

2.1993

**KERR ADDISON MINES LIMITED**

KENORA, ONTARIO P9N 3X7  
TELEPHONE 468-5434  
MAILING ADDRESS: P.O. BOX 1390



010

PROBING UNIT

REPORT OF THE GROUND GEOPHYSICAL SURVEYS CARRIED OUT IN THE LUMBY LAKE AREA ON CLAIMS OWNED BY KERR ADDISON MINES LTD.

General

During the period April 7, 1975 to June 30, 1975, 41 miles of linecutting and chaining were completed wholly and partially on 23 claims:

416716 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28

416732 - 33 - 34 - 35 - 36 - 37 - 38 - 39 - 40 - 41 located on claim map 2385 in the Lumby Lake area 28 miles north east of Atikokan, Ontario (NTS 5203).

38 miles of electromagnetometer surveys and 38 miles of magnetometer survey was also completed over these lines. The purpose of these surveys was to locate base metal targets for diamond drilling.

Geophysical Surveys

The magnetometer survey utilized a McPhar 700 Fluxgate magnetometer of 5 gamma accuracy. A base station was maintained and diurnal drift correction for control. Readings were taken at 100 foot stations except in the vicinity of anomalies where readings were taken at 50 foot stations on lines 200 feet apart.

The electromagnetometer survey utilized a Grone Radem VLF instrument reading an audible signal of a primary field of 18.6 KHZ from communication station Seattle, Washington. The dip angle was measured in degrees from the horizontal component of the VLF field. Detected by minimum on the field strength meter and read from an inclinometer with a range of  $\pm 80^\circ$  and an accuracy of  $\pm \frac{1}{2}\%$ . The readings were taken along the same lines as the magnetometer on 100 foot stations except in the vicinity of anomalies where they were taken at 50 foot stations. The picket lines were out at right angles to the general

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- 2 -

strike of the volcanic formation. A baseline 00 was used for control and paralleled the volcanic formation striking due east-west.

The dip angle readings were processed and contoured dip angle readings were plotted on maps which are enclosed with this report. Contouring of the positive readings outlined numerous conductive areas.

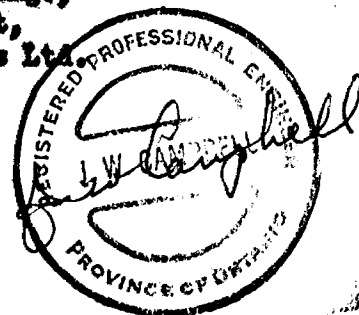
Notes: Enclosed are maps at 1" = 200' of the McPhar 700 Magnetometer, Crone Radem VLF electromagnetometer dip angle surveys and contoured results of the Crone Radem Dip Angle survey. Two maps of each survey were necessary to cover the eastern and western portions of the property. Also enclosed are copies of catalogues explaining the operation of these instruments.

## Results and Recommendations

The results of the geophysical surveys indicated numerous conductive zones that were often not supported with magnetic correlation but in one area correlated with a known disseminated pyrite-chalcopyrite-sphalerite showing. Also the major east-west shear zone appears as a series of conductive zones. In the course of traversing the property, the land area of the claims appears to have an overall shallow sandy clay overburden. Thus geochemical soil sampling for copper-zinc can be recommended as a reasonable cost tool to more ably select a few of the conductive zones for diamond drill testing. It is also recommended that I.P. surveys over the conductive zones might further select the better targets with higher metal factors and thus direct costly drilling in a more intelligent manner.

*J. W. Campbell*  
J.W. Campbell, P.Eng.,  
Regional Geologist,  
Kerr Addison Mines Ltd.

References: ODM Geological Report Lumby Lake Area  
by R.S. Woolverton  
ODM Geological Map 1960g 1" = 1/2 mile.





GE

52G03SW0037 2.1993 NORWAY LAKE

900

File 2.1993

STATEMENT

RECEIVED

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT  
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT  
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

DEC 5 1975

PROJECTS UNIT

Type of Survey Magnetometer & Electromagnetometer  
 Township or Area Lumby Lake Area  
 Claim holder(s) Kerr Addison Mines Ltd.  
P.O. Box 91, Commerce Court West, Toronto, Ont.  
 Author of Report J.W. Campbell, P.Eng.  
 Address P.O. Box 1390, Kenora, Ontario.  
 Covering Dates of Survey April 7, 1975 - June 30, 1975  
 (linecutting to office)  
 Total Miles of Line cut 41

**MINING CLAIMS TRAVERSED**  
List numerically

TB. (prefix)	EM (number)	
	416716	1/2
	416717	1/2
	416718	1/4
	416719	✓
	416720	✓
	416721	✓
	416722	✓
	416723	1/4
<i>Areas not covered</i>	416724	✓
<i>= 3 1/2 claims</i>	416725	✓
<i>∴ 23 x 40 = 920</i>	416726	✓
<i>÷ (23 + 3) = 35</i>	416727	1/2
<i>days per claim</i>	416728	✓
<i>for E.M.</i>	416732	1/2
<i>18 days for</i>	416733	✓
<i>May</i>	416734	1/4
<i>for</i>	416735	✓
	416736	1/4
	416737	✓
	416738	1/4
	416739	✓
	416740	1/4
	416741	✓

TOTAL CLAIMS 28

**SPECIAL PROVISIONS  
CREDITS REQUESTED**

DAYS per claim

ENTER 40 days (includes line cutting) for first survey.  
 ENTER 20 days for each additional survey using same grid.

Geophysical	
-Electromagnetic	<u>40</u>
-Magnetometer	<u>20</u>
-Radiometric	
-Other	
Geological	
Geochemical	

**AIRBORNE CREDITS** (Special provision credits do not apply to airborne surveys)

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
 (enter days per claim)

DATE: November 10, 1975 SIGNATURE: J.W. Campbell  
 Author of Report or Agent

PROJECTS SECTION L.D.

Res. Geol. \_\_\_\_\_ Qualifications 2.274

Previous Surveys 2.379 May 1971 diff. instruments

Checked by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

OFFICE USE ONLY

If space insufficient, attach list

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 \_\_\_\_\_ McPhar 700 Fluxgate

Accuracy - Scale constant  $+ \frac{1}{2}$

Diurnal correction method All readings timed and connected into base station

Base station location Along 0+00 baseline at all picket line junctions

#### ELECTROMAGNETIC

Instrument \_\_\_\_\_ Crone Radem VLF

Coil configuration \_\_\_\_\_

Coil separation \_\_\_\_\_

Accuracy \_\_\_\_\_

Method:  Fixed transmitter  Shoot back  In line  Parallel line

Frequency 18.6 KHZ Seattle, Washington  
(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 \_\_\_\_\_

Gulliver Lake (M.2454)

