



42A12NE0653 63.1287 MOBERLY

010

HUNTING SURVEY CORPORATION LIMITED

1450 O'Connor Drive Toronto 16 Canada • Telephone 755-1141 Cables: Canhunt

Air Photography • Maps • Volumes • Control • Photo Interpretation • Geology • Geophysics • Resources Inventories • Route and Site Analyses

July 16, 1964.

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

During the period April 29 to April 30, 1964 Hunting Survey Corporation carried out flying operations on a combined magnetometer and electromagnetometer survey over parts of the townships of Byers, Loveland, Fortune, Enid and Cote.

The work was carried out under contract to Mespil Mines Limited.

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 Beechcraft 18 with a crew of four, i.e. pilot, instrument operator, electronic technician and aircraft engineer.

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

Traverses were flown in an east-west direction at an average spacing of 660 feet.

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

Eighty-three traverses were flown over the area, for a total of 501 linear miles.

Instrumentation:

The following instruments were operated during the survey:

1. Gulf magnetometer
2. Hunting Survey Corporation/Canadian Applied Research Ltd.
dual frequency electromagnetometer measuring the phase displacement of the resultant field with respect to applied field; for frequencies of 400 and 2300 cycles per second.
3. Modified APN-1 radio altimeter
4. CARL/HSC 35 mm discrete frame positioning camera
5. A four-channel curvilinear recorder, showing from top to bottom:

- a) in red ink the terrain clearance record and camera fiducial pulses
- b) 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 35 mm. 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 2640 feet utilizing "Overthrust" mosaics available to the contractor.

For preparation of base maps uncontrolled mosaics were made on a scale of 1 inch to 1320 feet, utilizing photographs obtained from the Department of Lands and Forests (year 1961 photography).

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

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

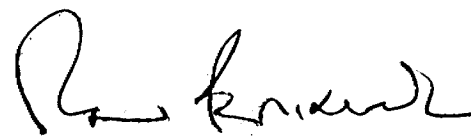
Township boundaries shown on the base maps were positioned by reference to the Ontario Department of Mines claim maps.

A map was compiled showing (a) flight traverses, and (b) magnetic contours referred to an arbitrary datum. Contour interval was 20 gammas.

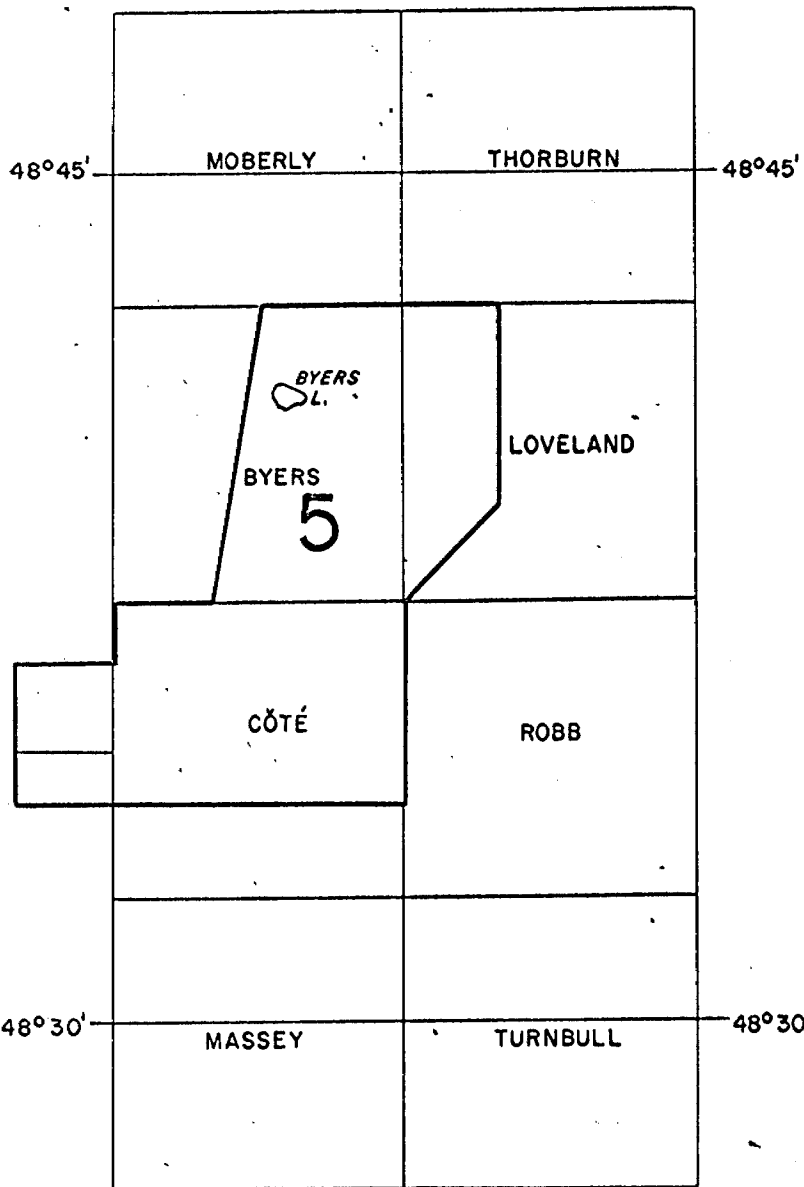
A second map was prepared showing

- (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 an arbitrary datum.

HUNTING SURVEY CORPORATION LIMITED



R. N. Parkinson, P.Eng.



SCALE: 1 Inch to 4 Miles

ADDENDUM

List of Claims located in Byers, Loveland, Enid, Fortune, & Cote Townships, & Moberly on which airborne electromagnetic and magnetic surveys are to apply as 40 days assessment credit on each claim.

BYERS TOWNSHIP

Claim Nos.

P-53142
P-53242
P-53249 to 53251 incl. ✓
P-53260 to 53268 " ✓
P-53277
P-53224 to 53226 " ✓
P-53231 to 53240 " ✓
P-53241
P-53441 to 53451 " ✓
P-53477 to 53494 " ✓
P-53846 to 53861 " ✓
P-54384 to 54398 " ✓
P-54569 ✓
P-54579

Claim Nos.

P-54582 & 54583 ✓
P-55022 to 55024 incl. ✓
P-54659 ✓
P-53684 & 53685 ✓
P-53689
P-53702 ✓
P-53709 & 53710 ✓
P-54027 to 54039 incl. ✓
P-57379 to 57396 " ✓
P-57361 to 57378 " ✓
P-57397 to 57414 " ✓
P-57565 to 57570 " ✓

LOVELAND TOWNSHIP

Claim Nos.

P-53143 to 53150 incl. ✓
P-53243 to 53248 " ✓
P-53252 ✓
P-53254 to 53258 " ✓
P-53269 to 53276 " ✓
P-53571 ✓
P-54399 to 54401 " ✓
P-54580 & 54581 ✓
P-54584 to 54587 " ✓

Claim Nos.

P-54631 to 54636 incl. ✓
P-54825 to 54830 " ✓
P-53681 to 53683 " ✓
P-53686 to 53688 " ✓
P-53723 to 53734 " ✓
P-53910 to 53924 " ✓
P-53934 to 53945 " ✓
P-55797 to 55804 " ✓
55801 to 55804

COTE TOWNSHIP

P-53703 to 53708 incl. ✓
P-53711 to 53716 " ✓
P-54534 ✓
P-54462 to 54479 " ✓
P-54482 & 54483 ✓

P-54492 & 54493 ✓
P-54498 to 54515 incl. ✓
P-54755 to 54762 " ✓
P-54767 to 54770 " ✓

ADDENDUM

- 2 -

List of Claims located in Byers, Loveland, Enid, Fortune, Cote and Moberly Townships on which airborne electromagnetic and magnetic surveys are to apply as 40 days assessment credit on each claim.

ENID TOWNSHIP *no map*

Claim Nos.

S-122480 ✓
S-122483 ✓ to 122488 ✓ inc.
S-122491 ✓ to 122493 ✓ inc.
S-122499 ✓ to 122503 ✓ inc.

Claim Nos.

S-122504 ✓
S-122507 ✓ to 122509 ✓ inc.
S-122546 ✓ to 122548 ✓ inc.
S-122517 ✓ to 122521 ✓ inc. *27*

FORTUNE TOWNSHIP *no map*

Claim Nos.

S-122481 & 122482 ✓
S-122494 ✓ to 122498 ✓ inc.
S-122510 ✓ to 122516 ✓ inc.

Claim Nos.

S-122489 & 122490
S-122505 & 122506
S-122522 to 122533 *19*

MOBERLY TOWNSHIP *no map*

Claim Nos.

P-54040 ✓ to 54042 ✓ inc. ✓

ADDENDUM NO. 2

List of Claims located in Enid, Loveland and Robb Townships on which airborne electromagnetic and magnetic surveys are to apply as 40 days assessment credit on each claim.

ENID TOWNSHIP

Claim Nos.

Claim Nos.

9 S-122534 to 122542 inc. ✓

LOVELAND TOWNSHIP

P-53690 & 53691
P-53696 & 53697
P-53717 to 53722 inc.

P-53693 & 53694
P-53699 & 53700
P-53931 & 53932

RYESS TOWNSHIP

P-60033 to 60038 inc.
P-67622 to 67635 inc.

P-60049 & 60050
P-67604 to 67621 inc.

ROBB TOWNSHIP

P-53692
P-53698
P-54516 to 54523 inc.
P-54480 & 54481
P-54489 to 54491 inc.
P-54535 & 54536
P-54763 to 54766 inc.

P-53695
P-53701
P-54526 to 54533 inc.
P-54484 to 54486 inc.
P-54494 & 54495
P-54541 & 54542

TO BE DELETED:
FROM ADDENDUM NO. 1:

LOVELAND TOWNSHIP

P-54831 & 54832 ✓

P-55797 to 55800 inc.

63.1287

ME PI

MINES LTD.



1705 VICTORY BUILDING

80 RICHMOND ST. WEST

The Prospect of Today
is the Mine of Tomorrow

TORONTO 1, ONTARIO

September 3, 1964.

Mr. F. W. Matthews,
Mining Recorder,
Department of Mines,
Parliament Buildings,
Toronto, Ontario.



42A12NE0653 63.1287 MOBERLY

900

Dear Mr. Matthews:

Further to Mr. R. V. Scott's letters of August 5th and August 20th, 1964, the following information is in answer to the questions listed in the letter of August 5th:

1. Townships -- Robb, Turnbull, Godfrey, Carscallen, Bristol
 - (a) There are approximately 327 miles of continuous recordings flown over those claims for which credit of 40 days' work is desired using two geophysical instruments.
 - (b) Mr. R. N. Parkinson's statement of qualifications was handed to you on August 26th, 1964.
 - (c) Enclosed is Addendum No. 2 (in duplicate) listing additional claims in Godfrey, Turnbull and Robb Townships which were erroneously omitted from the list that you presently have at the back of the report. You will note that on the enclosed Addendum No. 2 reference is made to claim P-52575 (old number) which should have been shown as P-55142 (new number).
 - (d) Enclosed are mining claim index maps for Robb, Turnbull and Godfrey Townships in duplicate, which are to replace the maps submitted with the report. We have outlined in "red" the claims for which 40 days' work is to be recorded on each claim. We have outlined one claim in Turnbull Township (P-60702) and two claims in Godfrey Township (P-63160 and P-63161) in "violet" to signify that we will be applying for an Airborne Geophysical Certificate as provided for in the Mining Act under Section 84(a)-(1). There are approximately 3 miles of continuous readings flown over these 3 claims.

