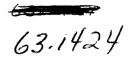


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Report on the B. W. Lang Claims Located in Northwest Tully Township Timmins Area, Ontario

LOCATION:

The property consists of 7 contiguous claims P-91529, P-91530, P-91533, P-91534, P-91535, P-91537 and P-91538 located in Concession IV and V, Lots 8 and 9, Tully Township. Access is via lumber roads as marked in dashed lines on the survey map.

GEOLOGY:

The andesite-rhyolite contact that contains the Texas Gulf Sulphur orebody in Kidd Township is projected towards the northeast as passing through Tully Township. Due to the interbedding of numerous rhyolite-andesite flows and the lack of outcrop areas a more accurate location of this favourable horizon cannot presently be determined.

work to date in Tully Township has encountered similar rock types to those obtained at the Texas Gulf Sulphur orebody. Volcanic flows predominate with minor sedimentary horizons and a considerable number of peridotite intrusions.

There is a noticeable change in strike within this group of claims. At the western portion of the group the strike is southeast, towards the middle of the claim group this changes to east-west. This is probably due to folding which in turn may be responsible for the large number of conductors within the immediate area.

PREVIOUS WORK IN THE AREA:

A drill hole is recorded adjacent to the southwest portion of the B. W. Lang group. This hole probably intersected the southeastern end of airborne anomaly #6 and obtained interbedded volcanics with the conductor being caused by a graphitic-pyrite horizon. The hole was drilled at -55° with bedrock being reached at 219' along the hole.

Another drill hole further to the north tested the northern portion of anomaly #4 and obtained rhyolite, dacite and gabbro, with the conductor being due to barren sulphides. Bedrock was obtained at 224' along the hole drilled at -55°.

Daering Explorers drilled 5 holes to test airborne anomalies #8 and #9 on their ground. I had a discussion with M. Zurosky, Consulting Geologist on the project. He reported that the holes intersected rhyolite, dacite and peridotite with considerable alteration, the conductors were caused by sulphides with some minor copper and zinc values. This property has subsequently been brought to lease status by Daering Explorers.

Further to the east 3 conductors located on the ground by United Comstock were tested by 3 drill holes. These conductors were not picked up by the airborne survey. The conductors were caused by graphite and pyrite.

GROUND E.M. SURVEY EQUIPMENT AND METHOD:

The E.M. survey was run using the vertical loop "broadside" method. This is a standard E.M. method where the transmitter loop is placed opposite the receiver one or two lines over. The coil is held vertical and the plane of the coil directed towards the receiver. The dip angle is read and then both operators move to the next station. In this survey with a line interval of 300' the operators were spaced 600' apart. A Crone Dual Frequency E.M. unit was used as described in the enclosed specification brochure. Readings were taken at the 1,800 cps. frequency and two lines were read at both the 1,800 and 480 frequencies.

Serial number of the units is JEM #36-92. A total of 306 readings were taken within the claim group. The E.M. crew chief was A. F. Bessette of 42 Second Avenue, Schumacher, Ontario. The E.M. work was carried out during the period March 4th to 10th, 1968.

LINECUTTING:

A 300' line interval grid was cut by Denis Maillet, Contractor, from Val D'Or, Quebec. Cutting took place from February 4th to 20th, 1968. In all 7.2 miles of line were cut.

RESULTS OF SURVEY:

Numerous conductors were detected by this survey. The northern conductors appear to be more consistent and have been lettered "A" to "F". Towards the southeast seven one or two line conductors exist and have been marked.

Dual Frequency readings on line 0+00 and 6+00W have a low/high frequency ratio of .6 or greater indicating positive bedrock conductors of good to excellent conductivity.

Overburden in the area is expected to be in excess of 75 feet and probably is within the range of 75 to 150 feet.

Respectfully submitted,

Toronto, Ontario, October 4th, 1968.

J. Duncan Crone, Consulting Geophysicist.



Introduction:

During January and February 1968 two vertical loop electromagnetic surveys were carried out on four claims in Tully Township.

The claims 88213, 88214, 88217 and 88218 are recorded in the name of B. W. Lang, 80 Richmond Street West, Toronto 1, Ontario.

Location and Access:

The claims are located in the south half of Lot 10, Concession III, Tully Township, Porcupine Mining Division and are easily accessible via a network of winter roads from Connaught, Ontario.

Previous Work:

Two combined airborne magnetic and electromagnetic surveys have been flown over the group. In 1964, Texas Gulf Sulphur Company conducted a ground electromagnetic survey and drilled one hole on the ground.

Geology:

Two small outcrops occur in the centre of the property. The outcrops are predominately fragmental, felsitic volcanic rocks. The larger of the two is cut by a narrow, andesitic northeasterly striking band which is probably intrusive in nature.

South of the outcrop area Texas Gulf Sulphur Company drilled one hole and encountered rocks of andesitic composition and one narrow band of graphitic material.

Instruments Used and Survey Method:

A crone dual frequency J.E.M. Unit and a Crone dual frequency vertical loop unit were used for the survey. The J.E.M. unit was employed in a broadside configuration while the larger vertical loop unit was used in the fixed transmitter, fan method. The instruments and methods employed are fully described in the appendix to this report.

Survey Results:

Three distinct conductors were detailed on the claim group. The profile shapes and the good ratio between the high frequency responses indicate that the conductors are likely to be bedrock conductors with good to excellent conductivity.

The most southerly conductor has already been tested by Texas Gulf Sulphur Company.

The central conductors are almost certainly related structures which have been faulted.

The most northerly conductor which has a northeasterly strike is open at both ends.

Conclusions and Recommendations:

Before drilling is recommended a detailed magnetic survey should be performed and assessed.

It would appear that at least two drill holes would be necessary to assess the conductors on this ground.

Respectfully submitted,

Mespi Mines Limited,

JES/rt

Exploration Manager





Introduction

During the period from February 27 to February 29, 1968, a magnetic survey was carried out over a group of five claims by Mespi Mines Limited, Box 807, Timmins, Ontario. The survey was conducted at the request of Mr. B.W. Lang.

Location and Access

Claims P-88213, 88214, 88216, 88217 and 88218 recorded in the name of B.W. Lang, 1705 Victory Building, 80 Richmond Street West, Toronto 1, Ontario are located in west central Tully Township, Porcupine Mining Division, approximately eighteen miles north of the Town of Timmins, Ontario. The group is readily accessible via a network of bush roads which join Highway 67 at Connaught, Ontario.