AREA OF 2.1993

NORWAY LAKE

DISTRICT OF  
KENORA - RAINY RIVER

THUNDER BAY  
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	✕

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

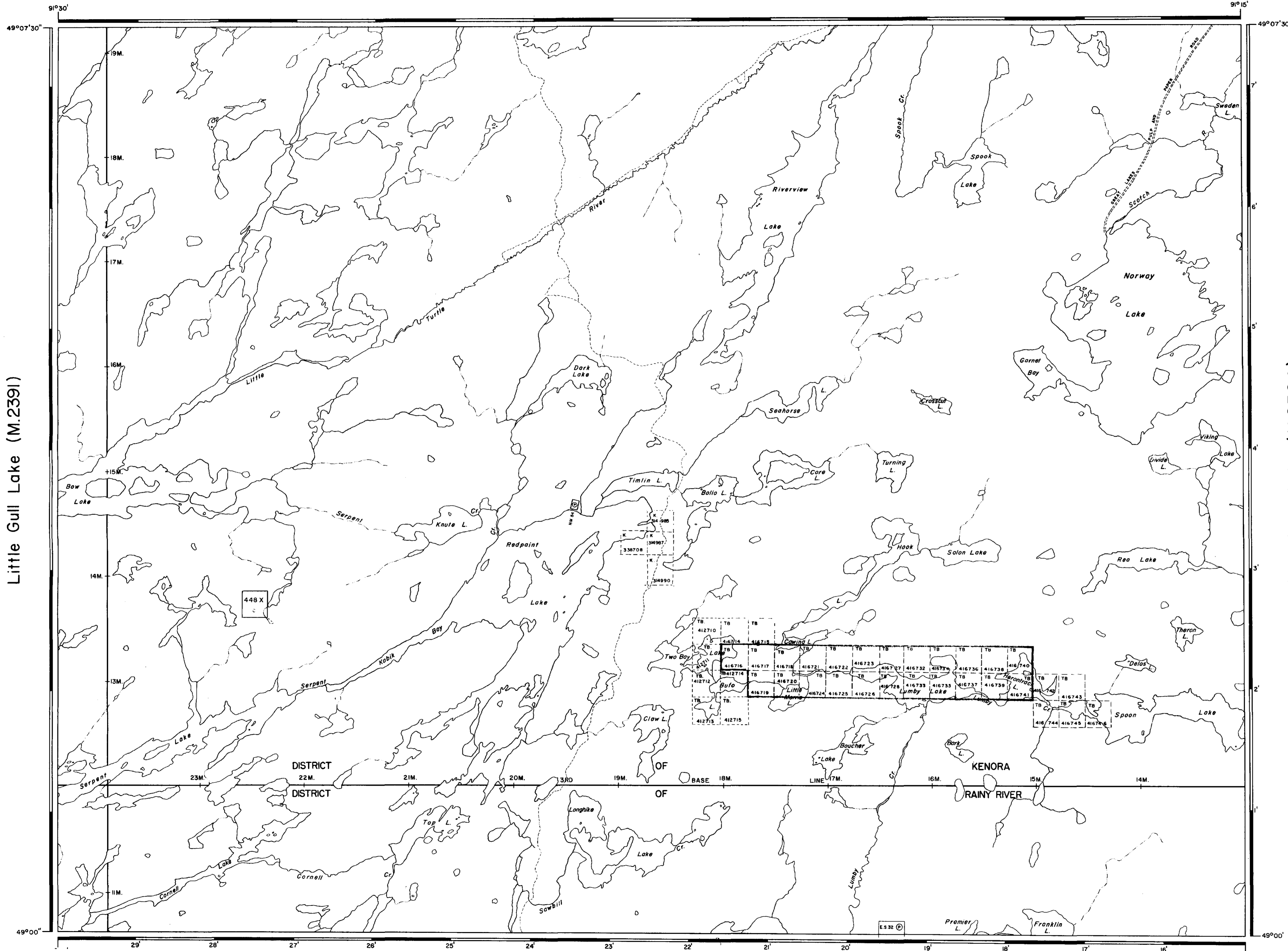
MINING LANDS  
DATE OF ISSUE  
DEC - 8 1975  
MINISTRY  
OF NATURAL RESOURCES

NATIONAL TOPOGRAPHIC SERIES 52 63

PLAN NO. M-2385

ONTARIO  
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH



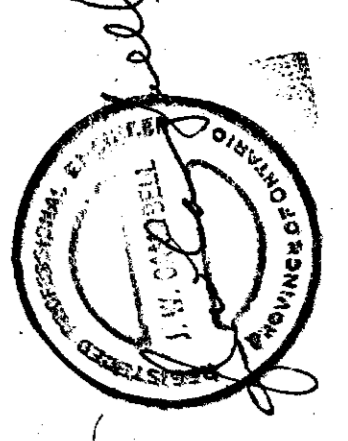
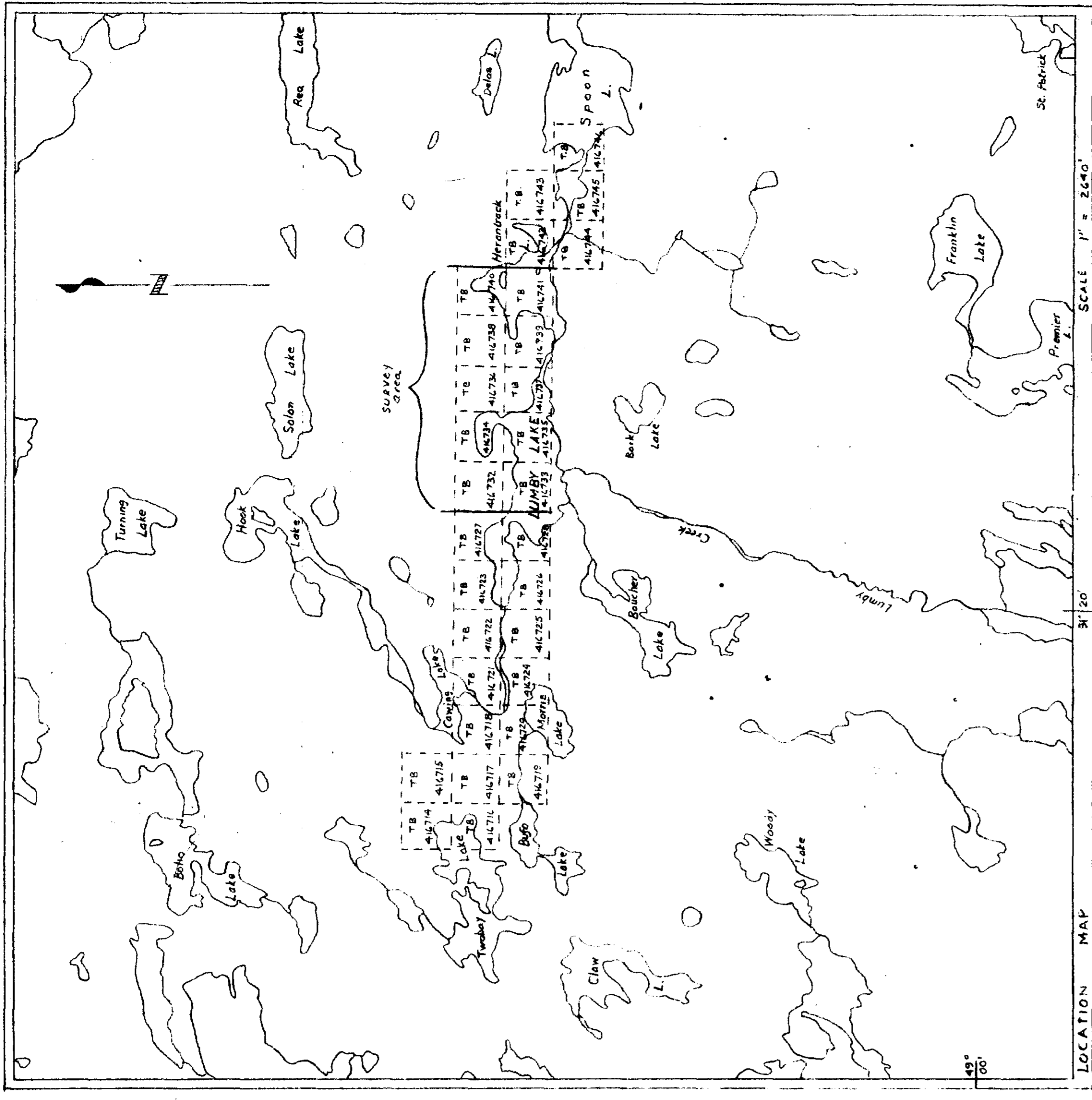
Little Gull Lake (M.2391)

Richardson Lake (M.2384)

