



42A13SE0300 2.969 REID

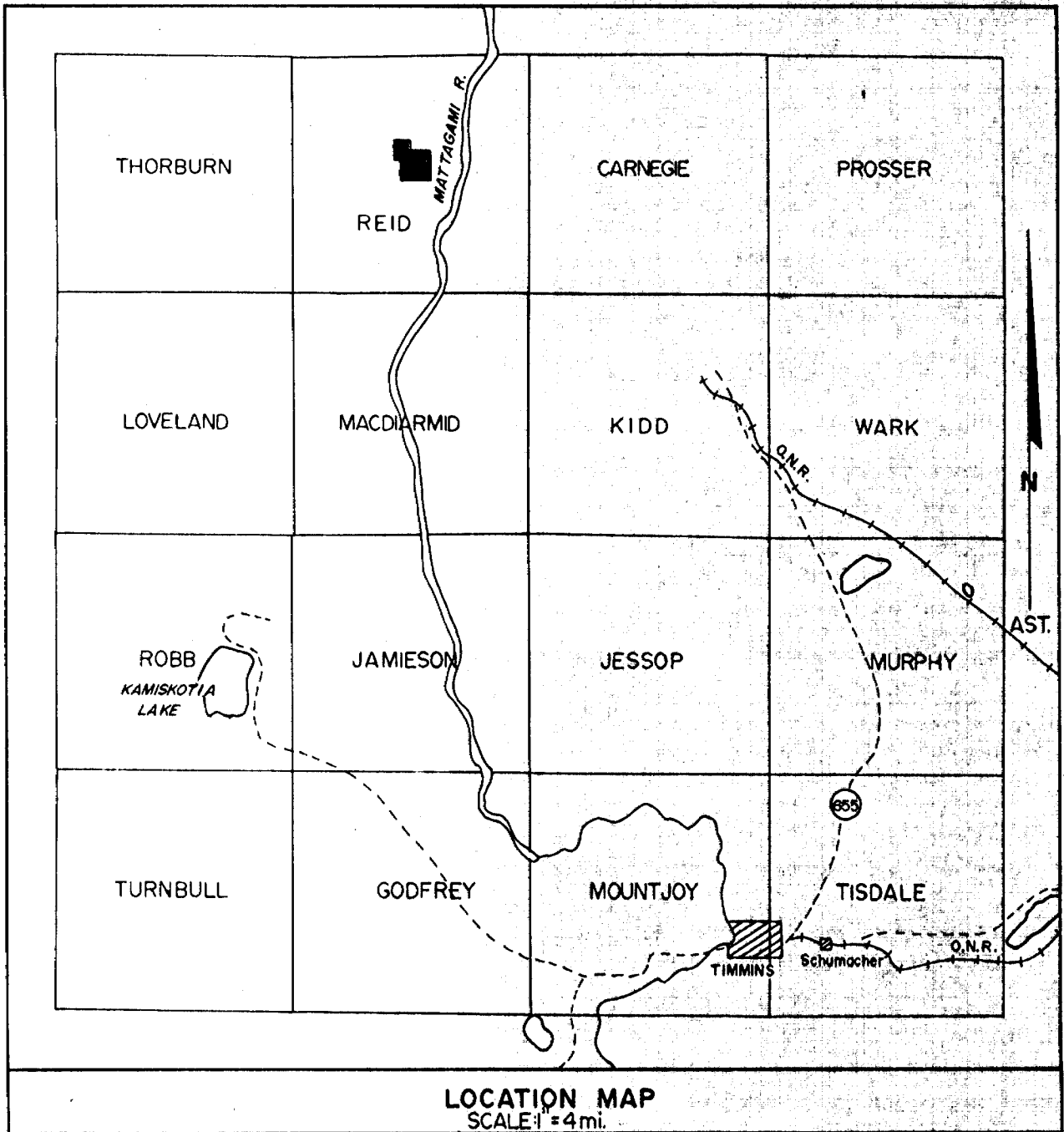
010

PROJECTS
SECTION

GEOPHYSICAL SURVEYS
on the
REID No. 3 GROUP
HOLLINGER MINES LIMITED
Reid Township, Ontario

