

TOPOGRAPHY

Generally, the area varies from glacial till and outcrop ridges in the north to flat swampy terrain near the south boundary. Outcrop ridges on the center of the property rise 40 to 60 feet above the surroundings and usually host spruce and jackpine.

Lower areas are covered with spruce but the swampy areas generally contain cedar and spruce.

GEOLOGY

The geology of Godfrey Township was mapped by N. Hogg in 1951 and 1952. (1) The geology of Bristol Township was mapped by S. A. Ferguson in 1953, 1954 and 1955. (2) During the latter project, the magnetometer results contributed greatly to the interpretation. From this mapping the rock units that are shown to occur on the property are: north and northwest trending diabase dykes, porphyritic intrusives, acid and basic lavas.

Dale Alexander and assistants mapped the group in detail during the summers of 1969 and 1970 for Hollinger. The results of this work will be filed with the Department of Mines.

PREVIOUS WORK

In addition to the above mentioned mapping by the Ontario Department of Mines and Hollinger the writer is not aware of other surveys carried out in the half of the group, that lies

in Godfrey Township. Nearly all the claims located in Bristol Township were covered by electromagnetic surveys for Mespil Mines Ltd. during 1966. Three holes were drilled to test one conductor striking northwest near the Bristol Carscallen Township boundary. During the summer of 1969 Hollinger Mines Ltd., conducted a reconnaissance vertical loop electromagnetic survey along the north striking lines in the north part of the property and in the spring of 1970 completed the survey in the south part along east striking lines using horizontal loop equipment.

All lines were cut and measured by Ingamar Explorations of Timmins, during 1969.

PERSONNEL

The magnetometer operators responsible for the survey along the north striking lines were: P. Daly, D. Tremblay, R. Lewis, R. Shirley, R. Humphrey and R. Giles. All were employed by Hollinger at the time. In the south part, the base stations along the north striking base lines were established by R. Lewis and R. Humphrey but the east striking picket lines were read by two contractors, Y. Collins and R. Collins both of Timmins.

The writer supervised the field work and contoured the results as presented on the accompanying maps.

D. Tremblay and W. Caughell prepared and draughted the base plans.

INSTRUMENTS USED

The magnetometers used during the survey are:

- a) Sharpe MF-1 Serial #410114
- b) A.B.E.M. MZ-4 Serial # 4539
- c) A.B.E.M. MZ-4 Serial # 4599

See Appendices I and II for manufacturers brochure.

All the base station values were determined using the MZ-4 torsion instruments. Only 25% of the cross-lines were read with the fluxgate instrument.

SURVEY METHOD

Two separate sets of grid lines were cut on the property but only one set of co-ordinates were used for the reconnaissance lines. In the north half of the property in Godfrey Township and for over $\frac{1}{2}$ mile south of the Township boundary in Bristol Township, the survey was carried out on north striking lines. South of this, the survey was completed on east striking lines. The departure point (00/00) for the grids is at the 23 mile post along the Bristol Godfrey Township line.

Initially all the magnetometer readings were taken along cut and measured lines spaced 400 feet apart at an interval of 100 feet or less. A detail survey on the south central part of the property, overlapping the initial work was carried out along lines spaced 200 feet apart.

A standard procedure was employed for removing instrument and atmospheric drift from the observations. A single instrument was used to make closed traverses between previously established points and new bases approximately 200 feet apart along the base lines. The base lines were then read twice at every 200 feet between these bases.

When surveying the cross-lines, the base stations were occupied whenever the base lines were intersected. When the fluxgate was used, three separate points along the base lines were read, when these were reached, and the values averaged. In this way, a good record of the drift-diurnal was kept.

PRESENTATION OF DATA

The corrected magnetic values are plotted and contoured on the accompanying maps at intervals of 25, 50, 100, 200, 300, 500 and 1000 gammas. The selected contours are, 700, 800, 850, 900, 925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1150, 1200, 1300, 1500, 1700, 2000, 2500, 3000 and 4000. The contouring may appear as being arbitrary but is in actual fact quite selective, especially in the north half where the lines trend parallel to known magnetic features. The emphasis is on the joining of intercepts from line to line rather than simple mathematical contouring. With this approach it is felt that one step in the interpretation of the data has been eliminated. Colouring of this form of presentation is however, often necessary.