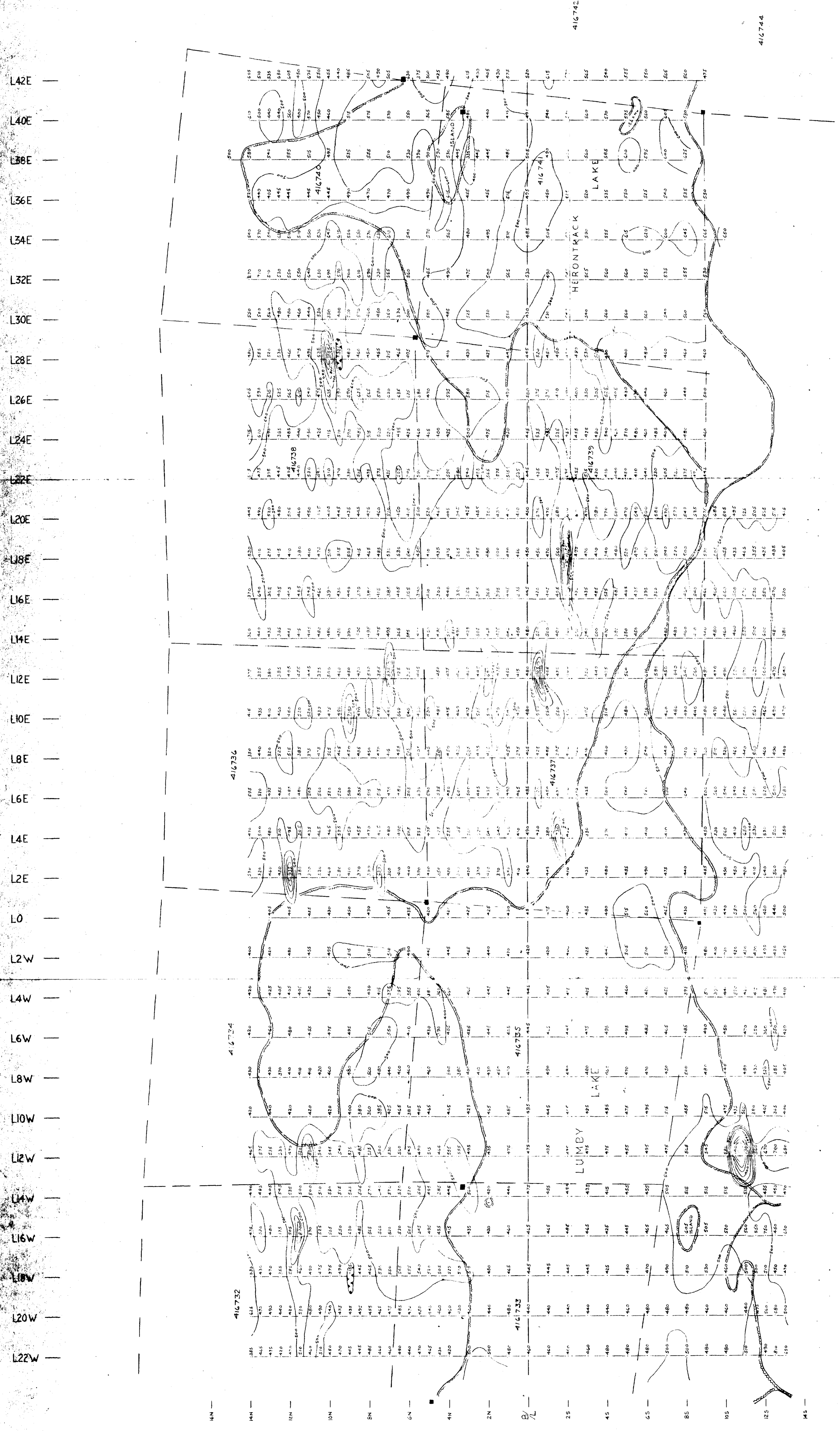
Sawbill Bay - Marmion Lake (M.2362)





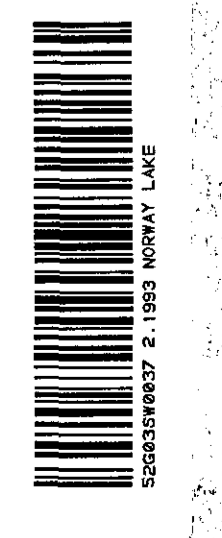


2.1993  
**KERR ADDISON MINES LTD**  
 MAGNETOMETER SURVEY  
 LUMBY LAKE AREA OF  
 NORWAY LAKE

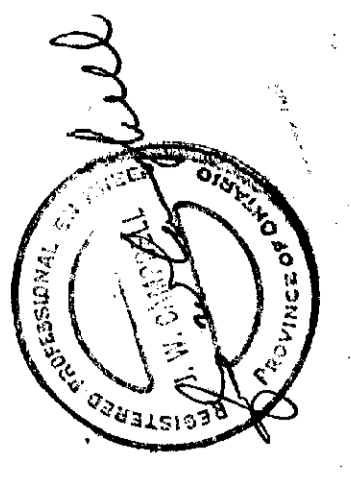


**SURVEY DATA**

INSTRUMENT: ..... MIPPAR M-700  
 OPERATOR: ..... E. BLOOSTERMAN D. MAEGEREN  
 DATE: .....  
 CREEK: .....  
 BUSH REELS: .....  
 DLE D.M.: .....  
 CLAIM POSTS: .....  
 MAP PREPARATION: ..... T. JONES