Geology

Only two small outcrops occur on the property. Both outcrops are rhyolitic in composition. The larger of the two is intruded by a medium grained chloritic rock of andesitic composition. The contact between the two rocks has a northeasterly strike.

Several years ago, previous operators drilled one hole southeast of the outcrops which intersected rhyolitic rocks and intercalated carbonaceous sedimentary rocks.

All of the underlying rocks are believed to be of Precambrian Age.

Previous Work

In addition to the diamond drill hole previously discussed the area was covered by at least two combined airborne magnetic and electromagnetic surveys conducted by Hunting Services Limited and Canadian Aero Surveys Limited.

Prior to the magnetic survey, Mesoi Mines Limited conducted a detail electromagnetic survey.

Survey Method and Results

The entire survey was conducted with a Sharpe MF-1 fluxcate magnetometer which has a scale sensitivity of twenty gammas. All stations are related to station UN on line 36E and have been corrected for diurnal variation.

The readings were plotted on the accompanying map and contoured. The isomagnetic contour lines were drawn at one hundred gamma intervals.

Maximum magnetic relief in the survey area is 1640 gammas. Numerous relatively isolated "highs" and "lows" occur within the survey area, none of which have any direct electromagnetic coincidence.

Conductors "C" and "D" were probably the same conductor and have been faulted. These two conductors appear to be generally associated with a two to three hundred gamma anomaly.

Conductor "A" occurs in a pronounced magnetic low and is probably due to carbonaceous sedimentary rocks. Conductor "D" which has no apparent magnetic association, was drilled by previous operators and is due to carbonaceous rocks.

Two depth determinations were carried out over the anomalously high areas on lines 46 and 48 west with questionable results. Indicated depths to the tops of these anomalies is 120 feet, however, the anomaly profiles are not very sharply defined so that the determination may be in error as much as 50 feet.

Conclusions and Recommendations

Conductors "C" and "b" are enhanced by their apparent magnetic association and should be drilled on lines 34w and 42w.

The holes should be spotted at 34w, 5+50N, and 42W at 6+40N. Both holes should be drilled grid south at -50°.

Conductor "C" also warrants a drill hole which might be spotted to test the conductor as well as the magnetic anomaly on line 48W.

Respectfully submitted.

JES/rt

Exploration Manager,
Mespi Mines Limited

REPORT ON AIRBORNE GEOPHYSICAL SURVEY

OF THE TULLY TOWNSHIP AREA

MR. B. W. LANG



I. INTRODUCTION

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This report pertains to the combined airborne EM and magnetometer survey flown on behalf of Mr. B.W. Lang in the Tully Township area of Ontario. The flying was accomplished between September 7 and 8, 1966 by the Canadian Aero Mineral Surveys Limited geophysically equipped Otter aircraft (registration CF-IGM) based at South Porcupine.

The survey was flown at a mean terrain clearance of 150' with flight lines spaced at 1/8 mile intervals. All lines were oriented north-south. The geophysical data acquired totalled 163 line miles.

Canadian Aero Mineral Surveys Limited personnel associated with the project were as follows:

G. A. Curtis	-	Project Manager		
K. Dempster		Pilot		
T. Korpatt	-	Navigato.		
T. Peacock	-	Operator		
D. Sarazin	-	Data Compiler		
G. Granger	-	Draftsman		
P. Tallyhoe	-	Data Chief		
R. W. Stemp.		Geophysicist.		

The EM data and all magnetic anomalies coincident with conductors are plotted on a plan map at the scale of $1^{ii}=\frac{1}{2}$ mile which accompanies this report.

The magnetic results are also presented in "redball" form for anomalies 100g or greater in emplitude. An airphoto laydown provided the base for this map.

II. DISCUSSION OF RESULTS

A number of conductors have been outlined by the airborne survey but most of them are grouped together in the northern portion of the area. Conductors 1-7 are probably related to a similar bedrock origin. The nature of the conductors, plus the lack of associated magnetics, would tend to favour graphitic sediments as the source. However, we cannot rule out the possibility of sulphides. The response is strongest in conductor 7 and it would be the best spot to investigate on the ground to determine the source material.

Conductors 8 and 9 may be an extension of the above group of conductors. The response is very weak except on line 85.

Conductor 10 exhibits good conductivity and is isolated which makes it a good sulphide prospect. Isolated graphitic zones are not too common in the Shield area. Conductor 11 is a weak anomaly which is probably related to conductor 10 even though it appears to be a separate feature.

Conductor 12 exhibits low conductivity out is also an isolated feature so should definitely be shecked out on the ground.

III. RECOMMENDATIONS AND CONCLUSIONS

Conductors 10, 11 and 12 appear to be the best sulphide prospects because of their isolated nature. Conductor 10 exhibits the best conductivity and is given top priority for gound followup.

The remaining conductors are of the formational type and their characteristics tend to favour a graphitic rather than sulphide source. This formational zone should be investigated in the vicinity of conductor 7 to determine the source material.

Respectfully submitted,

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OTTAWA, Ontario, November 1, 1966.

R. W. Stemp, P.Eng., Geophysicist.

PROJECT NO. 6113 - TULLY TWP AREA

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Anomaly	Fiducials	In-Phase Quad	Altitude	Magnetics	Rate	Comments
59 A	987/901	40/120	12 5	nil	3	
64 A	513/5	40/20	15 5	nil	3	
65 A	243/6	50/10	125	nil	3	
66 A	109/12	50/20	155	S.edge 50g	3	
66 B	161/5	60/30	150	nil	3	
6 6 C	180/3	0/20	125	N.edge 100g	3	a.
67 A	9974/7	140/40	140	S.Flank 100g	3	
67 B	9915/22	80/30	150	nil	3	Broad, mult.
67 C	9 899/902	80/20	120	Assoc. 110g	3	
68 A	9807/12	40/60	140	ni1	3	
68 B	9821/4	40/20	12 5	ni1	3	
69 A	9493/6	0/30	170	N.edge 670g	3	
69 B	9441/5	60/40	160	ni1	3	Broader quad
69 C	9427/30	207/20	155	E.edge 50g	3	Weak
70 A	9 331/4	30?/20	150	nil :	3	
70 B	9341/5	?30/20	160	nil .	3	
70 C	9352/6	0/20	13 5	Dir? 180g	×	
70 D	9 362/ 5	20/20	145	nil	3	Weak
71 A	9101/6	0/70	145	ni1	3	
71 B	9 092/ 5	40/30	165	S.Flank 200g	3	
71 C	9074/80	0/60	12 5	nil	3	Broad
71 D	9070/4	140/140	130	ni.1	3	

