

42A08NW0080 2.1524 HISLOP

010

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PROJECTS UNIT

GEOPHYSICAL SURVEY

on the

HISLOP #1 GROUP

Hollinger Mines Limited
Hislop Township, Ontario

H. Z. Tittley, P.Eng.

Timmins, Ontario

July 18, 1974

BEATTY TWP.

HISLOP TWP.

6

5

4

3

2

1

VI

HISLOP TWP.

GUIBORD TWP.

IV

III

II

Pike

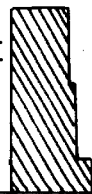
River

372634 372633 1372632

572

Scale: 1" = 40 chains

HOLTYRE



572



INTRODUCTION

Surveys of the total magnetic field and the vertical magnetic gradient have been performed over Hollinger Mines Limited Hislop #1 Group adjacent to its Ross Mine property in Hislop Township, Ontario. The property consisting of three mining claims was examined during the period between July 9, 1973 and March 19, 1974.

The purpose of the survey is to assist in the geological interpretation of the area as part of a continuing gold exploration program.

PROPERTY, LOCATION and ACCESS

The property contains three contiguous mining claims numbered L-372632 to L-372634 inclusive that occupy the south half of lot 1, concession 3 in the township of Hislop, Larder Lake Mining Division.

The east boundary of the property is separated from the adjoining township of Guibord by highway 572 that provides excellent access either from the town of Holtvre 1½ miles to the south or highway 101 three and one-half miles to the north.

HISTORY

Since the discovery of gold in Playfair Township to the south at the turn of the century and the later discoveries in the Porcupine and Kirkland Lake camps, Hislop Township has accumulated quite a history of exploration activities. Specifically, however, the three claims represent the old 'Rysack', 'Guertin' and 'Bush' claims, respectively. In 1938, Hollinger (Ross Mine) completed a diamond drill program consisting of 10 holes totalling 8,216 feet.

The only significant gold assay obtained was 0.36 oz. over a 3-inch stringer in a hole drilled to the southwest in the center of the group.

A number of trenches and pits have been sunk in past years around the outcrops in the north-central part of the group. Assay results are unknown.

GEOLOGY

The claim group lies in an area of Keewatin volcanic lavas intruded by both a variety of basic dykes and sills (many are magnesia-rich) and felsic alkalic sub-concordant sills and small plugs. Thin units of interflow sediments ranging from volcanic tuffs to greywackes and slates have been mapped from outcrops and drilling. These sediments are thought to occur in the upper levels of the stratigraphic sequence.

The area is bounded on the west by the northwesterly-trending Hislop Fault, on the southeast by a set of northeasterly-trending faults in Guibord Township, and on the north by the Porcupine-Destor Fault. The Porcupine-Destor Fault is thought to pass through a series of carbonatized lavas and talc-chlorite and actinolite schists coincident with the general trend of the Pike River on the Hislop-Guibord Township boundary. A wide zone of talc-chlorite schists (probably altered ultrabasics) has been found to strike parallel to the Porcupine-Destor across the New Kelore property, just south of the shaft. This zone may represent a subsidiary of the Porcupine-Destor Fault, or the actual Porcupine-Destor, itself.

Low lying outcrops of andesite and syenite occur in the north part of the center claim. Elsewhere, the overburden consisting mainly of clay and silt is part of a low flat plain covered with alders, poplars and small spruces.

SURVEY METHODS

Linecutting:

During the summer of 1973, the line between concessions 3 and 4 was re-located and surveyed to the west into Hislop Township from the Guibord boundary. From this line referred to as the 00 base line, grid lines 200 feet apart were established in a north-south direction. In March 1974, these lines were extended south across the three claims. At 35S near the south boundary of the claims a tie-line was established to locate the ends of the lines in this area.

SURVEY METHODS continued

Magnetics:

a) Total Field

All the lines across the claims were read at a station interval of 100 feet or less with a G-816 proton precession magnetometer capable of measuring the earth's total magnetic field. Base stations were established along the base line and the 35S tie-line, at the intersections with the lines, by averaging two repeat loops encompassing each of the points. A main base for the whole area was transferred to the 35S tie-line at 2W. Diurnal variations recorded by repeating the bases were subtracted from the readings.

b) Vertical Gradient

Measurements of the vertical gradient were recorded at each station by raising the remote sensing part of the instrument 4 feet and subtracting that observation from the lower one. Some drifting of the vertical gradient was encountered over the long period of time required to complete the survey. The readings were corrected accordingly.