July 28, 1972

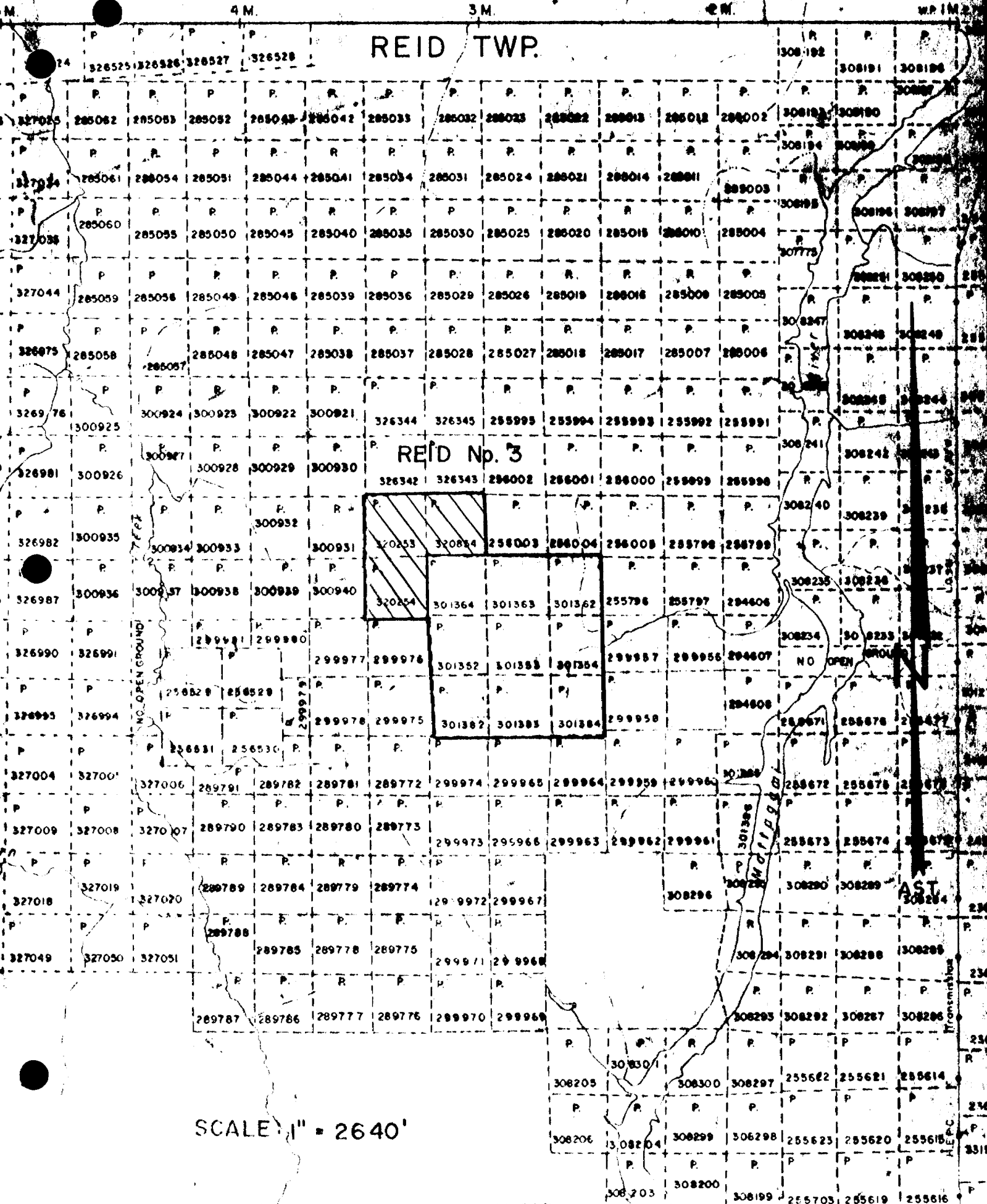
H. Z. Tittley, P.Eng.



MAHAFFY TWP. - M.540

REID TWP.

REID No. 3



SCALE: 1" = 2640'

SUMMARY

Ground geophysical surveys have been completed on three contiguous claims in Reid Township, Ontario.

The only definite conductive anomaly detected was previously tested by drilling and found to be due to sulphide mineralization.

INTRODUCTION

This report, on the results of two geophysical surveys on a portion of the Reid No. 3 Group, is submitted in accordance with the assessment requirements set by the Ontario Ministry of Natural Resources. The author supervised the field crew and interpreted the results.

During the winter of 1972, a grid of lines was established and surveyed using ground magnetic and horizontal-loop electro-
magnetic methods.

Information about the area of the property is available through the Ministry of Natural Resources from the following documents:

- 1) Assessment file T-787 Mespi Mines Limited
- 2) " " T-1189 Mercury Chipman
- 3) " " T-1008 Duvan Copper
- 4) Preliminary Map P-700 Reid Township

PROPERTY, DESCRIPTION and LOCATION

Hollinger Mines Limited Reid No. 3 Group was expanded by the addition of three claims in June 1971. These claims are: 320253, 320254, and 320854.