PROJECT NO. 6113 - TULLY TWP. AREA

Anomaly	Fiducials	In-Phase Quad	Altitude	Magnetics	Rate	Comments
71 AA	2847/9	30/10	170	S.Flank 440g	3	Weak
72 A	8987/92	160/80	150	nil	2B	
72 B	9012/7	30/20	160	nil	ж	
73 A	8747/58	600/220	140	nil	2B	Very Broad, mult
74 A	8616/9	50/30	165	nil	3	
74 B	8619/2 5	220/60	165	S.side 340g	2B	Mult.
74 C	8636/9	40/20	170	nil	3	
74 D	8641/4	40/30	170	nil	3	
75 A	8398/400	40/20	150	ní1	3	
75 B	83 9 2/ 5	70/30	165	Dir? 100g	3	
75 C	8372/ 5	50/20	160	nil	3	
75 D	8367/70	60/60	160	ni1	3	
81 A	7459/64	0/40	120	S edge 60g	3	Weak
83 A	7173/9	120/50	130	nii	3	
83 AA	2229/36	0/60	135	nil	3	Broad
84 A	7134/9	720/20	140	nil	3	
85 A	6903/8	70/40	130	nil	3	Double



REPORT ON THE CONDUCT OF AN AIRBORNE GEOPHYSICAL SURVEY IN THE DISTRICT OF COCHRANE

On the following dates, August 26, 28, 30, May 1, May 8, 1964, Hunting Survey Corporation carried out flying operations on a combined magnetometer and electromagnetometer survey over parts of the townships of Tully and Little.

The work was carried out under contract to B.W. Lang.

The location of the area surveyed is shown on a map accompanying this report.

Two data men were stationed in Timmins to give preliminary information to the client.

Final plotting and preparation of maps were carried out in Hunting's Toronto office.

FLYING SPECIFICATIONS

Flying was carried out by a Beech raft 18 with a crew of four, i.e. pilot, instrument operator, electronic technician and aircraft engineer.

The technician and engineer did not accompany the appearant on all survey flights.

Traverses were flown in a N/S direction at an average spacing of 660 feet.

Terrain clearance was maintained between 450 and 500 feet, where safety would permit.

Fifty-five traverses were flown over the area, for a total of 220 linear miles.

INSTRUMENTATION

The following instruments were operated during the survey:

- 1. Gulf magnetometer.
- 2. Hunting Survey Corporation Canadian Applied Research Limited dual frequency electromagnetometer measuring the phase displacement of the resultant field with respect to applied field; for frequencies of 400 and 2,300 cycles per second.
- 3. Modified APN-1 radio altimeter.
- 4. C.A.R.L.-H.S.C. 35mm discrete frame positioning camera.
- 5. A four channel curvilinear recorder, showing from top to bottom:
 - (1) Altimeter record and camera fiducial pulses.
 - (2) Magnetometer profile showing variations in the strength of earth's magnetic field, sensitivity 100 gammas per centimeter channel.
 - (3) Phase angle of the resultant field with respect to a 2,300 cycle applied field, sensitivity 2° per centimeter across a four centimeter channel.
 - (4) Phase angle of the resultant field with respect to a
 400 cycle applied field, sensitivity 1° per centimeter
 across a four centimeter channel.

- 6. A two pen rectilinear recorder with a five inch recording width, showing:
 - (1) In red ink the terrain clearance record and camera fiducial pulses.
 - (2) In black ink the variations in strength of the earth's magnetic field, sensitivity 100 gammas per inch.

NOTE: A pulse was shown on the altimeter record, co-incident with every tenth exposure of the 35mm camera.

This served to relate the records to the terrain over which they were made.

The magnetometer and E.M. detectors were located in separate "birds" towed behind and below the aircraft.

MAPS AND DATA COMPILATION

Navigation mosaics were prepared on a scale of 1 inch to 2,640 feet utilizing "Overthrust" mosaics available to the contractor.

For preparation of base maps, uncontrolled mosaics were made on a scale of 1 inch to 1,320 feet, utilizing photograpus obtained from the Department of Lands and Forests (Year 1961 photography).

Flight path was established by visual comparison of the 35mm film with the above mentioned mosaics.

Base maps were traced from these mosaics also, showing recognizable planimetric features.

Township boundaries shown on the base maps were positioned by reference to Ontario Department of Mines claim maps.

A map was compiled showing:

- (a) flight traverses and
- (b) magnetic contours referred to an arbitrary datum.

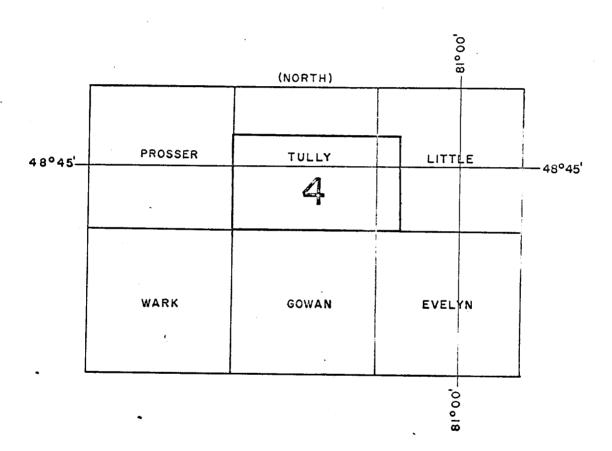
 Contour interval was 20 gammas.

A second map was prepared showing:

- (a) flight traverses.
- (b) extent and location of the peak of the observed low frequency anomalies.
- (c) extent of residual low frequency anomalies.
- (d) the phase angle of observed high and low frequency anomalies read at peak values.
- (e) the phase angle of residual high and low frequency anomalies read at peak values.
- (f) Value and location of magnetic peaks and lows, referred to on arbitrary datum.