RESULTS

The results of both surveys are plotted and presented as isomagnetic contours on two accompanying plans, entitled 'Magnetic Survey' and 'Magnetic Survey, 4 Ft. Vertical Gradient', at a scale of 1 inch to 200 feet.

From the total field results, the most prominent magnetic feature is the anomaly that extends across the property from the middle of the west boundary to the southeast corner. North of this zone, isolated anomalies ranging in intensities to more than 4,000 gammas suggest inclusions in the volcanic sequence.

The vertical gradient survey successfully outlines the extent of all the magnetic units where the zero gradient contour is a close approximation of the contact edges of the magnetic bodies.

CONCLUSIONS and RECOMMENDATIONS

Additional information about the underlying formations on the property has been revealed by the measurement of two parameters of the magnetic field.

This information should prove valuable in future drilling on this property.

Respectfully submitted,

H. Z. Tittle 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 _____
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 _____

Beatty Twp.

Northern Ontario
Natural Gas
Pipe Line

THE TOWNSHIP
OF 2.1524

HISLOP

DISTRICT OF
COCHRANE


LARDER LAKE
MINING DIVISION

SCALE: 1-INCH= 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	Ⓢ or Ⓞ
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	—
GEODECTIC STATION	△

NOTES

Holtyre Townsite Shown Thus: 

Gravel Reserve Shown Thus: 

400' Surface rights reservation around all lakes and rivers.

