



42A13SE0048 83.2187 REID

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INTRODUCTION

During the period from March 17 to May 16, 1966 an electromagnetic survey was carried out on a group of 32 claims located in Thorburn and Reid Townships. The claims are numbered as follows:

P. 82979, P. 82980, P. 85261, P. 85262, P. 85263, P. 85264, P. 86524,
P. 86525, P. 86526, P. 86527, P. 86528, P. 86048, P. 86049, P. 86050,
P. 86051, P. 86052, P. 86081, P. 86082, P. 86083, P. 86084, P. 86492,
P. 90083, P. 90084, P. 90085, P. 90086, P. 90087, P. 90088, P. 90089,
P. 90090, P. 90091, P. 90092, P. 90093.

LOCATION AND ACCESS

The thirty-two claims are located in the northeast portion of Thorburn Township and the northwest portion of Reid Township, Porcupine Mining Division, Ontario. The groups are located approximately eighteen miles northwest of Timmins, Ontario.

The survey was carried out from a semi-permanent camp established on Thorburn lake. The camp was serviced by helicopter from Timmins, Ontario.

PREVIOUS WORK

The claims have been covered by two combined airborne magnetic and electromagnetic surveys.

Canadian Aero Mineral surveys flew the area for B.W. Lang in 1963 and Hunting Mineral Surveys flew the area for Mespi Mines Limited in 1964.

Both surveys indicated the presence of several weak electromagnetic anomalies.

10/11/66

INSTRUMENTS USED AND SURVEY METHOD

A Crone dual frequency transceiver unit was used for the survey. The in-line method and a coil spacing of three hundred feet were employed. Readings were recorded at one hundred foot intervals.

The dip angles shown on the accompanying plan are resultant dip angles and are plotted at the mid-point between the coils.

SURVEY RESULTS

One north striking westerly dipping conductor was established on claim P. 86081 and a second conductor was indicated in the extreme northwest portion of the same claims.

Much of the area in Thorburn Township was found to be anomalous however no anomalous low frequency reading were recorded on this ground.

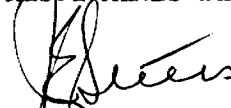
CONCLUSIONS AND RECOMMENDATIONS

Most of the area in Thorburn Township is thought to be covered with conductive overburden hence the anomalous high frequency readings.

It is recommended that the conductive zone on P. 86081 be detailed using dual frequency vertical loop equipment and the fixed transmitter method prior to drilling. It is also recommended that a magnetic survey be carried out over this claim.

Respectfully submitted

MESPI MINES LIMITED



J.E. Steere
Exploration Manager

JES/jf

Crone J.E.M. Unit

The Crone J.E.M. unit makes use of the "shoot-back" method which is designed to eliminate the fictitious dip angles due to coil misalignment in rugged terrain when more conventional methods are employed.

The system required two units each of which is both a transmitter and a receiver. The units are set at a fixed distance apart along the same line and measurements are usually made at 100 foot intervals along the line.

The axis of one coil is oriented towards the other so that the axis is inclined at an angle of 15 degrees below the horizontal. A dip angle is measured at the other coil about a horizontal axis which is perpendicular to the traverse line. The roles of transmitter and receiver are then interchanged. The transmitter is this time oriented 15 degrees above the horizontal and a dip angle measurement is then made at the receiver. In the absence of a conductor the dip angles should be roughly of the same magnitude but opposite in sign. The algebraic sum of the two dip angles is then recorded as the resultant dip angle.

In the presence of a conductor the anomalous field will have the opposite effect upon the dip angles yielding an algebraic result greater or less than zero.

Interpretation of the results is based on the use of type curves.

In the absence of a conductor, resultant dip angles should be approximately zero regardless of substantial elevation differences between the two coils.

The units operate at two frequencies 1800 c.p.s. and 480 c.p.s. Normally only the higher frequency is read however if anomalous dip angles are recorded at 1800 c.p.s. the procedure is repeated using the lower frequency. The ratio of the resultant angles obtained at the two frequencies gives some idea of the conductivity of the conductive body.

ONT. DEPT. OF MINES
MINING LANDS BR.
THIS MAP FOR CHECKING
PURPOSES ONLY - MUST
NOT BE SOLD.