R. N. Parkinson P. Eng.

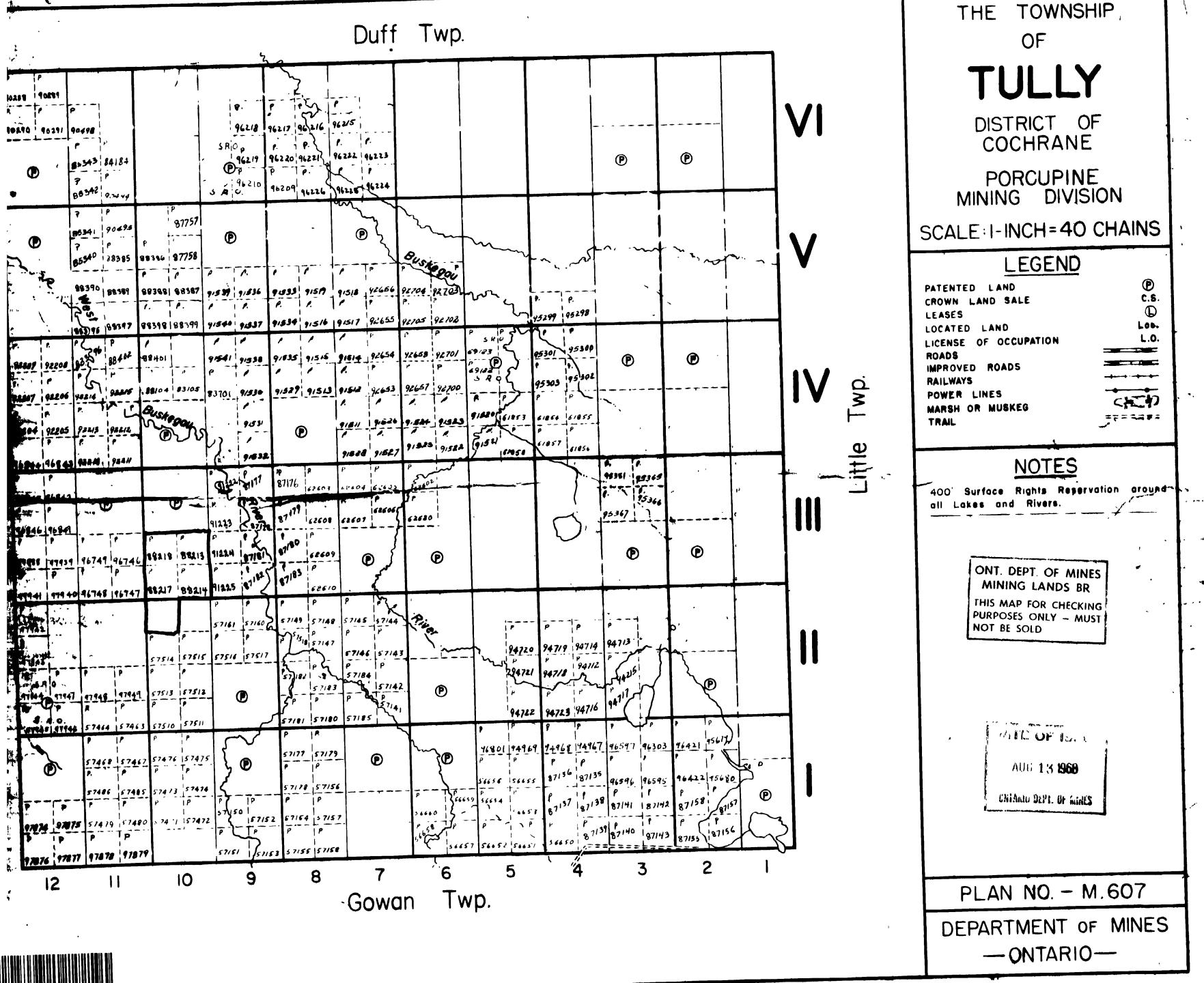
HIPTING SURVEY CORPORATION LIMITED



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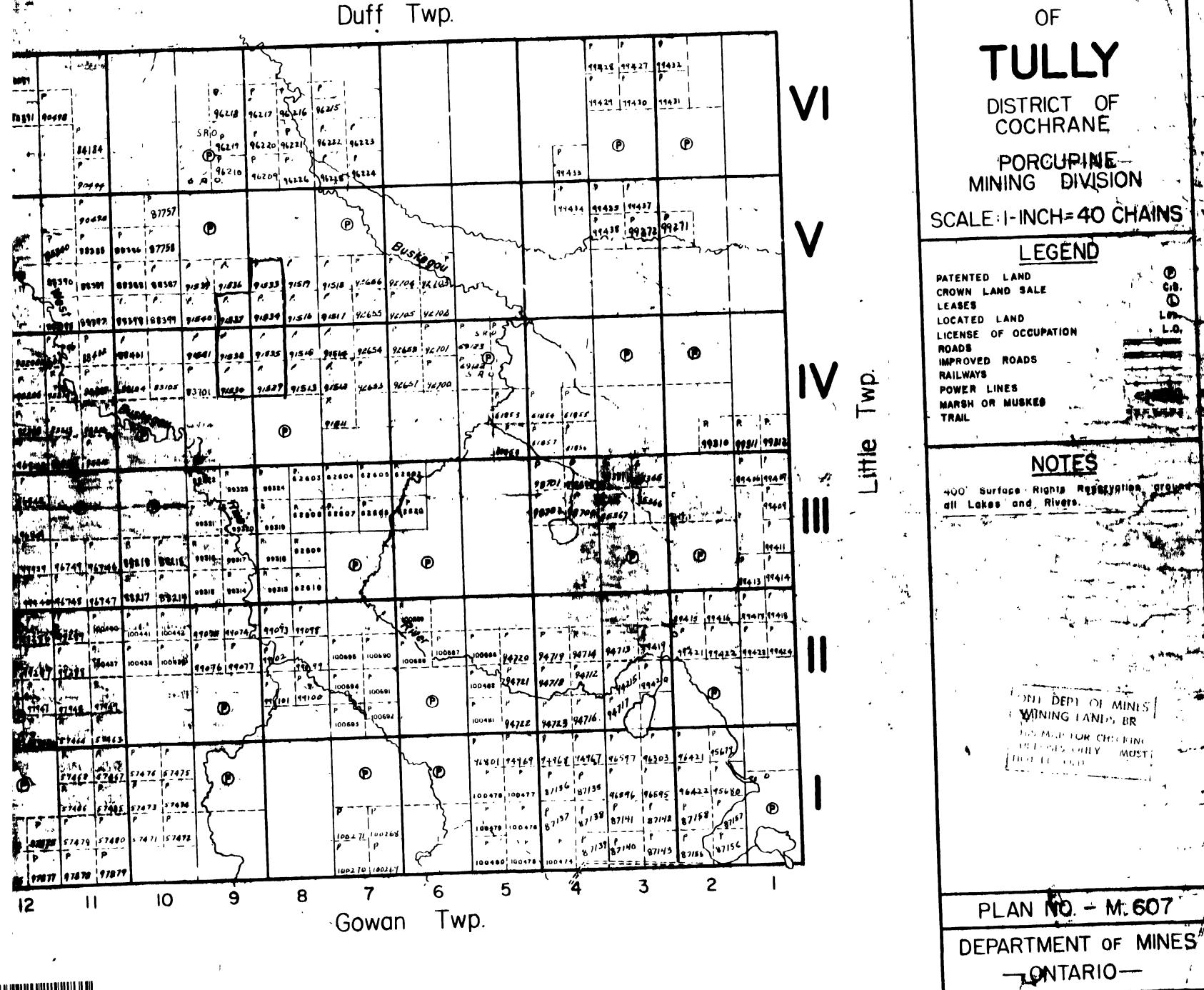


4.u **G**.



