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PROJECTS
SECTION



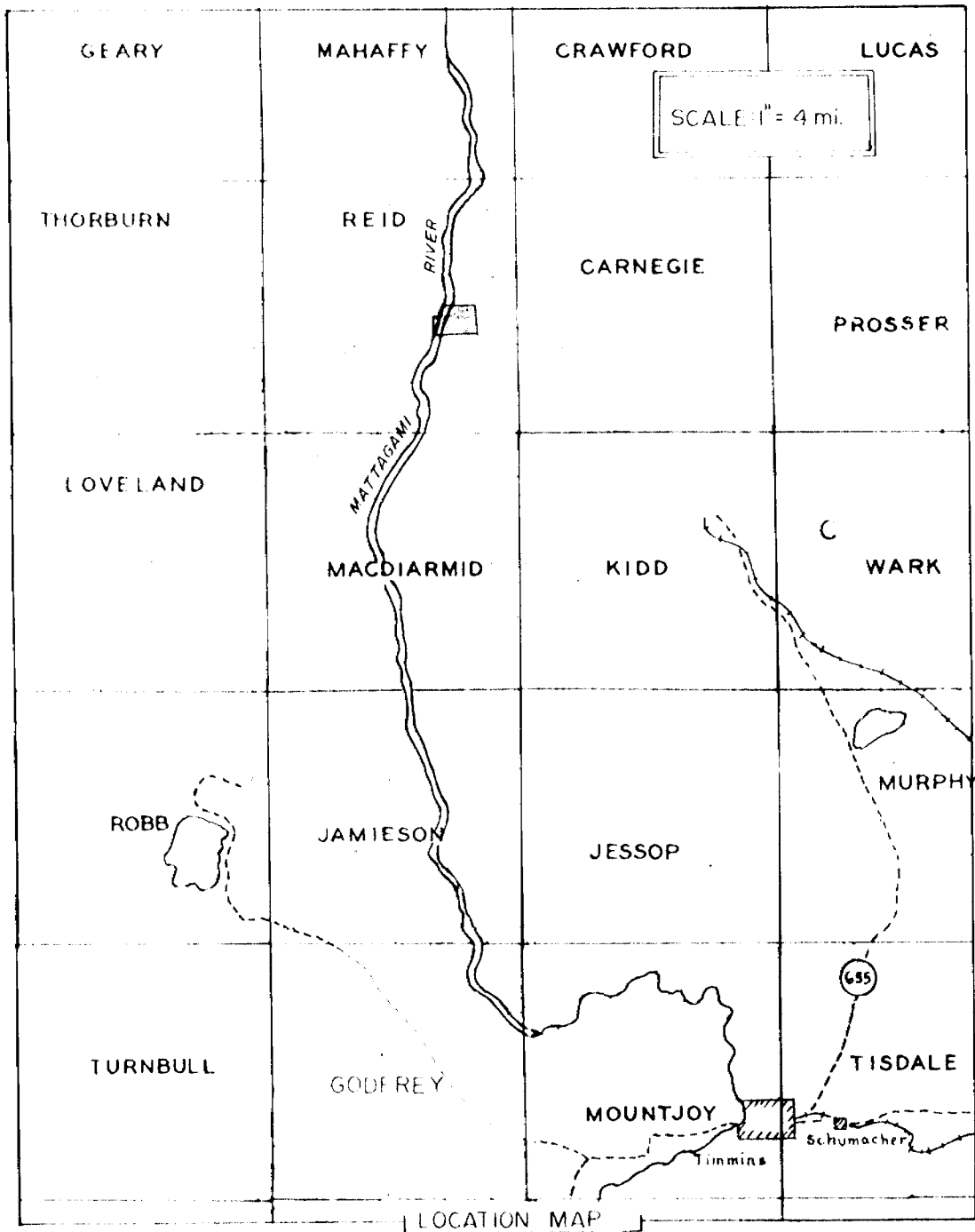
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