The property is situated in the center of Reid Township, Porcupine Mining Division. It lies west of the Mattagami River and 20 miles northwest of the Town of Timmins.

ACCESSIBILITY

The claims are accessible via the Mattagami River from Sandy Falls in Mountjoy Township, 5 miles northwest of Timmins.

The river is navigable even for smaller barges for the 17 miles. Land transportation is possible only by tractor roads through Loveland and Thorburn Townships from the end of highway 576 in Robb Township. On the property there is a clearing suitable for helicopter flights.

HISTORY

A comprehensive summary of the previous exploration work in the central part of the Township is available from the above list of information.

GEOLOGY

Two outcrops occur on the claims and are shown on the accompanying plans. From the government map, the outcrop situated in the south part of claim 320253 is shown to contain intermediate lavas along the north side in contact with acid lavas to the south. The three drill holes, immediately south of the outcrop, intersected acid to intermediate lavas. Elsewhere, conductive clays blanket the bedrock.

SURVEY METHODS

Linecutting:

The required grid of picket lines was surveyed from a base line bearing 267 degrees and originating from a point 2000 feet north of the main base line along section 28W. Picket lines were cut 400 apart normal to the base line and extended to cover the entire property. Stations were established at every 100 feet over a total of 3.52 miles of lines.

Magnetics:

All the lines were read at a station interval of 100 feet or less with a tripod-mounted torsion-wire magnetometer capable of measuring the vertical component of earth's magnetic field. Diurnal and instrument drift variations were recorded by frequently repeating previously established magnetic bases

at the intersections of the base line and cross-lines. These variations were subtracted from the readings and an arbitrary value of 945 gammas for the Ogden-Bristol government base, transported to the grid, was added to complete the corrections in gammas.

Electromagnetics:

The electromagnetic survey was conducted over the same grid at a station interval of 100 feet or less with the transmitter and receiver coils 400 feet apart. The readings were recorded at the station midway between the coils.

RESULTS

Magnetics:

The results of the magnetic survey show a total relief of 750 gammas from a low of 825 to a high of 1574 gammas. All the magnetic features are believed to represent north trending diabase dykes of varying thicknesses.

Electromagnetics:

The results of the electromagnetic survey are complicated by changes in the thickness and possibly the conductivity of the clays within the overburden. Only one conductive anomaly is interpreted on the accompanying plan. The conductor extends into the nine claim portion of the group. Across claim 320254 the anomaly was tested with three drill holes six years earlier and found to contain pyrite, pyrrhotite and chalcopyrite mineralization of sub-economic grade.

CONCLUSIONS and RECOMMENDATIONS

No new conductive zones have been detected by these investigations.

Further work is ~~not~~ recommended at this time.



H. Z. Tittley P. Eng.

H. Z. Tittley, P. Eng.

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

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____
(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

ELECTROMAGNETIC

Instrument Geonics EM-17

Coil configuration Horizontal Co-Planar

Coil separation 400 feet

Accuracy Real \pm 1%; Imaginary \pm 3%

Method: Fixed transmitter Shoot back In line Parallel line

Frequency In-phase (Real) and Out-of-phase (Imaginary)
(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 _____

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

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 161 Number of Readings 287
Station interval 100 feet
Line spacing 400 feet
Profile scale or Contour intervals 25, 50, 100, 200, 300 and 500 gammas
(specify for each type of survey)

MAGNETIC

Instrument A.B.E.M. MZ-4 Serial No. 3599
Accuracy - Scale constant 10.1 gammas per scale division
Diurnal correction method Return loops to magnetic base lines
Base station location Bristol-Ogden Township, O.D.M. base = ~~95~~ 945 gammas
JAM