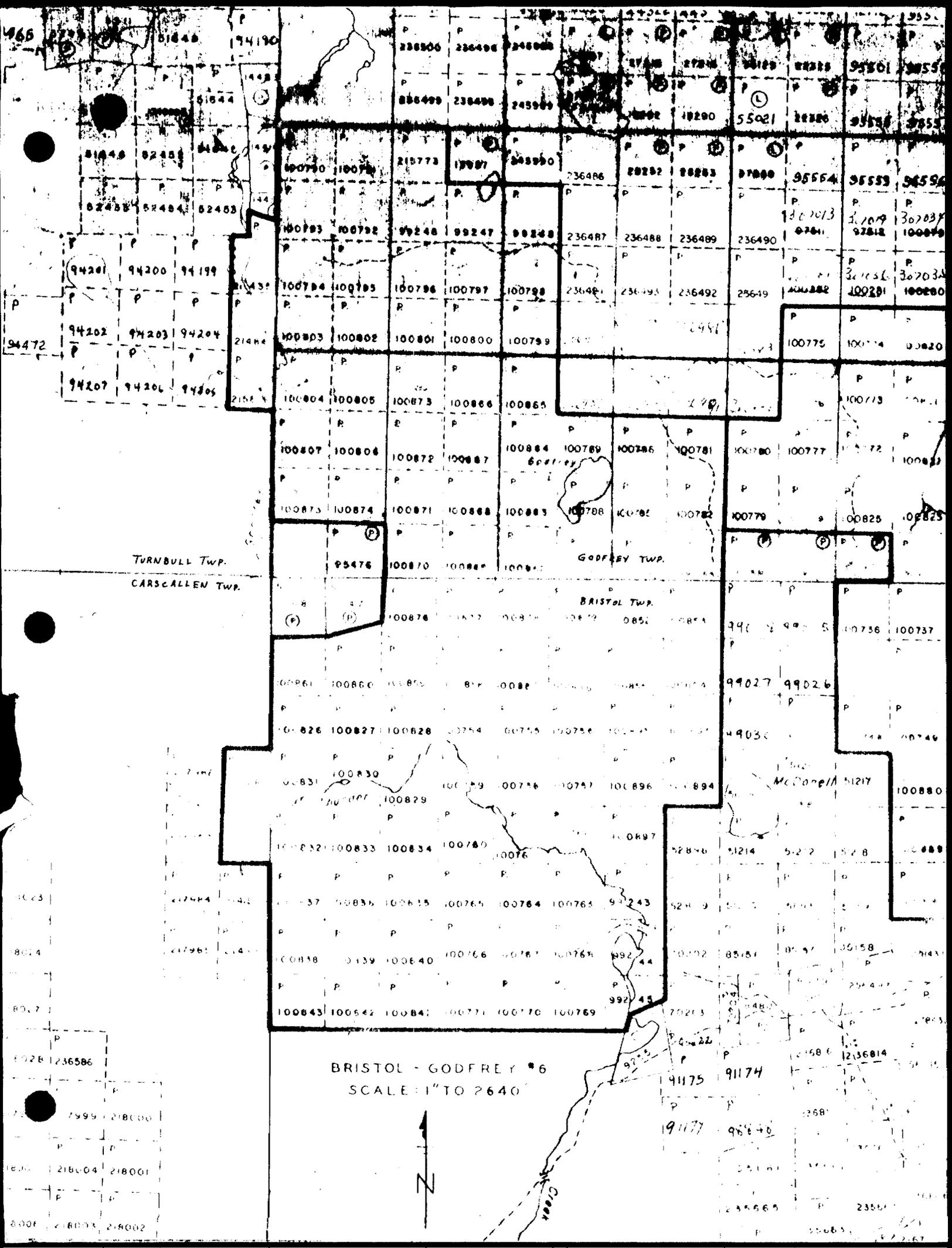
RESULTS

The majority of the strangely magnetic features detected by this survey are believed to originate from north or northwest trending diabase dykes. In the northeast corner of the group, a 6941 gammas peak is likely due to a small concentration of magnetite in an outcrop adjacent to a dyke. An east-west striking magnetic feature at the western extremity of line 32S should be investigated in detail for the possible occurrence of pyrrhotite. The weakly magnetic northwest trending anomalies near McDonnell lake are probably due to geological contacts and should be investigated further. Low intensity magnetic patterns east of Godfrey lake are worthy of further study.

Definite faulting is revealed by the contours in the southern part of the property. However, the writer feels that one east-southeast trending fault is not so much in evidence as the possibility of minor parallel faults.

References

- 1) Geology of Godfrey Township By Nelson Hogg
Ontario Department of Mines, Vol. 63 Part 7, 1954.
- 2) Geology of Bristol Township By S. A. Ferguson
Ontario Department of Mines Vol. 66 part 7, 1957.



BRISTOL - GODFREY #6
SCALE: 1" TO 2640'



Creek

TURNBULL TWP.
CARSCALLEN TWP.

GODFREY TWP.

BRISTOL TWP.

McDonnell 51217

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Godfrey Twp. - M.284

THE TOWNSHIP OF
OF
Claim Map
BRISTOL

DISTRICT OF
COCHRANE

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Ⓛ
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.

DATE OF ISSUE

JUN 15 1971

ONT. DEPT. OF MINES
AND NORTHERN AFFAIRS

PLAN NO. M-264

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

Carscallen Twp. - M.267

Ogden Twp. - M.305

Thorneloe Twp. - M.313



42A05NE8433 2.278 BRISTOL

Turnbull Twp - M.316

THE TOWNSHIP
OF
Claim Map
CARSCALLEN

DISTRICT OF
COCHRANE

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
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LEASES	Ⓛ
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MINING RIGHTS ONLY	M.R.O.
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ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
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NOTES

400' Surface Rights Reservation around
all lakes and rivers.