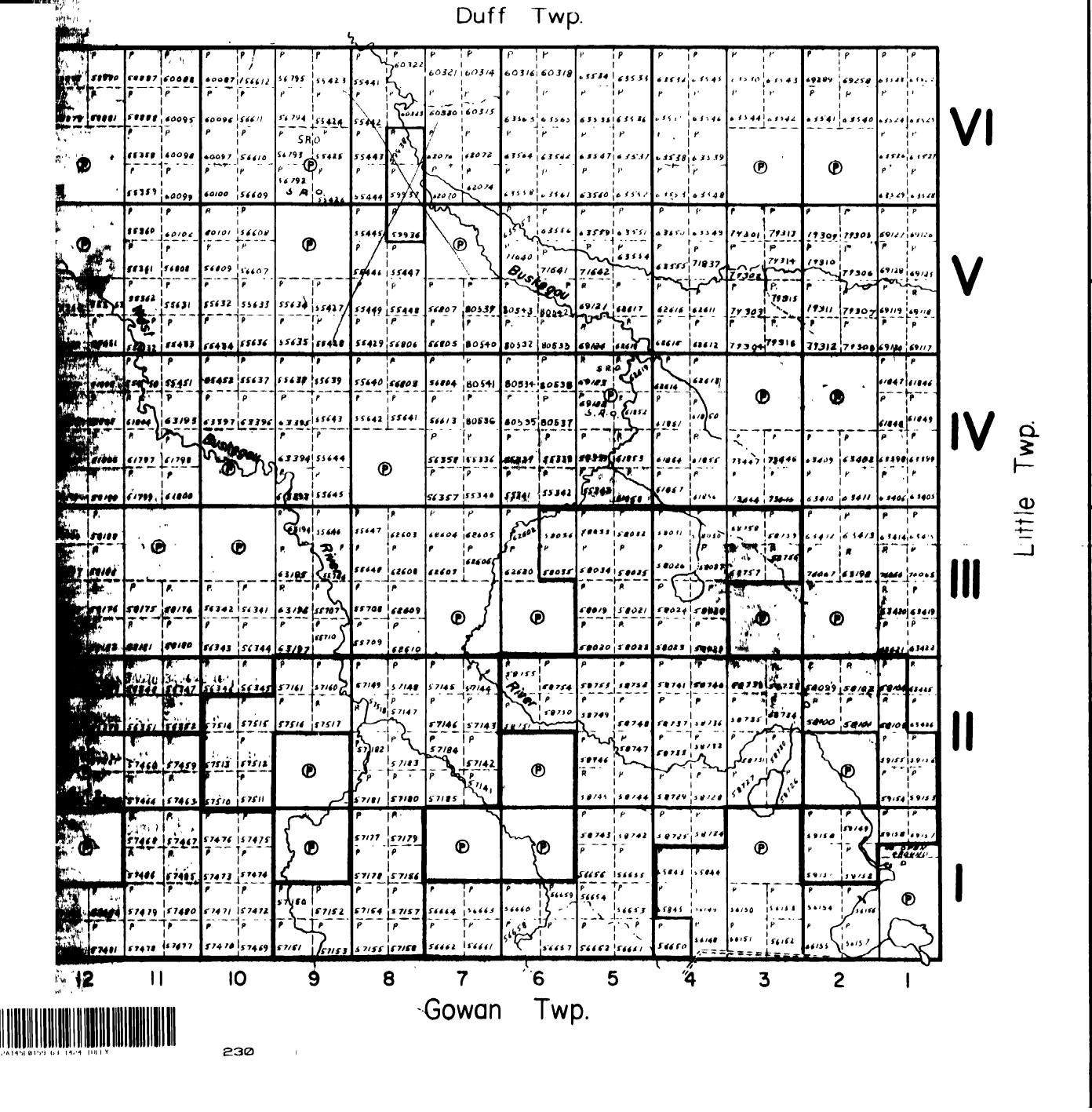
42A145E0159 63 1424 TULLY

210



THE TOWNSHIP

220



THE TOWNSHIP OF

TULLY

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: I-INCH=40 CHAINS

LEGEND

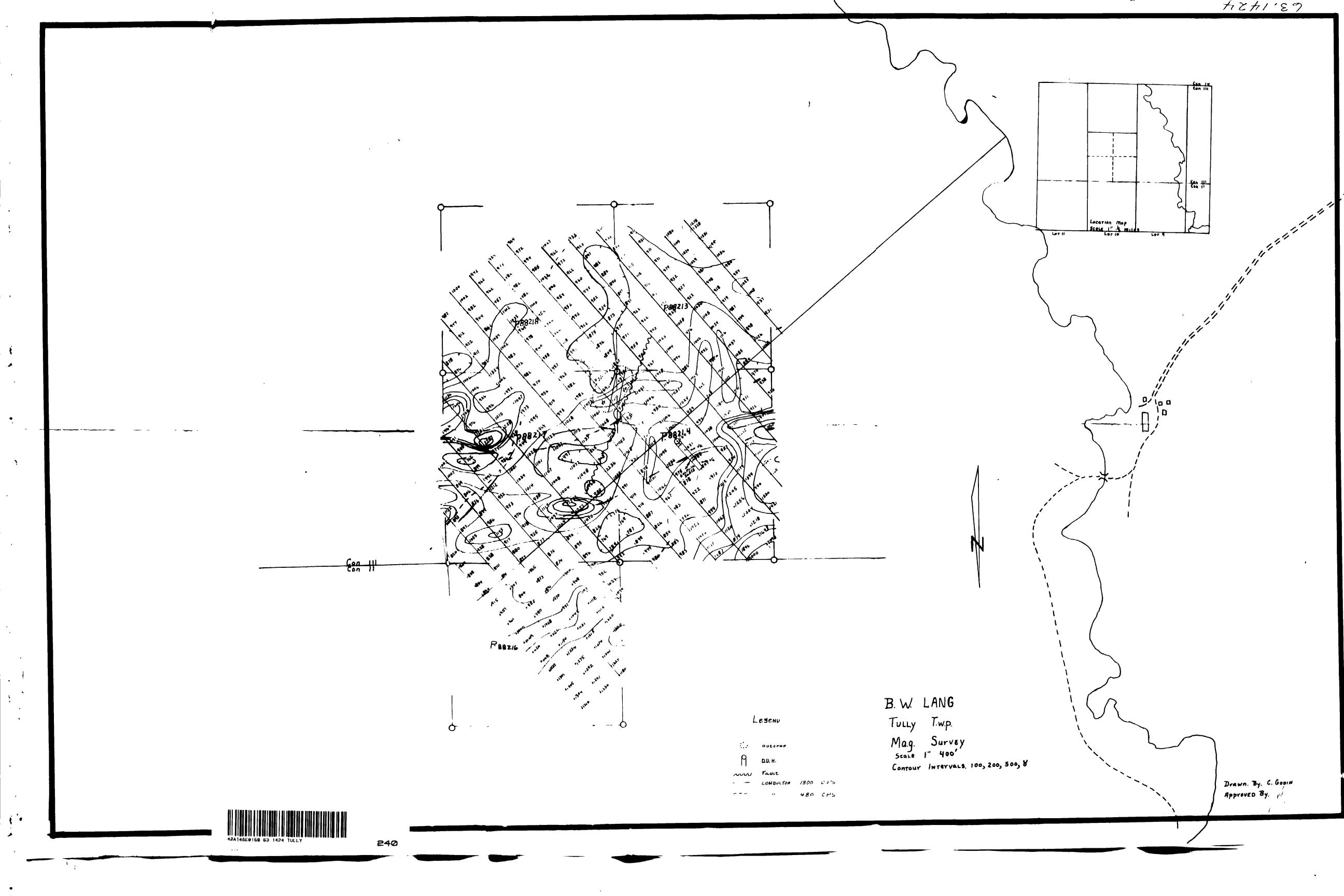
PATENTED LAND
CROWN LAND SALE
LEASES
LOCATED LAND
LICENSE OF OCCUPATION
ROADS
IMPROVED ROADS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
TRAIL