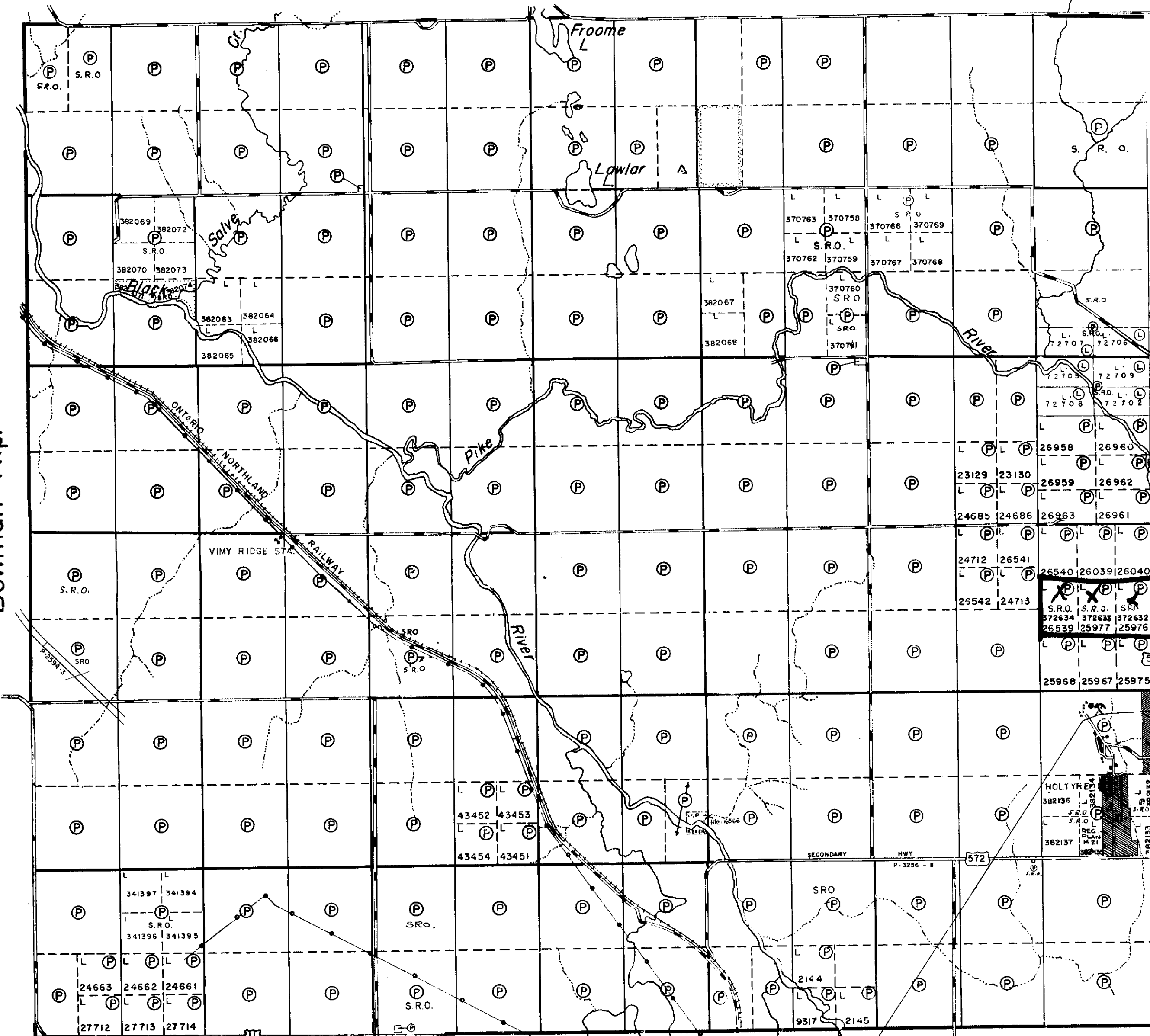
**MINING LANDS -
DATE OF ISSUE**
JUL 25 1974
MINISTRY
OF NATURAL RESOURCES

PLAN NO.- M-355

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Bowman Twp.

Guibord Twp.



VI

V

IV

III

II

I

13 12 11 10 9 8 7 6 5 4 3 2 1

Playfair Twp.



42A0BN0000 2.1524 HISLOP

Lot 2

Lot 1

Lot 12

0+00 Base Line

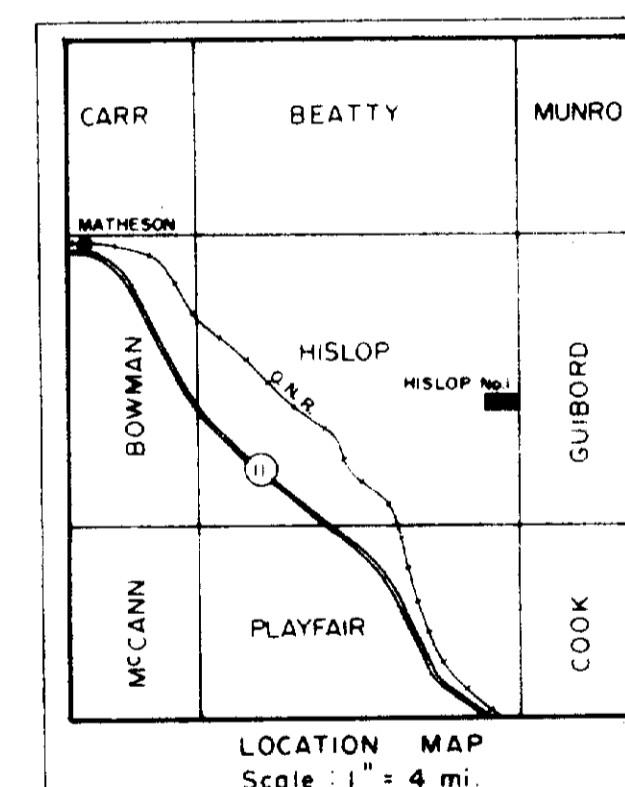
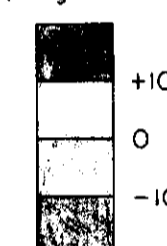
CON. IV
CON. III

HISLOP TWP.
GUIBORD TWP.

