magnetic, a magnetometer survey was instituted to outline anomalous zones as an aid to further rock trenching and possible future diamond drilling. The mining claims so covered are:

K-202146	-	K-202149 inclusive	-	4
K-203509	-	K-203520 inclusive	-	12
K-203524	-	K-203525 inclusive	-	2
K-203694	-	K-3026966 inclusive	-	3
K-203700	-	K-203703 inclusive	-	4
K-203706	-	K-203707 inclusive	-	2
K-203711			-	1
K-203713			-	1
K-240568	-	K-240569 inclusive	-	<u>2</u>

31

Eighteen decimal three line miles, including base lines and cross lines turned off at 100 foot intervals, were cut, chained and surveyed with a McPhar M-700 magnetometer with a sensitivity of  $\pm 5$  gammas. The base lines are oriented east-west and the cross lines perpendicular thereto. Magnetometer readings were taken at fifty foot stations along the lines. The magnetic differential is relatively low, with some areas of reverse polarity. Survey field work commenced on July 28 and was completed on August 7, 1970.

The results of the magnetometer survey were evaluated during the early part of August and two anomalous zones were indicated. Both positive and negative low intensity magnetic values were obtained along the assumed strikes of the zones and appeared to represent dipolarity of pyrrhotite mineralization. One zone coincided with the contact aureole of the gabbro mass and the second zone appeared to be a trend embracing the mineralization previously encountered in test pits.

The two zones were prospected for rock outcrops and each outcrop at or near an anomaly was explored by shallow rock pits. Thirteen pits were sunk on the zone along the east and northeast part of the claim group. The positive magnetic values in each case represented fine-grained andesitic lava or agglomerate mineralized with equally fine-grained

magnetite and pyrite. The negative magnetic values represented rhyolite containing fine-grained to distinctly cubic pyrite. There is no macroscopic chalcopyrite or pyrrhotite present. Nine pits were put down on outcrops along the second zone. Although all but one of the pits were in gabbro or porphyritic gabbro only two pits, one on a reef near the north shore of Mile Lake, and one 800 feet north of Mary Lake, encountered copper-nickel mineralization. The balance were devoid of any sulphide mineralization.

ECONOMIC CONSIDERATIONS

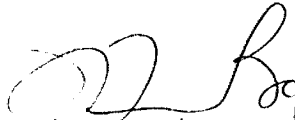
Mineralization within the volcanic complex along the east and northeast parts of the claim group is confined to magnetite and pyrite without any accompanying ore minerals.

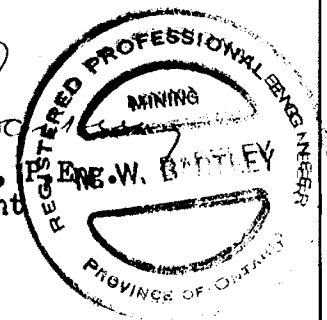
Mineralization within the gabbro mass, while consisting of pyrite with pyrrhotite and/or chalcopyrite, is too erratic to provide a tonnage potential conducive to open pit or bulk mining.

The economic possibilities are not sufficiently attractive to warrant further expenditures in additional exploration.

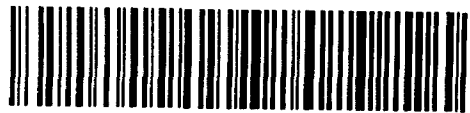
Respectfully submitted,

Thunder Bay (P), Ontario  
December 10, 1970

  
M. W. Bartley,  
President



PERFORMANCE :



ASSESSMENT WORK DETAILS

52F10NW0080 2.188 CONTACT BAY (WABIGOO)

900

Township or Area NTS 52 F/10, Contact Bay, Wabigoon Lake

List numerically

Type of Survey Magnetometer  
A separate form is required for each type of survey

K202146

Chief Line Cutter Jim Kelly  
or Contractor Eagle Lake, Ontario  
Name  
Address

K202147

Party Chief W. H. Meakin  
204, 231 Arthur St., Thunder Bay (P), Ont.  
Name  
Address

K202148

1/4 not covered  
K202149

Consultant M. W. Bartley & Associates Ltd.  
204, 231 Arthur St., Thunder Bay (P), Ont.  
Name  
Address

K203509

K203510

K203511

COVERING DATES

Line Cutting June 27, 1970 August 7, 1970

K203512

Field July 28, 1970 August 7, 1970  
Instrument work, geological mapping, sampling etc.