2. Townships -- Byers, Loveland, Fortune, Enid, Cote, Moberly
 - (a) There are approximately 251.5 miles of continuous recordings flown over the claims for which credit of 40 days' work on each is desired as two geophysical instruments were used.
 - (b) Mining claim index maps for Cote, Enid, Fortune, Moberly, Loveland, Byers and Robb Townships are enclosed. We have indicated the area flown with a broken "green" line and the claims which are to be credited with this survey are outlined in a "red" border. We have outlined a group of 54 claims in Cote Township (P-72823 to P-72858 inclusive and P-74084 to P-74101 inclusive) with a "violet" border to signify that we will be applying for an Airborne Geophysical

*This list covers
the same*

Certificate as provided for in the Mining Act under Section 84(a)-(1). There are approximately 27 miles of continuous recordings flown over this group of claims. Enclosed is Addendum No. 2 (in duplicate) being a list of additional claims in Enid, Loveland, Byers and Robb Townships which were erroneously omitted from the list that you presently have enclosed with the report of this survey. We would appreciate your adding this list to the report which you now have.

3. Townships -- Cote, Loveland, Macdiarmid, Reid, Robb

- (a) There are approximately 280.5 miles of continuous recordings flown over the claims covered by this report for which credit of 40 days' work on each is desired as two geophysical instruments were used.
- (b) Enclosed are mining claim index maps for Cote, Loveland, Macdiarmid, Reid and Robb Townships in duplicate. We have outlined in "red" the claims for which 40 days' work is to be recorded on each claim. We have outlined in "violet" a group of 12 claims located in Loveland Township (P-63972 to P-63983 inclusive) and it is planned that we will apply for an Airborne Geophysical Certificate covering these claims. There are approximately 6 miles of continuous recordings flown over these claims.
- (c) We have shown a group of 9 claims in Macdiarmid Township (P-57756 to P-57764 inclusive) in an "orange" border. There is a dispute over these claims and if this Company is awarded the claims we would appreciate your crediting them with 40 days' work. If we should not be awarded these claims we would not wish to apply this survey as assessment work on them.
- (d) Also enclosed is Addendum No. 2 (in duplicate) being a list of additional claims in Loveland and Robb Townships which we erroneously omitted from the list which you presently have in this report.

Yours very truly,

MESPI MINES LIMITED

Edward A. Pigulski

Treasurer.

EAPigulski/d.
Encls.

ME PI
MINES LTD.

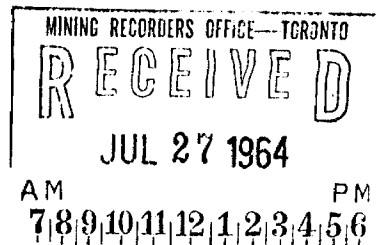
1705 VICTORY BUILDING

80 RICHMOND ST. WEST

*The Prospect of Today
is the Mine of To-morrow*

TORONTO 1. ONTARIO

July 27, 1964.



Mr. F. W. Matthews,
Mining Recorder,
Department of Mines,
Parliament Buildings,
Toronto 2, Ontario.

Dear Mr. Matthews:

Enclosed are the following reports in duplicate
by Canadian Aero Mineral Surveys Limited:

Airborne Geophysical Survey of the Turnbull Township
Area (East-West) Northern Ontario.

Airborne Geophysical Survey of the Kamiskotia Lake
Area, Cochrane District, Northern Ontario.

Airborne Geophysical Survey of Selected Sections of
the Timmins-Pamour Area, District of Cochrane,
Northern Ontario.

We have filed Reports of Work over certain claims
covered by these surveys which Reports were recorded by the Mining
Recorder starting May 26th, 1964.

A separate list of claims on which these surveys
are to be applied as assessment work will be forwarded to you
within the next few days, together with blow-ups of claim maps over
the areas covered.

Yours very truly,

MESPI MINES LIMITED

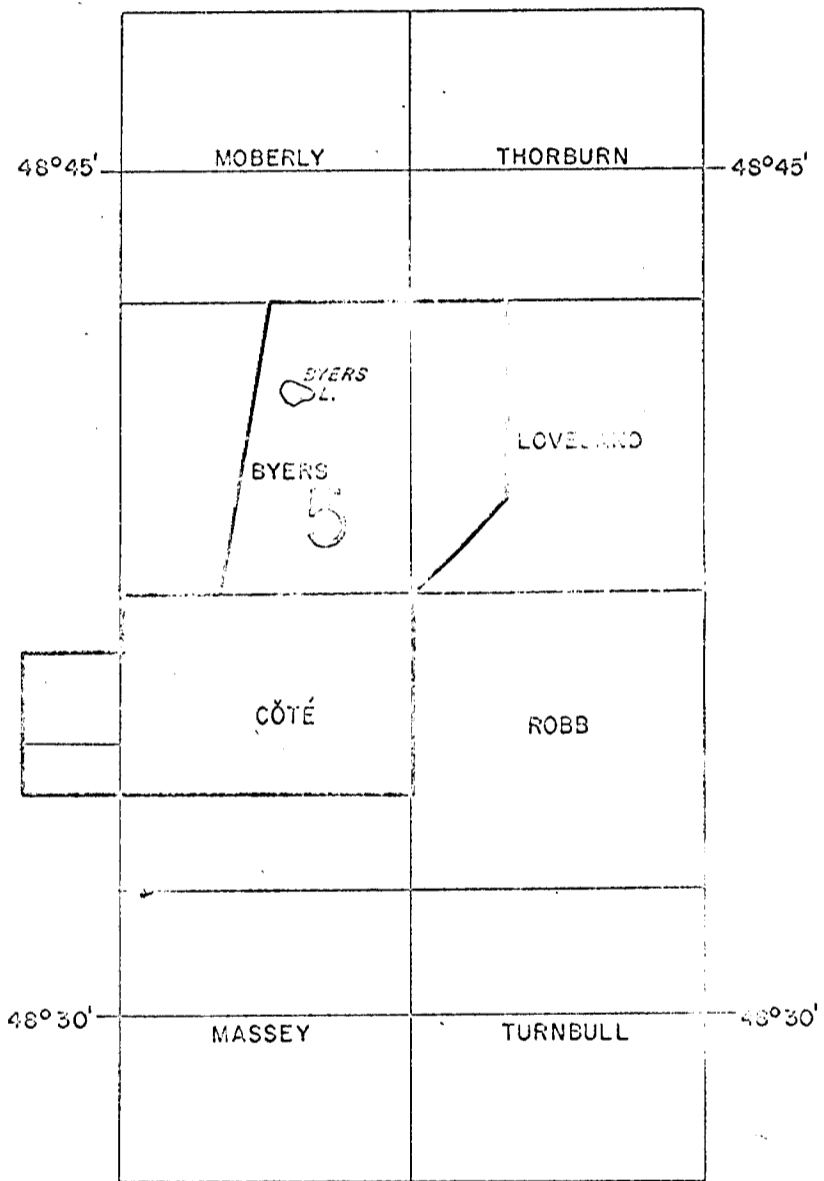
Edward A. Pigulski

Treasurer.

EAPigulski/d.
Encls.

ORIGINAL.

MINING DEPARTMENT OFFICE - T.R.M.D.
RECEIVED
JUL 17 1964
AM PM
7 8 9 10 11 12 1 2 3 4 5 6



SCALE: 1 Inch to 4 Miles

Moberly Twp. (M.550)

THE TOWNSHIP OF

BYERS

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND (P)
- 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.

DATE OF ISSUE

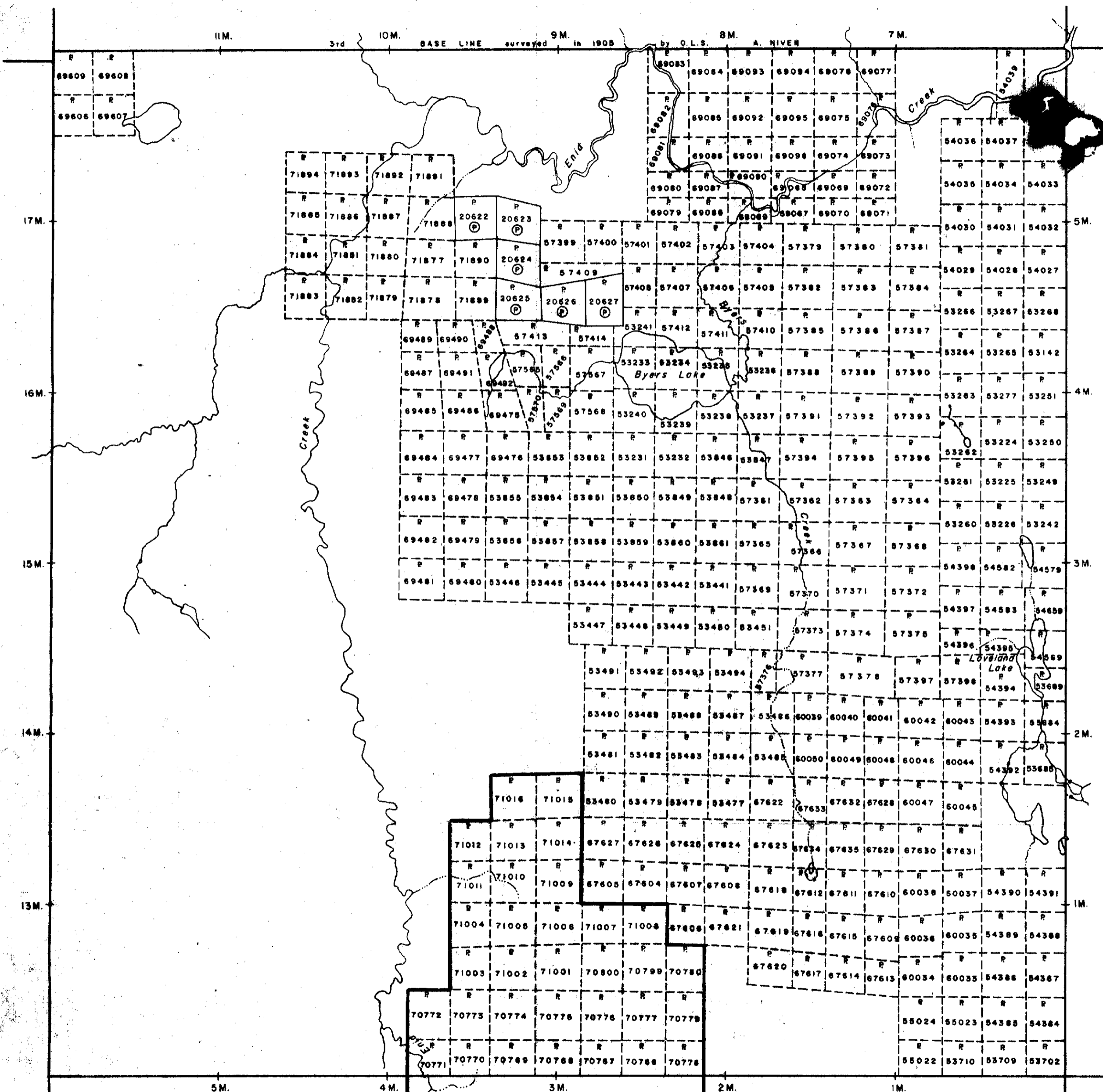
FEB 15 1965

ONTARIO DEPT. OF MINES

PLAN NO. M-265

DEPARTMENT OF MINES

- ONTARIO -



Fortune Twp. (M.813)

Loveland Twp. (M.293)

Côte Twp. (M.271)



Byers Twp. (M.265)

THE TOWNSHIP OF

CÔTÉ

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE C.S.
- 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
- CANCELLED

NOTES

400' Surface Rights Reservation around all lakes and rivers.