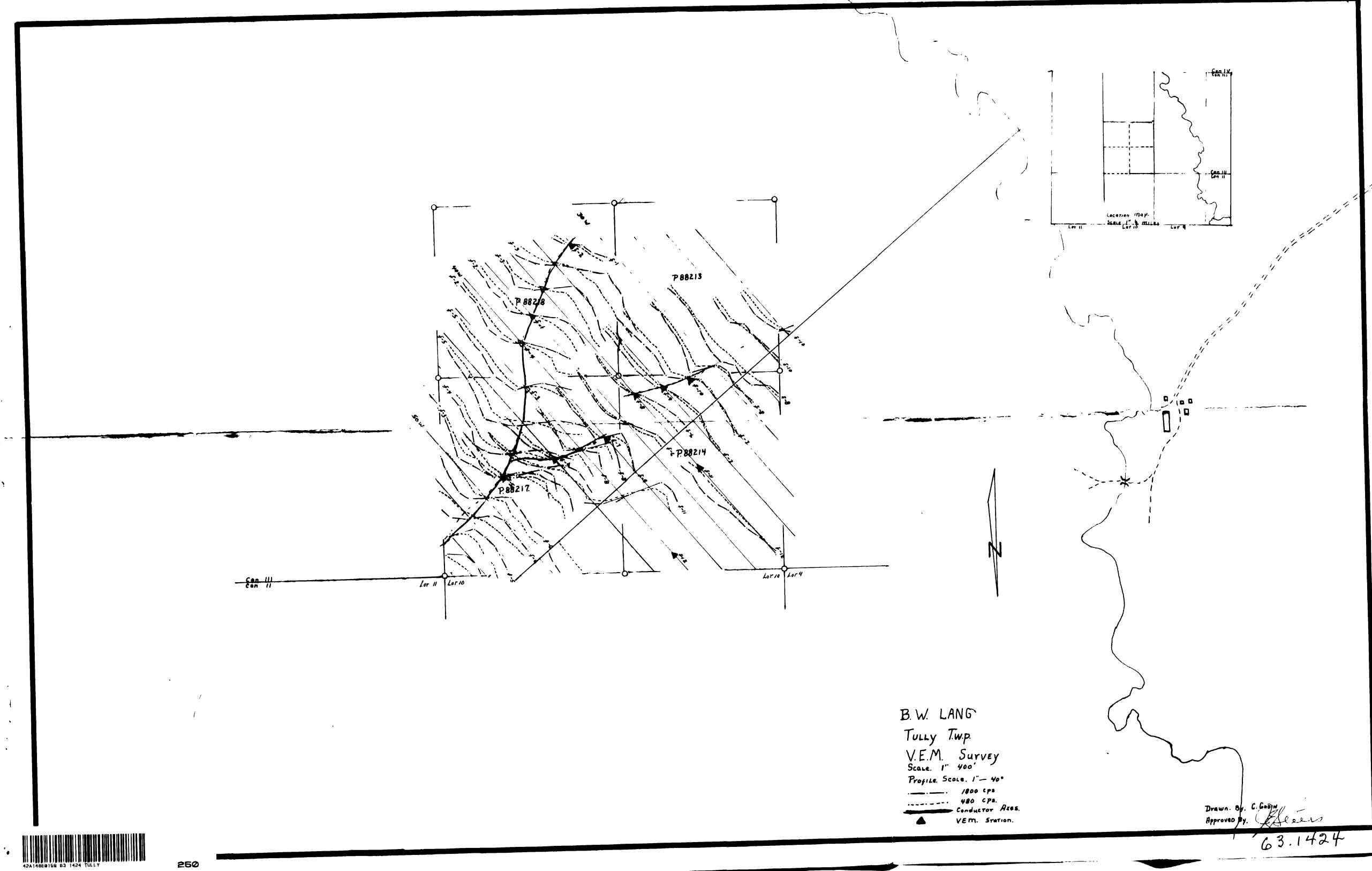
NOTES

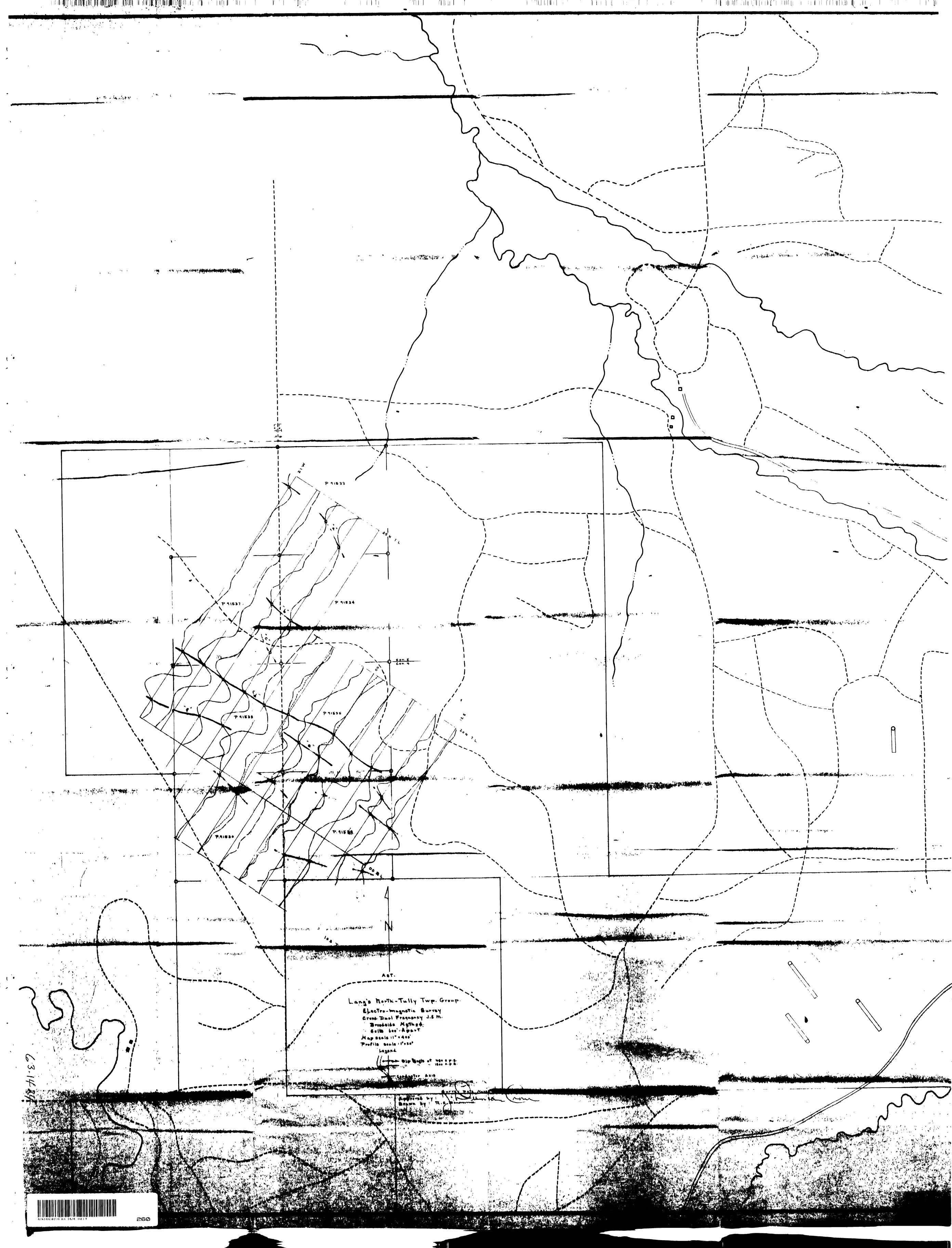
400' Surface Rights Reservation around all Lakes and Rivers.