K203513

Office August 10-14, 1970 August 24-31, 1970

K203514

K203515

INSTRUMENT DATA

Make, Model and Type McPhar M-700 Fluxgate V.F.

1/4  
K203516

Scale Constant or Sensitivity see attached brochure  
Or provide copy of instrument data from Manufacturer's brochure.

1/2  
K203517

Radiometric Background Count \_\_\_\_\_

1/2  
K203518

Number of Stations Within Claim Group 931

1/3  
K203519

Number of Readings Within Claim Group 1,702

K203520

Number of Miles of Line cut Within Claim Group 18.3

1/4  
K203524

Number of Samples Collected Within Claim Group \_\_\_\_\_

1/3  
K203525

1/3  
K203694

CREDITS REQUESTED	20 DAYS per claim	40 DAYS per claim	Includes (Line cutting)
Geological Survey	<input type="checkbox"/>	<input type="checkbox"/>	
Geophysical Survey	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Show Check ✓
Geochemical Survey	<input type="checkbox"/>	<input type="checkbox"/>	

DATE November 20, 1970

SIGNED [Signature]

TOTAL \_\_\_\_\_

Send in duplicate to:  
FRED W. MATTHEWS  
SUPERVISOR-PROJECTS SECTION  
DEPARTMENT OF MINES &  
NORTHERN AFFAIRS  
WHITNEY BLOCK  
QUEEN'S PARK  
TORONTO, ONTARIO

If space insufficient, attach list

## SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

### AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) substantial and systematic coverage of each claim
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

Each additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

A geological survey using the same grid system, and meeting the requirements for submission of geological surveys for maximum credits will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geological survey a credit of 40 days per claim will be allowed for the survey.

Similarly, a geochemical survey using the same grid system with the average number of collected samples per claim being not less than 40 samples, and meeting the requirements for the submission of geochemical surveys for maximum credits, will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geochemical survey a credit of 40 days per claim will be allowed for the survey.

Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.

If the credits are reduced for any reason, a fifteen day Notice of Intent will be issued. During this period, the applicant may apply to the Mining Commissioner for relief if his claims are jeopardized for lack of work or, if he wishes, may file with the Department, normal assessment work breakdowns listing the names of the employees and the dates of work. The survey would then be re-assessed to determine if higher credits may be allowed under the provisions of subsections 8 and 9 of section 84 of the Mining Act.

If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.

AREA OF  
**CLAIM MAY**  
**CONTACT BAY**  
**WABIGOON LAKE**

DISTRICT OF  
**KENORA**

**KENORA**  
 MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

**LEGEND**

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKOG
- MINES
- CANCELLED

**NOTES**

400' Surface rights reservation around all lakes and rivers.

All islands in Wabigoon Lake withdrawn from staking under Sec. 39 Sub. C. of Mining Act.

Roads indicated Dryden Paper Co Private Road may be used by Prospectors only after permission is obtained from Dryden Paper Co., Dryden, Ont.