DATE OF ISSUE
FEB 15 1965
ONTARIO DEPT. OF MINES

PLAN NO. M-271

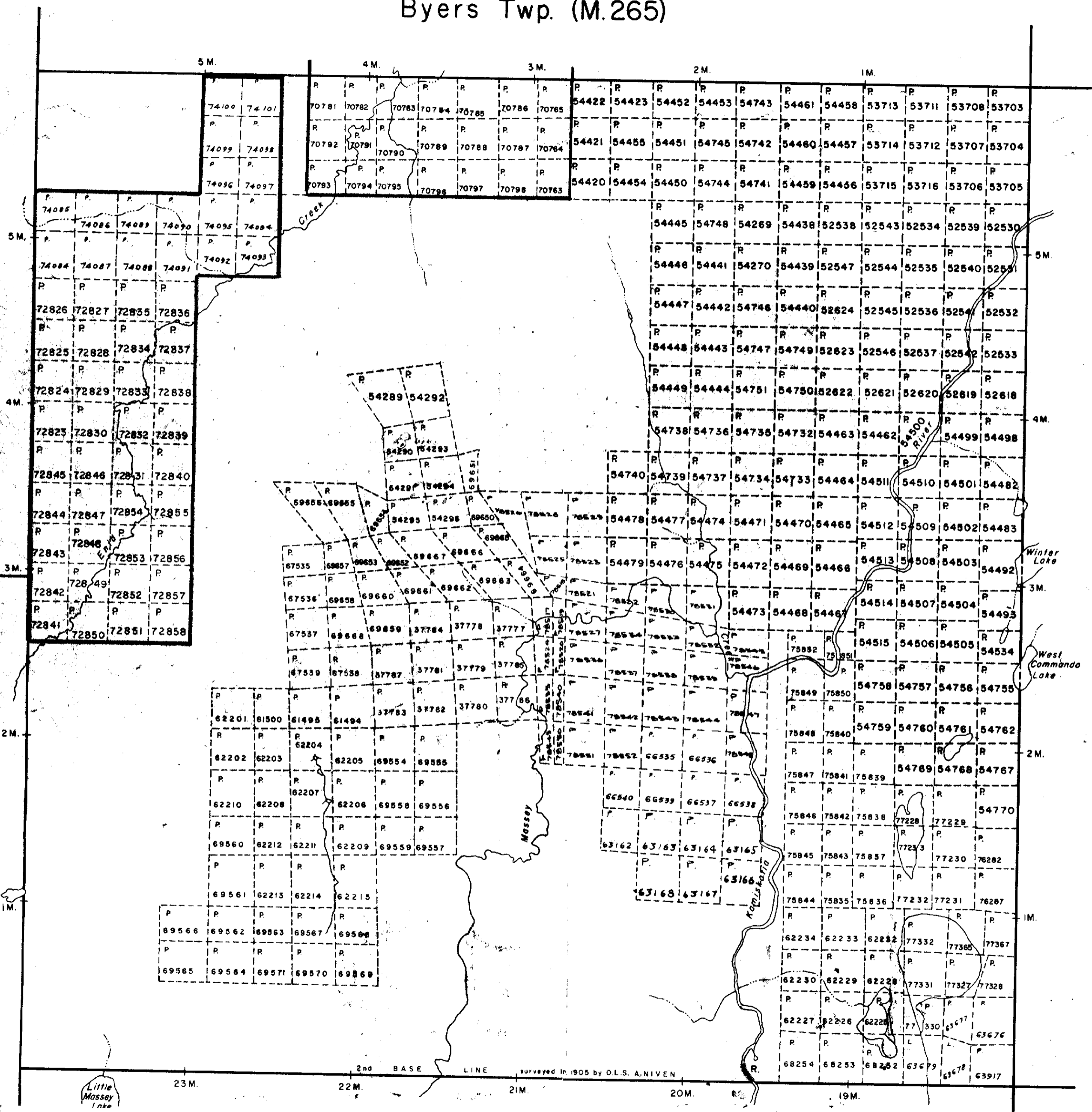
DEPARTMENT OF MINES

- ONTARIO -

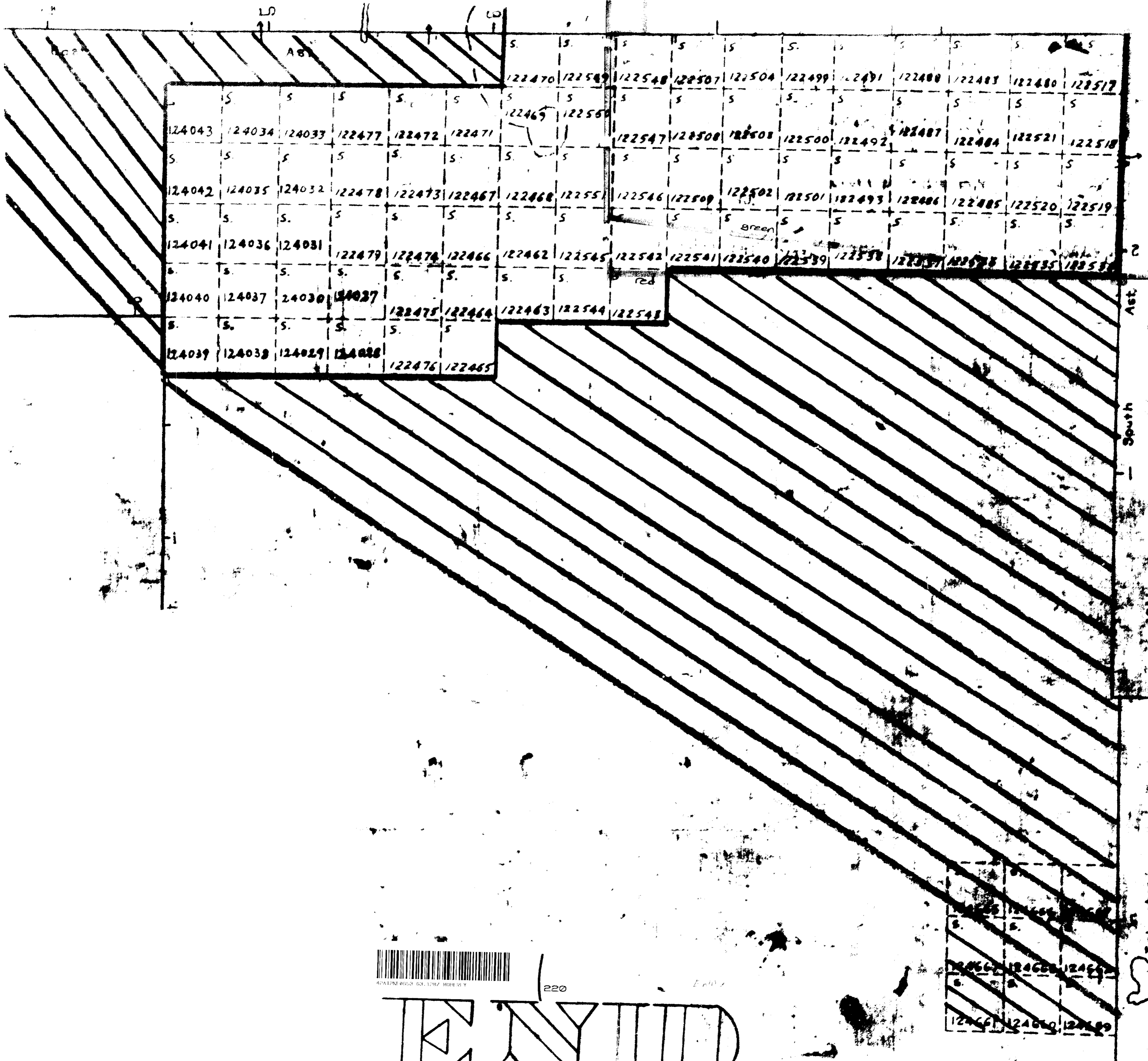
Fortune Twp. (M.813)

Enid Twp. (M.788)

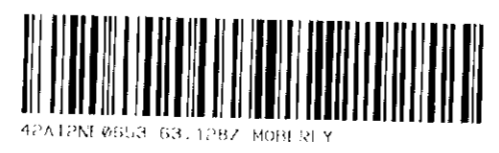
Robb Twp. (M.309)



Massey Twp. (M.296)



						122470	122549	122548	122507	122504	122499	122491	122488	122483	122480	122517
124043	124034	124033	122477	122472	122471											
124042	124035	124032	122478	122473	122467	122468	122551	122546	122509	122502	122501	122493	122486	122485	122520	122519
124041	124036	124031	122479	122474	122466	122462	122545	122542	122541	122540	122539	122538	122537	122536	122535	122534
124040	124037	124030	124027			122475	122464	122463	122544	122543						
124039	124038	124029	124028			122476	122465									