DATE OF ISSUE

JUN 15 1971

ONT. DEPT. OF MINES
AND NORTHERN AFFAIRS

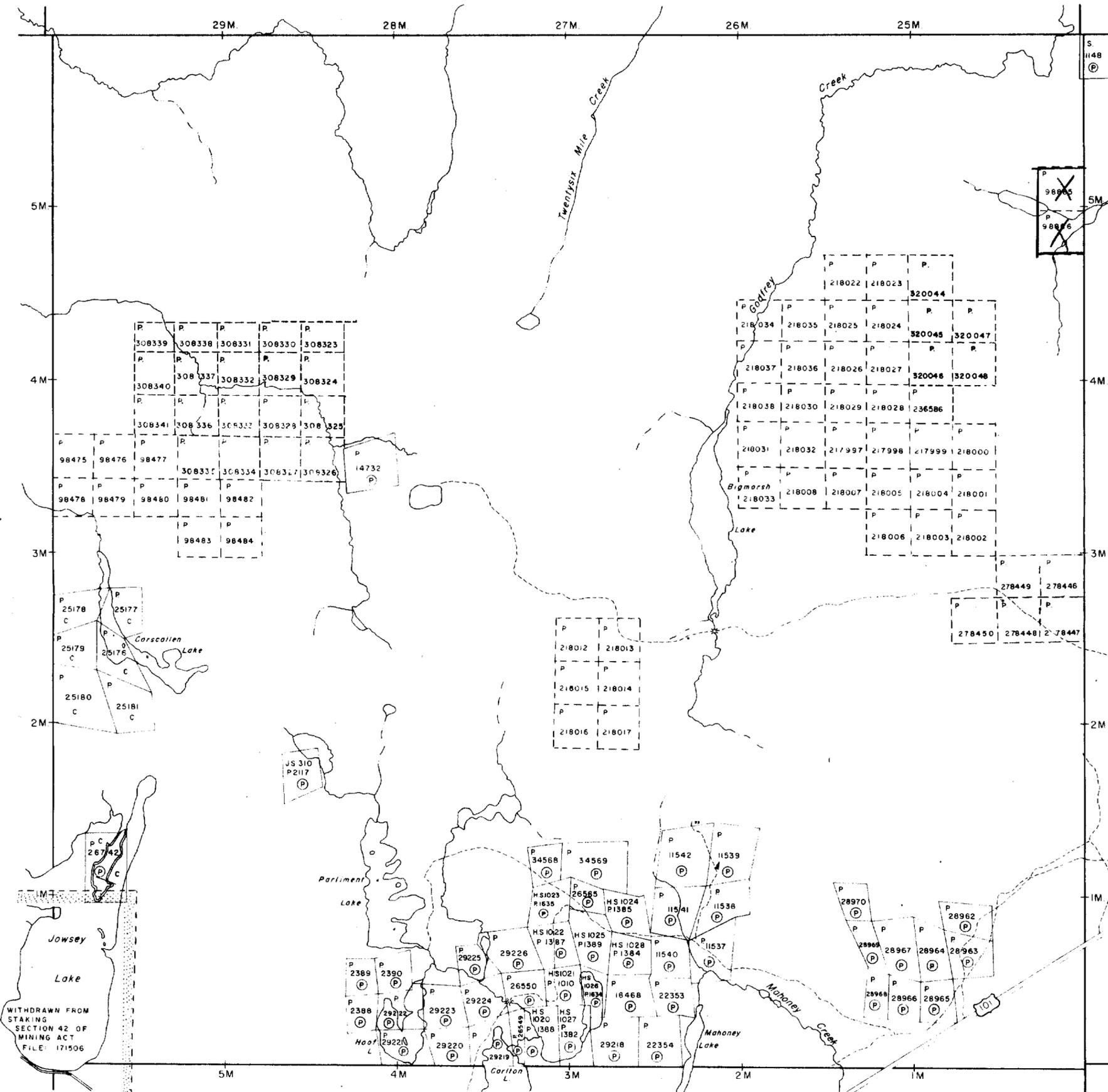
PLAN NO. **M.267**

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

Whitesides Twp - M.318

Bristol Twp - M.264

Denton Twp - M.273



Jamieson Twp. (M.288)

Gov. Order No. 1366
 Dept. of National Defence
 Withdrawn from Staking
 Sec. 34(1) of Mining Act. File 16903

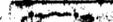
THE TOWNSHIP
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GODFREY

DISTRICT OF
 COCHRANE

PORCUPINE
 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 BUSHES 
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NOTES