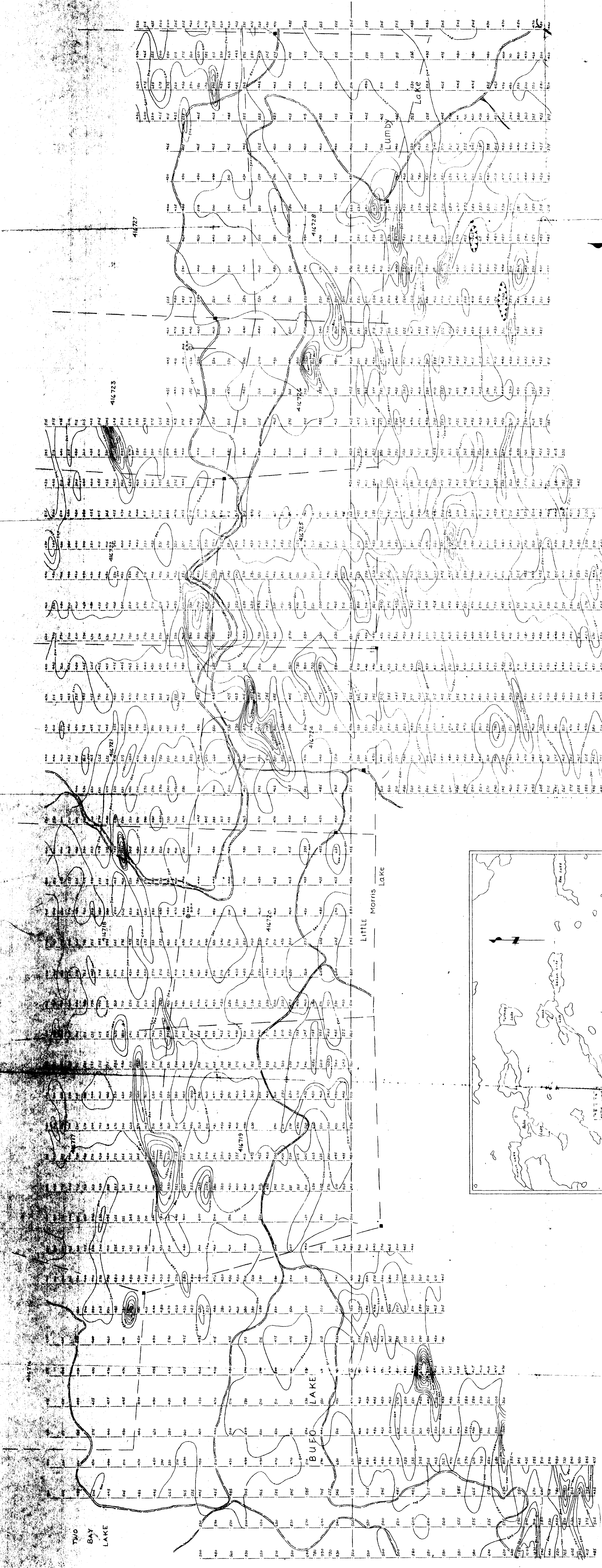






2-1995

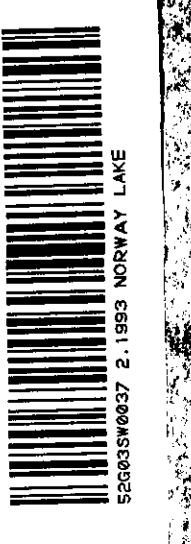
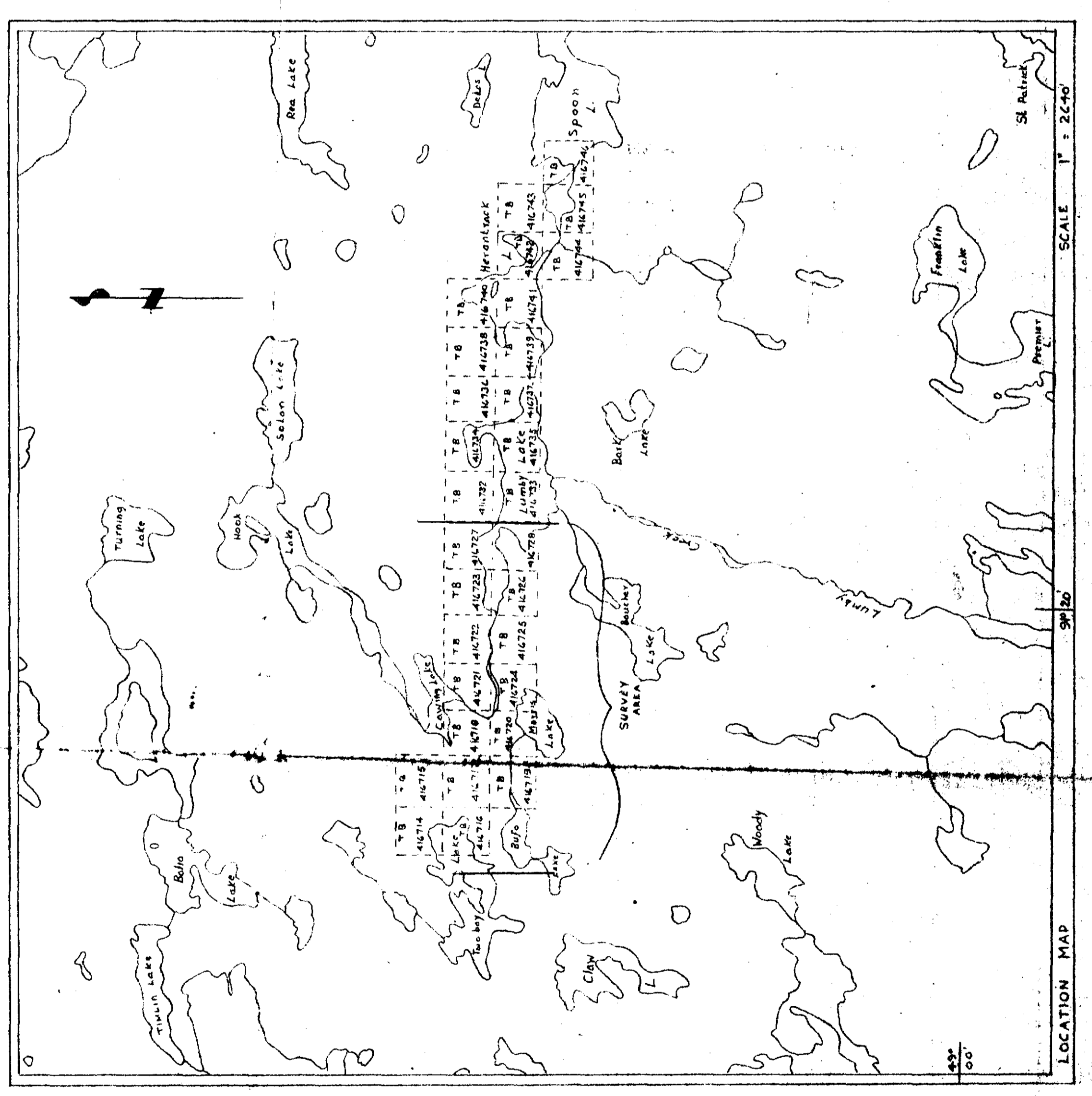
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L124W



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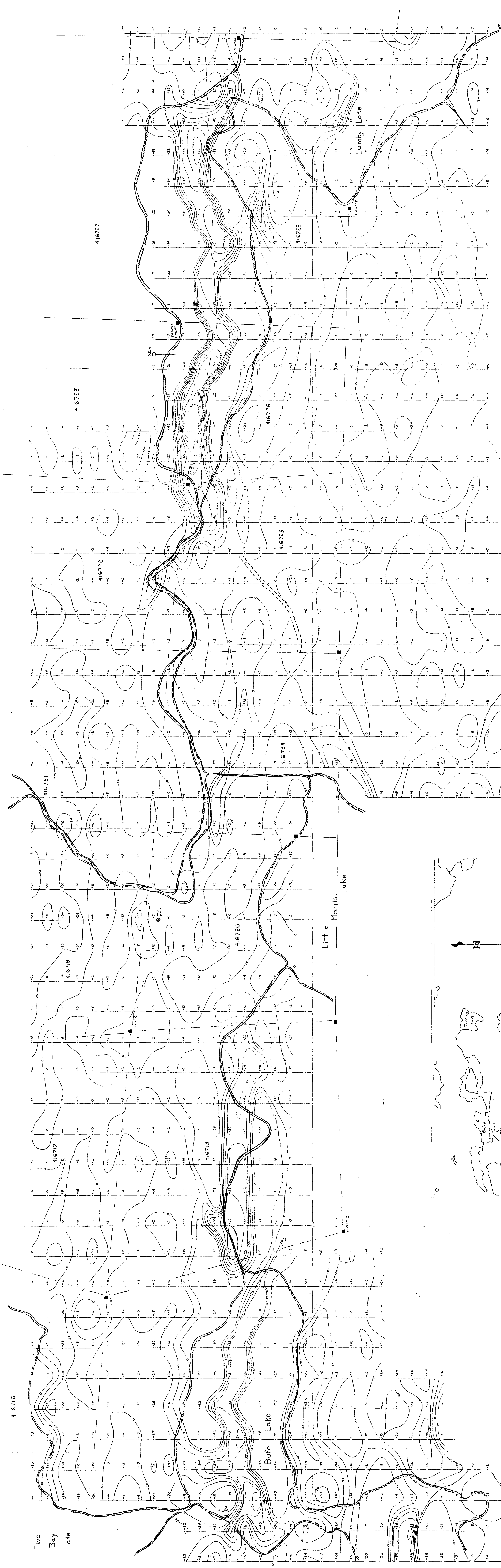
INSTRUMENT: SPECTRA 1000  
 OPERATOR: G. MACPHERSON  
 DATE: 10-19-95  
 SCALE: 1" = 200'

--- BOUNDARY  
 --- CLAIM LINE  
 --- CREEK  
 --- ROAD  
 --- CLAIM POST  
 --- MAP PREPARATION



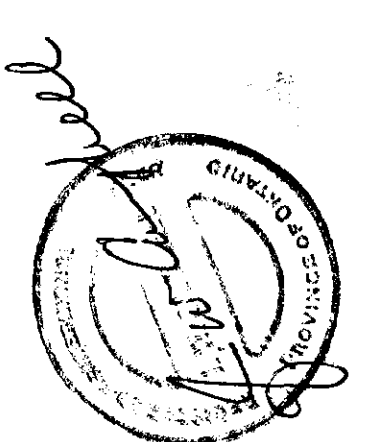
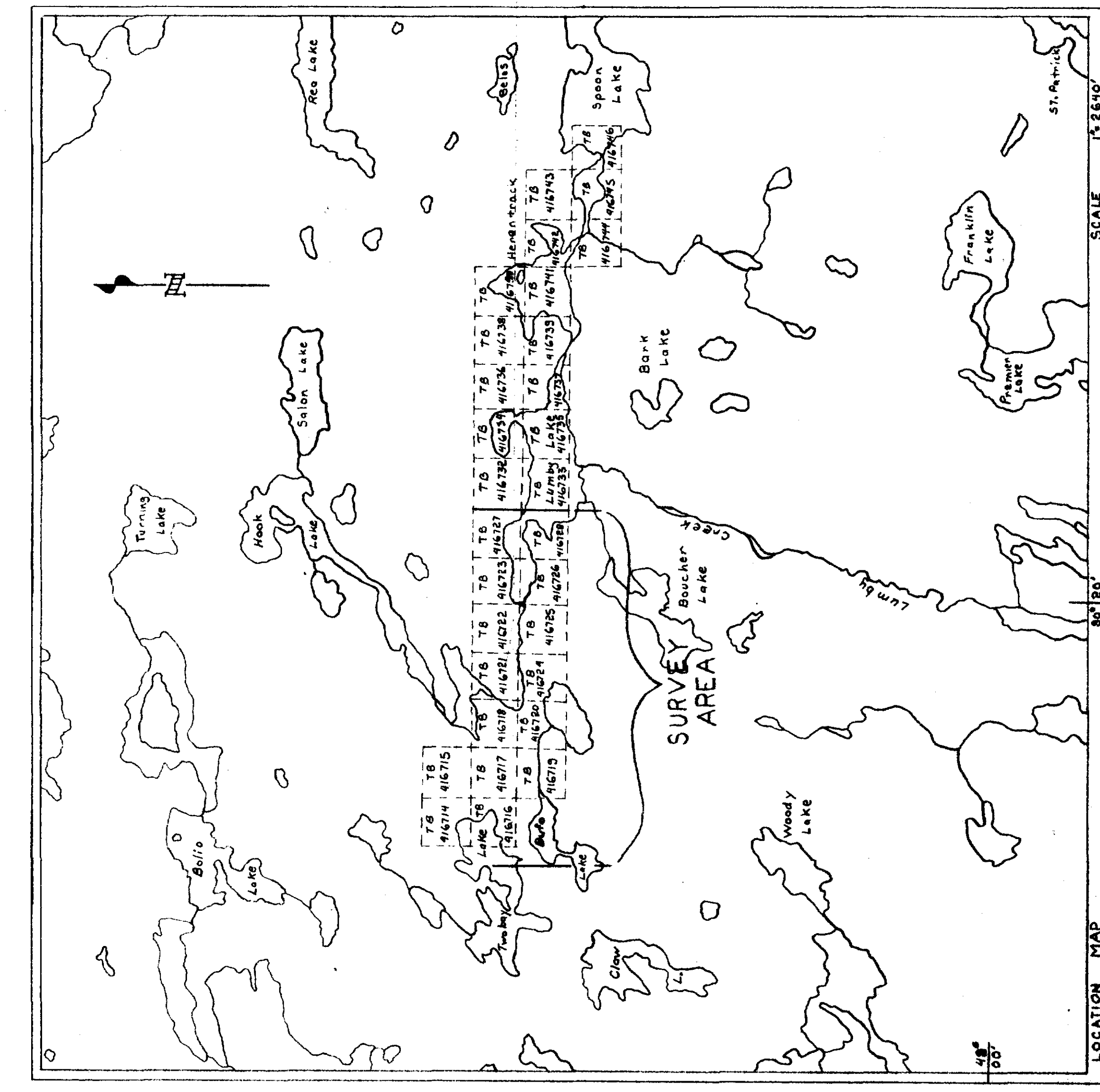