220

INVID

LOVELAND

5M

4M

3M

2M

1M

Byers Lake

5M

4M

2M

17M

16M

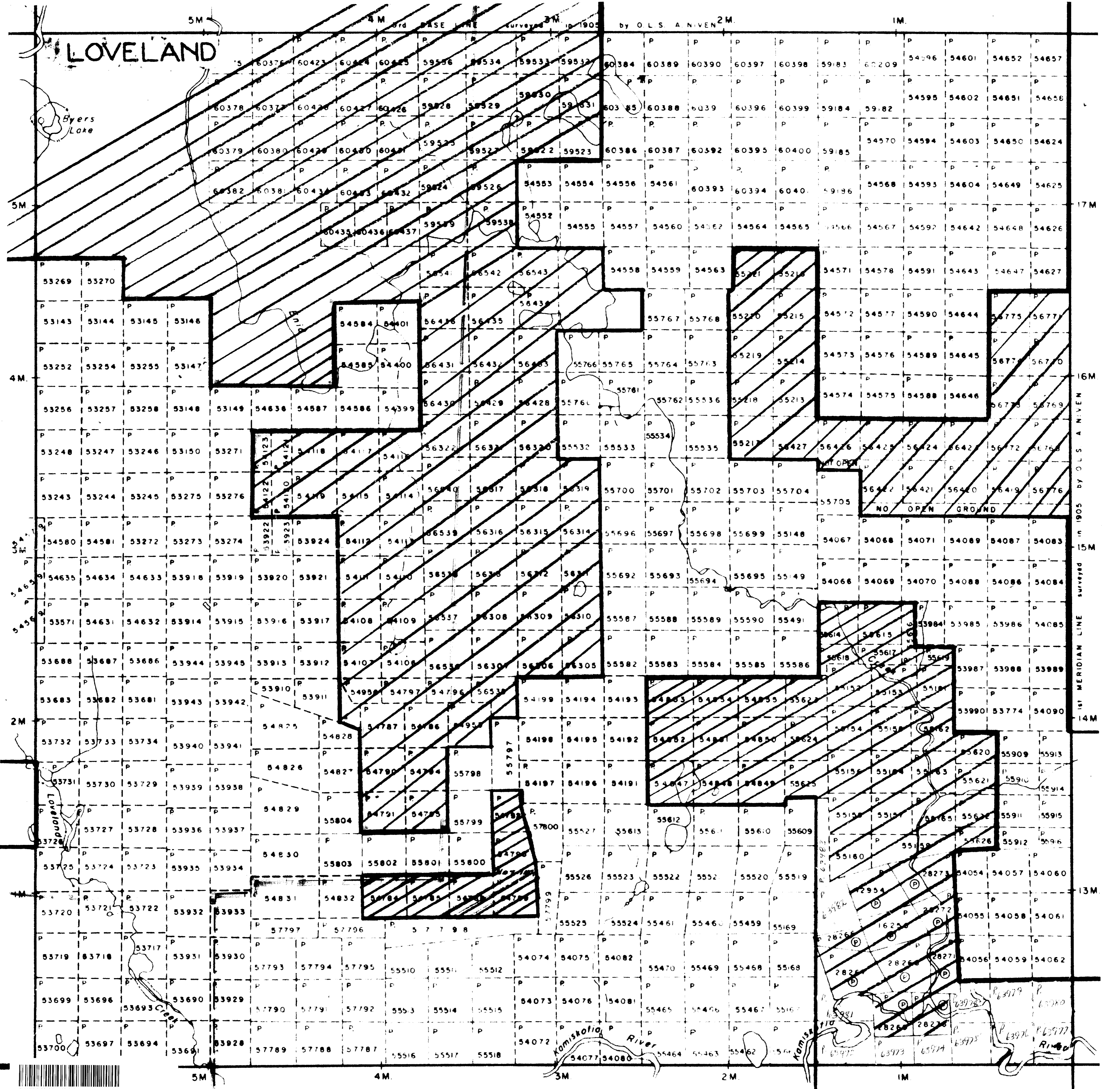
15M

14M

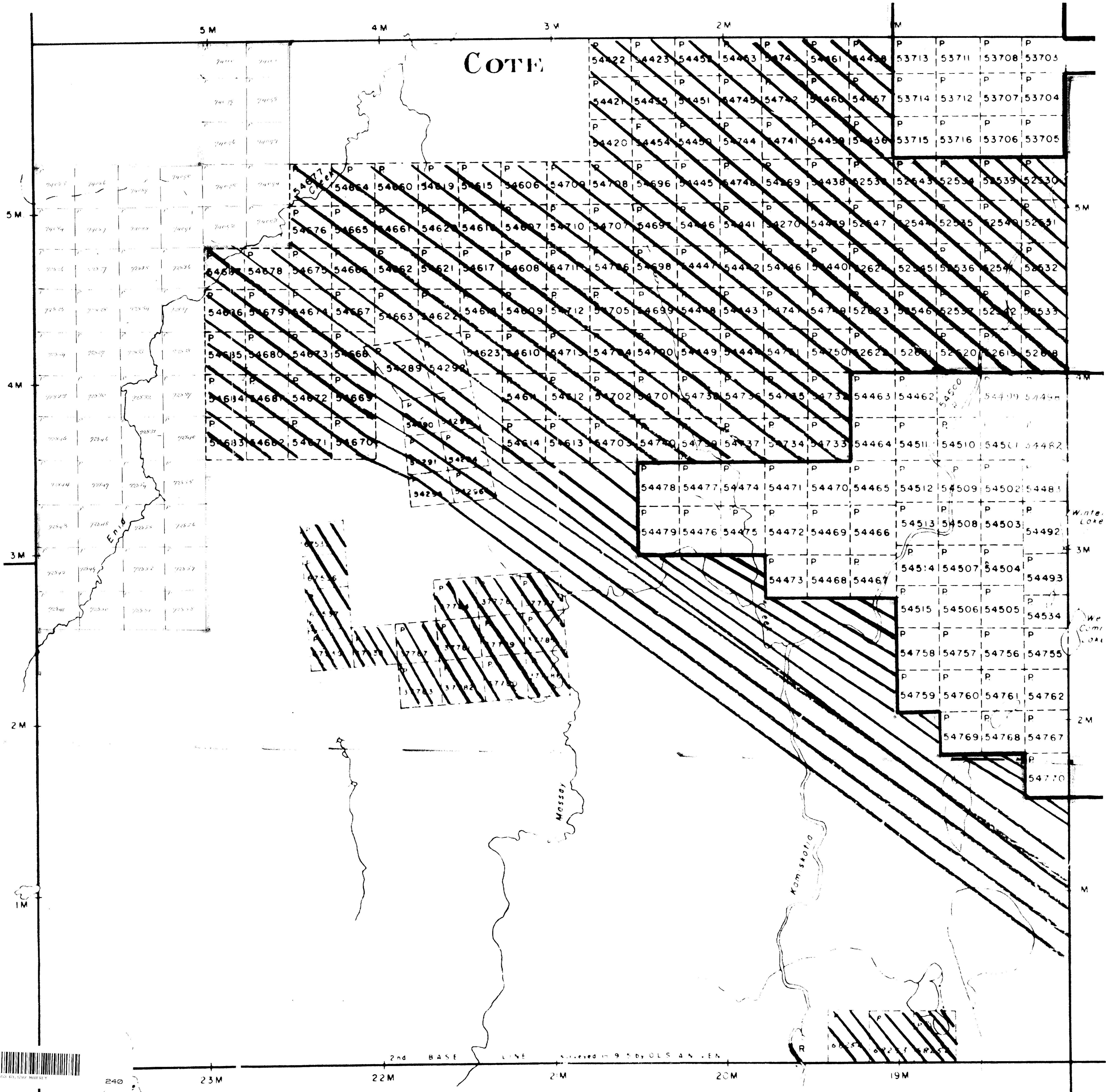
13M

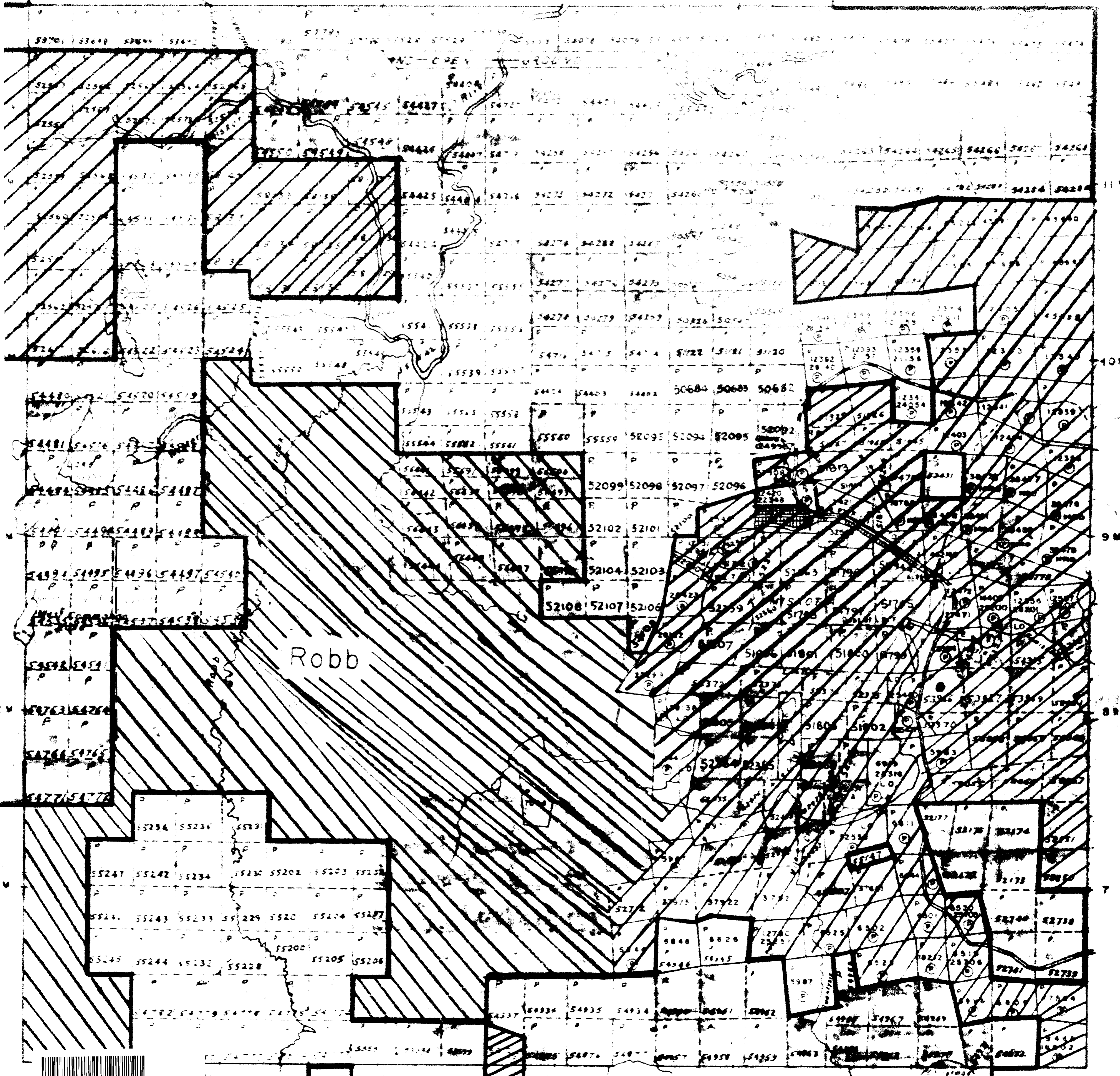
US
S
A

1ST MERIDIAN LINE surveyed in 1905 by O.L.S. A. NIVEN



COTE

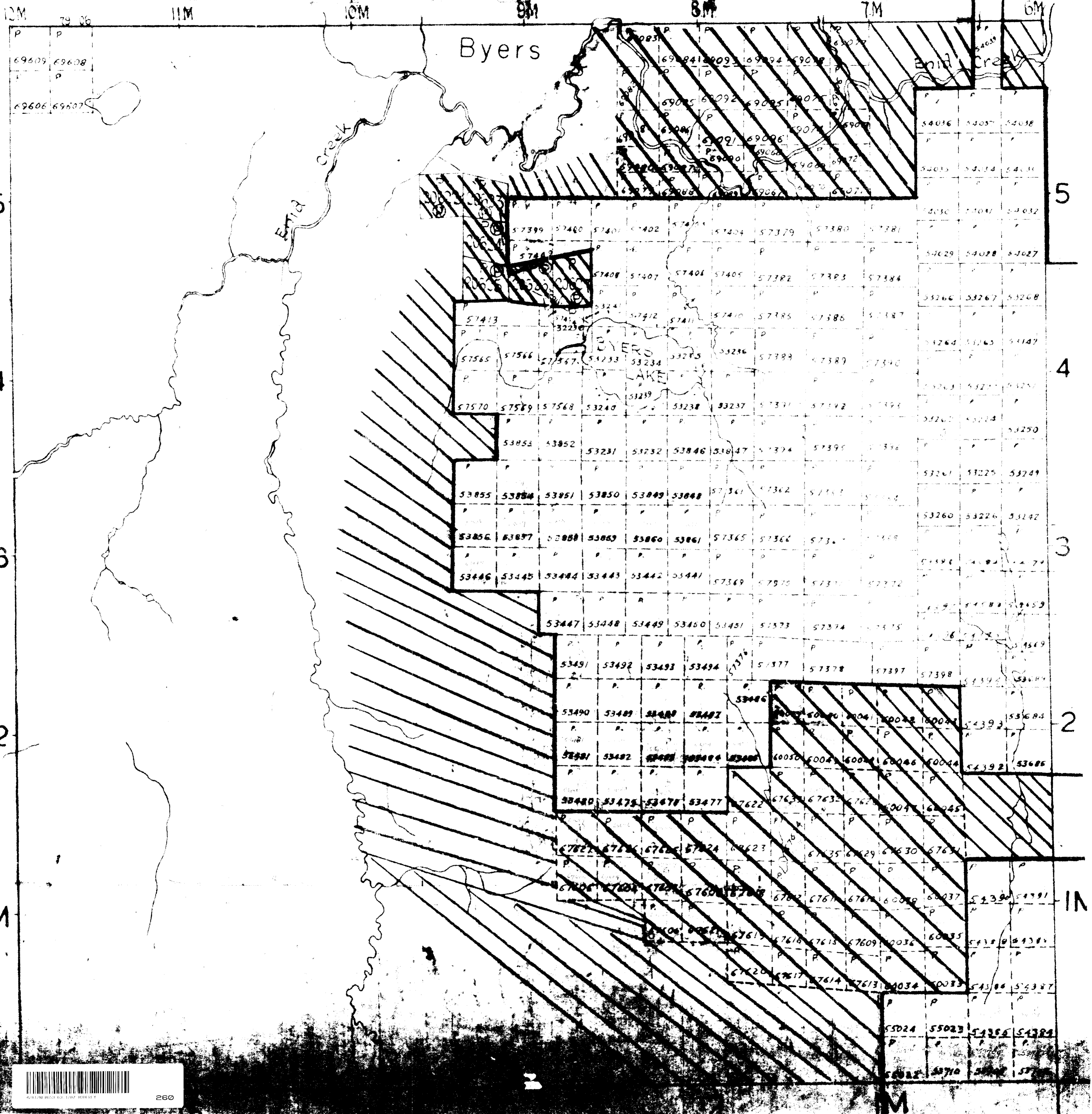




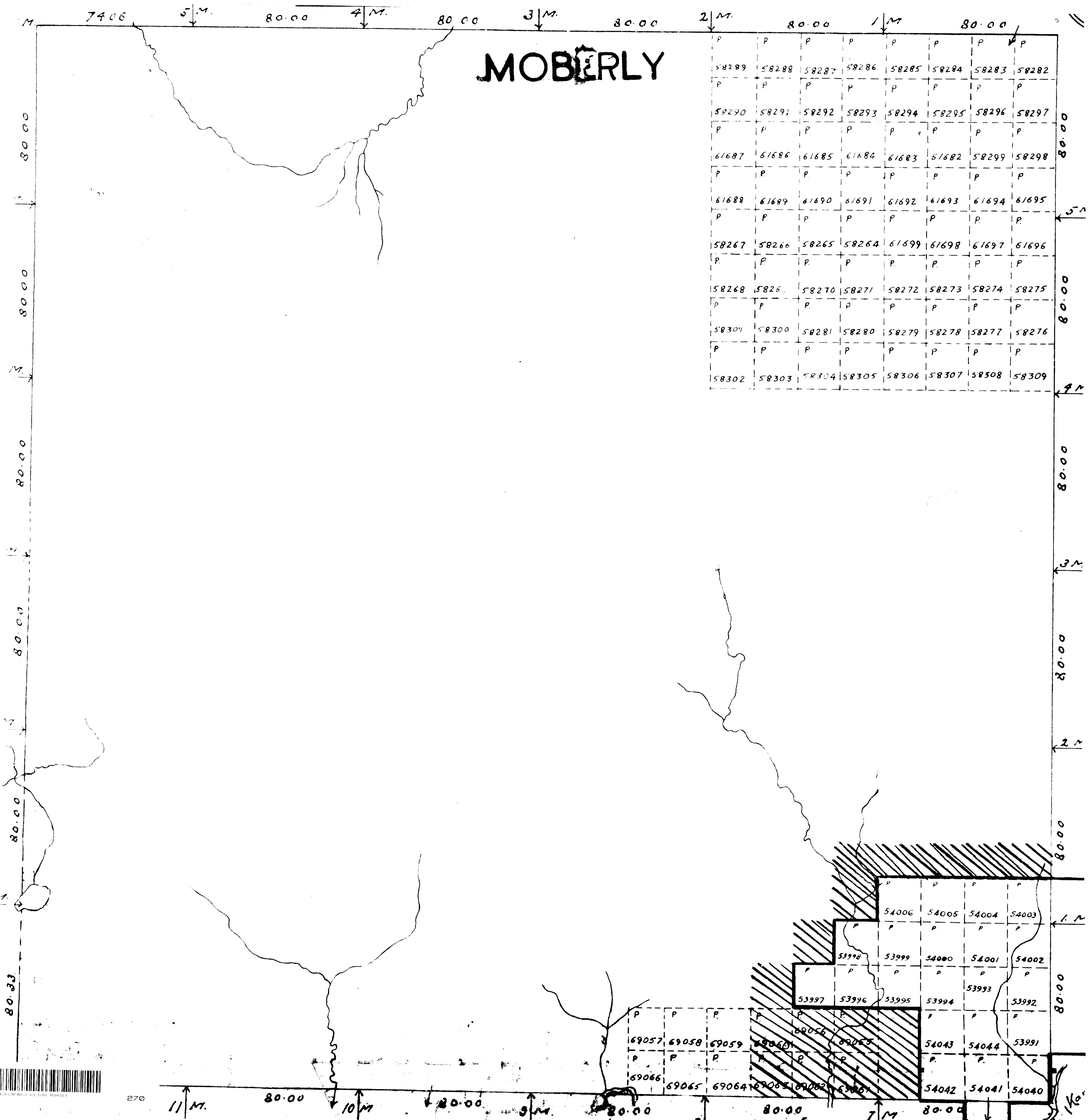
AND CREEK GROOVE

Robb





MOBILE



P	P	P	P	P	P	P	P
58289	58288	58287	58286	58285	58284	58283	58282
P	P	P	P	P	P	P	P
58290	58291	58292	58293	58294	58295	58296	58297
P	P	P	P	P	P	P	P
61687	61686	61685	61684	61683	61682	58299	58298
P	P	P	P	P	P	P	P
61688	61689	61690	61691	61692	61693	61694	61695
P	P	P	P	P	P	P	P
58267	58266	58265	58264	61699	61698	61697	61696
P	P	P	P	P	P	P	P
58268	58269	58270	58271	58272	58273	58274	58275
P	P	P	P	P	P	P	P
58301	58300	58281	58280	58279	58278	58277	58276
P	P	P	P	P	P	P	P
58302	58303	58304	58305	58306	58307	58308	58309

P	P	P	P
54006	54005	54004	54003
P	P	P	P
53998	53999	54000	54001
P	P	P	P
53997	53996	53995	53994
P	P	P	P
54043	54044	53991	
P	P	P	P
54042	54041	54040	



