

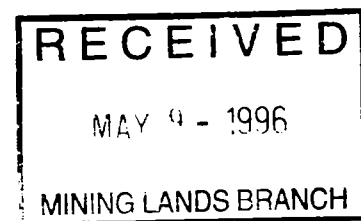


42A06SW0012 2 16496 PRICE

010

**LES MINES INMET**  
**GEOPHYSICAL SURVEYS**  
**CROXALL-KANGAS PROJECT**  
**THORNELOE & PRICE TOWNSHIPS**  
**FEBRUARY 1996**

**2.16496**





42A06SW0012 2 16496 PRICE

010C

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## MAPS & SKETCHES

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## I - INTRODUCTION:

At the request of « LES MINES INMET » geophysical surveys were carried out, by Exploration Services Reg'd, during the month of February, 1996, on the CROXALL-KANGAS property located on adjoining Ogden, Price and Thorneloe townships.

The magnetometer and V. L. F. surveys were undertaken to be used as guides to the geological interpretation of the general area.

## II - PROPERTY:

The CROXALL-KANGAS property consists of a block of 90 contiguous claims - the surveys referred to in this report covered claim 1177832 located in Thorneloe Twp. and claim 1160199 located in Price Twp.

## III - LOCATION & ACCESSIBILITY:

The claim group is located at an approximate distance of 16 Km southwest of the Timmins city centre.

The area is readily accessible from Timmins by driving along a gravel road which leads to the Wawaitin Falls hydro dam located on Mattagami River.

#### IV - GEOPHYSICAL SURVEYS :

##### A) Claim 1177832 (Thorneloe Twp.)

The surveys were carried out along a previously cut grid whose base line strikes westerly along the southern boundary of the claim for a distance of 400 m. Cross lines spaced at 200 meter intervals extend northward for a distance of 800 meters to the northern claim limit. Thus a total of 3.2 Km of lines have been covered by the survey.

- Magnetometer survey:

- Instrumentation:

An Exploranium G-816 proton magnetometer was used for the survey - readings were taken at every 12.5 meter intervals.

- Data presentation:

The data were plotted on maps at the scale of 1:5 000; in addition to the posted numbers, a coloured magnetic map with contour intervals was prepared.

- Interpretation:

As defined by the 1 500 gamma contour line, the magnetometer survey has outlined a relatively strong 100 meter wide feature trending in an east-west direction across the surveyed area between 3 N and 4 N.

A mafic intrusive dipping to the south is the probable cause of this magnetic anomaly.

The magnetic intensity of the area south of the main anomaly varies between 500 and 1 000 gammas - these values suggest the presence of volcanic units.

The magnetic intensity north of the main anomaly varies between 150 and 500 gammas - these values generally indicate the presence of sedimentary rocks.

- V L F survey: (EM-16)

- Instrumentation:

A Geonic's EM-16 unit was used for the survey - readings were taken at every 12.5 meters tuned to station NAA at 24.0 Khz.

- Data presentation:

The data were plotted on a map at the scale of 1:5 000. Profiles were drafted at the scale of 1 cm = 10% for both the In-phase and Out-of-phase values.

- Interpretation:

The data of the V. L. F. survey did not indicate the presence of significant conductors.

B) Claim 1160199 (Price Twp.)

The surveys were carried out along a previously cut grid whose 700 meter long base line strikes easterly along the southern limit of the claim group. Cross lines, spaced at every 100 meter intervals extend northwards for distances of 50 to 125 meters up to the northern limits of this irregular claim.

A total of 1.3 line Km were cut and surveyed on this grid.

- Magnetometer Survey:

The instrumentation and presentation are the same as for the survey on claim 1177832.

- Interpretation:

The magnetic pattern outlined by the survey is an irregular one - no specific trends are apparent because of the limited nature of the survey.

- V. L. F. Survey:

The instrumentation and data presentation are the same as for the survey carried out on claim 1177832.

- Interpretation:

A 200 meter long conductor has been observed within the surveyed area - the conductor axis traverses line 500 E at 75 m N and line 600 E at 50m E.

V - CONCLUSIONS & RECOMMENDATIONS:

The magnetometer survey has outlined an east-west trending stratigraphy on claim 1177832 - this feature is mainly defined by the presence of a mafic sill.

The V. L. F. electromagnetic survey has outlined a short conductor on claim 1160199.