**DATE OF ISSUE**

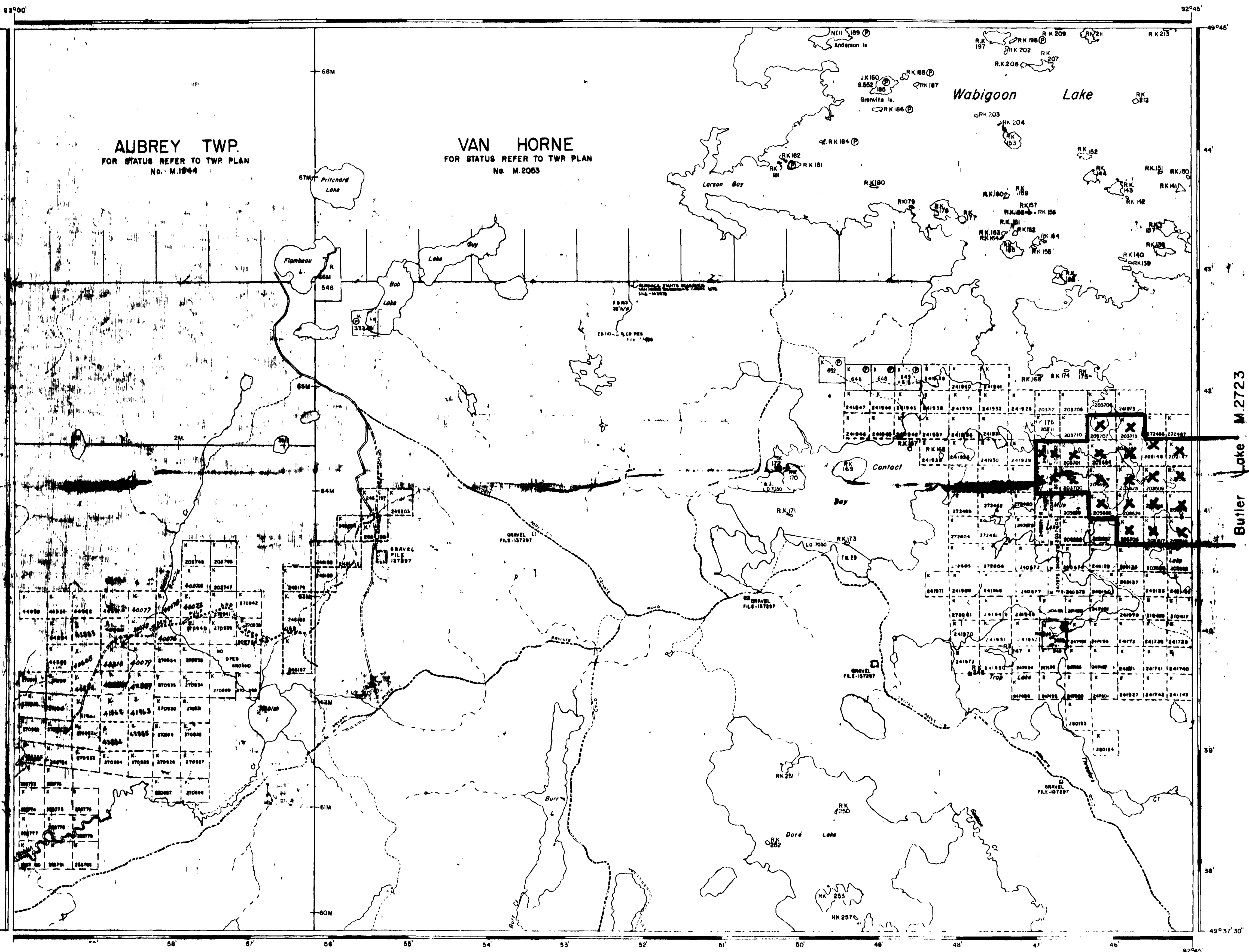
FEB 28 1971

ONT DEPT OF MINES  
 AND NORTHERN AFFAIRS

NATIONAL TOPOGRAPHIC SERIES 52 F 10

PLAN NO. **M.2737**

**ONTARIO**  
 DEPARTMENT OF MINES  
 AND NORTHERN AFFAIRS



**AUBREY TWP.**  
 FOR STATUS REFER TO TWP PLAN  
 No. M.1944

**VAN HORNE**  
 FOR STATUS REFER TO TWP PLAN  
 No. M.2053

Ukik Lake M.2668

Buchan Bay M.2286

Butler Lake M.2723



AREA OF  
**CLAIM MAP**  
**BUTLER LAKE**

DISTRICT OF  
KENORA

KENORA  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

**LEGEND**

- PATENTED LAND Ⓟ
- CROWN LAND SALE CS
- LEASES Ⓛ
- LOCATED LAND Loc
- LICENSE OF OCCUPATION LO
- MINING RIGHTS ONLY MRO
- SURFACE RIGHTS ONLY SRO
- ROADS —
- IMPROVED ROADS —
- KING'S HIGHWAYS —
- RAILWAYS —
- POWER LINES —
- MARSH OR MUSKEG —
- MINES \*
- CANCELLED C