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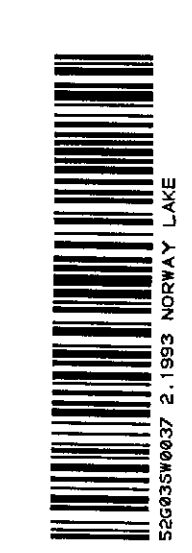


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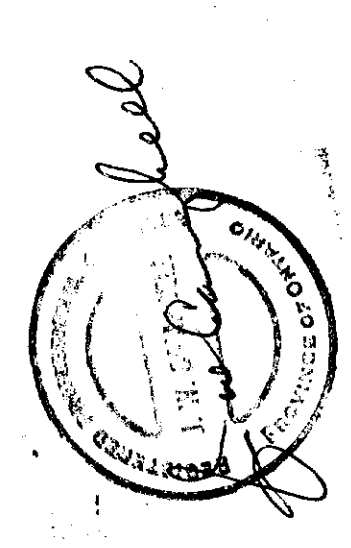
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- METHOD: CRONE RADICAL
- LAKE SHORE: CRONE RADICAL
- BUSH BOARS: CRONE RADICAL
- OLD CLAIMS: CRONE RADICAL
- CLAIM LINES: CRONE RADICAL
- MAP PREPARATION: T. JONES



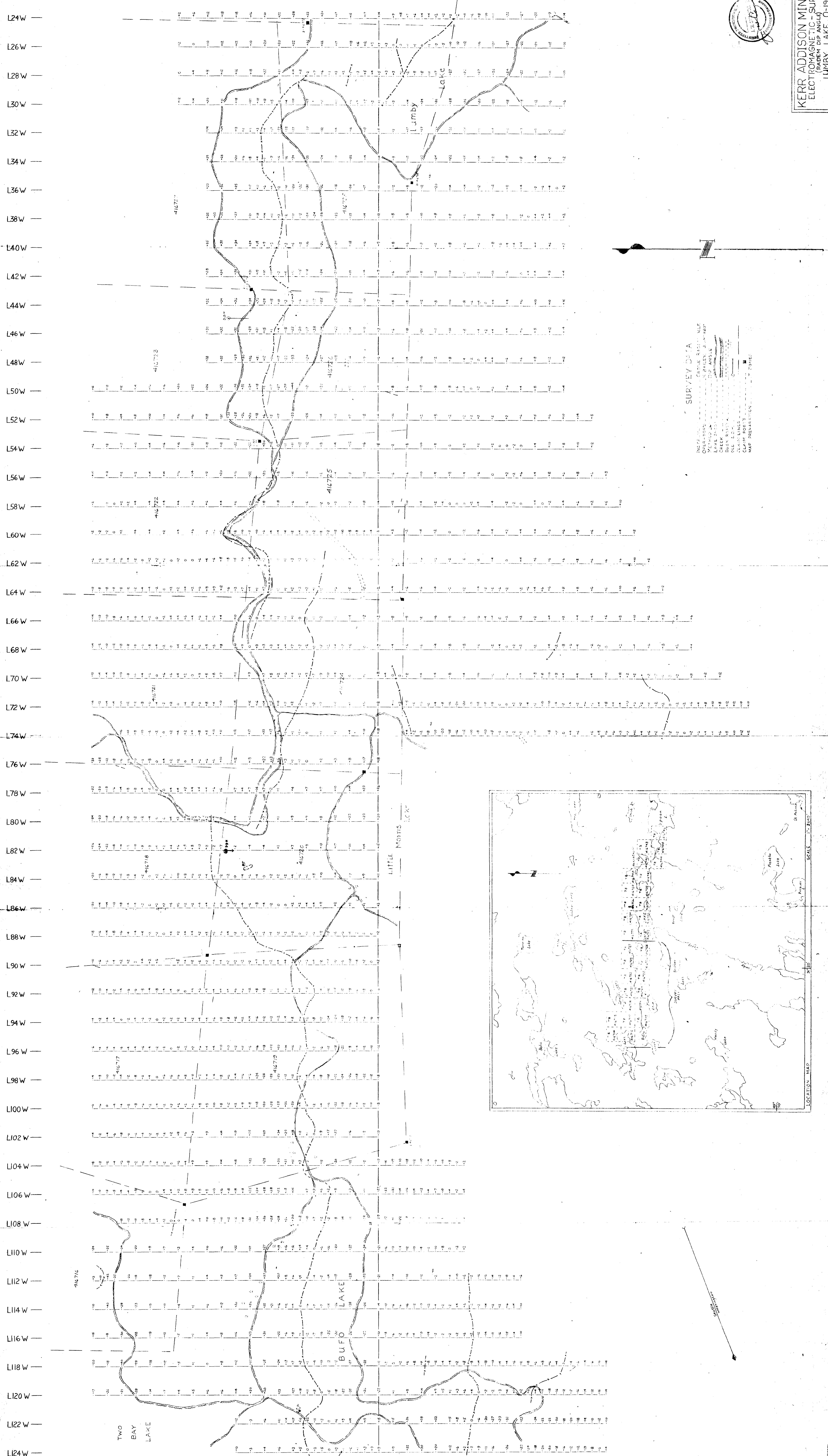
2.1993  
**KERR ADDISON MINES LTD.**  
 ELECTROMAGNETIC SURVEY  
 (CONTAINS DIP ANGLE)  
 LUMBY LAKE 0-19  
 AREA OF NORWAY LAKE ONTARIO  
 SCALE 1" = 250'  
 APRIL 5 JUNE 1975 T.T.