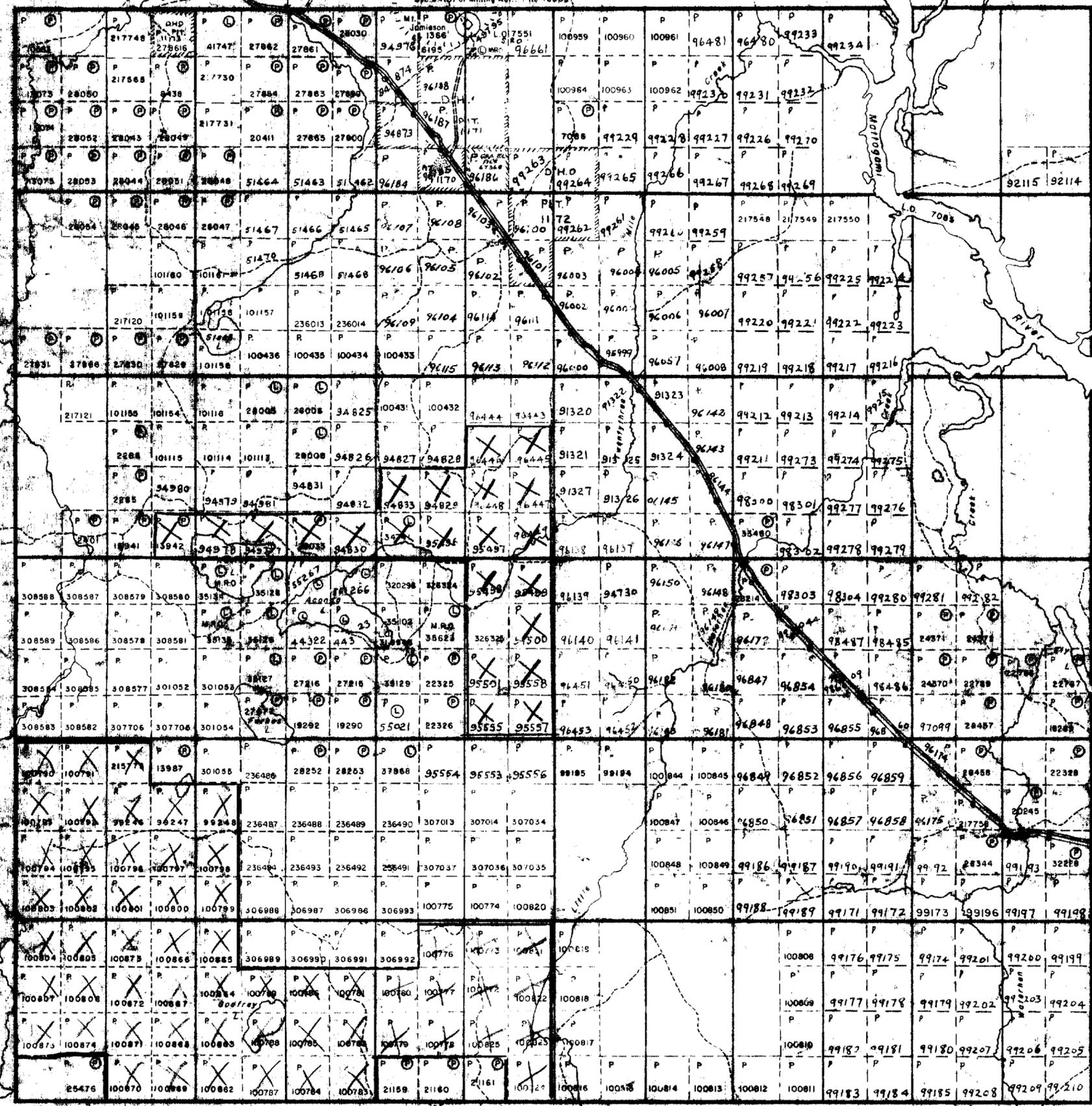
400' surface rights reservation around all lakes and rivers.

Flooding rights on either side of the Mattagami for H.E.P.C.

DATE OF ISSUE
 JUN 10 1977
 G.D. BROWN
 DISTRICT CLERK

PLAN NO. **M.284**

ONTARIO
 DEPARTMENT OF MINES
 AND NORTHERN AFFAIRS

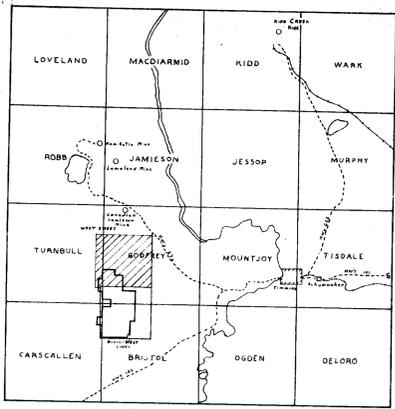


Tarrish Twp. (M.316)