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

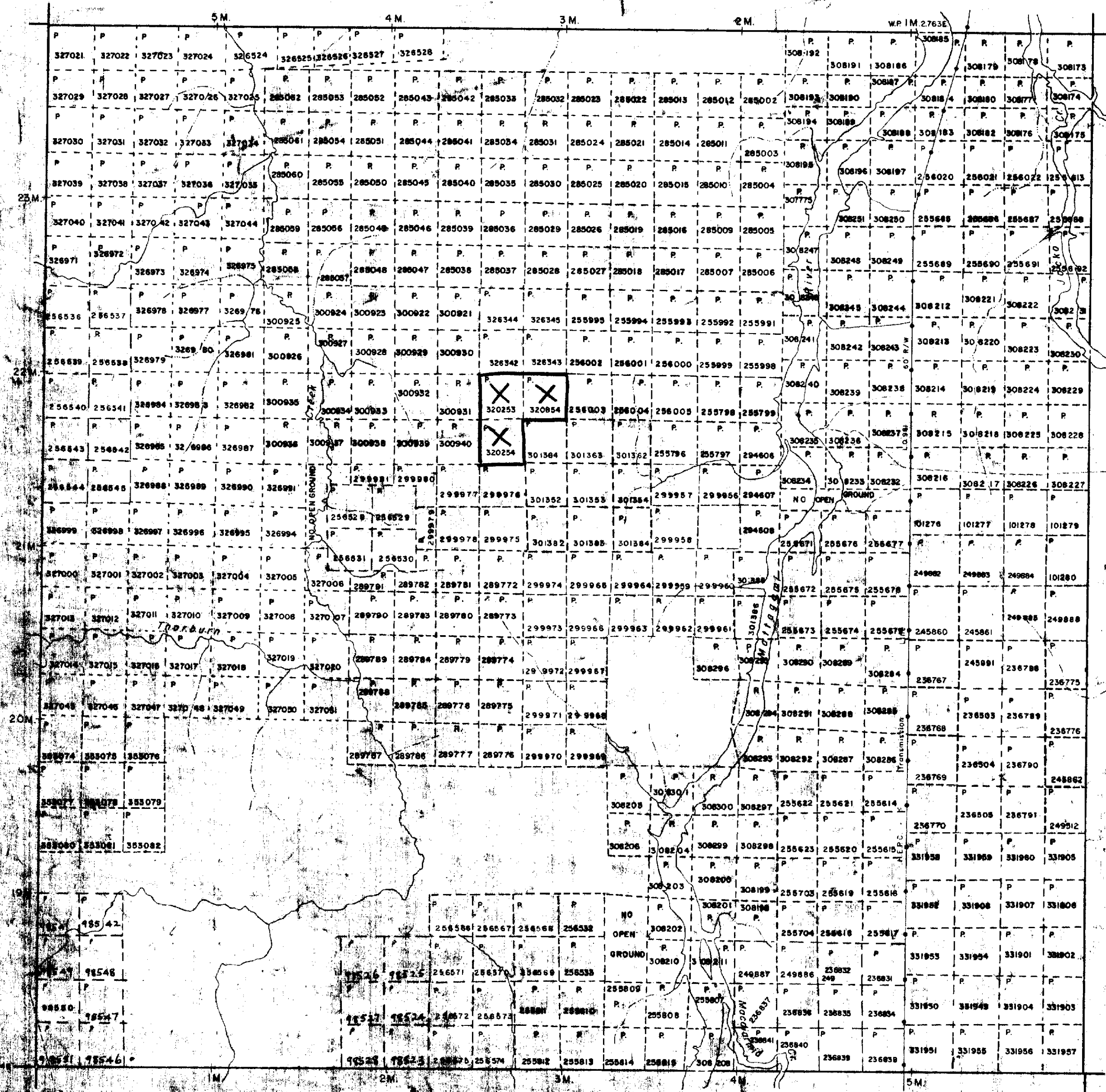
Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

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 Ⓢ
- 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 C.

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
AUG 4 1972
ONT. DEPT. OF MINES
AND NORTHERN AFFAIRS