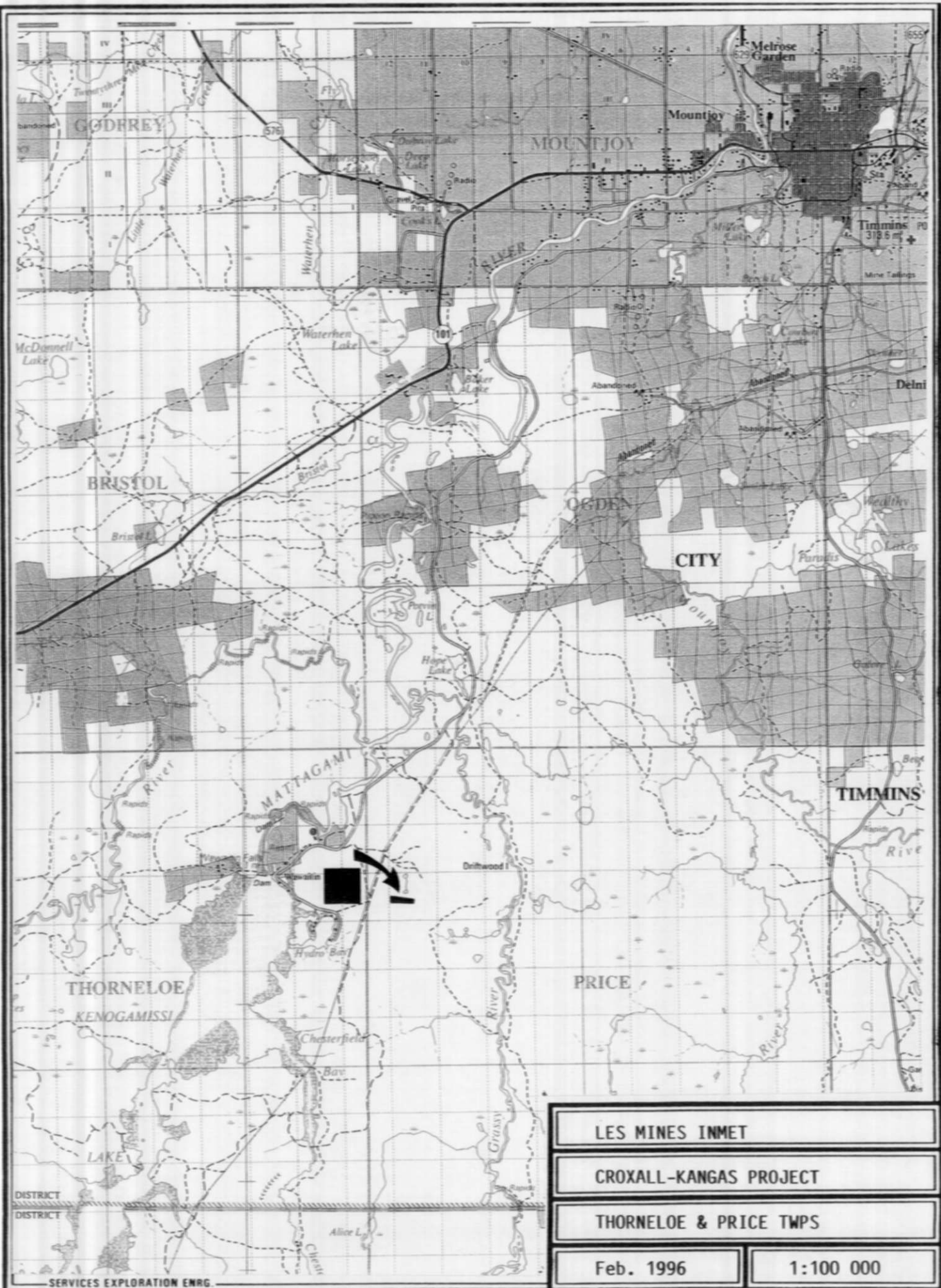


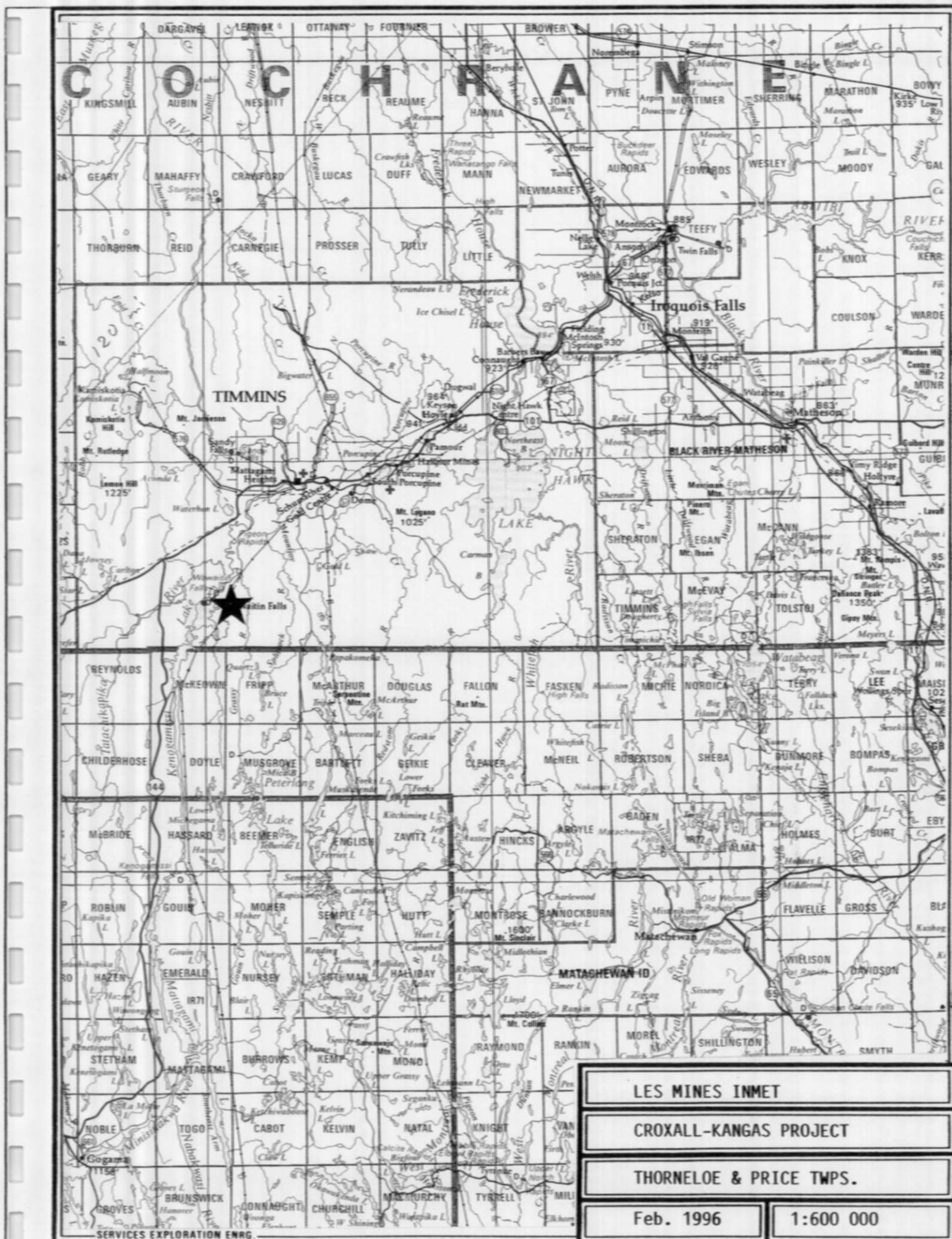
The obtained information of these surveys should be evaluated with the data presently available on the adjoining claims.

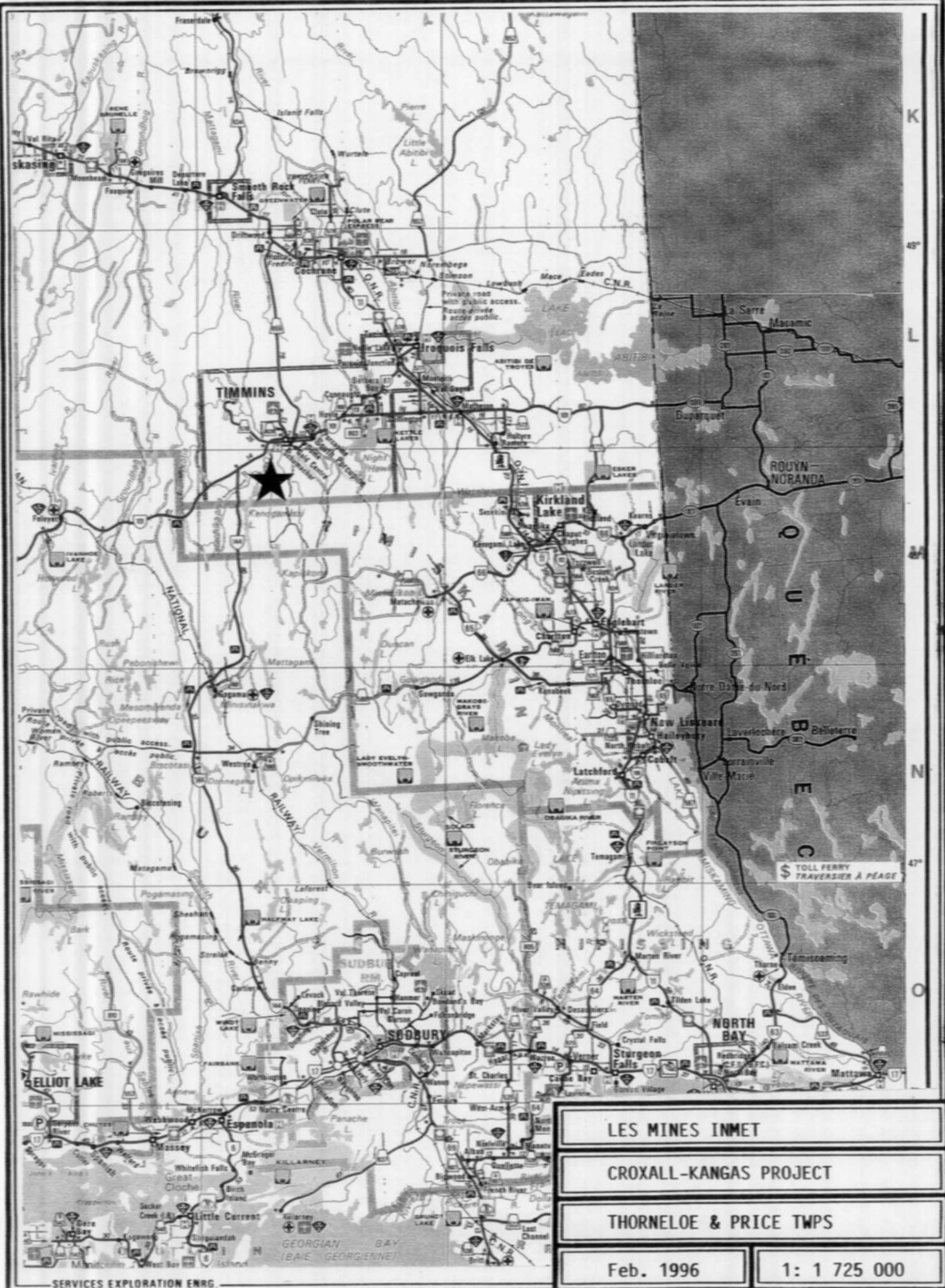
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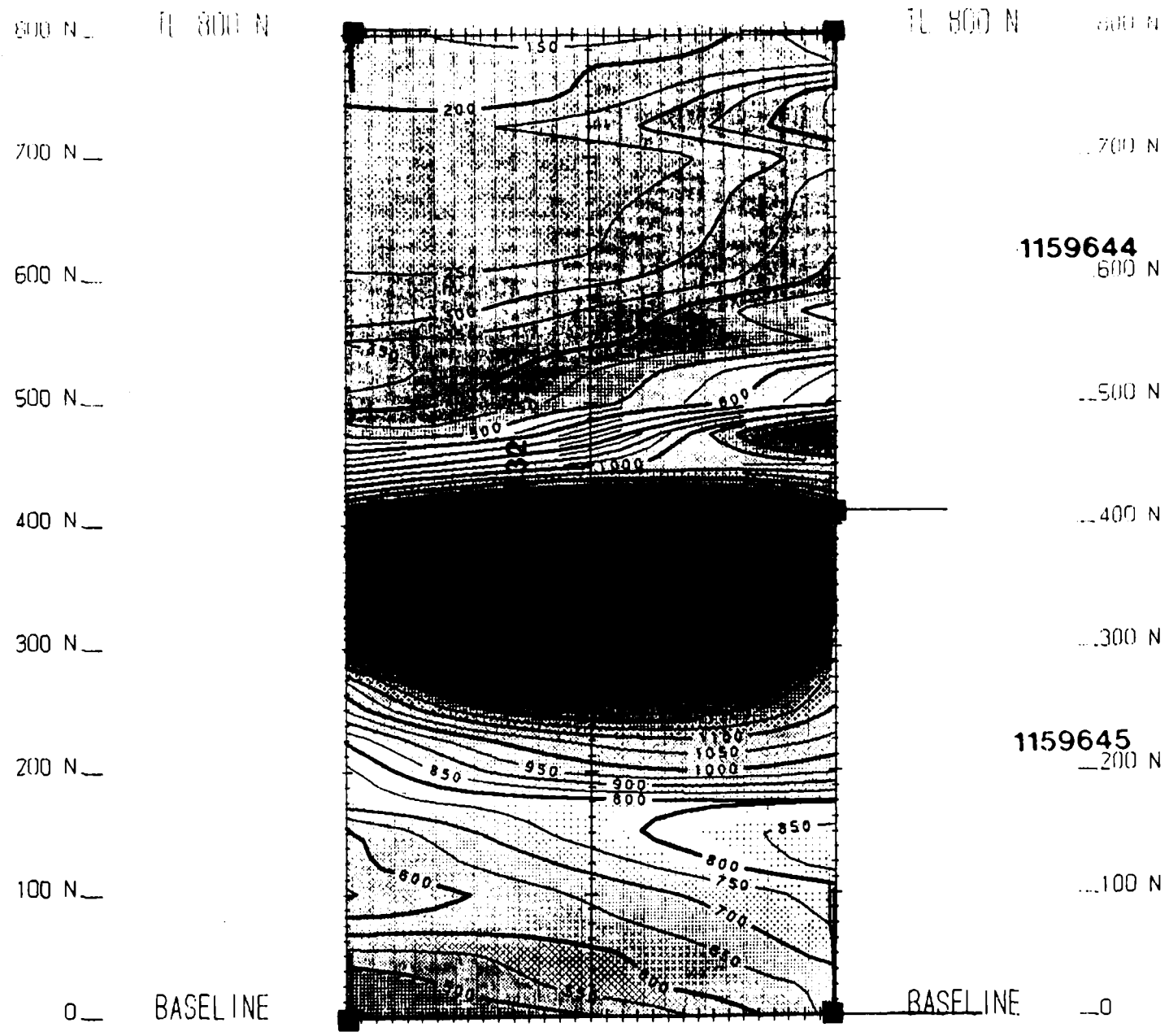
*Recd. 2.14.15*