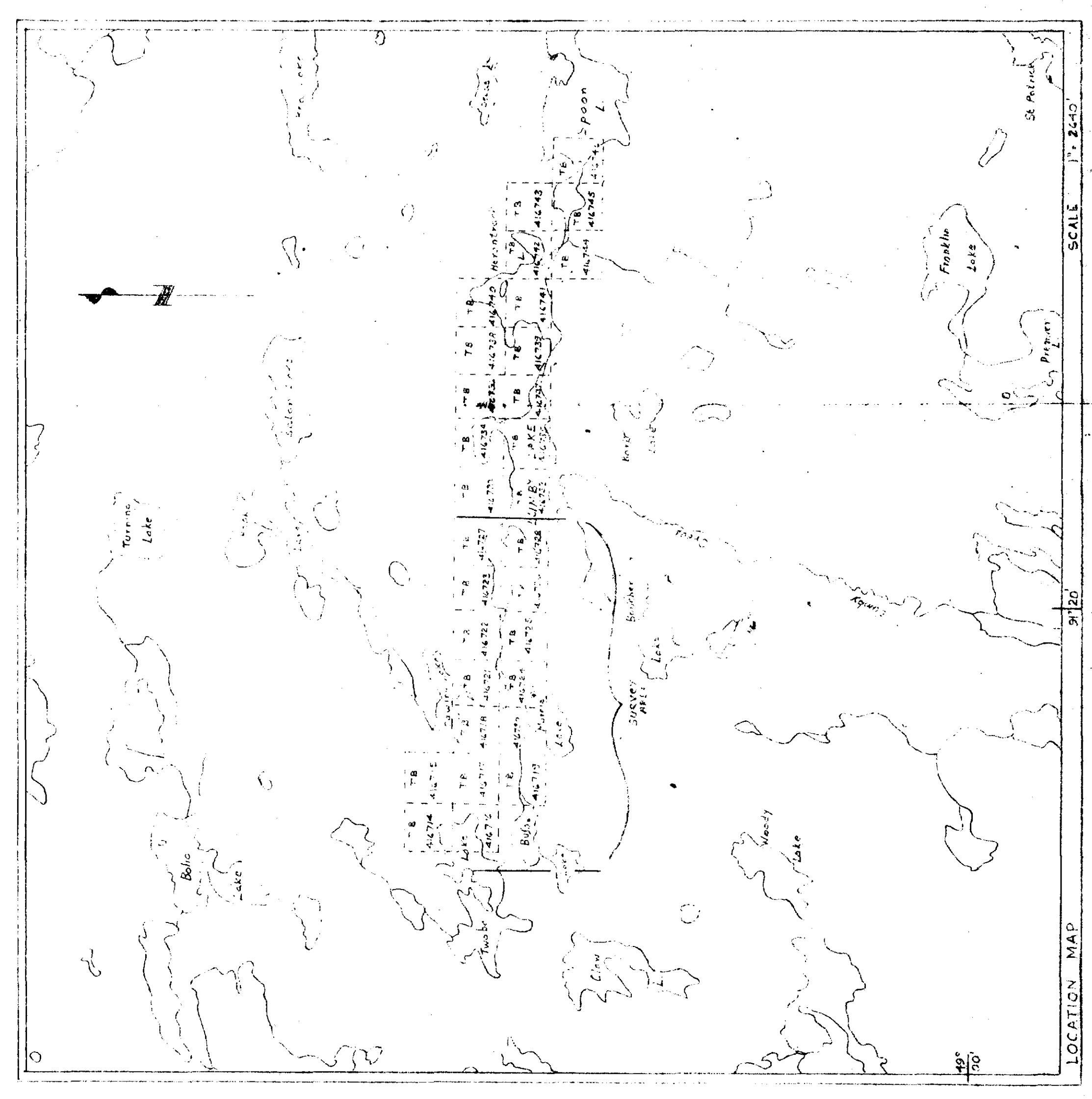


2-1993  
**KERR ADDISON MINES LTD**  
 ELECTROMAGNETIC SURVEY  
 (BARN DIP ANGLE)  
 LUMBY LAKE 0-19  
 AREA OF NORWAY LAKE ONTARIO  
 SCALE 1:10,000 APRIL 1, JUNE 1975, 77

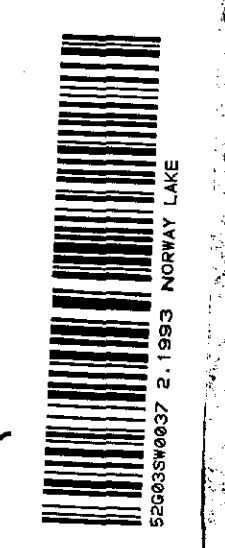


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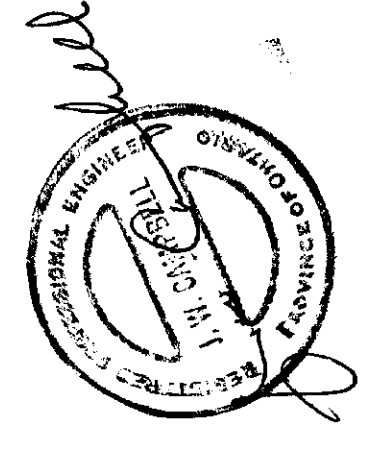
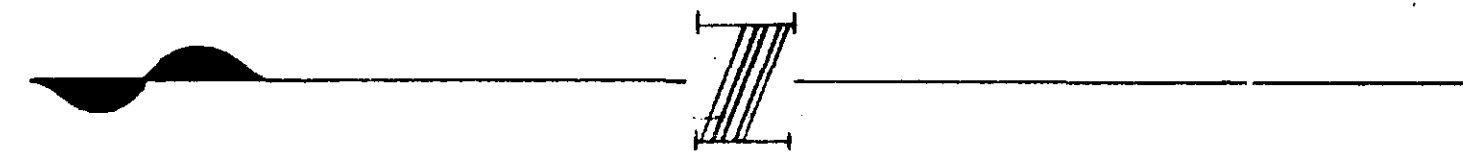
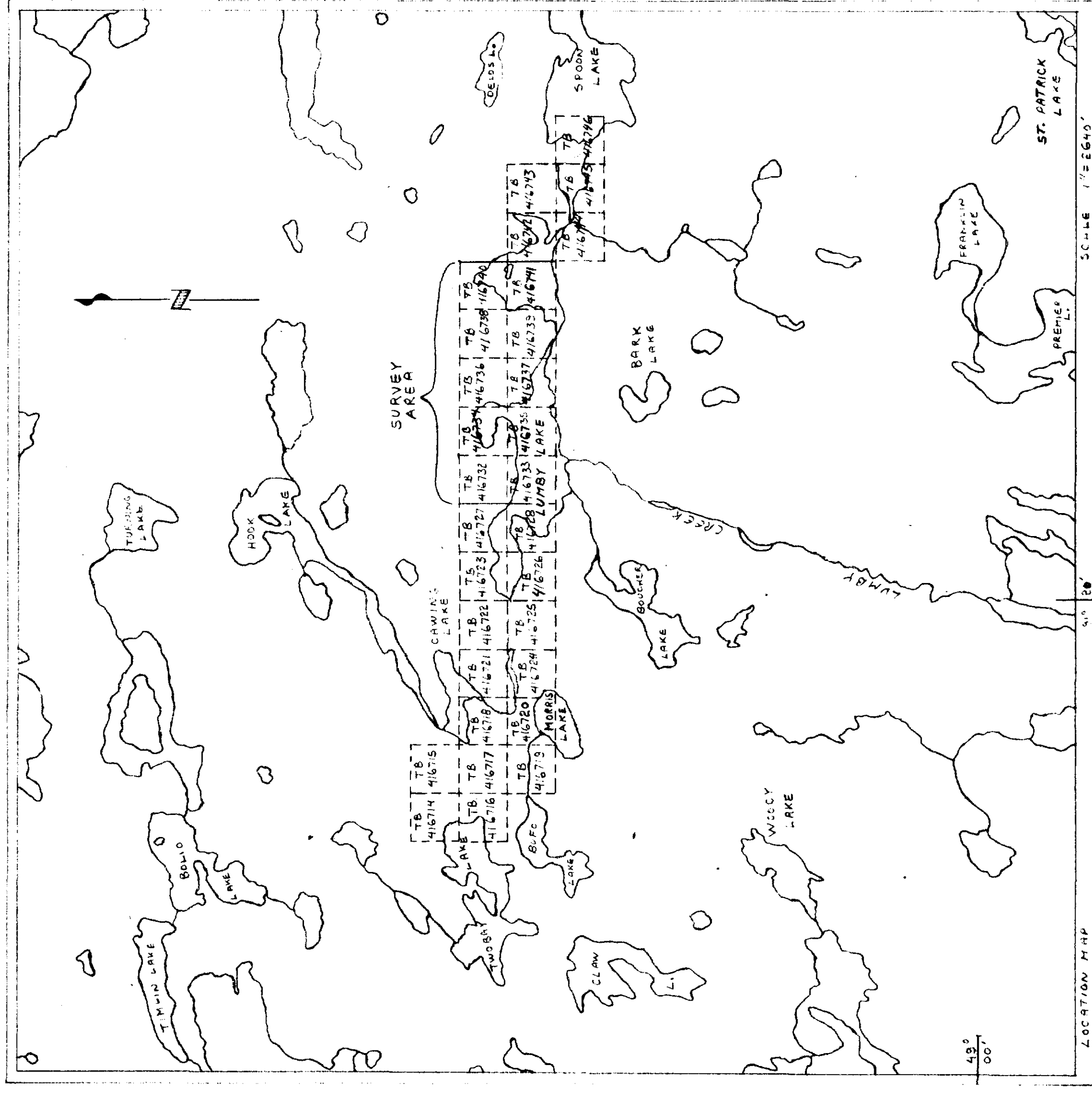
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LEVEL	100 FT
WIND	10 MPH
TEMP	50 F
HUMIDITY	50%
RAIN	0.0
WAVELENGTH	100 FT
FIELD	100 FT
ANGLE	100 FT
MAP REDUCTION	1:10,000