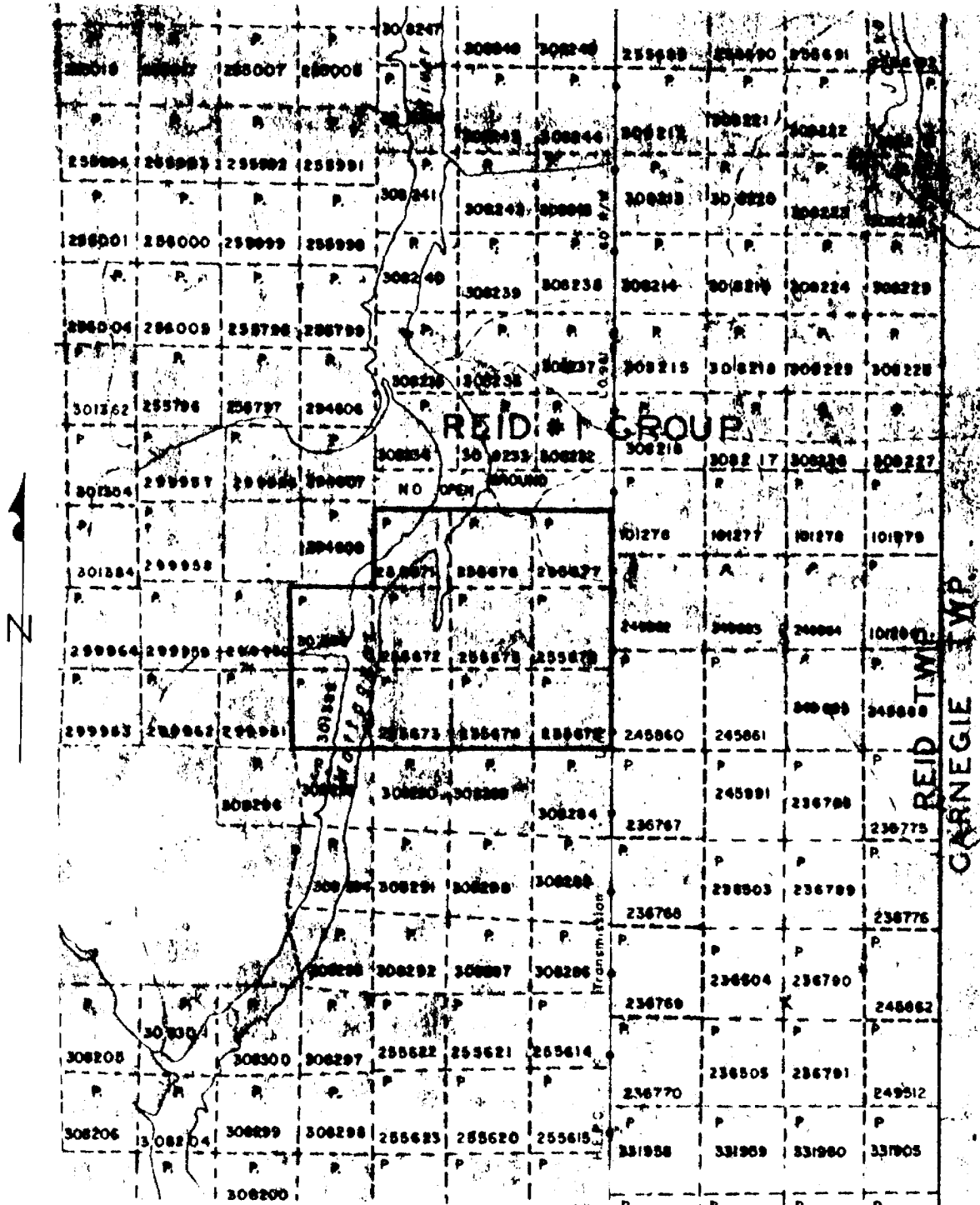
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REPORT
ON A
GEOMAGNETIC SURVEY
REID #1 GROUP
REID TOWNSHIP, ONTARIO