Edouard Chartré, B.A., B.Sc.: *[Signature]* Feb. 25 1996

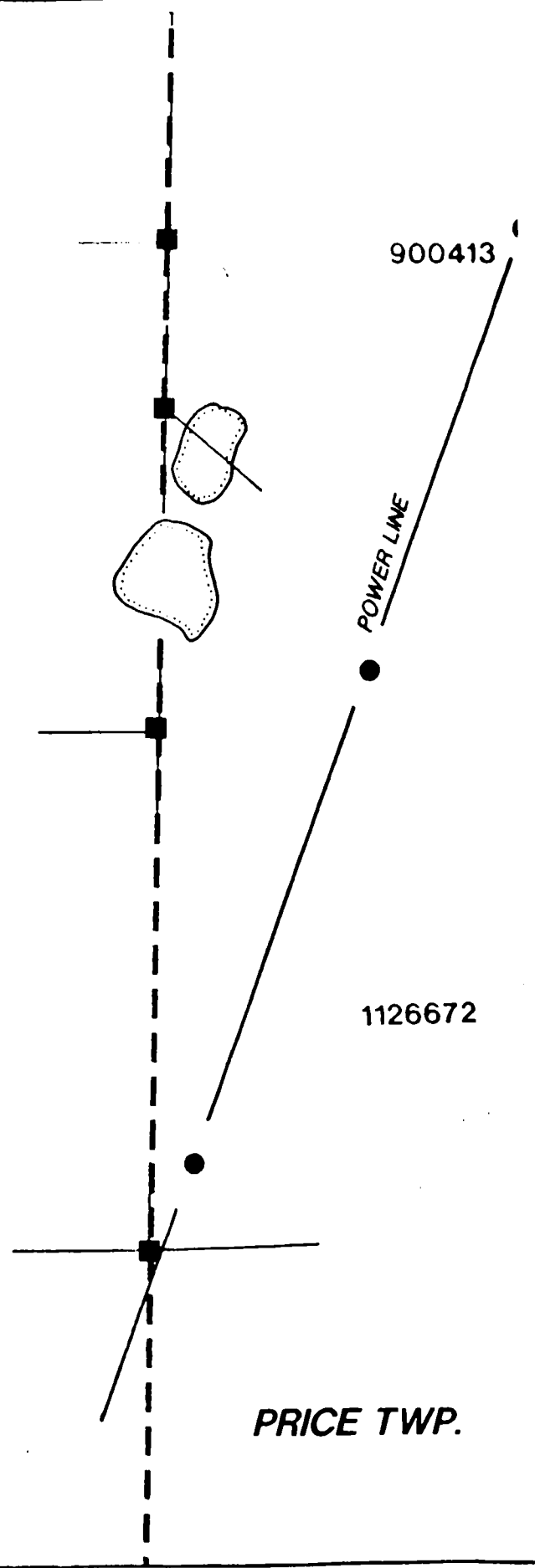




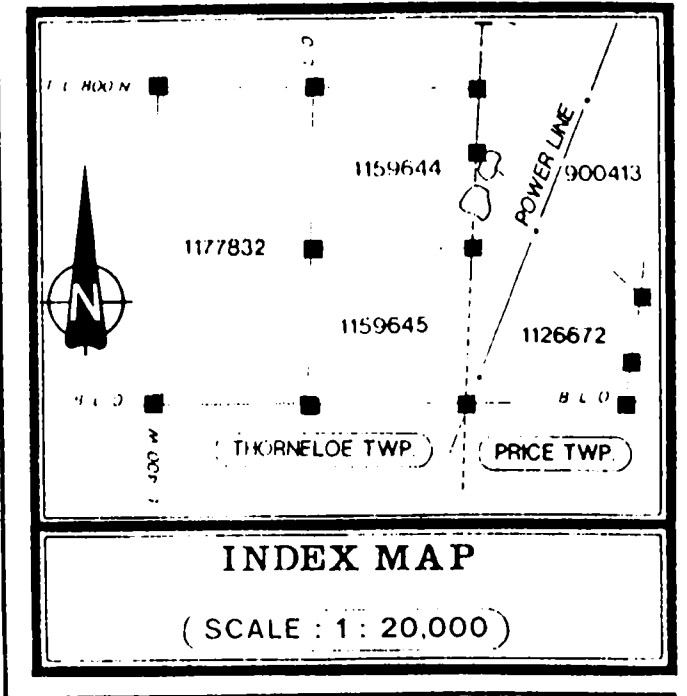




**THORNELOE TWP.**



**PRICE TWP.**



**INDEX MAP**

(SCALE : 1 : 20,000)

**2.16498**

**RECEIVED**  
MAY 9 - 1996  
MINING LANDS BRANCH

<b>INMET MINING</b>	
<b>CROXALL-KANGAS PROJECT</b>	
<b>MAGNETOMETER SURVEY</b>	
1 : 5.000	FEB./96

*SAH*



800 N TL 800 N

700 N

600 N

500 N

400 N

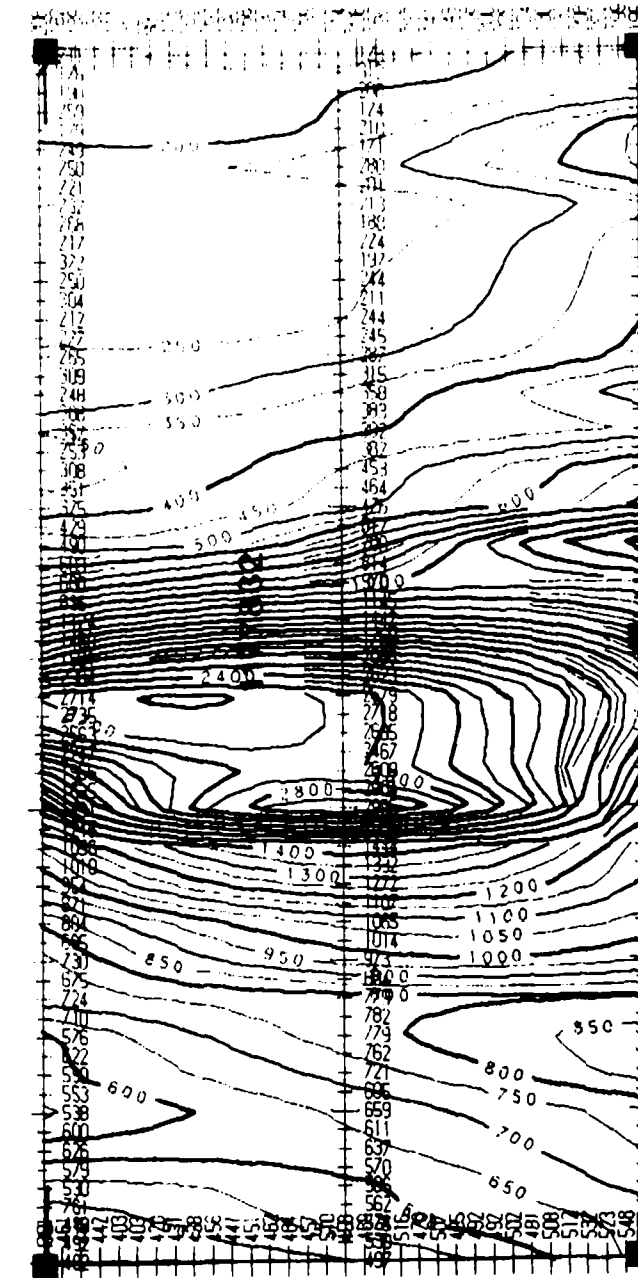
300 N

200 N

100 N

0 BASELINE

L 400 W



L 400 W

L 200 W

THORNELOE TWP.