DATE OF ISSUE
APR 11 1967
ONTARIO DEPT. OF MINES

THORBURN

63.2107

PORCUPINE MINING DIVISION
DISTRICT OF COCHRANE

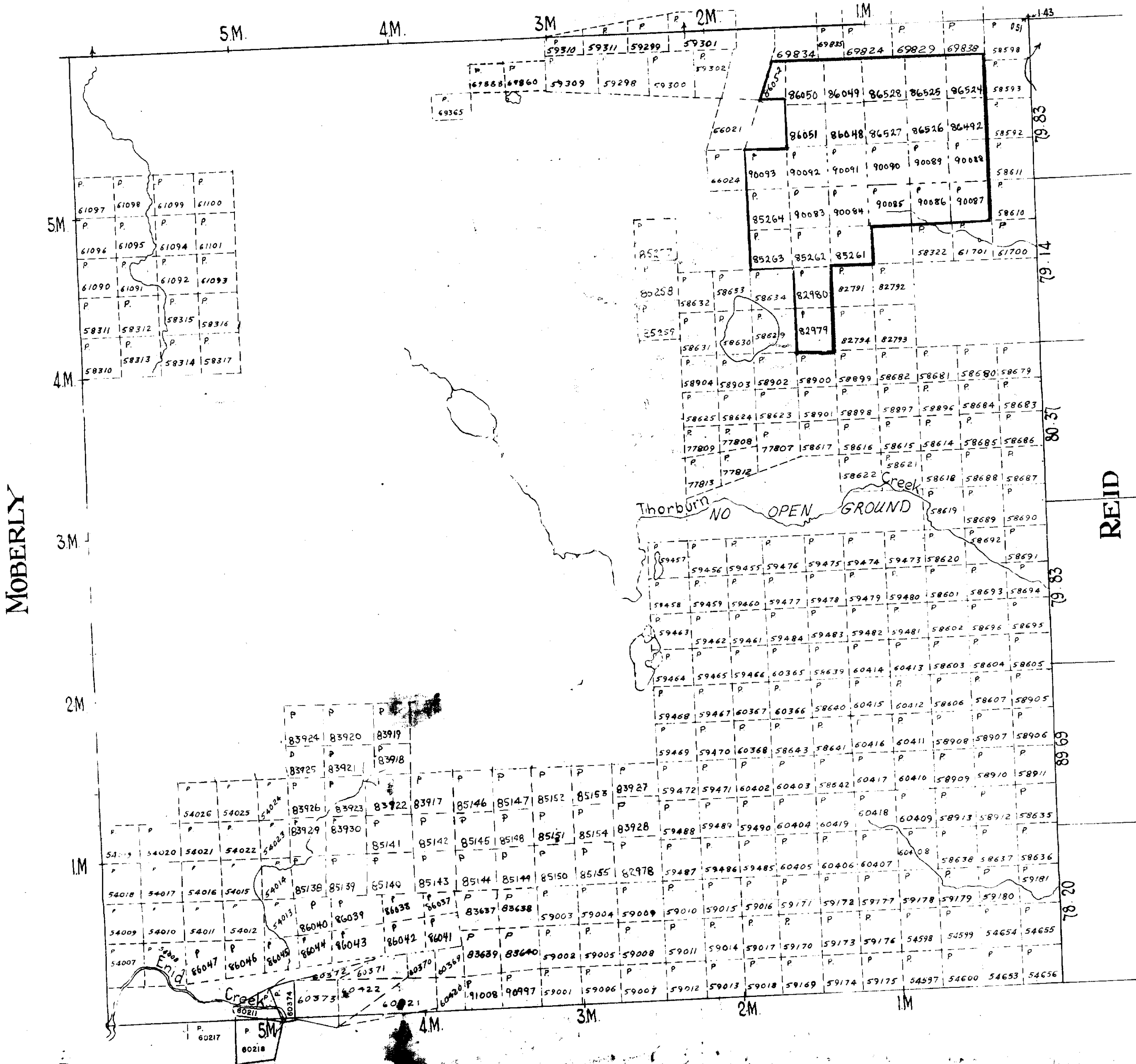
Scale - 40 Chains = 1 Inch

NOTE

400' Surface Rights Reservation
around all Lakes and Rivers.