Hollinger Mines Limited

June 20, 1972





CLAIM MAP
SCALE: 1 INCH TO 2640 FEET

SUMMARY

During the winter months of 1971 and 1972, a reconnaissance magnetic survey was performed on a property of eleven claims in the northeast part of Reid Township in the Porcupine Mining Division.

The survey successfully outlined significant aspects of the subsurface geology and thereby contributes to the geological interpretation of the area.

INTRODUCTION

This report on a geophysical survey over Hollinger Mines Limited Reid #1 group of claims is submitted in compliance with the assessment requirements of the Ministry of Natural Resources of Ontario. The author planned the survey, supervised the field crews and presented the field data.

The survey was initiated in January 1971 when Frank Warne of the Timmins area, under contract with Hollinger Mines, cut a grid of lines over all the claims. Lines spaced 400 feet were cut and chained from a base line bearing 308 degrees and originating from a point along a power line at 2.7 miles north of the Reid and Macdiarmid Township boundary. Across the Mattagami River another parallel base line was established for 800 feet to provide coverage over two westerly claims.

On March 3, 1971, D. Desjardins, an employee of Ingamar Exploration Limited of Timmins, also under contract with Hollinger Mines, took magnetometer reading along lines 32N, 28N, 24N and 20N to cover the central part of the property. The instrument used was a McPhar M-700.

The remainder of the property was covered by the magnetic survey during March of 1972 after lines across the Mattagami River had been re-surveyed. R. Collins, another local contractor, completed the work using an A.B.E.M. MZ-4 torsion wire magnetometer. Mr. R. Collins' operator was Y. Collins. At this time, magnetic base stations were established at every point where a picket line intersects a base line by reading repeated closed loops from a main base at 00/00. All magnetometer readings including those taken in 1971 were reduced for drift and diurnal variations from these bases.

PROPERTY, DESCRIPTION and LOCATION

Reid #1 Group consists of eleven contiguous claims acquired by staking. Claims P.255671 to 255679 inclusive were recorded on May 14, 1970, while P.301385 and P.301386 were recorded on December 4, 1970. All claims have been subsequently registered

in the name of Hollinger Mines Limited.

The group straddles the Mattagami River and extends east to the powerline that links the hydro dam at Sturgeon Falls in Mahaffy Township to the Town of Timmins; 20 miles to the south east. The property approximately covers the north half of lots 3 and 4 in concession 3, the south part of the south half of lot 3 in concession 4 and the south east quarter of the south half of lot 4 in concession 4 of the abandoned subdivision.

ACCESSIBILITY

The property is most readily accessible by highway 629 north of Timmins. A rural road leads west in Mountjoy Township for 3 miles to an unimproved road that follows the powerline to the power dam. Along this road, it is 13 miles to the property. The road is maintained clear of snow throughout most of the winter but is passable only by tractor for the rest of the year except during very dry summer periods when trucks can be used. The Mattagami River is navigable up to the property from Sandy Falls also in Mountjoy Township and 5 miles from Timmins along good rural roads.

HISTORY

Following the discovery of the Kidd Creek deposit in Kidd Township in 1964, much of the land in the northeast part of Reid Township was staked and explored by successive operators. A comprehensive summary of these operations is available on the recently released Preliminary Map P-700 titled Reid Township and published by The Ministry of Natural Resources of Ontario.

In early 1970, an airborne electromagnetic survey (Questor "Input") was flown for Hollinger Mines and associates. Acquisition of the property was a direct result of this survey.

In the winter of 1971 the property was first examined using magnetic and electromagnetic methods. Although a grid of lines was cut over the entire property, only four center lines

were profiled by geophysics. A fair to good ground electro-magnetic response was detected and latter tested by diamond drilling later in 1971. The drilling results were filed with the Ontario Resident Geologist's office in Timmins (file T-560)

GEOLOGY

From work to date, the underlying rocks in the North-eastern part of Reid Township are known to be composed of acid to basic lavas, of the early Precambrian, younger mafic and ultramafic sills and precambrian diabase dikes. Outcrops are scarce in the entire township but fortunately two areas of exposed rocks are near the group. Half a mile south of the property along and west of the power line there are several small outcrops of andesite and rhyolite. On the west side of the Mattagami River one mile west of the west boundary there is a larger outcrop of basic flow and intrusive rocks.