270

5M
Fortune

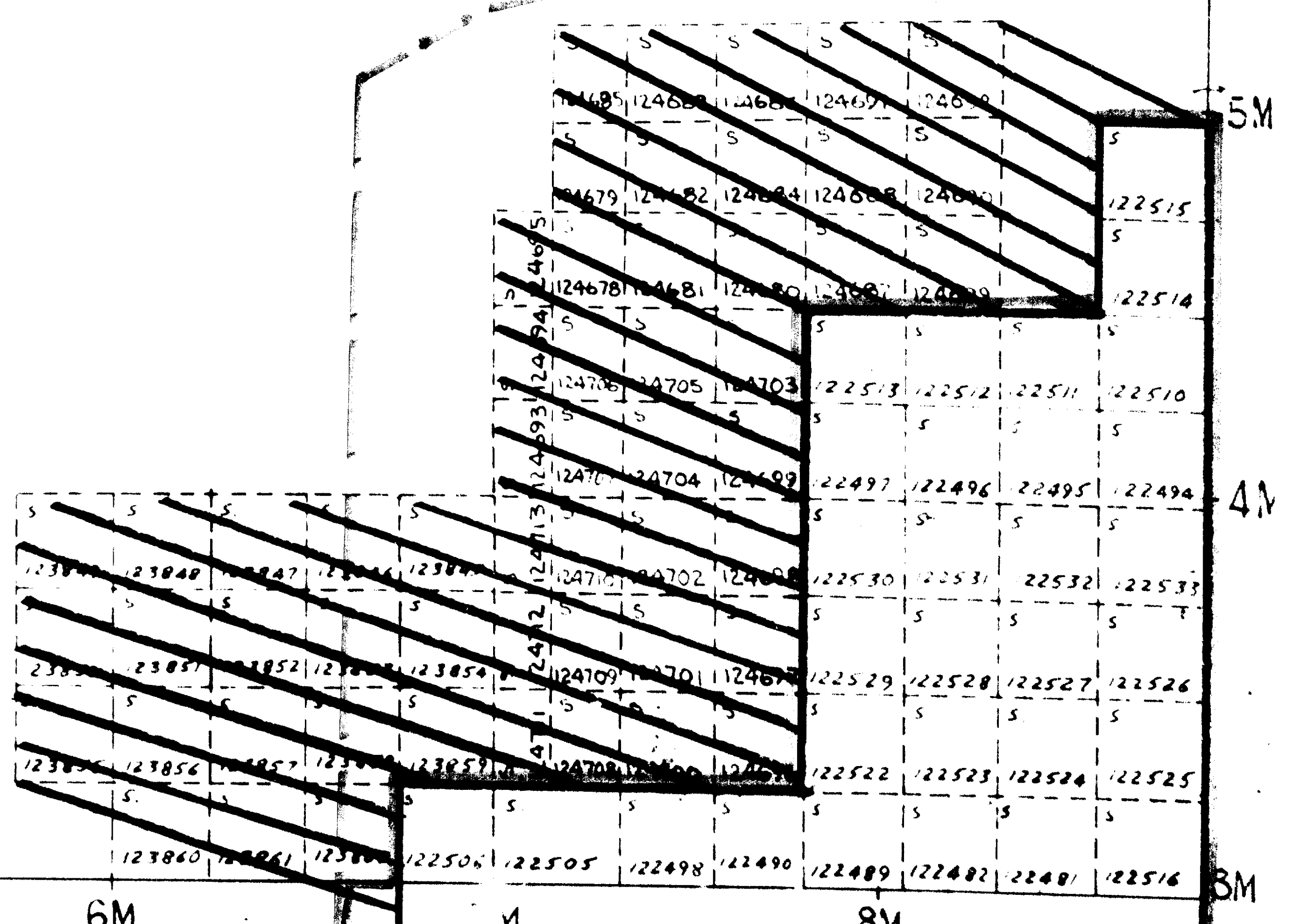
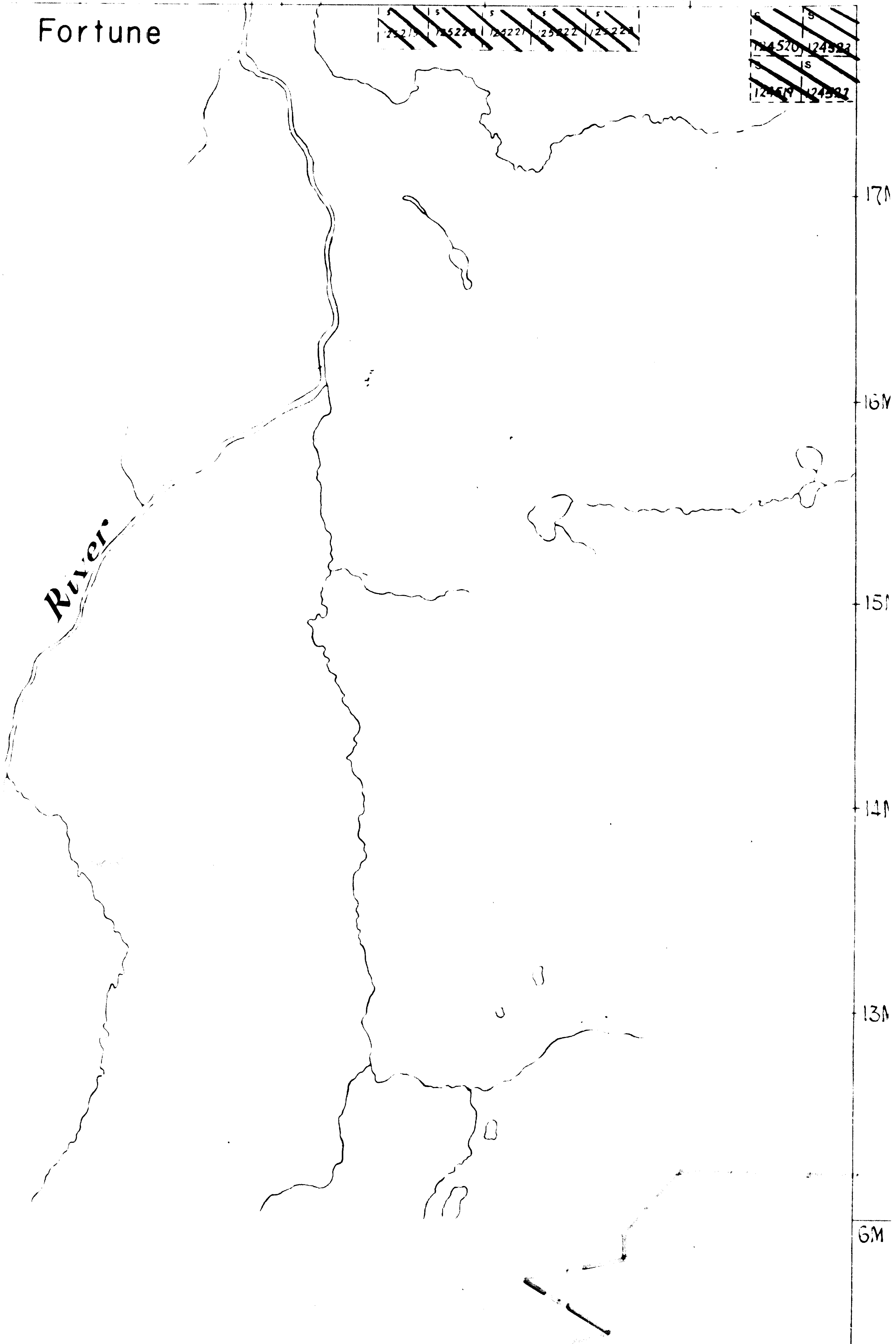
6M

7M

8M

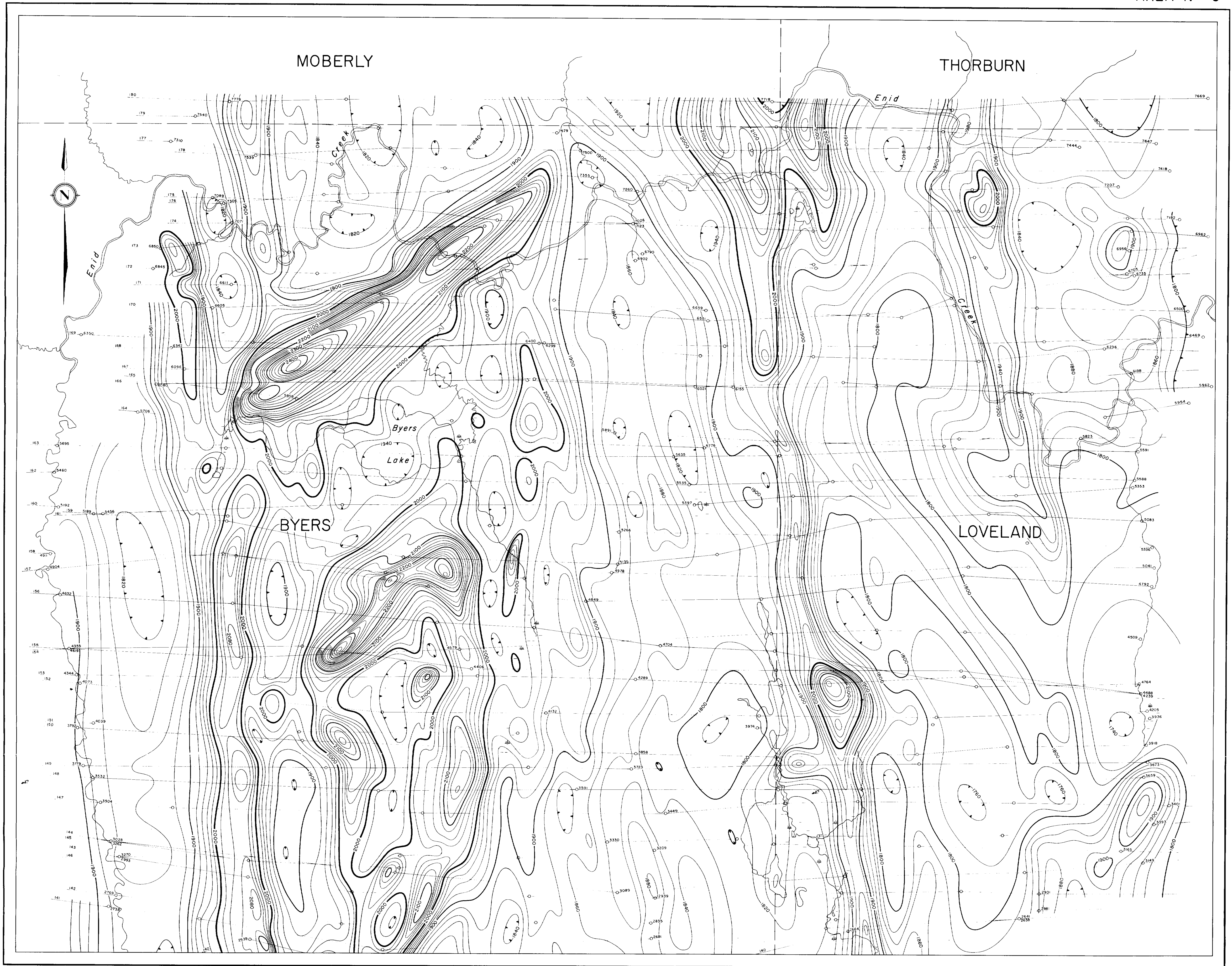
S	S	S	S	S	S
125215	125220	125221	125222	125223	







S	S
124520	124522
S	S
124525	124527



MESPI MINES LIMITED
AIRBORNE GEOPHYSICAL SURVEY

AREA NO 5

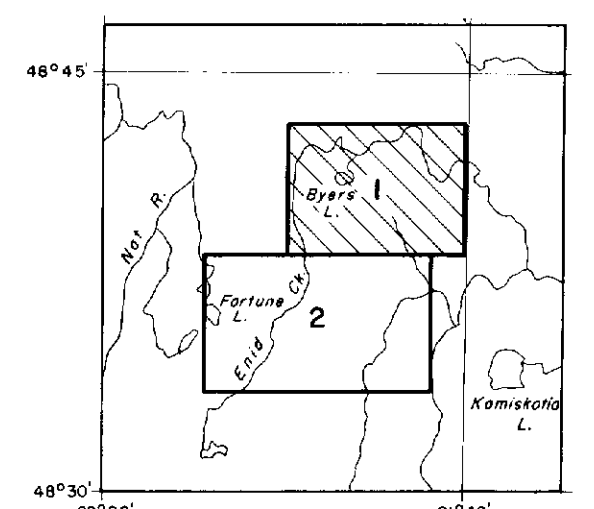


CONTOUR INTERVAL 20 GAMMA
 MEAN FLIGHT LINE SPACING 680 FEET
 MEAN TERRAIN CLEARANCE 450 FEET
 500 GAMMA CONTOUR 
 100 GAMMA CONTOUR 
 20 GAMMA CONTOUR 
 MAGNETIC LOW 
 FIDUCIAL POINTS 
 FLIGHT LINES 