TL 800 N

1159644

1159645

BASELINE

800 N

700 N

600 N

500 N

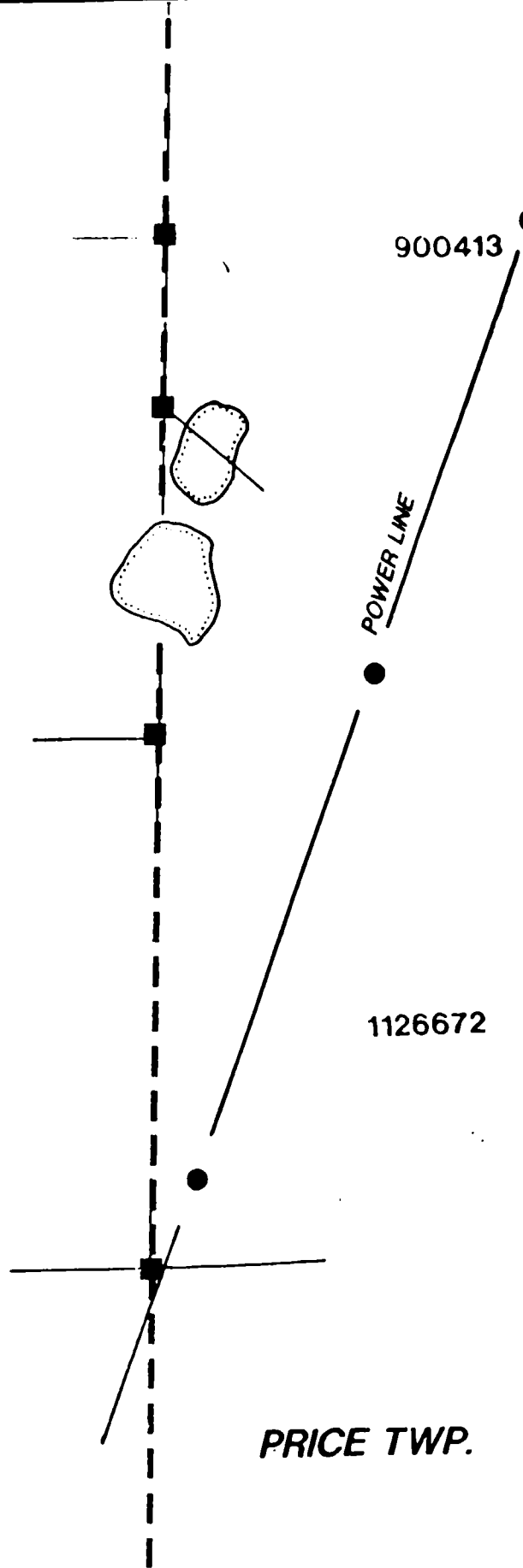
400 N

300 N

200 N

100 N

0

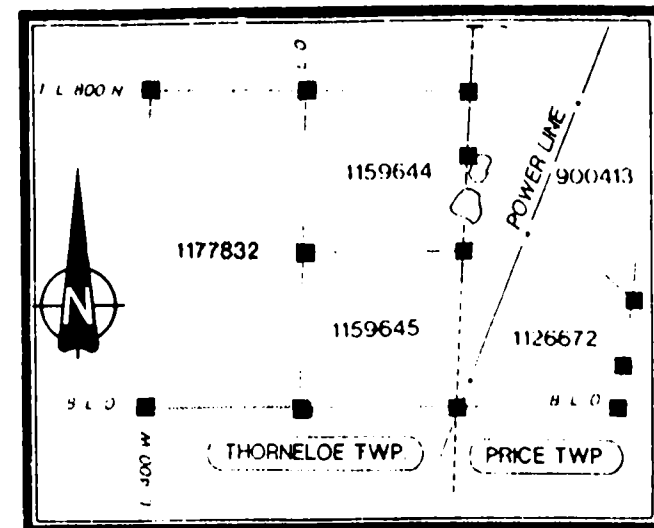


900413

POWER LINE

1126672

PRICE TWP.



INDEX MAP

(SCALE : 1 : 20,000)

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MAY 9 - 1996

INMET MINING

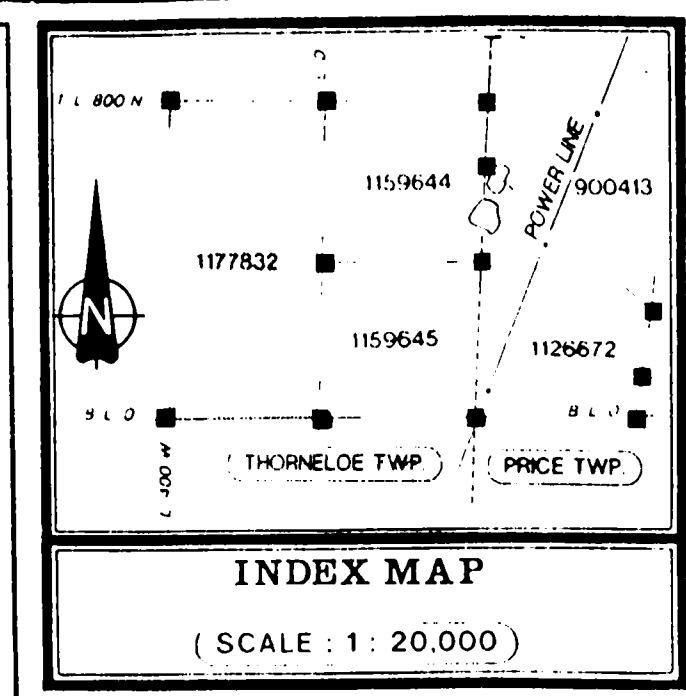
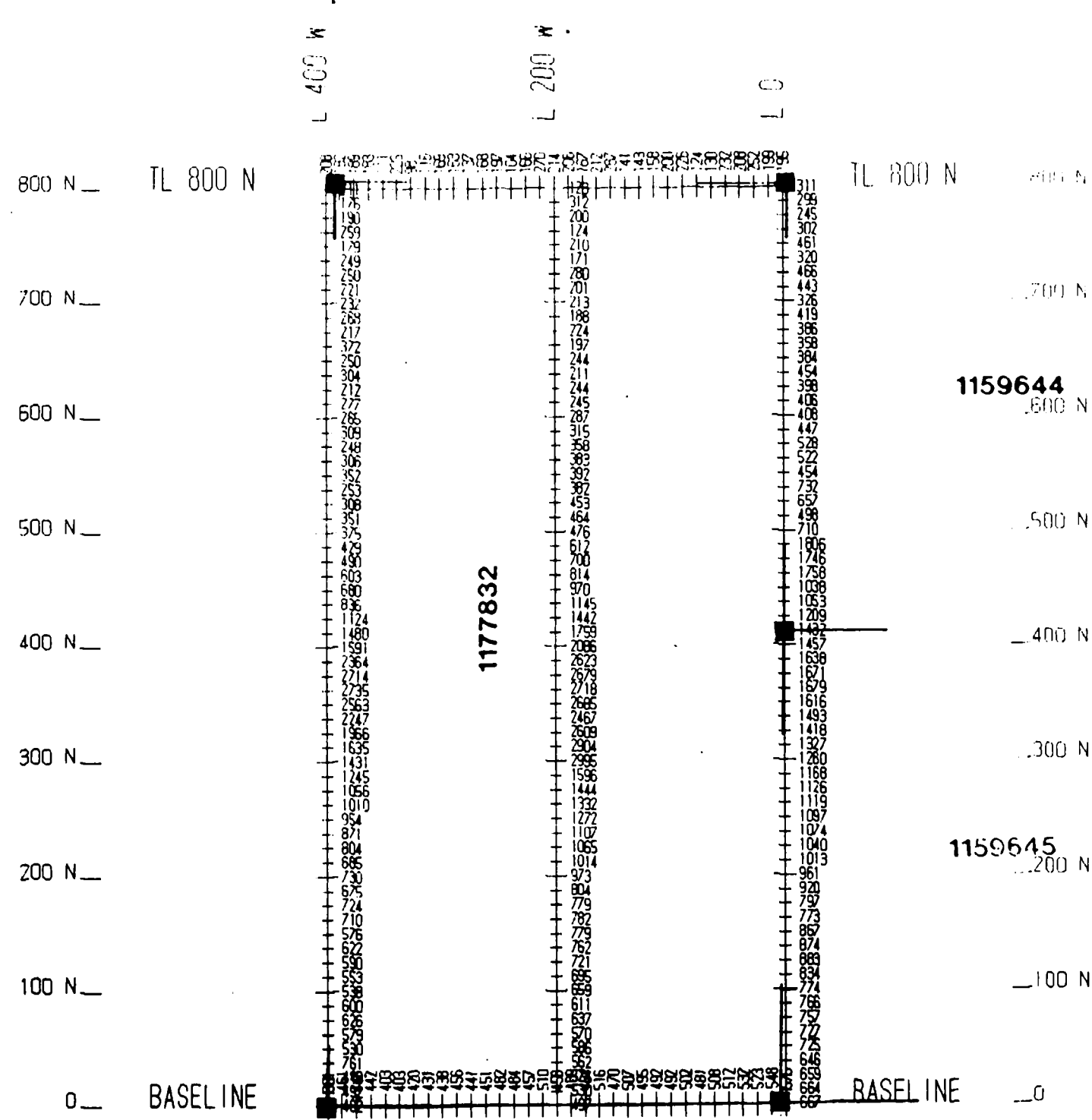
CROXALL-KANGAS PROJECT