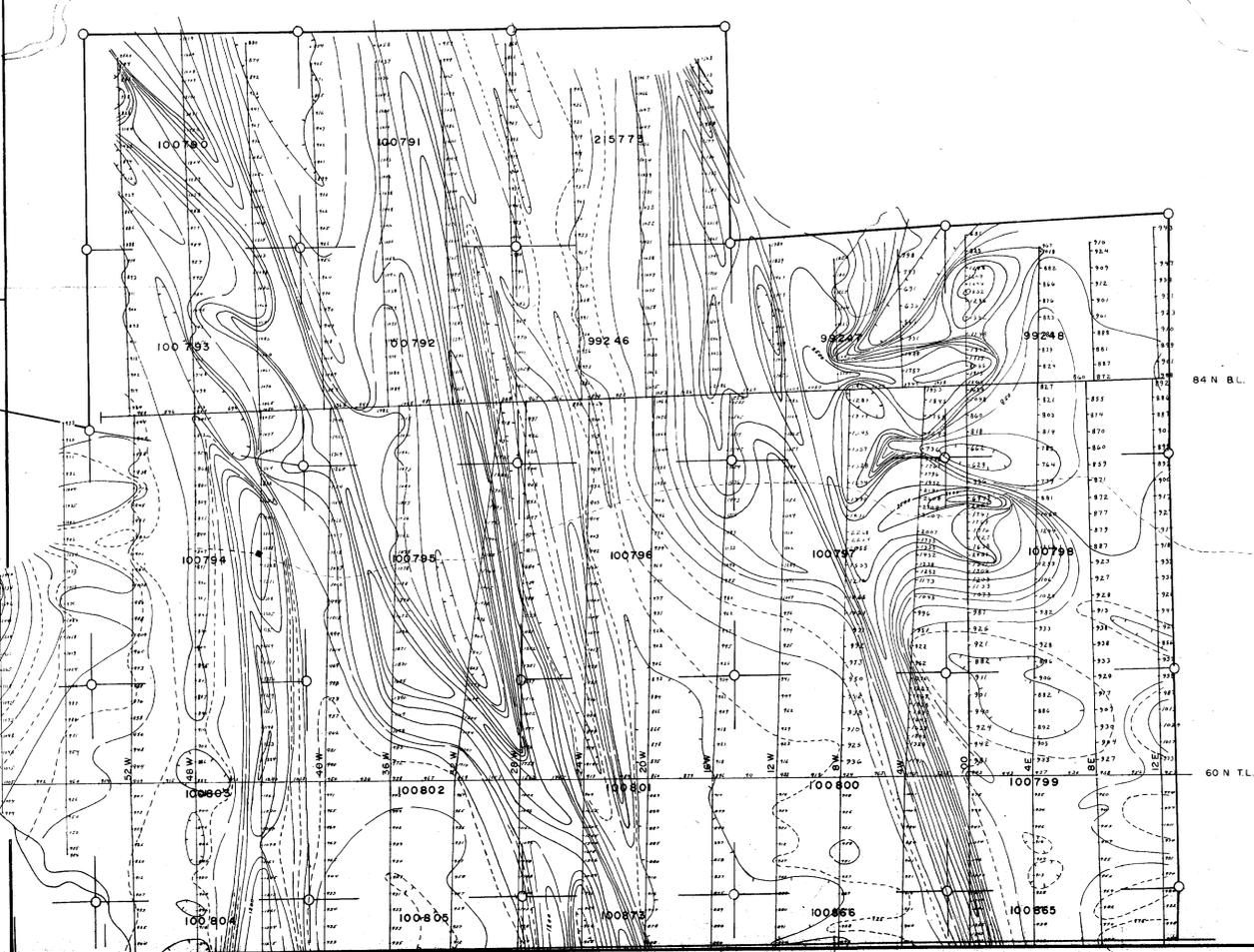
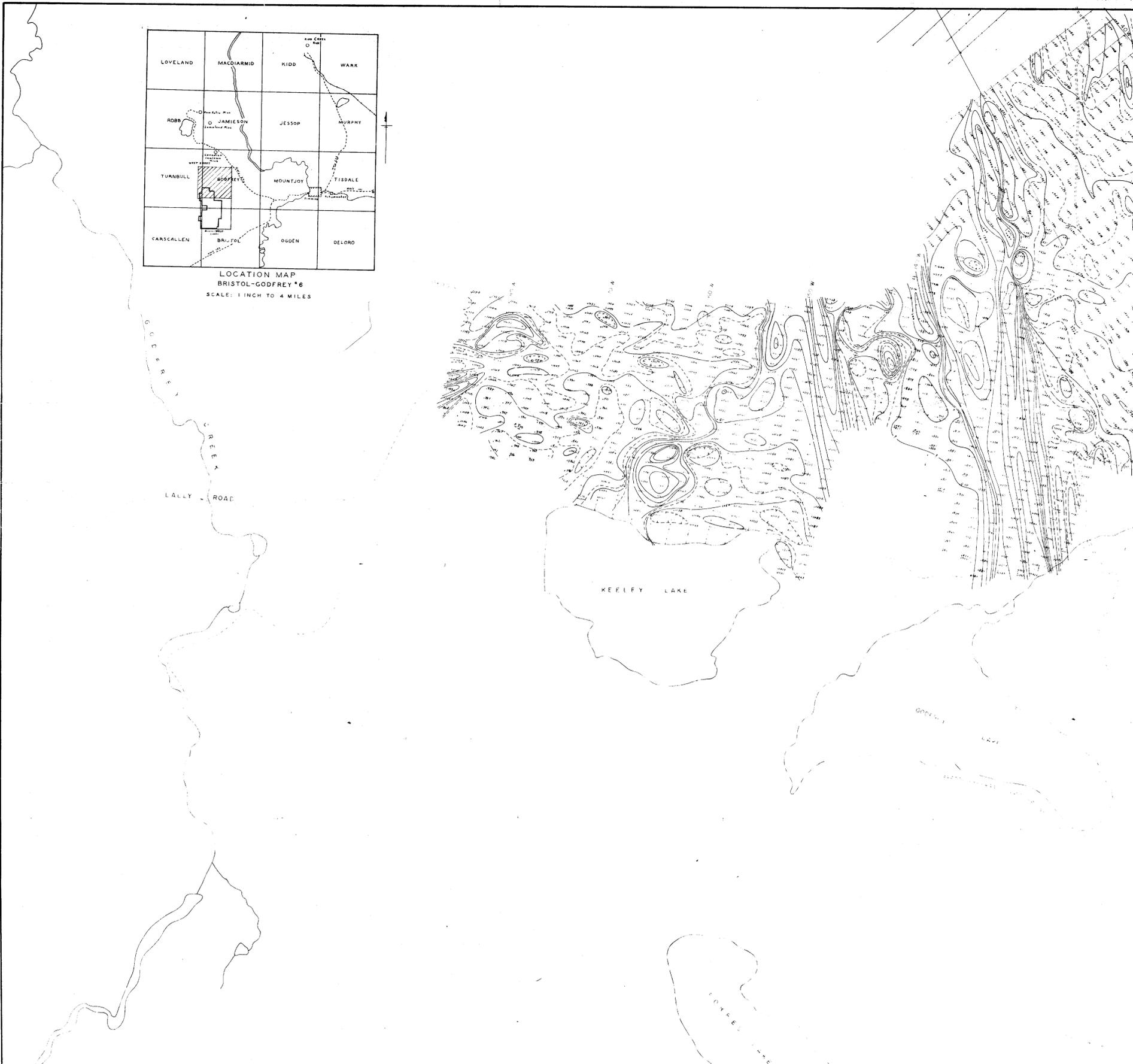
Mountjoy Twp. (M.302)