HWY. 572

PIKE
RIVER

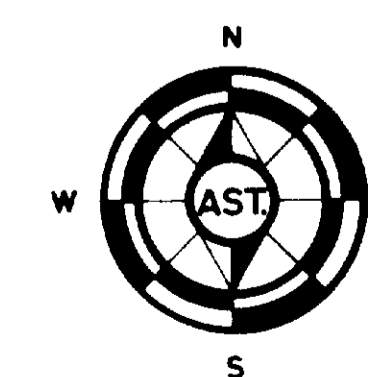
CONTOUR INTERVALS:
(in gammas)



HOLLINGER MINES LTD

HISLOP GROUP No. 1
MAGNETIC SURVEY
4' Vertical Gradient
HISLOP TWP.
DISTRICT of COCHRANE
ONTARIO

Scale: 1" = 200'



H. Z. Tittley P. Eng.

DRAWN BY: WILLIAM B. JOHNSON

W
34 W
32 W
30 W
28 W
26 W
24 W
22 W
20 W
18 W
16 W
14 W
12 W
10 W
8 W
6 W
4 W
2 W
00

220



Lot 2

Lot 1

Lot 12

0+00 Base Line

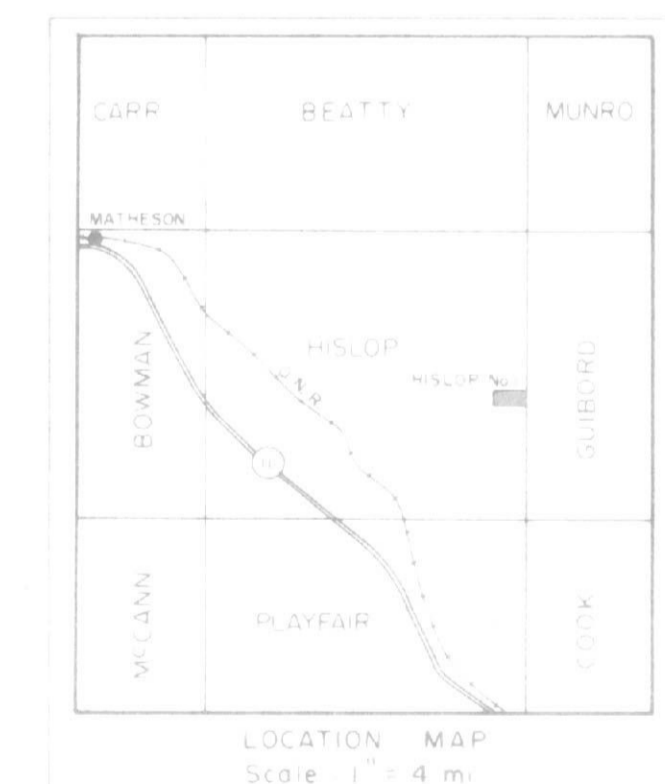
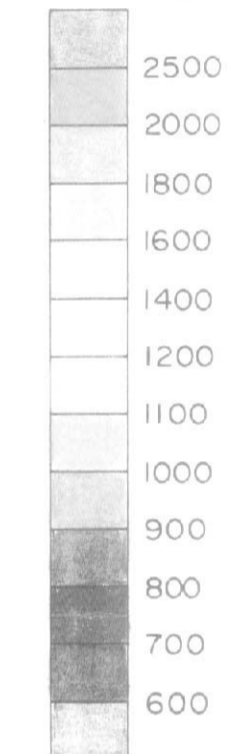
HISLOP TWP.
GUBBORD TWP.

CON. IV
CON. III

HWY. 572

PIKE RIVER

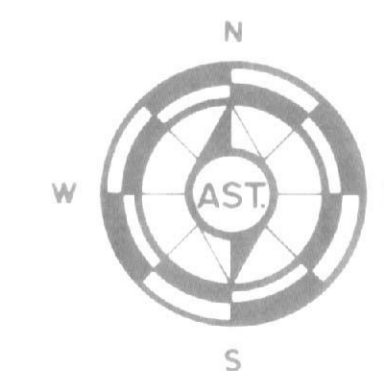
CONTOUR INTERVALS
(in gammas)