MAGNETOMETER SURVEY

1 : 5,000

FEB./96

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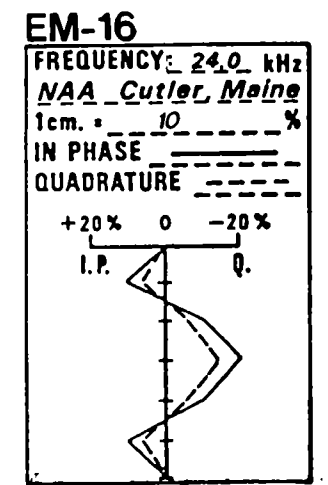
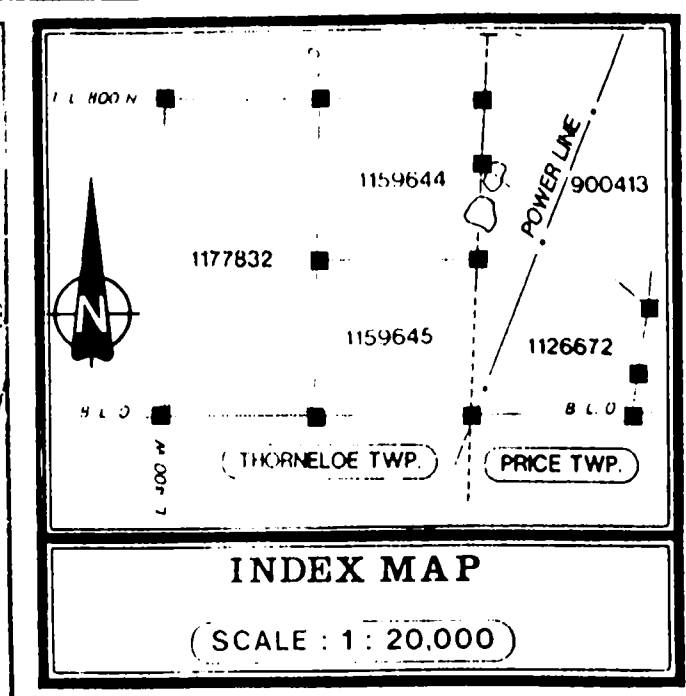
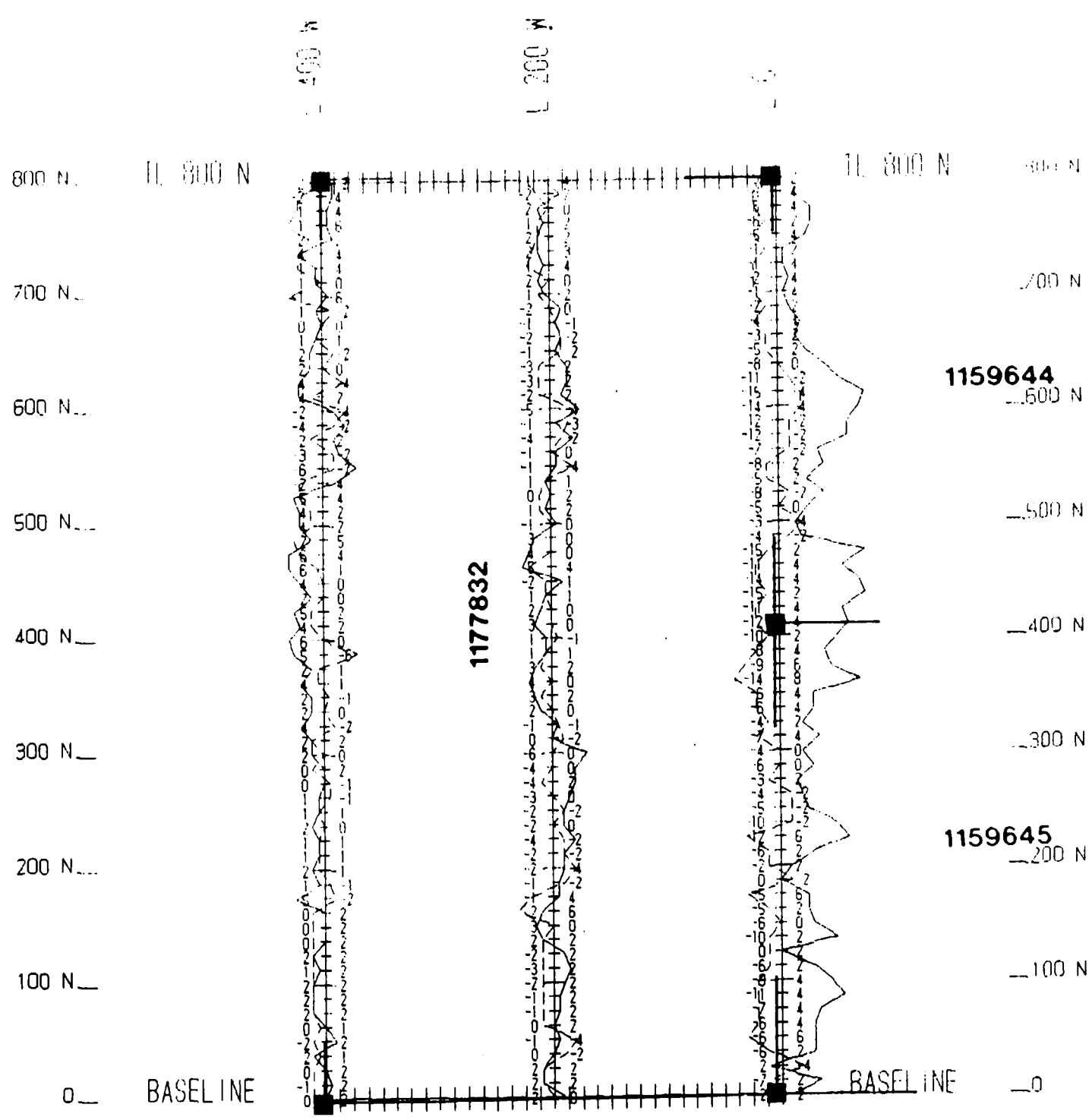
2.16496