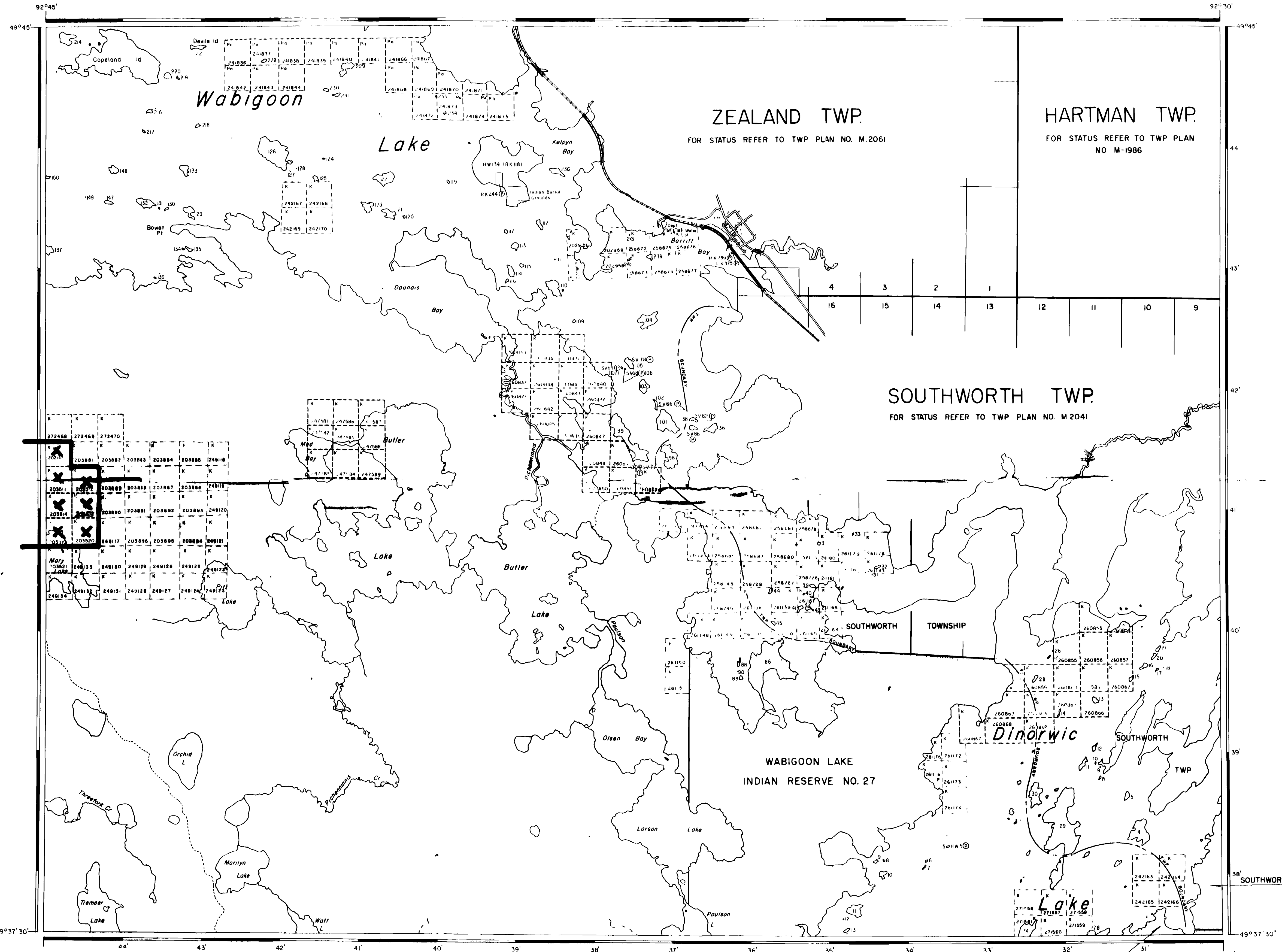
**NOTES**

400' Reserve around all lakes and rivers to Dept. of Lands & Forests.  
All islands in Wabigoon Lake withdrawn from staking under Sec 39 Sub C of Mining Act