Bristol Twp. (M.264)





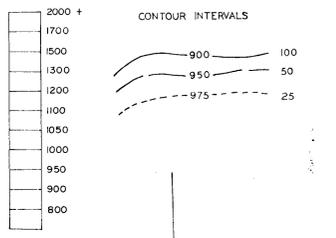
LOCATION MAP
BRISTOL-GODFREY #6
SCALE: 1 INCH TO 4 MILES



HOLLINGER MINES LTD.
GODFREY GROUPS 5, 6 & 7
GODFREY TWP. ONT.
GEOMAGNETIC SURVEY
SCALE: 1 INCH TO 400 FEET

WEST SHEET
2.278

LEGEND



214847

214849

TURNBULL
GOOFREY TRW

52 W

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44 W

40 W

36 W

32 W

28 W

24 W

20 W

16 W

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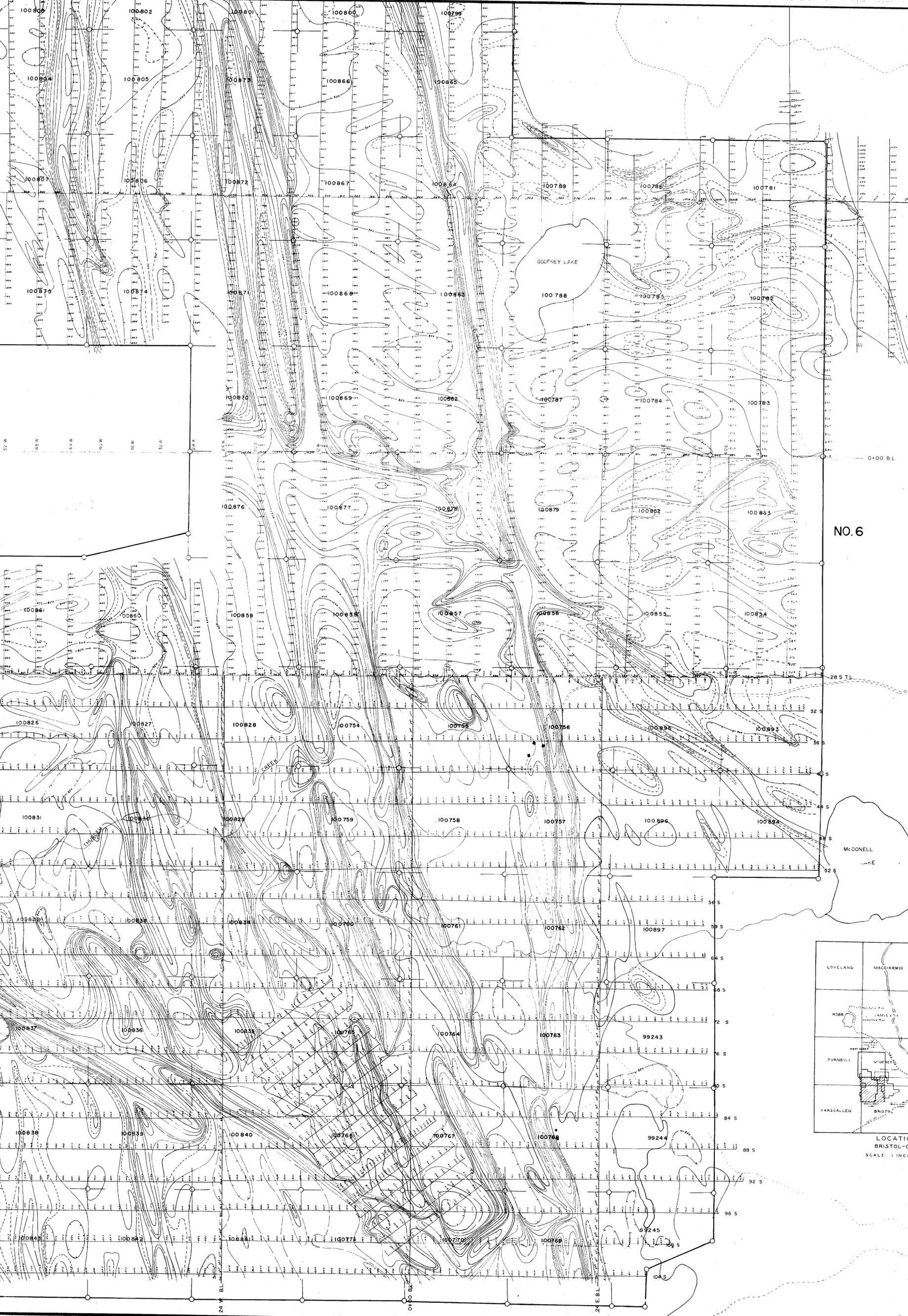
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NO. 6