RECEIVED  
MAY 14 1996

MINING LANDS BRANCH

INMET MINING	
CROXALL-KANGAS PROJECT	
MAGNETOMETER SURVEY	
1 : 5,000	FEB / 96

*SLK*



**RECEIVED**  
MAY 11 - 1996  
MINING LANDS BRANCH

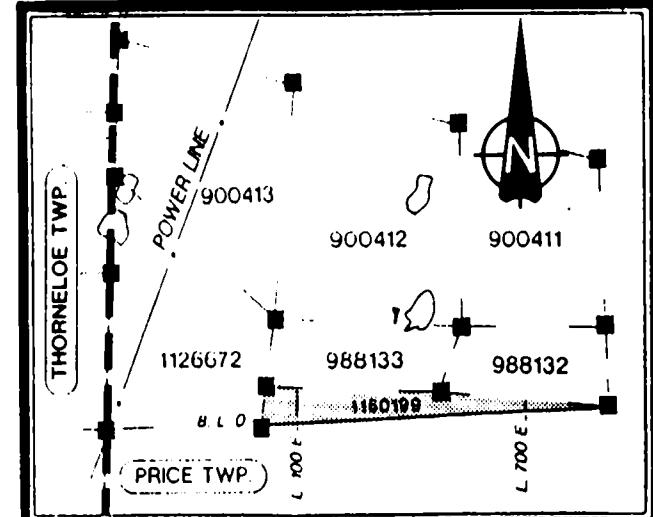
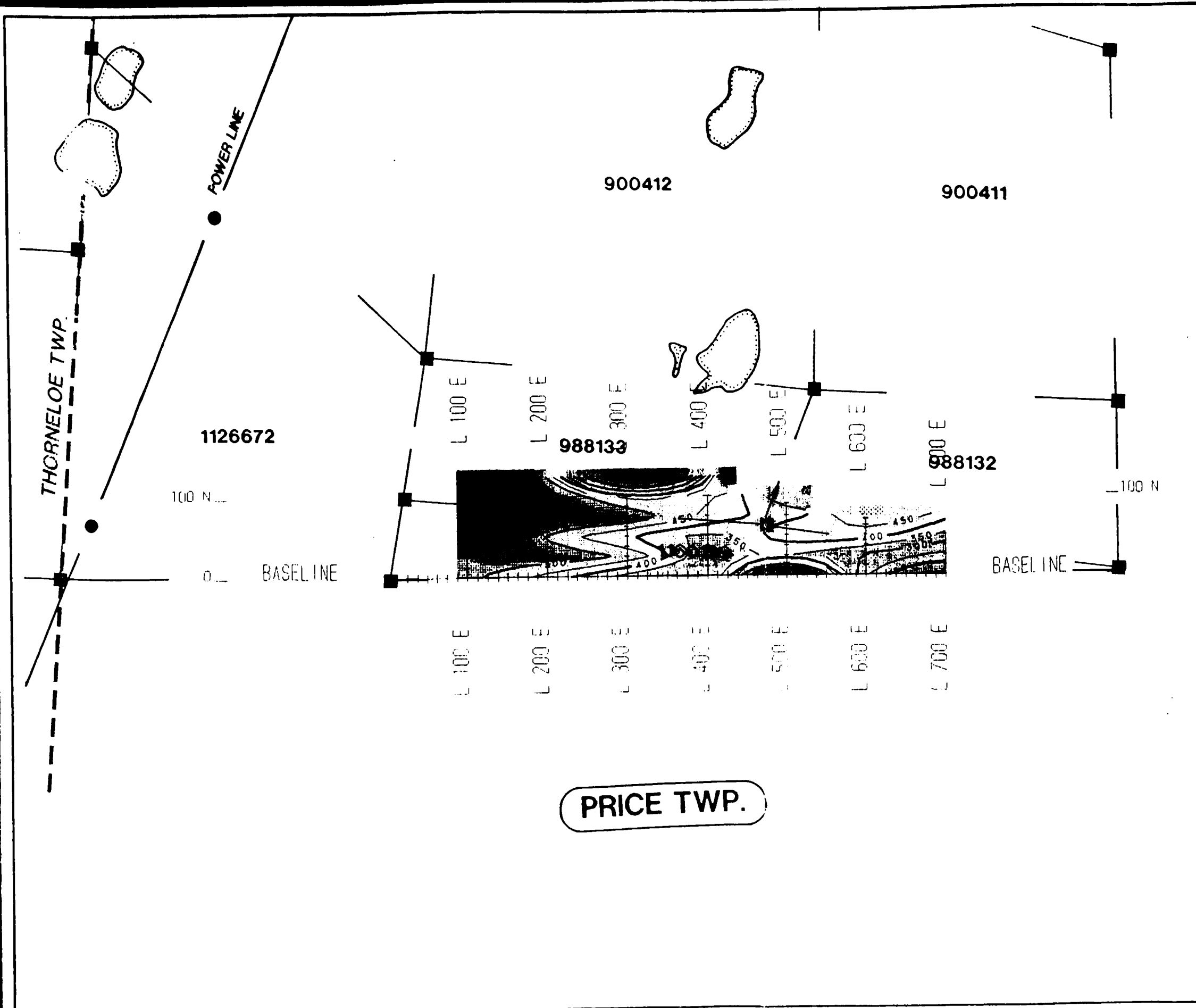
<b>INMET MINING</b>	
<b>CROXALL-KANGAS PROJECT</b>	
<b>ELECTROMAGNETIC SURVEY</b>	
1 : 5,000	FEB./96

**THORNELOE TWP.**

**PRICE TWP.**

*MS*





**INDEX MAP**  
SCALE : 1 : 20,000



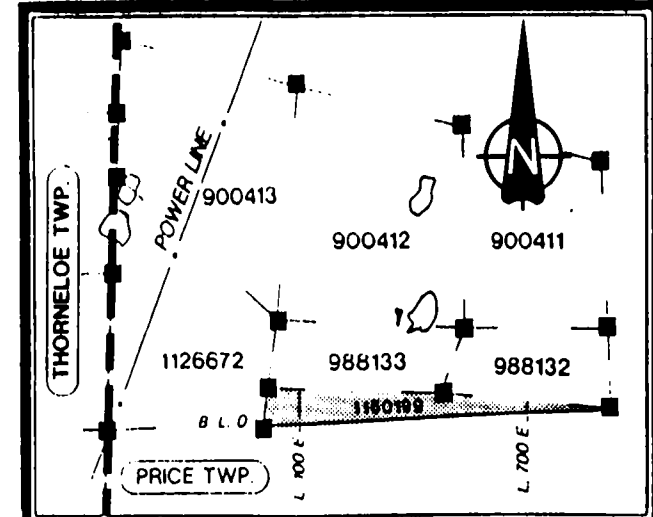
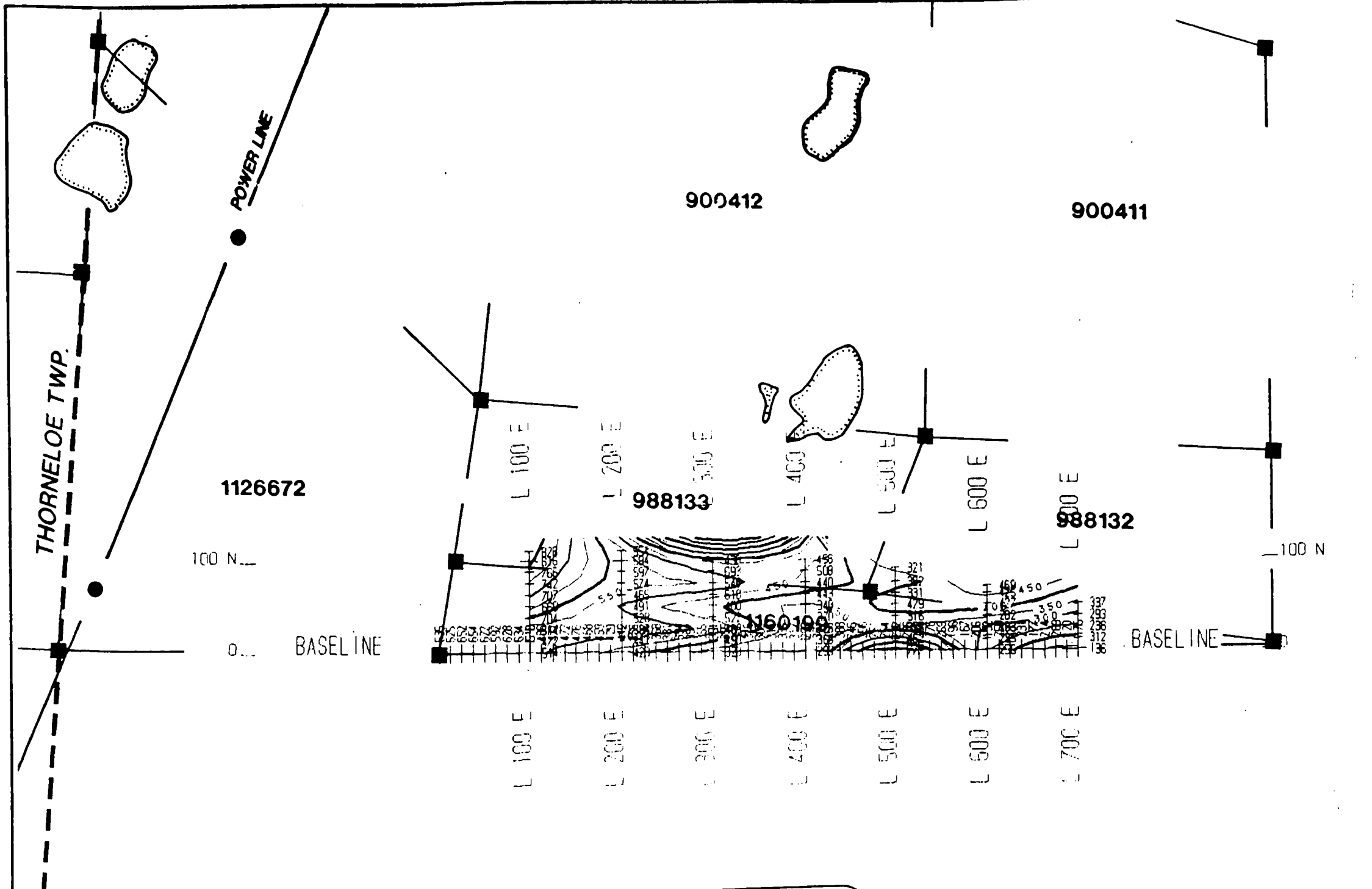
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RECEIVED  
MAY 11 1996  
MINING LANDS BRANCH

PRICE TWP.