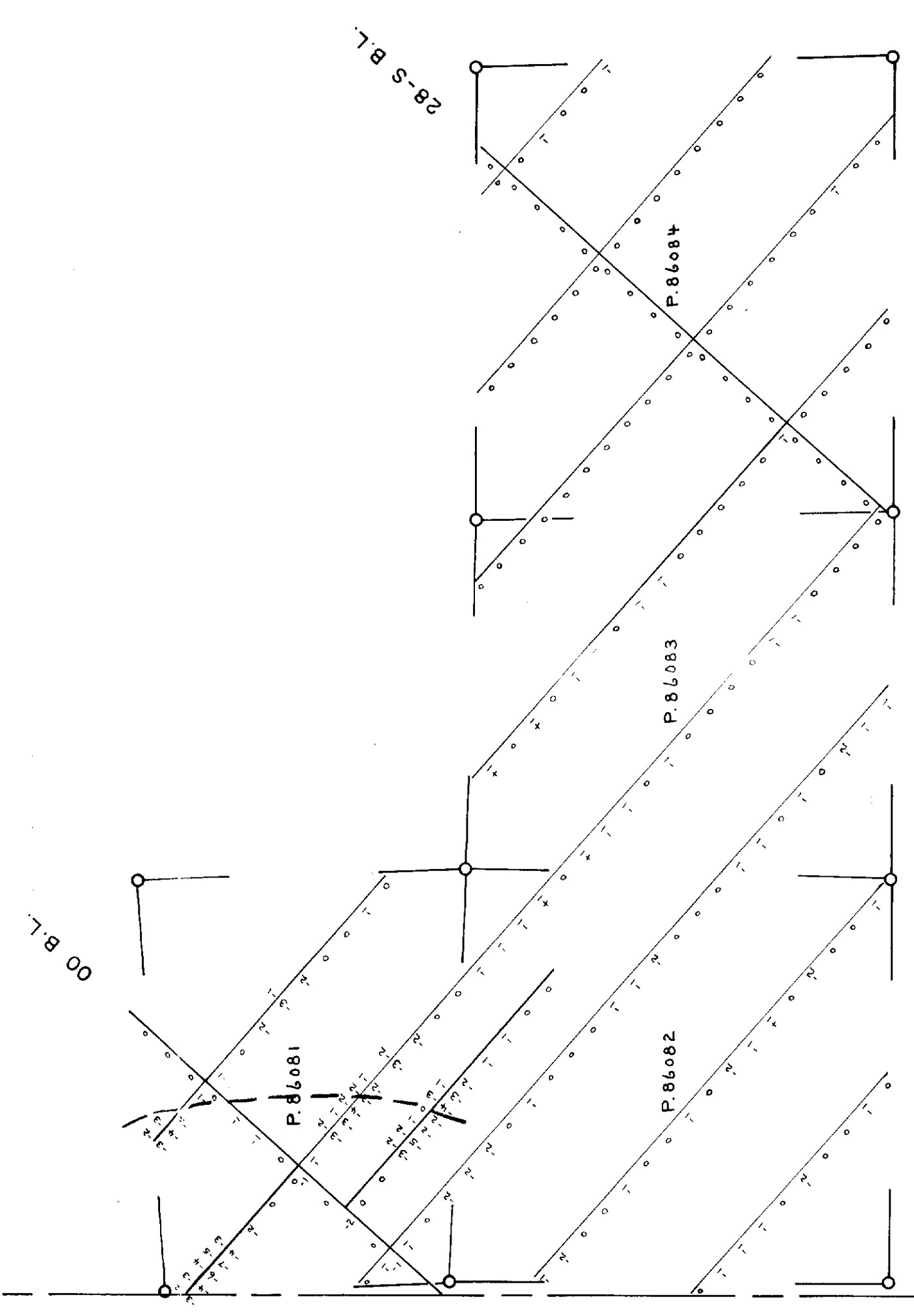
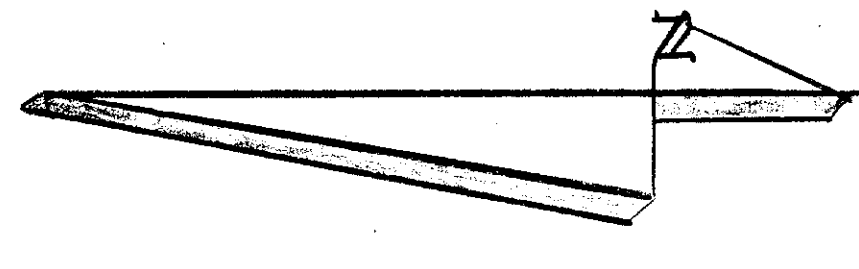
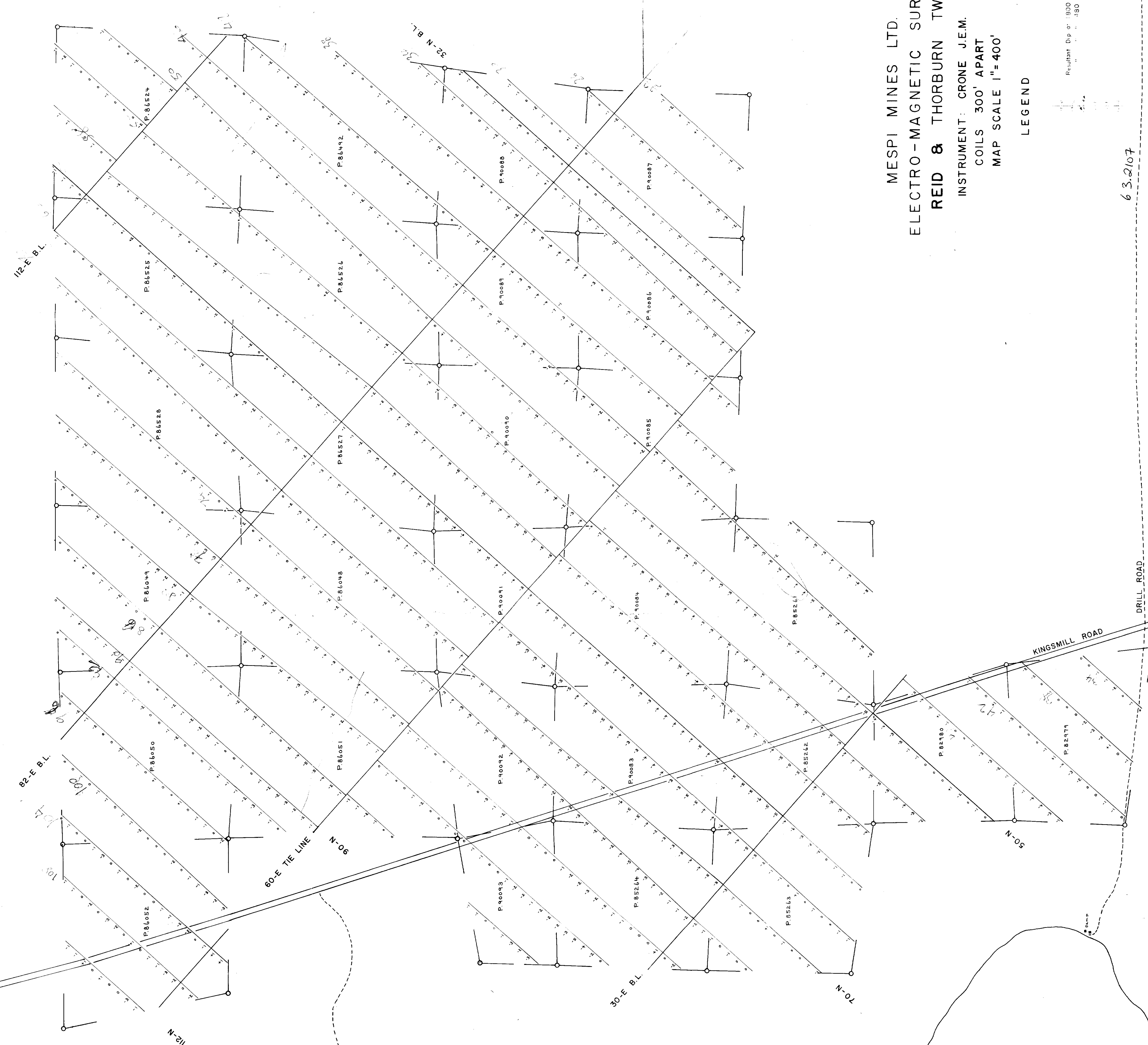
GEARY

NORTH AST



BEARY TWP.
THORBURN TWP.

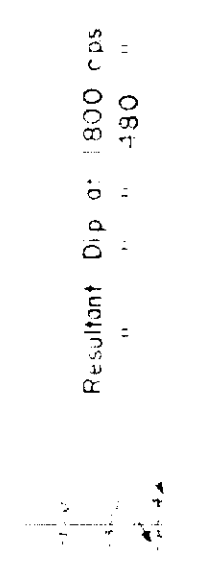
MAHAFFY TWP.
REID TWP.



MESPI MINES LTD.
ELECTRO-MAGNETIC SURVEY
REID & THORBURN TWP.

INSTRUMENT: CRONE J.E.M.
COILS 300' APART
MAP SCALE 1" = 400'

LEGEND



63-2107

Drawn by R. DENOMMEE
Approved by [Signature]

DATE: 1956.07.14

DRILL ROAD

KINGSMILL ROAD