PLAN NO. M.575

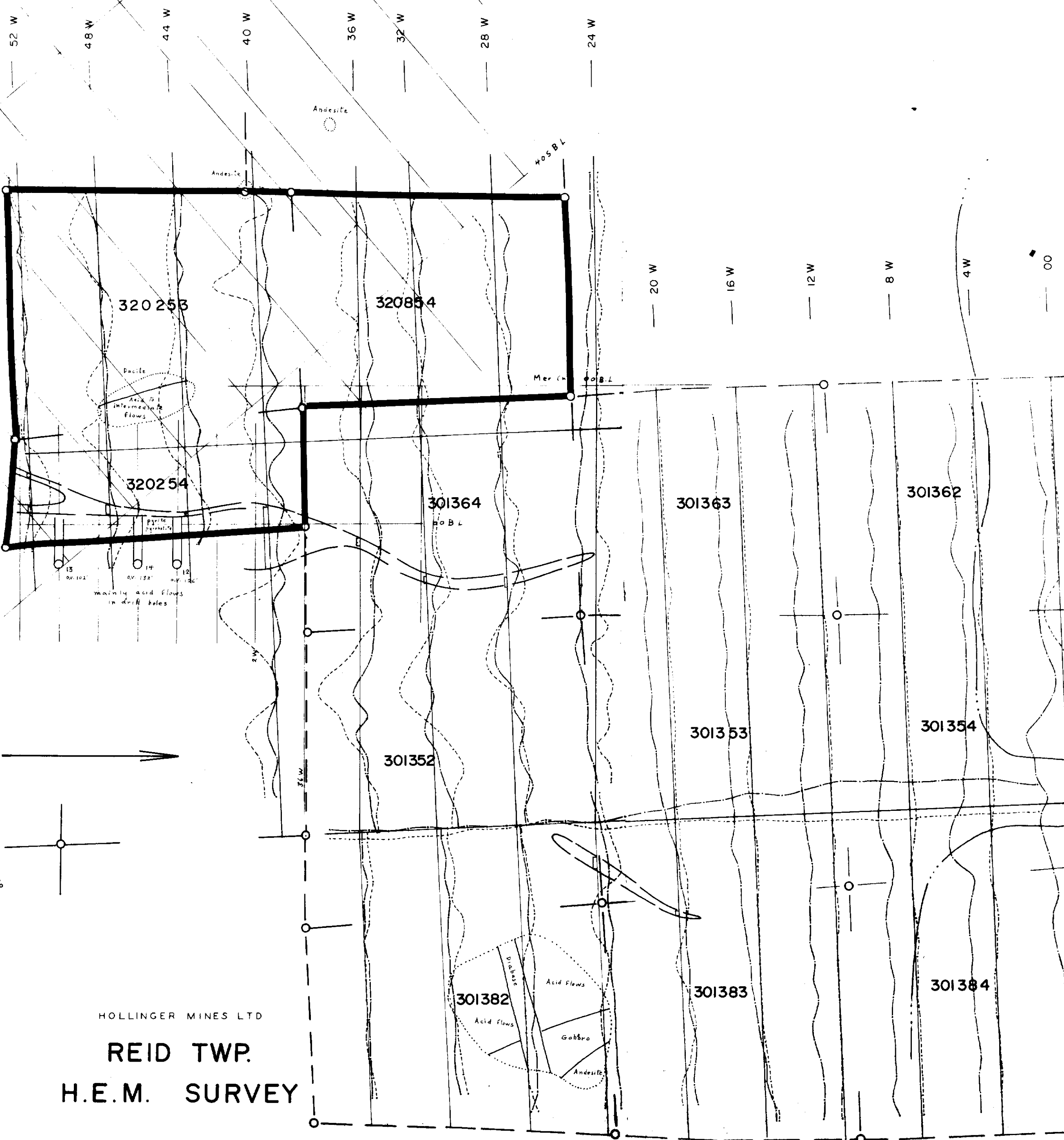
ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

THORBURN TWP. - M.601

CARNEGIE TWP. - M.441

MAGDIARMID TWP. - M.294



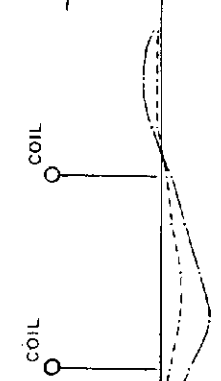


AST.

GROUP No. 3 →

LEGEND

+20% 0 -20%



- GOOD ANOMALY
- FAIR "
- POOR "

HOLLINGER MINES LTD
REID TWP.
H.E.M. SURVEY

SCALE: 1" = 400'

Note: outcrops from field notes
 geology from government maps

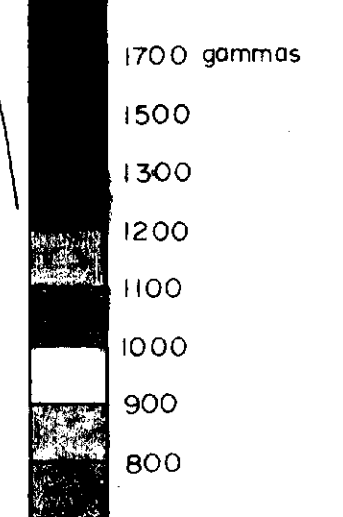
H. Z. Tuttle P. Eng.



NORTHWEST SHEET



CONTOUR INTERVALS:



Base Station Value

HOLLINGER MINES LTD.

GEOMAGNETIC SURVEY

REID TWP

SCALE: 1" = 400'

100 gamma contour ———
 050 " " - - - - -

- Outcrop
- ▬ Diabase Dyke
- Gr - Graphitic Tuff
- M - Gabbro
- Az - Andesite
- C₁ - Dacite
- D₁ - Rhyolite



H. Z. Titley P. Eng.