<b>INMET MINING</b>	
<b>CROXALL-KANGAS PROJECT</b>	
<b>MAGNETOMETER SURVEY</b>	
1 : 5,000	FEB./96

*Handwritten signature/initials*



**INDEX MAP**  
SCALE : 1 : 20,000

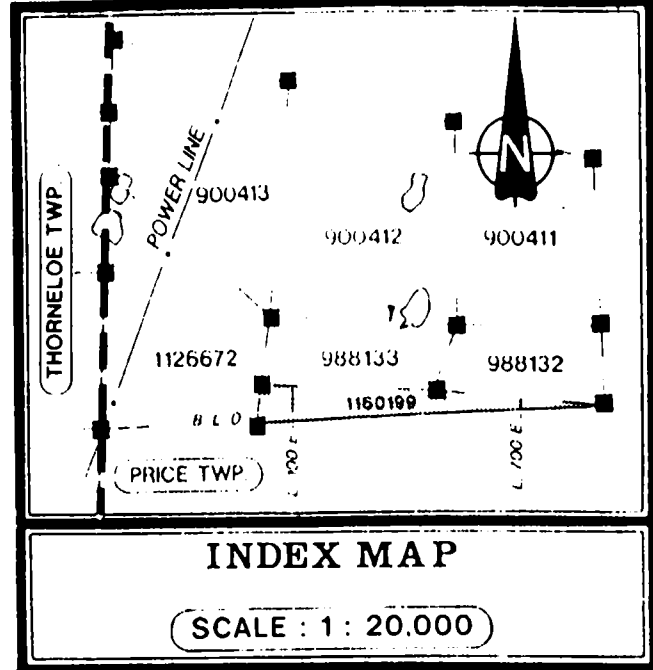
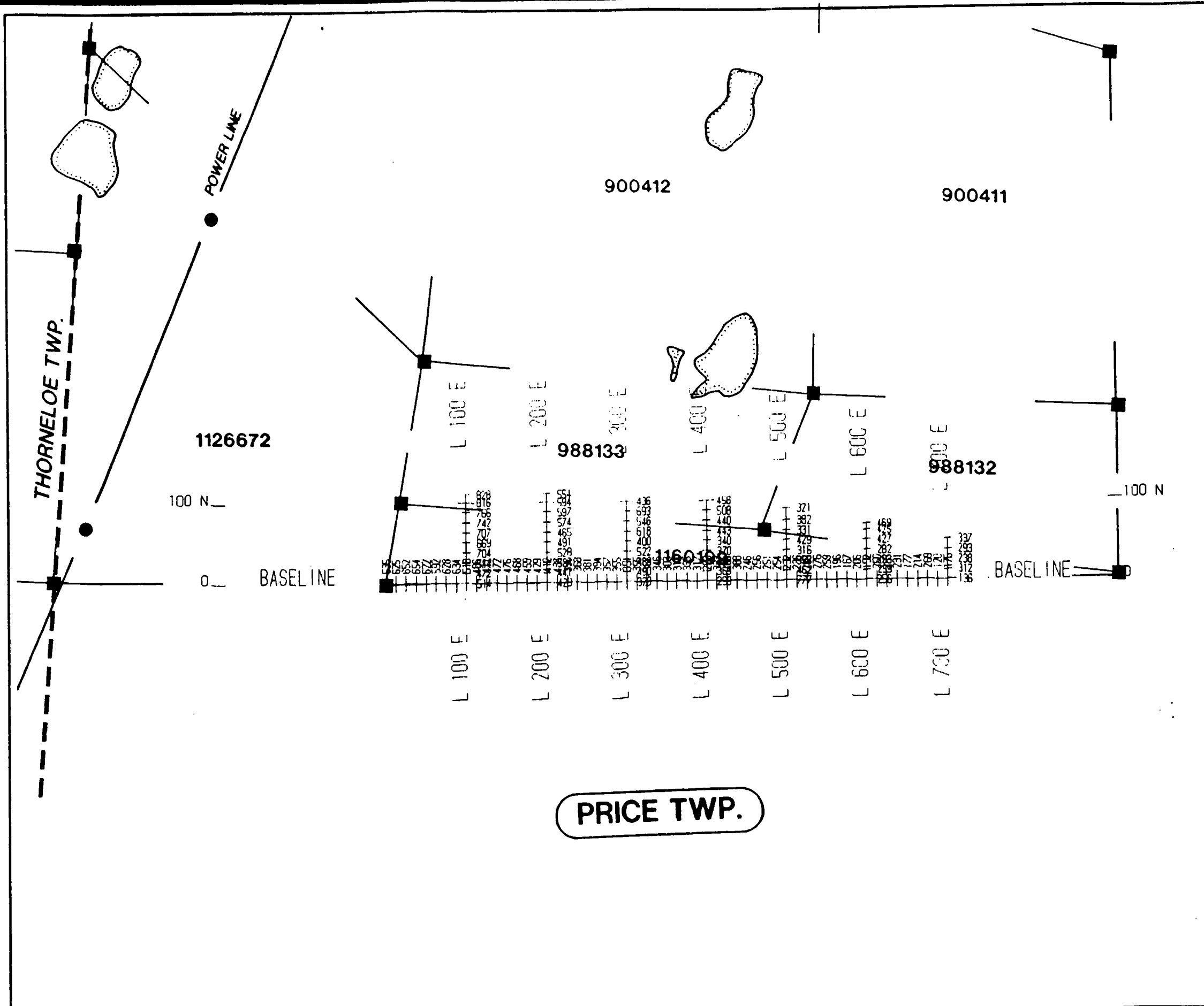