TIMMINS AREA, ONTARIO
MAGNETOMETRIC MAP

SCALE
 1000 0 1000 2000 3000 4000 5000
 FEET FEET
 1 inch to 1320 Feet

Flown and Compiled by
 HUNTING SURVEY CORPORATION LIMITED
 TORONTO, CANADA
 1964

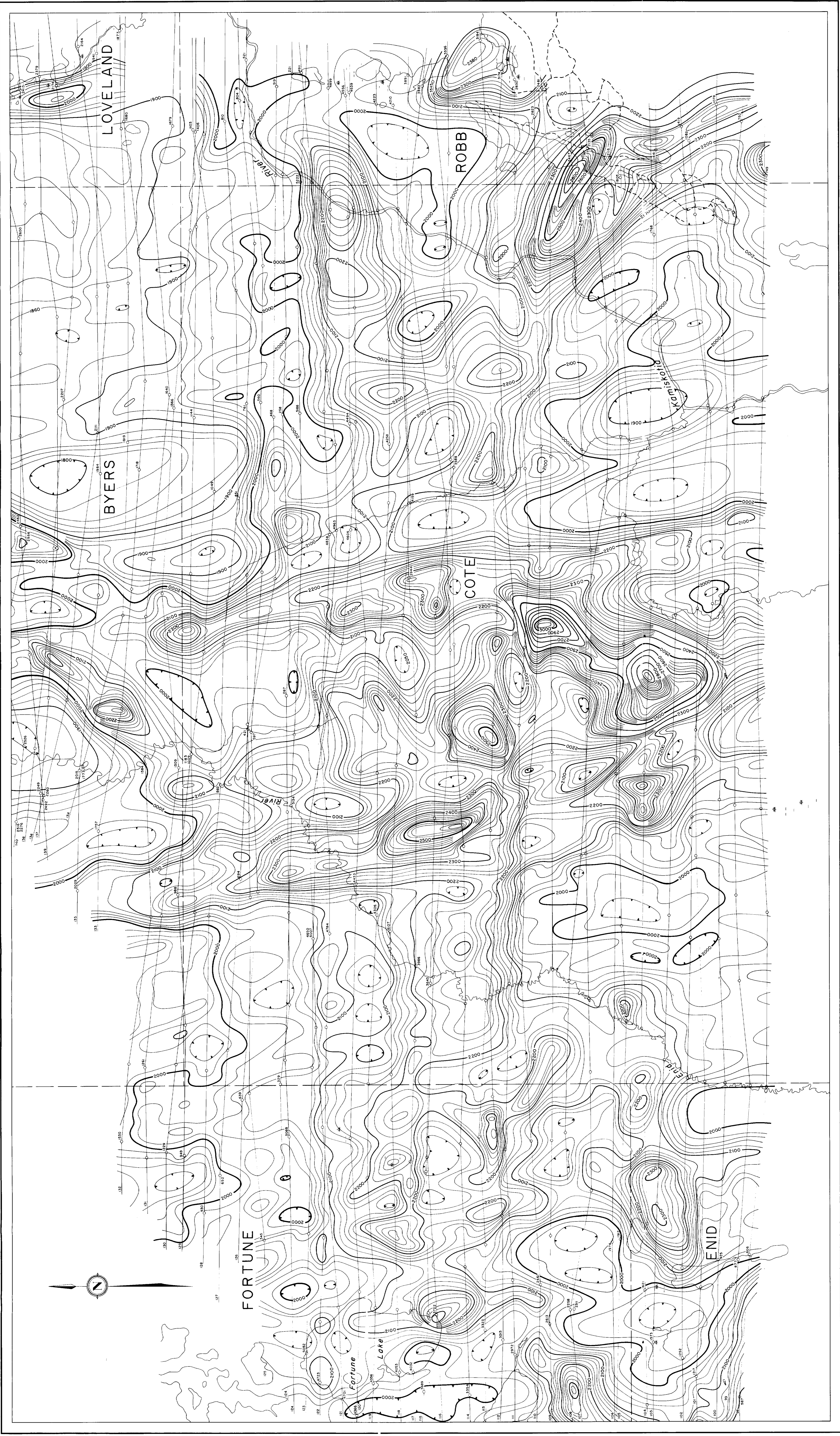


SHEET NO 1



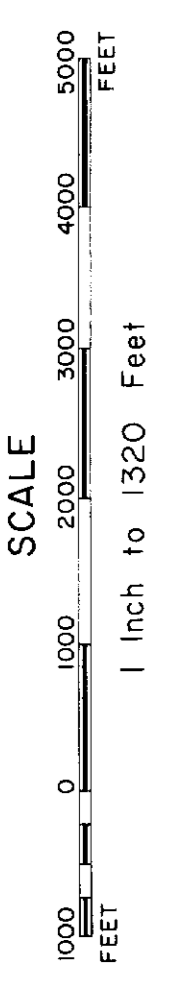
MESPI MINES LIMITED
AIRBORNE GEOPHYSICAL SURVEY

AREA NO 5

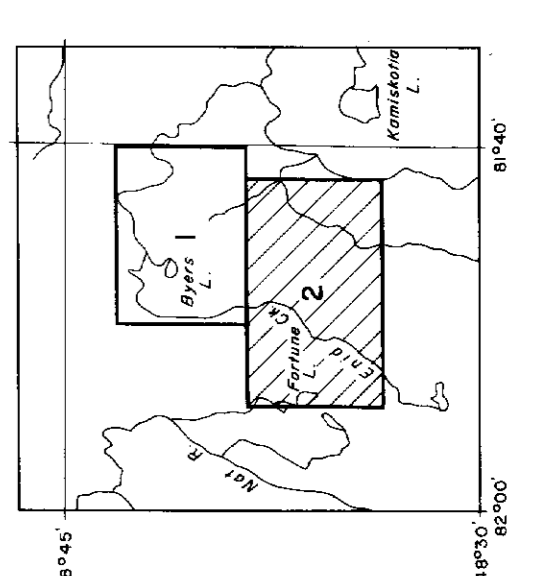


- CONTOUR INTERVAL 20 GAMMA
- MEAN FLIGHT LINE SPACING 660 FEET
- MEAN TERRAIN CLEARANCE 450 FEET
- 500 GAMMA CONTOUR
- 100 GAMMA CONTOUR
- 20 GAMMA CONTOUR
- MAGNETIC LOW
- PIEDICAL POINTS
- FLIGHT LINES

TIMMINS AREA, ONTARIO
MAGNETOMETRIC MAP



Flown and Compiled by
HUNTING SURVEY CORPORATION LIMITED
TORONTO, CANADA
1964



SHEET NO 2

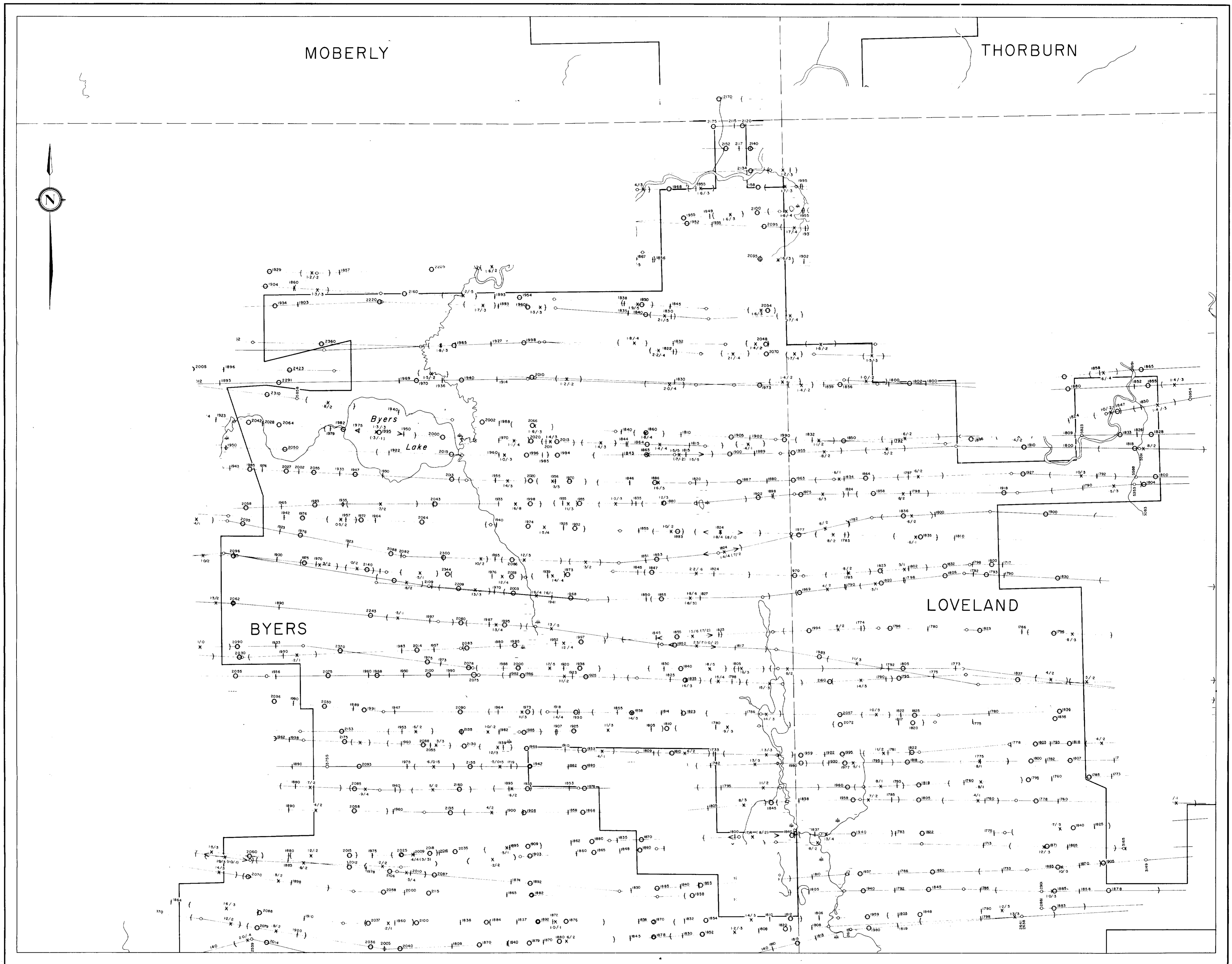


300

63.1287
(32 x 2) 739/4r

MESPI MINES LIMITED
AIRBORNE GEOPHYSICAL SURVEY

AREA NO 5

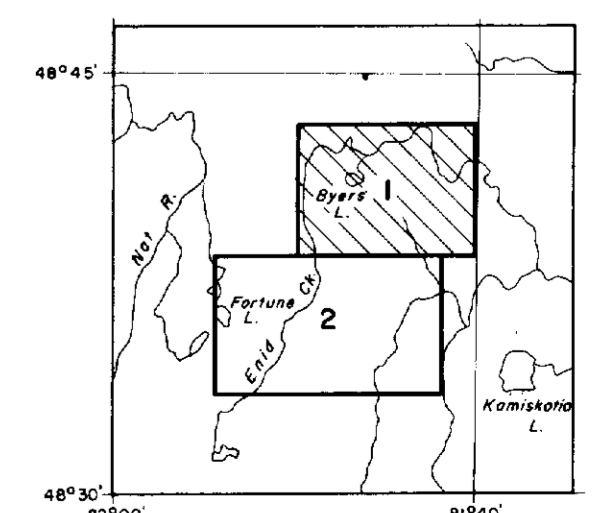


MEAN TERRAIN CLEARANCE ----- 450 FEET
 MEAN FLIGHT LINE SPACING ----- 660 FEET
 MAGNETIC HIGH ----- 3690
 MAGNETIC LOW ----- 3570
 FIDUCIAL POINTS ----- 2760
 FLIGHT LINES -----
 EXTENT OF E.M. ANOMALY -----
 RESIDUAL E.M. ANOMALY -----
 PEAK OF E.M. ANOMALY ----- X
 THE NUMBERS SHOWN AS 4/2 ARE
 2300 PHASE CYCLE PEAK VALUES
 400 PHASE CYCLE PEAK VALUES