For the best approximation of the subsurface geology, again the reader is referred to the interpretation of Reid Township by E.G. Bright, printed with the previously mentioned map (Ministry of Natural Resources of Ontario Preliminary Map P.700 Reid Township).

RESULTS

The magnetic survey outlined three zones of high magnetic intensity that are believed to represent diabase dikes striking 10 degrees west of north. The most easterly of these displays the strongest magnetic relief, from below 800 gammas to just above 2000 gammas. In the southern part of the property two zones of 300 to 400 gammas above background display a general east-west trend. Elsewhere, low magnetic relief suggests that the rocks strike parallel to the base line. East of the most easterly dike the rocks appear to be of lower intensity.

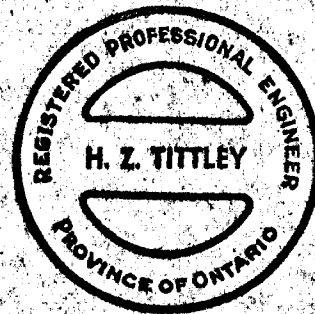
CONCLUSIONS

This survey was successful in outlining the presence of diabase dikes on the property. This information alone was of great assistance during the drilling operations and any future testing of the electromagnetic anomalies.

HOLLINGER MINES LIMITED

H. Z. Tittley, P. Eng.

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Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 532 Number of Readings 531
Station interval 100 feet
Line spacing 400 feet
Profile scale or Contour intervals 25, 50, 100, 200, 300 and 500 gamma intervals.
(specify for each type of survey)

MAGNETIC

Instrument McPhar M-700 and A.B.E.M. MZ-4 Serial No. 4599
Accuracy - Scale constant M-700 20 gammas/S.D. - MZ-4 10.1 gammas/S.D.
Diurnal correction method Return loops to control base line.
Base station location Government base, Bristol-Ogden Township boundary
= 945 gammas (base carried).

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

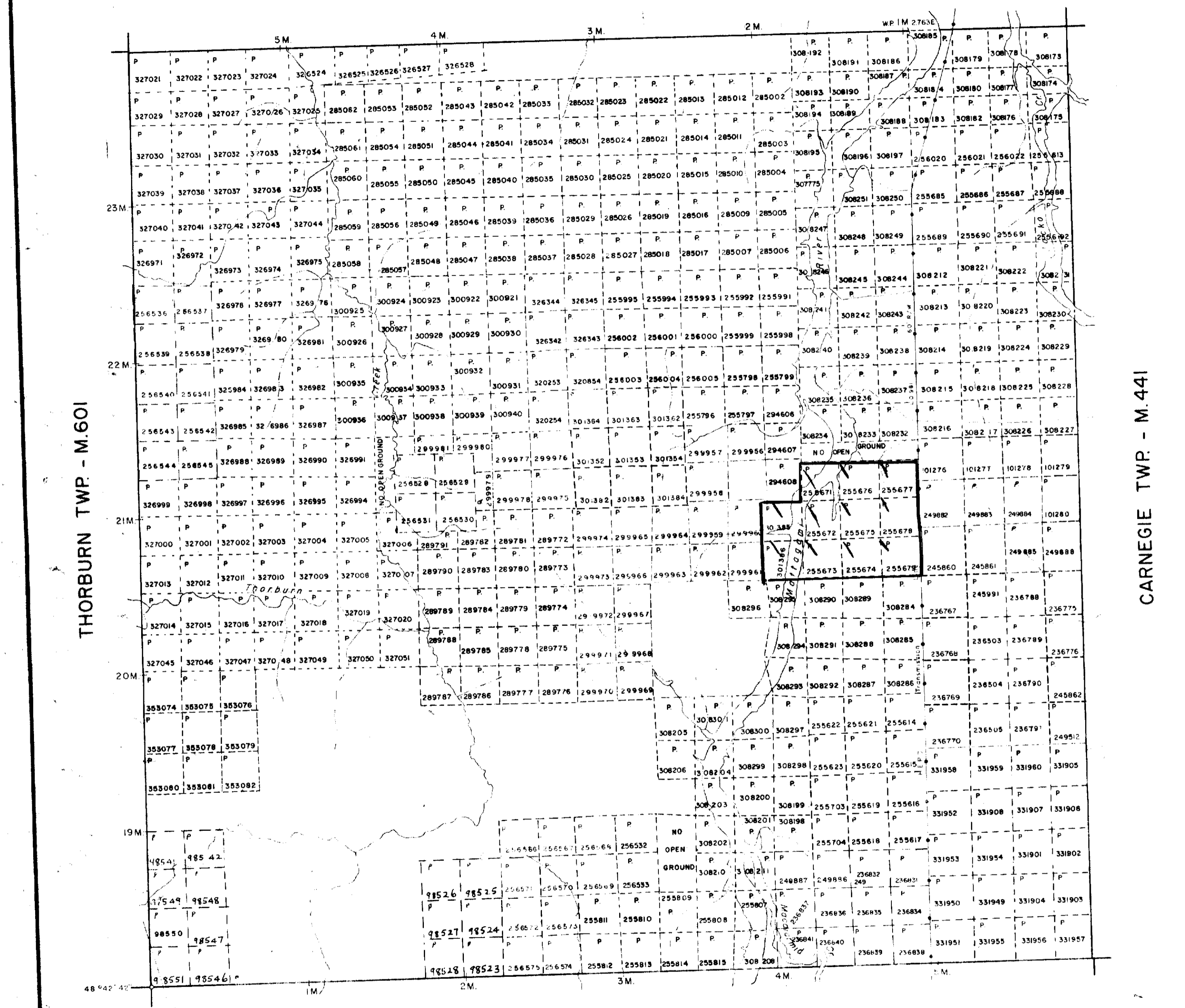
Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