25N — 18N — 17N — 16N — 15N — 14N — 13N — 12N — 11N — 10N — 9N — 8N — 7N — 6N — 5N — 4N — 3N — 2N — 1N — 0 — 1S — 2S — 3S — 4S — 5S — 6S — 7S — 8S — 9S — 10S — 11S — 12S — 13S — 14S — 15S — 16S — 17S — 18S — 19S — 20S — 21S — 22S — 23S — 24S — 25S

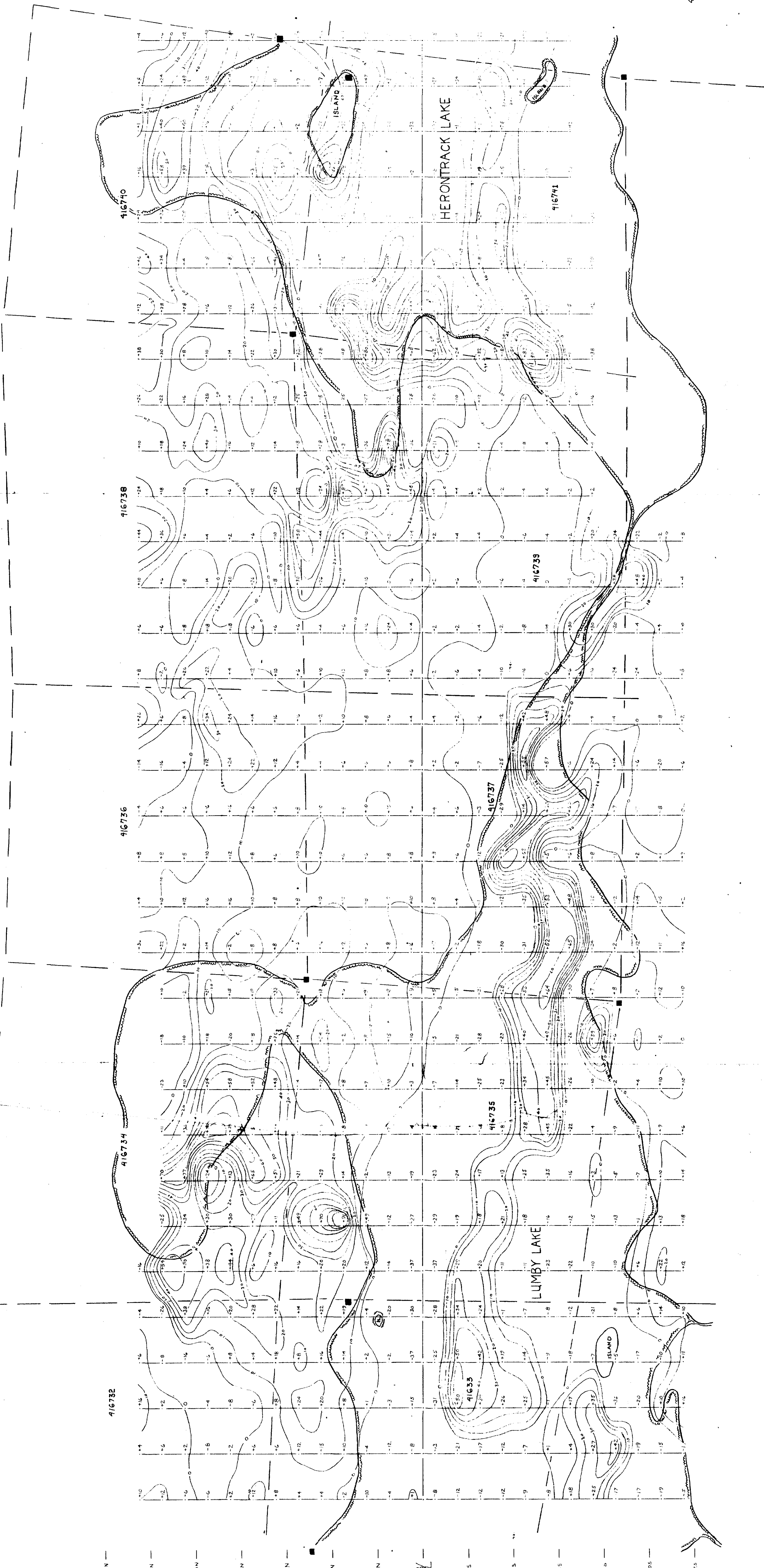




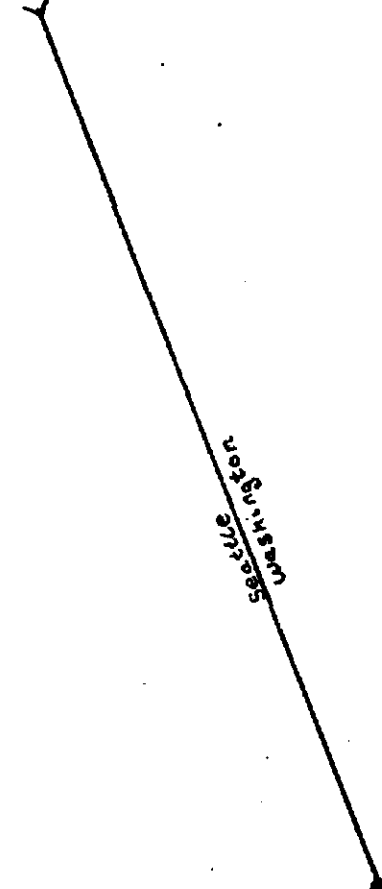


21993  
 KERR ADDISON MINES LTD.  
 ELECTROMAGNETIC SURVEY  
 (CONTOUR DIP ANGLE)  
 LUMBY LAKE 0-19'  
 AREA OF NORWAY LAKE, ONTARIO  
 SCALE 1" = 200'