HOLLINGER MINES LTD.
**HISLOP GROUP No. 1
 MAGNETIC SURVEY**

HISLOP TWP.
 DISTRICT of COCHRANE
 ONTARIO

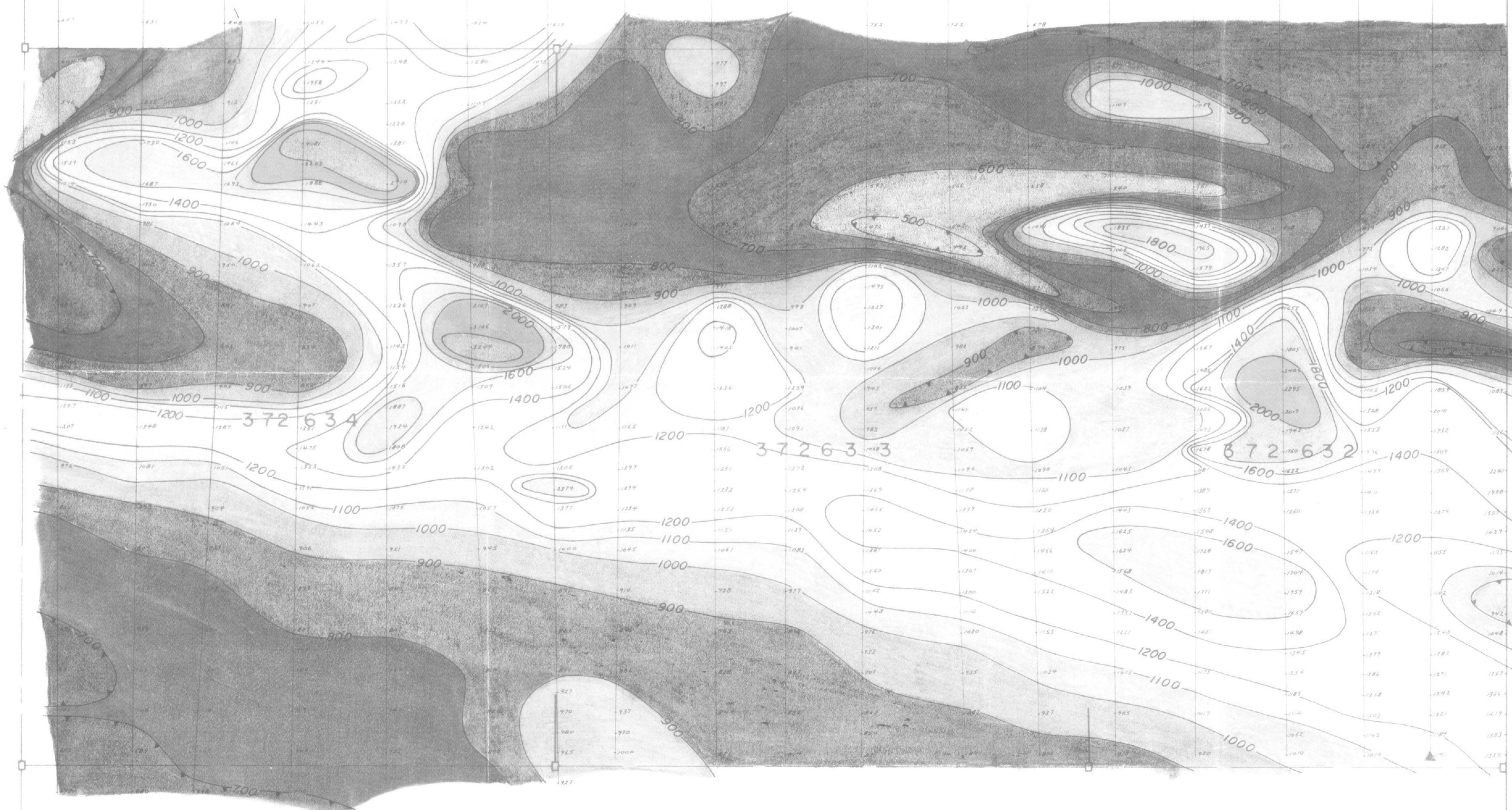
Scale: 1" = 200'



▲ Base Station



H. Z. Titley P. Eng.



5 W 34 W 32 W 30 W 28 W 26 W 24 W 22 W 20 W 18 W 16 W 14 W 12 W 10 W 8 W 6 W 4 W 2 W 00