PLAN NO. - M.607

DEPARTMENT OF MINES — ONTARIO—







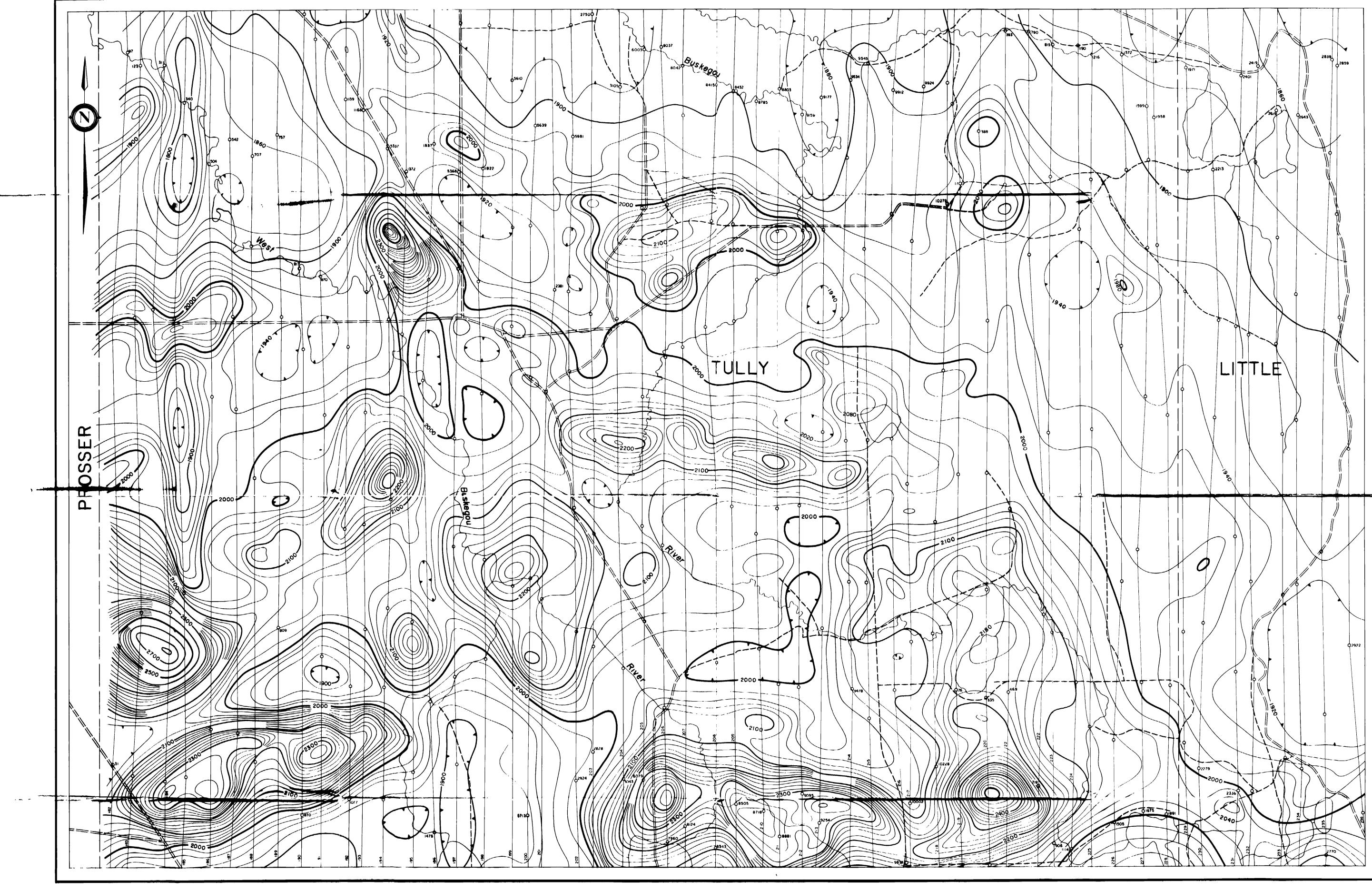
7271.89

B. W. LANG AIRBORNE GEOPHYSICAL SURVEY

63 1424

AREA Nº 4

6 3.1424



CONTOUR INTERVAL ______ 20 GAMMA

MEAN FLIGHT LINE SPACING _____ 660 FEET

MEAN TERRAIN CLEARANCE _____ 450 FEET

500 GAMMA CONTOUR ______

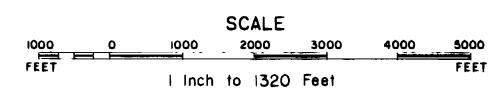
100 GAMMA CONTOUR _____

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FLIGHT LINES ...