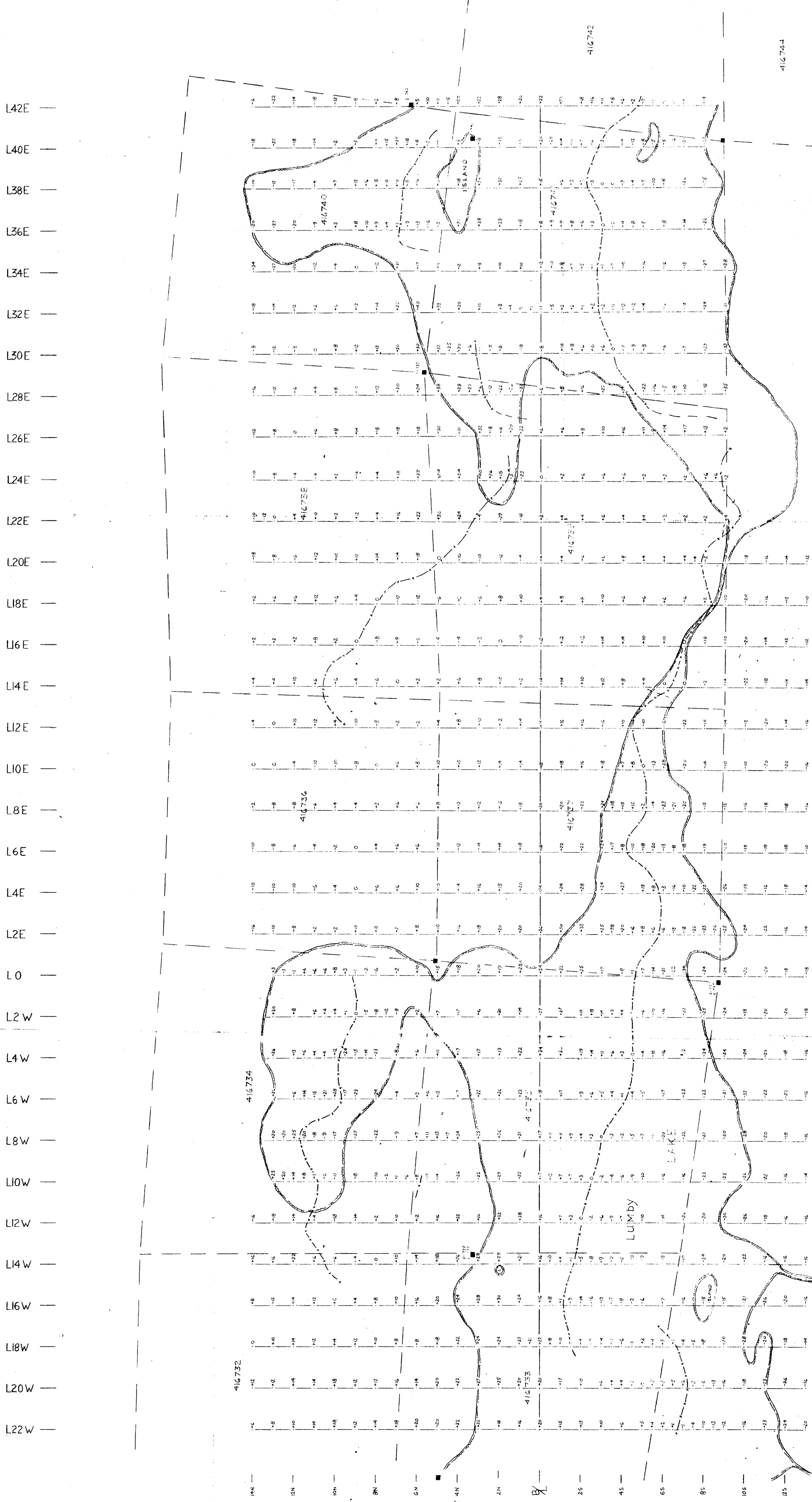
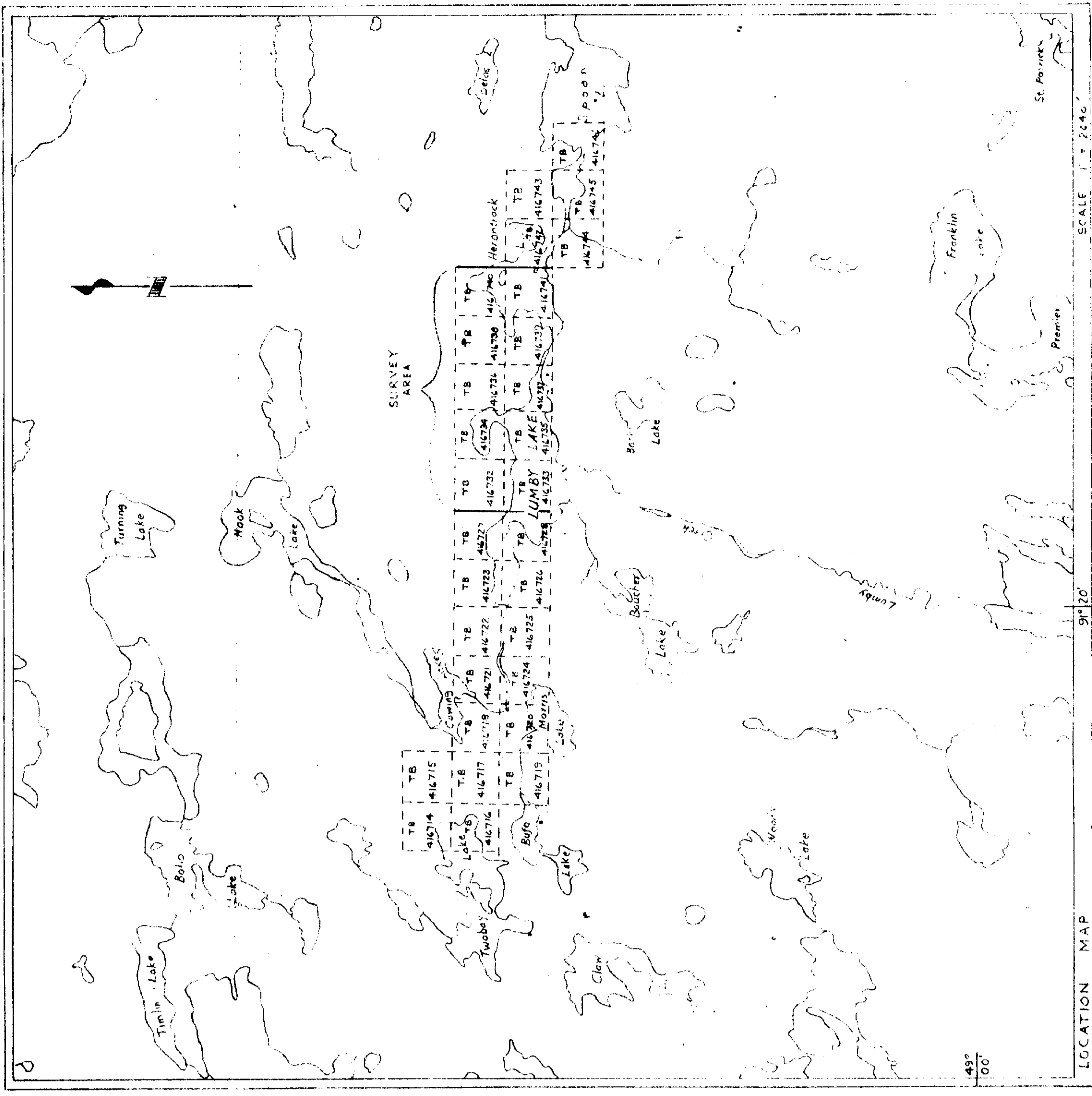
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 L18W —  
 L20W —  
 L22W —



**SURVEY DATA**  
 INSTRUMENT CRONE RADEM VLF  
 OPERATOR K. BAILEY, J. SHARBOT  
 LAKE SHORE  
 SURVEY METHOD  
 BUSH ROOMS  
 OLD DQM'S  
 CLAIM LINES  
 PROPERTY  
 MAP PREPARATION  
 METHOD  
 T. JONES  
 DIP ANGLE CONTOUR

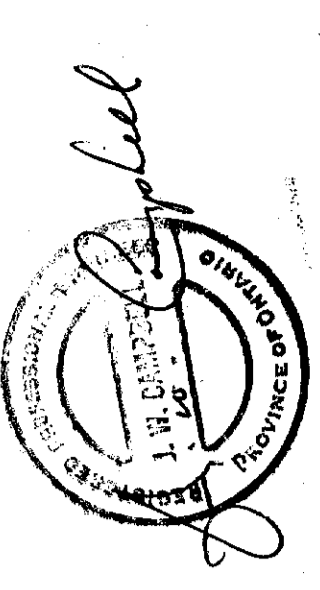




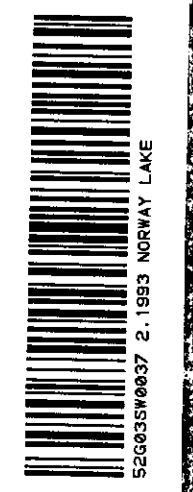


**SURVEY DATA**

INSTRUMENT: CRONE RADEM VLF  
 OPERATORS: K. BALLY, J. CHARBET  
 DATE: 1973  
 MAP SCALE: 1:25,000  
 CREEK: DASHED LINE  
 BUS/ROAD: DOTTED LINE  
 OLD FENCE: DASHED LINE WITH CROSS-TICKS  
 CLAIM LINES: SOLID LINE  
 CLAIM POSTS: SQUARE SYMBOL  
 MAP PREPARATION: 1/70/73



2.1973  
**KERR ADDISON MINES LTD**  
 ELECTROMAGNETIC SURVEY  
 LUMBY LAKE 0-15  
 LAKES LAKE POINT 0-16



860