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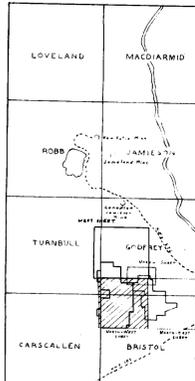
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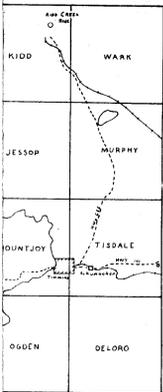
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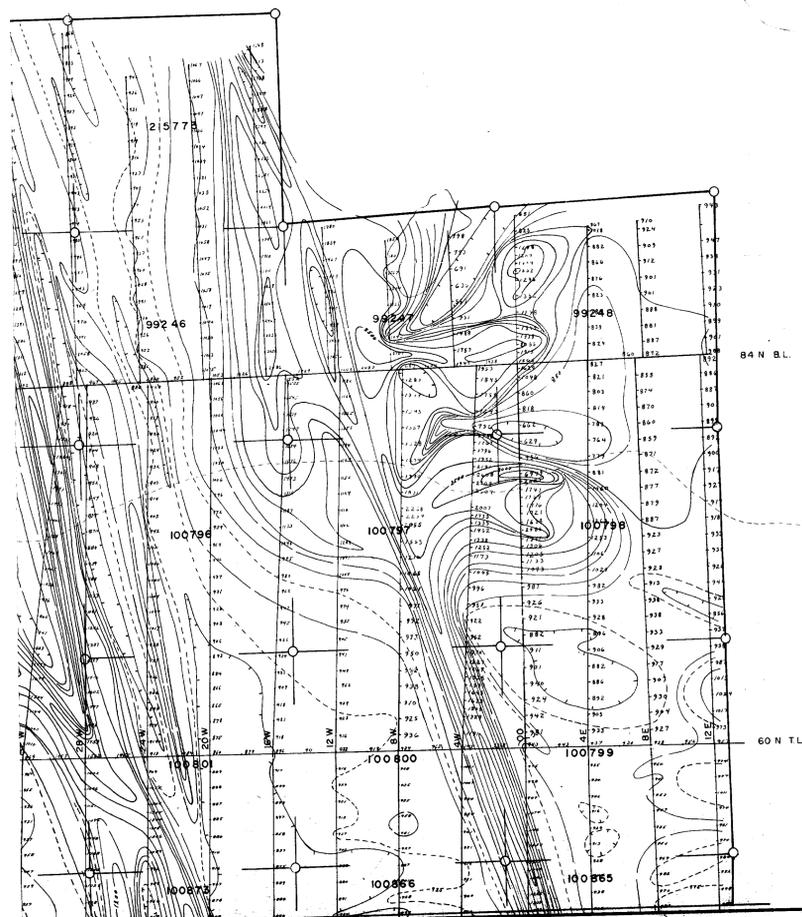
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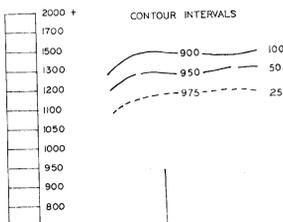
MAP
REY #6
4 MILES



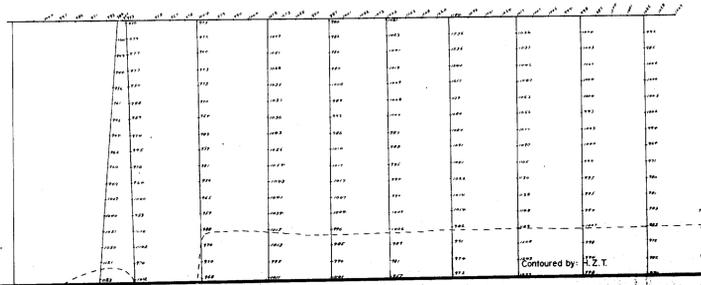
HOLLINGER MINES LTD.
GODFREY GROUPS 5, 6 & 7.
 GODFREY TWP. ONT.
 GEOMAGNETIC SURVEY
 SCALE: 1 INCH TO 400 FEET