TIMMINS AREA, ONTARIO MAGNETOMETRIC MAP

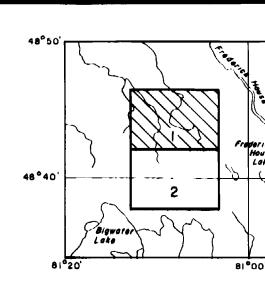


Flown and Compiled by

HUNTING SURVEY CORPORATION LIMITED

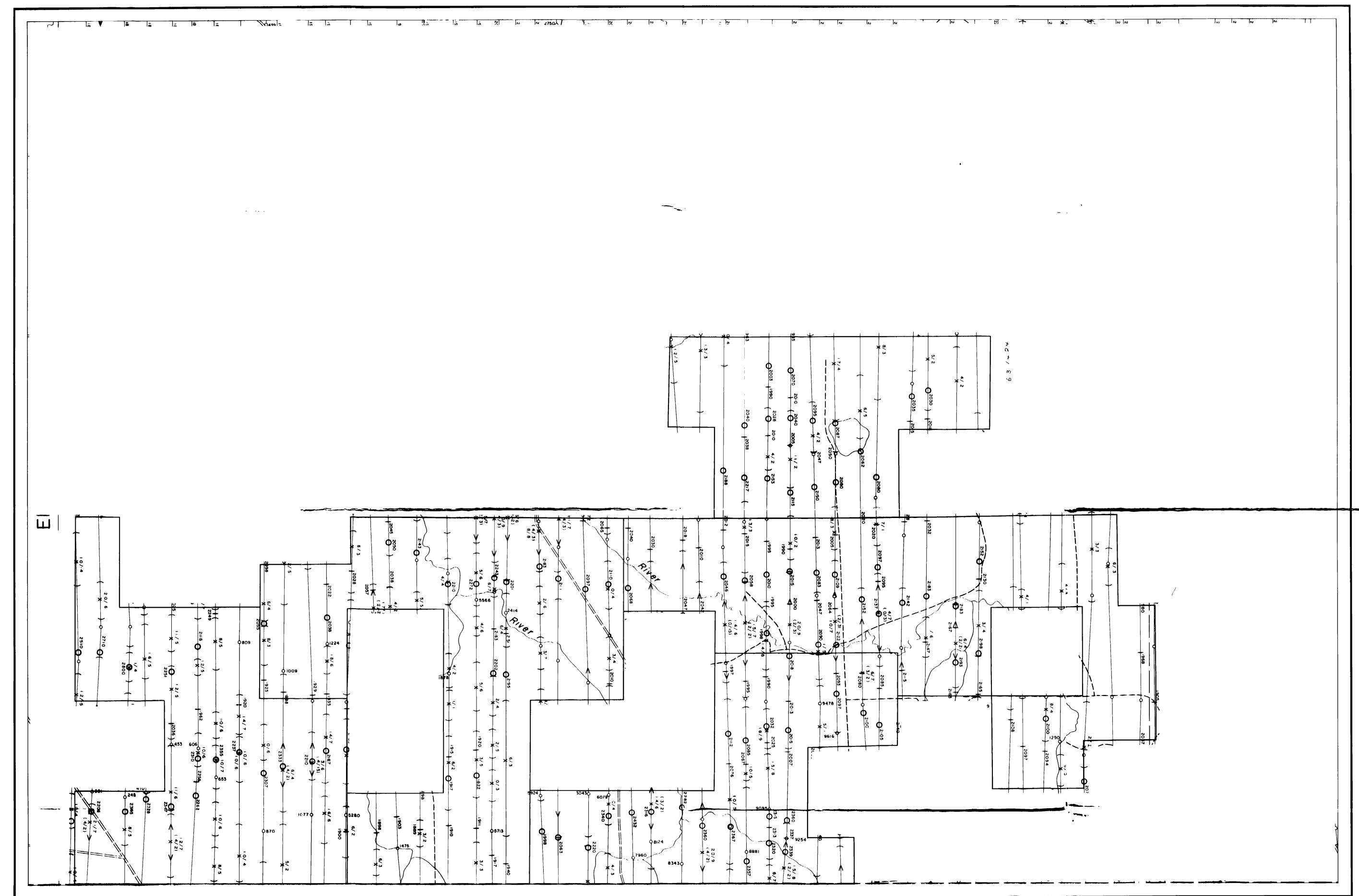
TORONTO, CANADA

1964

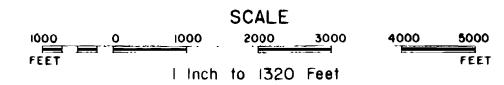


SHEET Nº I





TIMMINS AREA, ONTARIO ELECTROMAGNETIC MAP

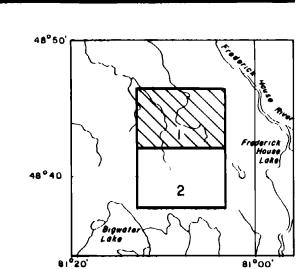


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TORONTO, CANADA

1964



SHEET Nº I