TIMMINS AREA, ONTARIO
ELECTROMAGNETIC MAP

SCALE
 1000 0 1000 2000 3000 4000 5000
 FEET
 1 Inch to 1320 Feet

Flown and Compiled by
 HUNTING SURVEY CORPORATION LIMITED
 TORONTO, CANADA
 1964

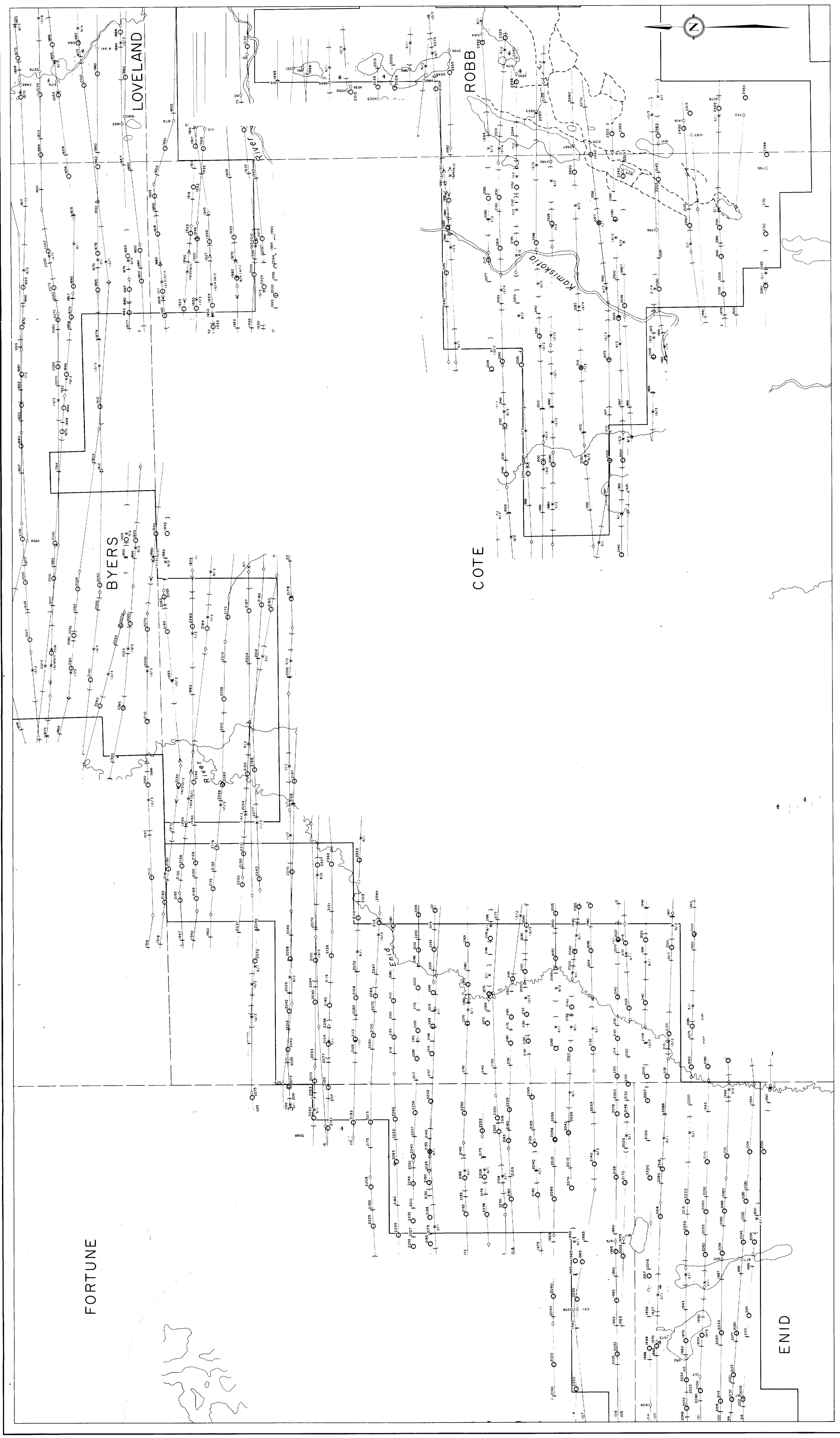


SHEET NO 1



MESPI MINES LIMITED AIRBORNE GEOPHYSICAL SURVEY

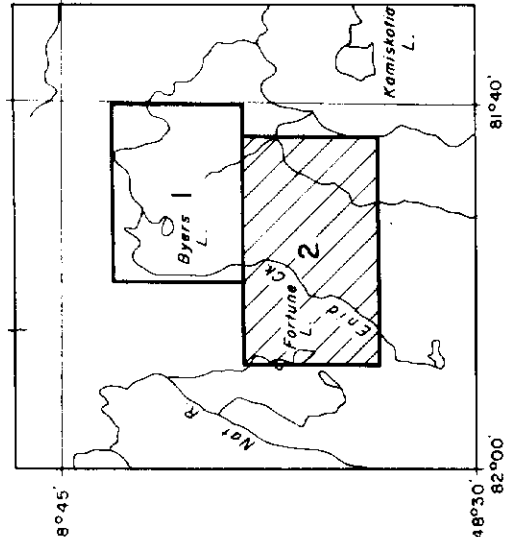
AREA NO 5



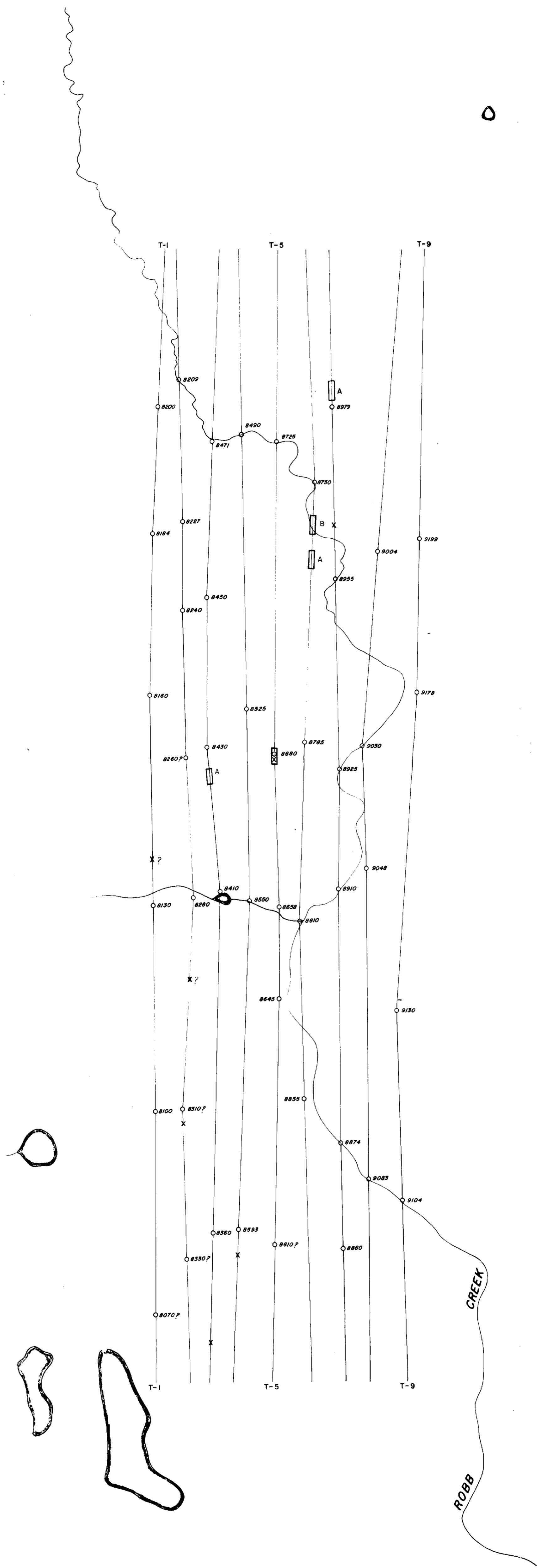
MEAN TERRAIN ELEVANCE 450 FEET
 MAGNETIC HIGH 5000
 MAGNETIC LOW 3000
 FLIGHT LINES
 EXTENT OF EM ANOMALY
 PEAK OF EM ANOMALY
 TROUGH OF EM ANOMALY
 THE NUMBERS SHOWN AS 4/2 ARE
 2500 PHASE CYCLE PEAK VALUES
 400 PHASE CYCLE PEAK VALUES

TIMMINS AREA, ONTARIO
ELECTROMAGNETIC MAP
 Scale 1 inch to 1520 Feet
 0 1000 2000 3000 4000 5000
 FEET

Flown and Compiled by
HUNTING SURVEY CORPORATION LIMITED
 TORONTO, CANADA
 1964



(362) 7 5/16



LEGEND

1 A ANOMALY.....

1 B ANOMALY.....

2 A ANOMALY.....

2 B ANOMALY.....

3 ANOMALY.....

4 ANOMALY.....

MEAN TERRAIN CLEARANCE.....150 FEET

FLIGHT LINE SPACING.....1/8 MILE

RIVERS AND LAKES.....

HORIZONTAL CONTROL.....BASED ON PHOTO LAYDOWN

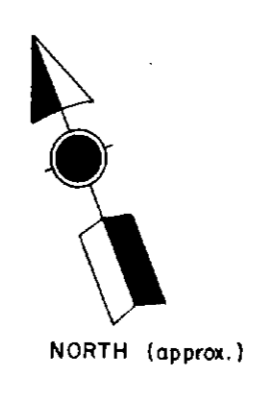
AIRBORNE ELECTROMAGNETIC SURVEY

TURNBULL-ROBB TWP'S WEST AREA

ONTARIO

B. W. LANG

SCALE: 1 INCH TO 1320 FEET



CANADIAN AERO Mineral Survey LTD.

TORONTO, ONTARIO