WEST SHEET
 2-278

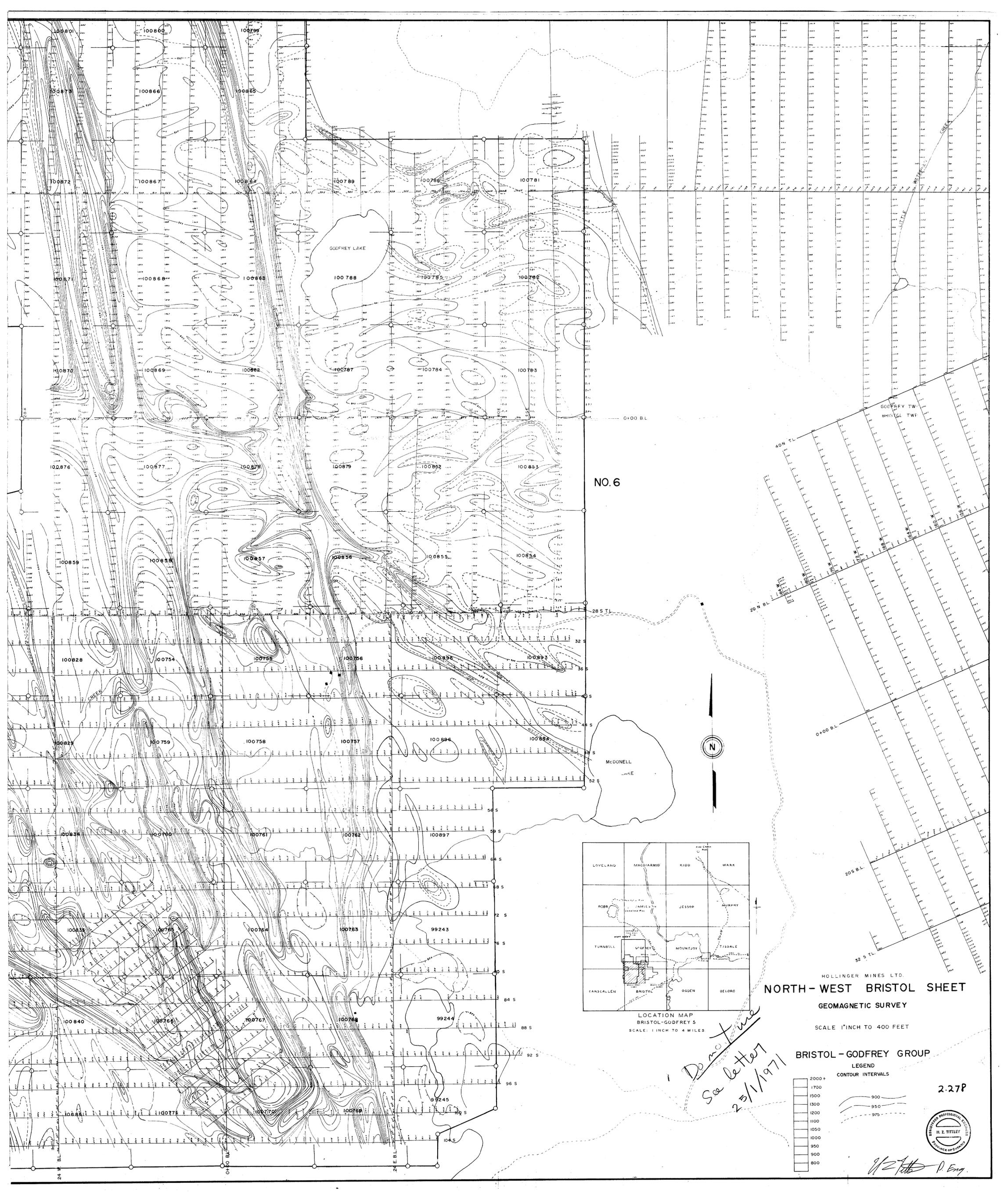
LEGEND



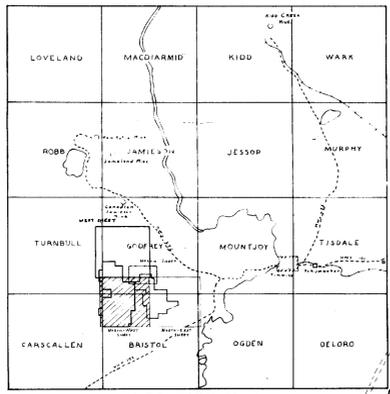
H. Z. Titley P. Eng.



Contoured by H. Z. T.



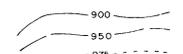
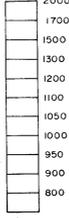
NO. 6



HOLLINGER MINES LTD.
NORTH - WEST BRISTOL SHEET
GEOMAGNETIC SURVEY

SCALE 1" INCH TO 400 FEET

BRISTOL - GODFREY GROUP
LEGEND
CONTOUR INTERVALS



2.27P



*Do not use
See letter
25/1/1971*

H. Z. Titley P. Eng.