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

MAHAFFY TWP. - M.540



THE TOWNSHIP OF

REID

DISTRICT OF COCHRANE

PORCUPINE 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 (—)

NOTES

400' surface rights reservation around all lakes and rivers.

Subdivision of this twp into lots and concessions annulled Aug. 19, 1953

Flooding rights to areas along Mattagami River reserved to HEPC. - L.O 7085

DATE OF ISSUE
 JUN 30 1972
 ONT. DEPT. OF MINES AND NORTHERN AFFAIRS

PLAN NO. M.575

ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

2.910

2.110

M.540

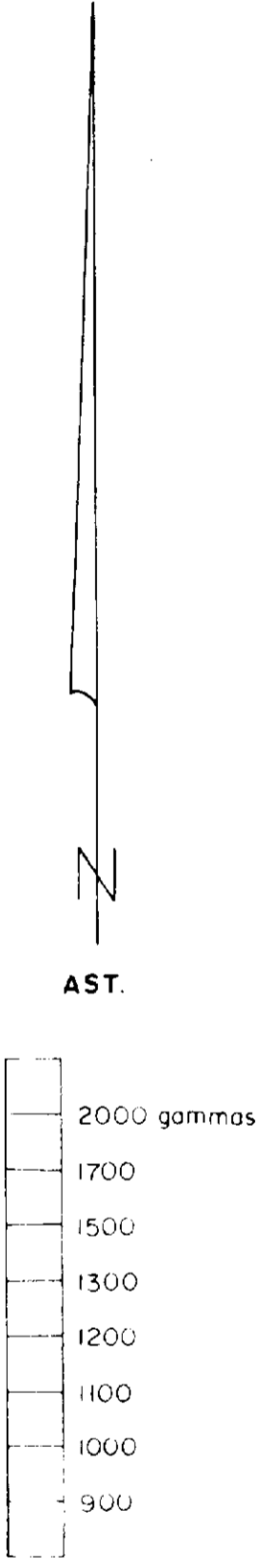
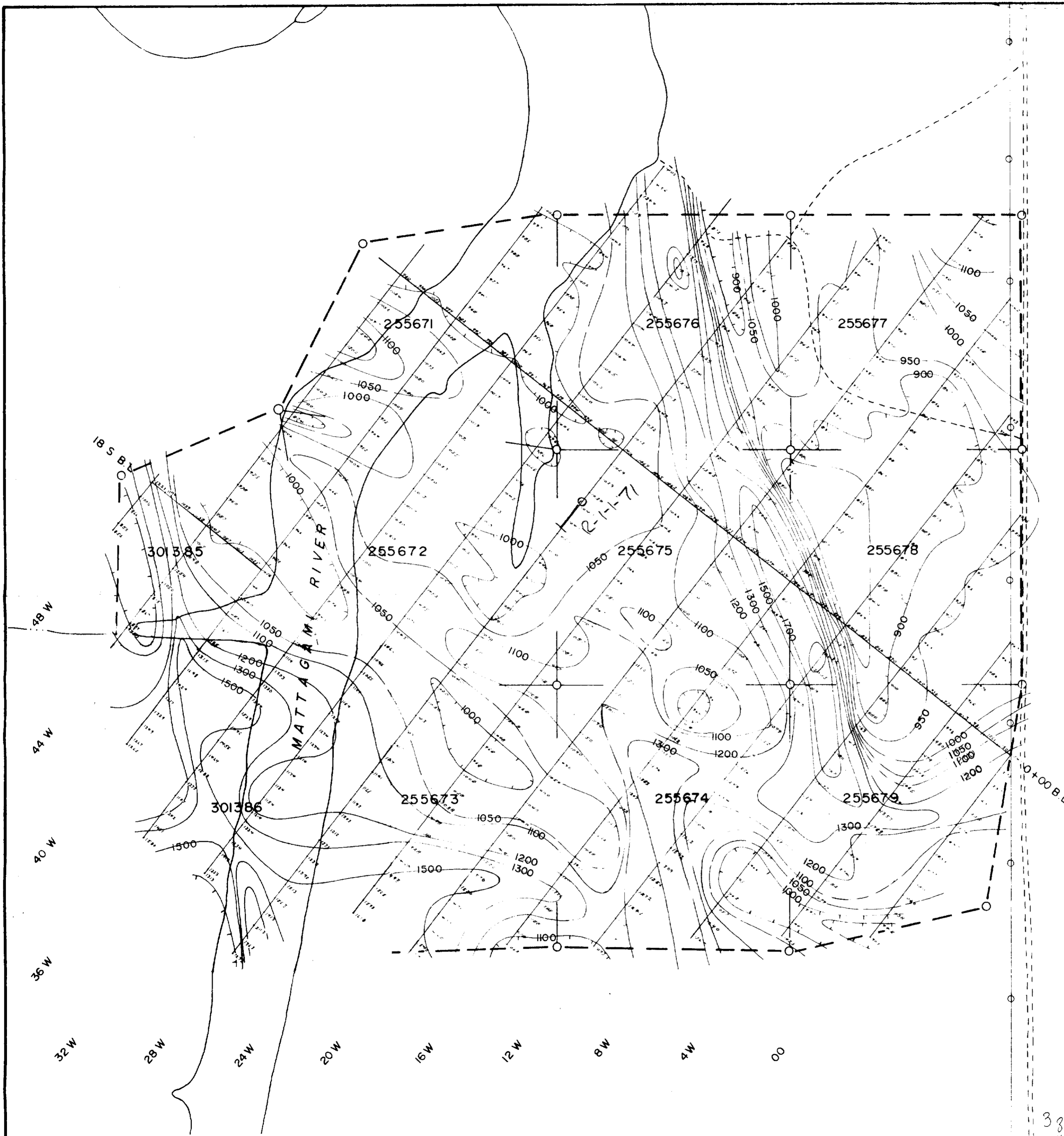
M.540

REID TWP

REID TWP

M.540





REID GROUP No.1
 GEOMAGNETIC SURVEY
 REID TWP
 1" = 400'

H. Z. Tittley P. Eng.
 3 zones of mag. high
 2.910