**DATE OF ISSUE**

FEB 7, 1971

ONTARIO DEPT. OF MINES AND NORTHERN AFFAIRS



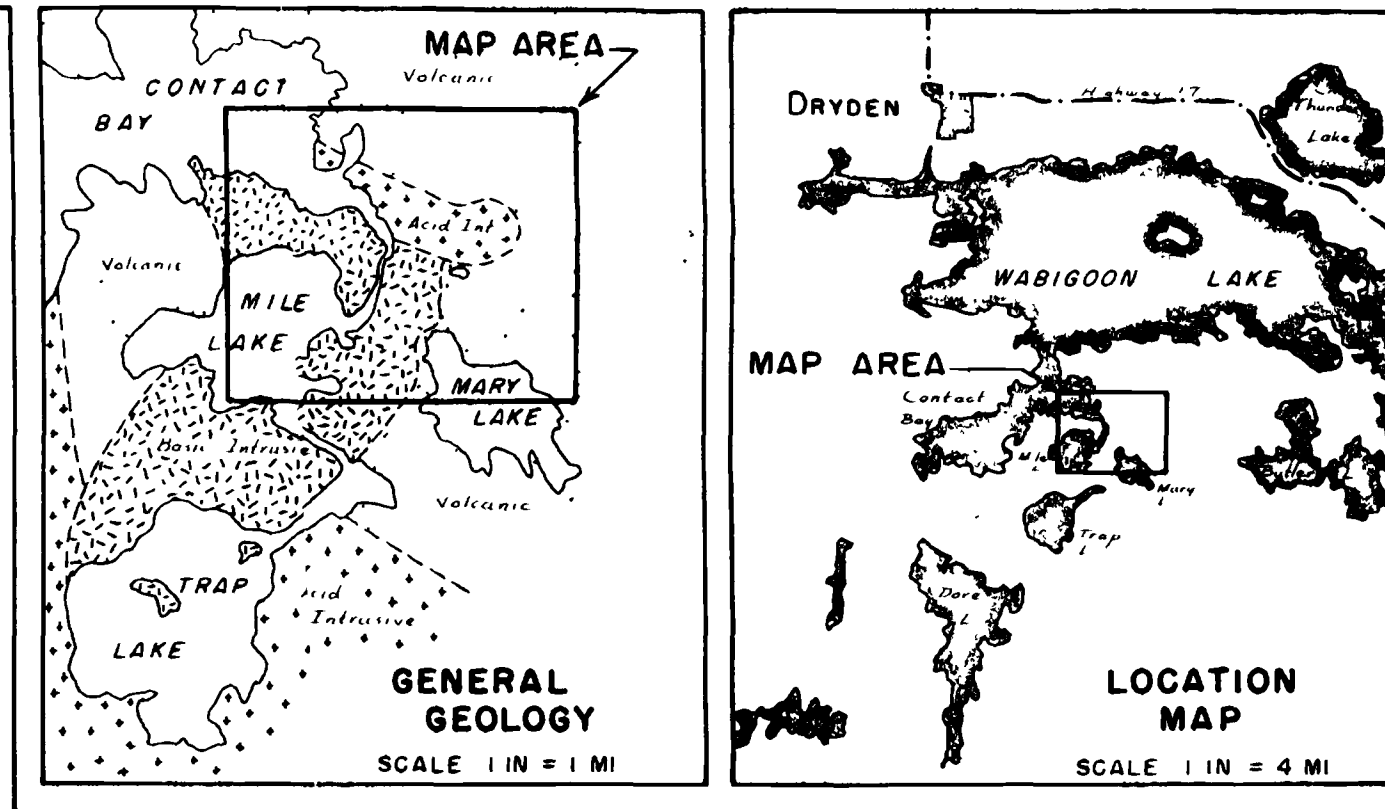
NATIONAL TOPOGRAPHIC SERIES 52 F 10

PLAN NO. **M.2723**

ONTARIO  
DEPARTMENT OF MINES  
AND NORTHERN AFFAIRS

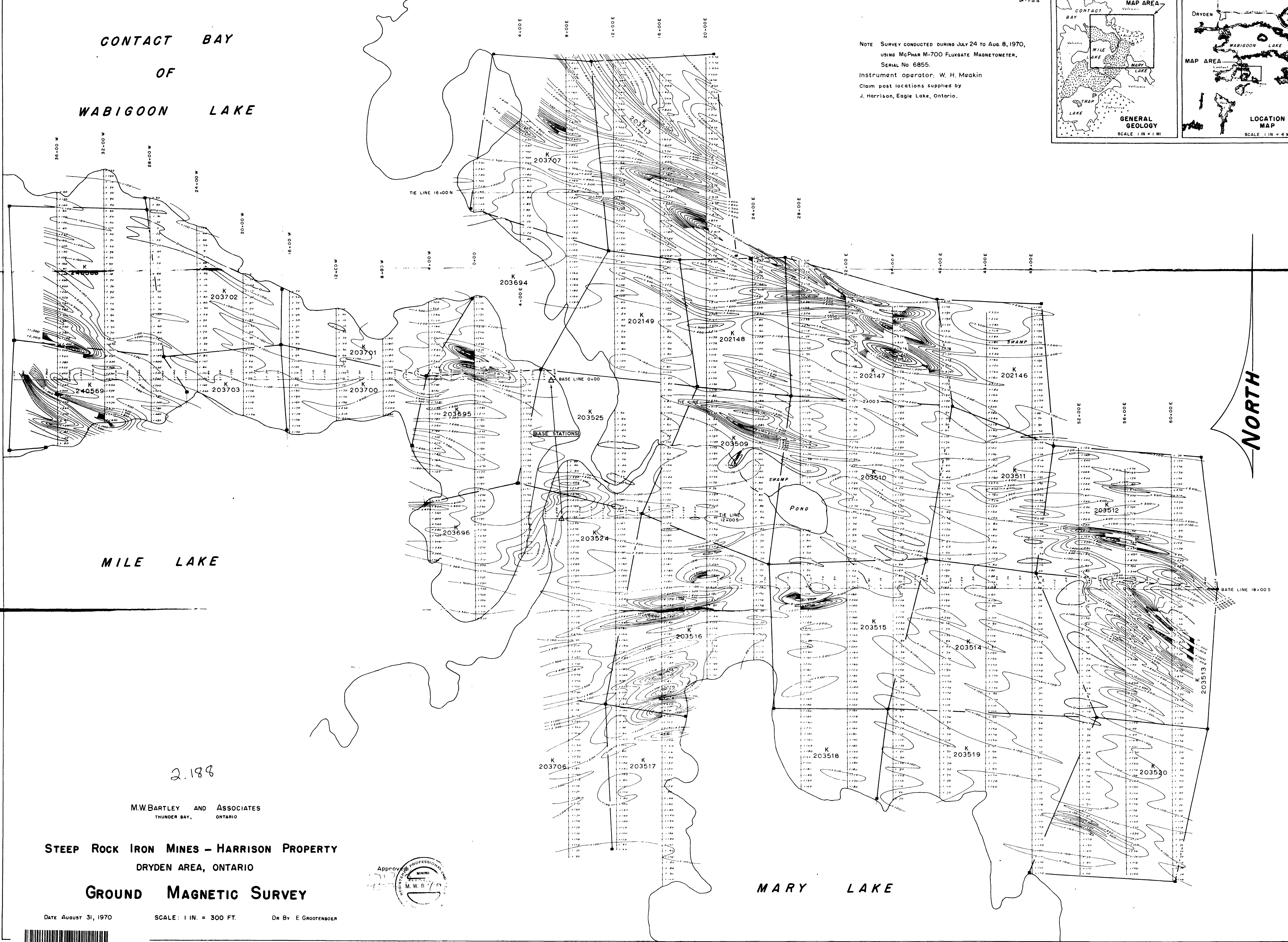
WABIGOON LAKE  
INDIAN RESERVE  
NO. 27





NOTE SURVEY CONDUCTED DURING JULY 24 TO AUG. 8, 1970,  
 USING MCPHAR M-700 FLUXGATE MAGNETOMETER,  
 SERIAL No 6855.  
 Instrument operator: W. H. Meakin  
 Claim post locations supplied by  
 J. Harrison, Eagle Lake, Ontario.

CONTACT BAY  
 OF  
 WABIGOON LAKE



MILE LAKE

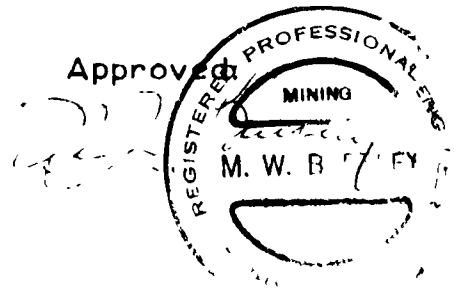
MARY LAKE

2.188

M.W. BARTLEY AND ASSOCIATES  
 THUNDER BAY, ONTARIO

STEEP ROCK IRON MINES - HARRISON PROPERTY  
 DRYDEN AREA, ONTARIO

GROUND MAGNETIC SURVEY



Date August 31, 1970

SCALE: 1 IN. = 300 FT.

DR BY E. GROOTENBOER