2-1-96

**RECEIVED**  
MAY 9 - 1996  
MINING LANDS BRANCH

**INMET MINING**  
**CROXALL-KANGAS PROJECT**  
**MAGNETOMETER SURVEY**  
1 : 5,000      FEB./96

*Shelton*

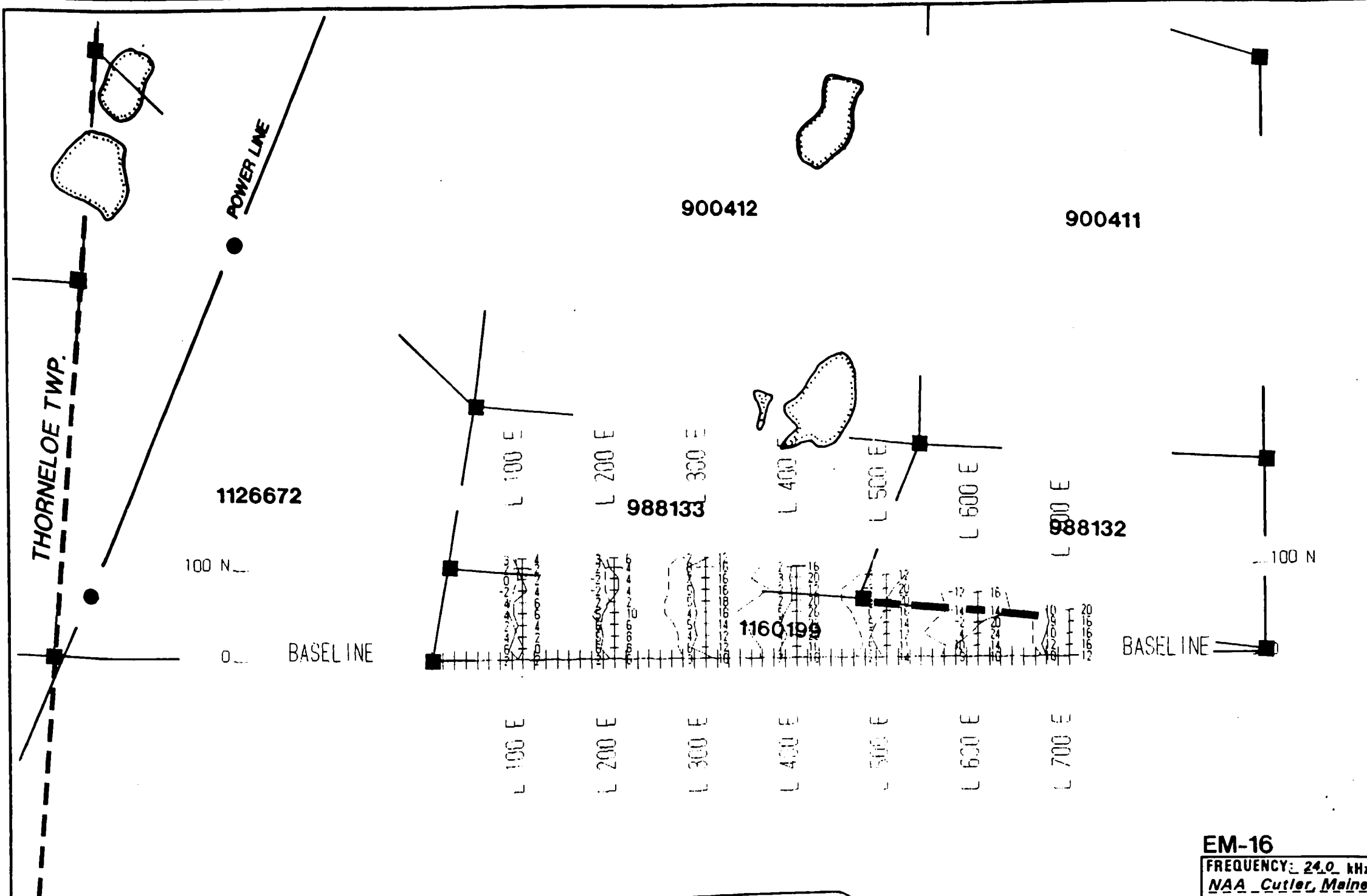


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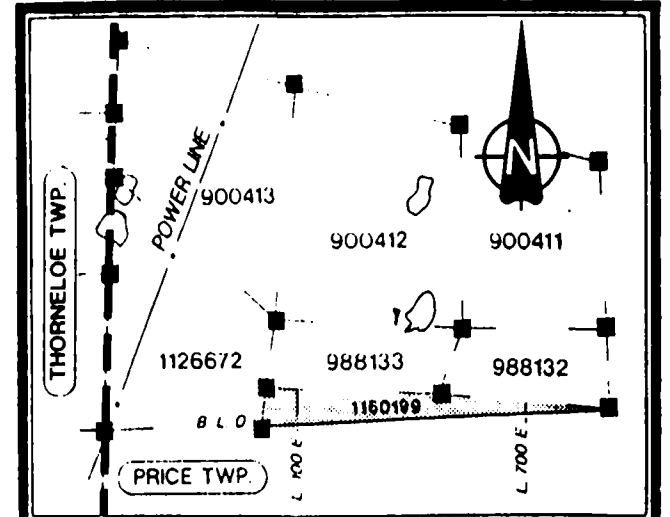
RECEIVED  
MAY 11 - 1996  
MINING LANDS BRANCH

INMET MINING	
CROXALL-KANGAS PROJECT	
MAGNETOMETER SURVEY	
1:5,000	FEB./96

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PRICE TWP.



INDEX MAP

SCALE : 1 : 20,000

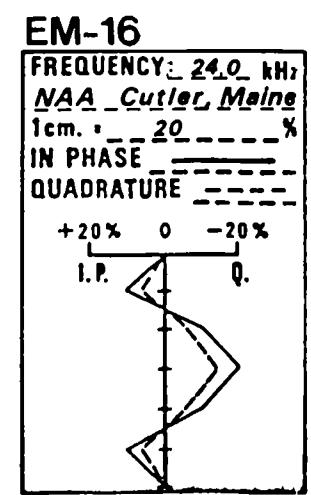


RECEIVED

MAY 9 - 1996

MINING LANDS BRANCH

CONDUCTOR AXIS



**INMET MINING**

CROXALL-KANGAS PROJECT

ELECTROMAGNETIC SURVEY

1 : 5,000

FEB./96

8/11/96



2.16496

**MODEL G-816/826  
PORTABLE  
PROTON MAGNETOMETER**

RECEIVED  
MAY 11 - 1996  
MINING LANDS BRANCH

## 1.0 GENERAL INFORMATION

### 1.1 INTRODUCTION

The Model G-816/826 Portable Proton Magnetometer is a complete system designed for man-carry field applications requiring simple operation and stable measurements of the total intensity of the earth's magnetic field. The G-816/826 is accurate and has a sensitivity of  $\pm 1$  gamma over a range from 20,000 to 90,000 gammas. Since the instrument measures total field intensity, the accuracy of each measurement is not affected by sensor orientation. The inherent simplicity of the G-816/826 Proton Magnetometer allows rapid, accurate measurements to be obtained from a rugged, compact field instrument. This is a precision instrument and reasonable attention must be given to handling, battery condition, and magnetic environment.

### 1.2 MAGNETIC ENVIRONMENT

It is important that the earth's magnetic field is not perturbed by allowing unwanted magnetic objects to come close to the sensor. Such objects include rings, keys, watches, belt buckles, pocket knives, metal pencils, zippers, etc. When the sensor is used on the staff, one gamma surveys are easily performed provided the sensor is kept at a distance of three feet (.9 m) from the operator. When the sensor is used in the backpack, certain articles of clothing and some types of batteries within the console will cause a five to ten gamma heading error in the readings. The G-816/826, however, still provides one gamma sensitivity and repeatability despite the presence of such a base line shift. The backpack feature is recommended for use in difficult terrain where "hands free" operation is required.

Prior to survey use, objects that are suspected to be magnetic may be checked in the following manner:

1. Attach sensor to staff and connect coiled signal cable to console. Sensor should not be moved or turned during the test, and the suspected article should be far away initially.
2. Cycle the magnetometer a few times by depressing the READ button--releasing--and waiting for a reading each cycle.
3. Observe measurement readings. Each reading should repeat to  $\pm 1$  gamma. (A slow shift may occur over several minutes due to a diurnal change in the earth's field.)
4. Place the suspected article at the distance from the sensor expected during actual survey operation.
5. Cycle magnetometer several times and note the readings.

### 1.3 SPECIFICATIONS

Sensitivity: + 1 gamma throughout range.

Range: 20,000 to 90,000 gammas (worldwide).

Tuning: Multiposition switch with signal amplitude indicator light on display.

Gradient Tolerance: Exceeds 800 gammas/feet.

Sampling Rate: Manual push button, one reading each six seconds.

Output: Five digit numeric display with readout directly in gammas.

Power Requirements: Twelve 1.5 volt "D" cell universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

Temperature Range: Console and sensor: -40° to +85° C.  
Battery pack: 0° to +50° C (limited use to -15° C; lower temperature battery belt operation - optional).

Accuracy (Total Field): + 1 gamma through 0° to +50° C temperature range.

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15496

- Instructions:
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for Recorder.
  - A separate copy of this form must be comp
  - Technical reports and maps must accompa
  - A sketch, showing the claims the work is a

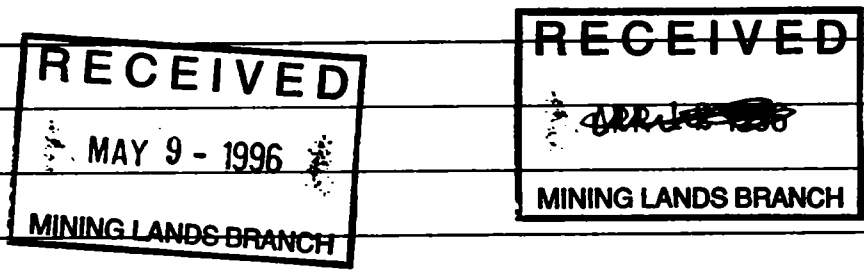


900

Recorded Holder(s) <b>MATTI KANGAS / JAMES CROXALL</b>	Client No. <b>150666 / 122685</b>
Address <b>128 QUEEN AVE TIMMINS, ONT. P4N 4L6</b>	Telephone No. <b>267-6175 / 267-4314</b>
Mining Division <b>PORCUPINE</b>	Township/Area <b>PRICE, THORNELOE</b>
M or G Plan No.	
Dates Work Performed From: <b>FEB 12/96</b>	To: <b>FEB 14/96</b>

Work Performed (Check One Work Group Only)

Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	<b>GEOPHYSICAL SURVEY - MAG + VLF</b>
<input type="checkbox"/> Physical Work, including Drilling	
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	



Total Assessment Work Claimed on the Attached Statement of Costs \$ **3,745.00**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
<b>SERVICES EXPLORATION ENR.</b>	<b>765 Bv. QUEBEC, C.P. 428, ROUYN-NORANDA P.Q. 19X 5L4</b>

(attach a schedule if necessary)

Certification of Beneficial Interest \* See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <b>MARCH 1<sup>ST</sup> 1996</b>	Recorded Holder or Agent (Signature) <i>Bernard Bily</i>
--	--	---

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <b>BERNARD BILLY c/o INMET MINING, 1300 SAGUENAY, PO Box 2187, ROUYN-NORANDA P.Q. 19X 5L4</b>		
Telephone No. <b>819-764-6666</b>	Date <b>MARCH 1<sup>ST</sup> 1996</b>	Certified By (Signature) <i>Bernard Bily</i>

For Office Use Only

Total Value Cr. Recorded <b>\$ 3745</b>	Date Recorded	Mining Recorder <i>Gay White</i>	 <b>C. GEW 245</b> PORCUPINE MINING DIVISION
	Deemed Approval Date <b>MAY 29/96</b>	Date Approved	
	Date Notice for Amendments Sent		





Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (705) 670-5853  
Fax: (705) 670-5863

May 24, 1996

Our File: 2.16496  
Transaction #: W9660.00182

Mining Recorder  
Ministry of Northern Development & Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Mr. White:

**SUBJECT: APPROVAL OF ASSESSMENT WORK CREDIT ON MINING LAND, CLAIM(S)  
1160194 (ET AL.) IN PRICE, THORNELOE TOWNSHIP (AREA)**

Assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission. The credit has been approved under Section 14, Geophysics (MAG,VLF) of the Assessment Work Regulation.

The approval date is May 23, 1996. Please indicate this approval on the claim record.

If you have any questions regarding this correspondence, please contact Bruce Gates at (705) 670-5856.

Yours sincerely,  
ORIGINAL SIGNED BY:



Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mines and Minerals Division

*BIG*

BIG/jl  
Enclosure:

cc: Resident Geologist  
Timmins, Ontario

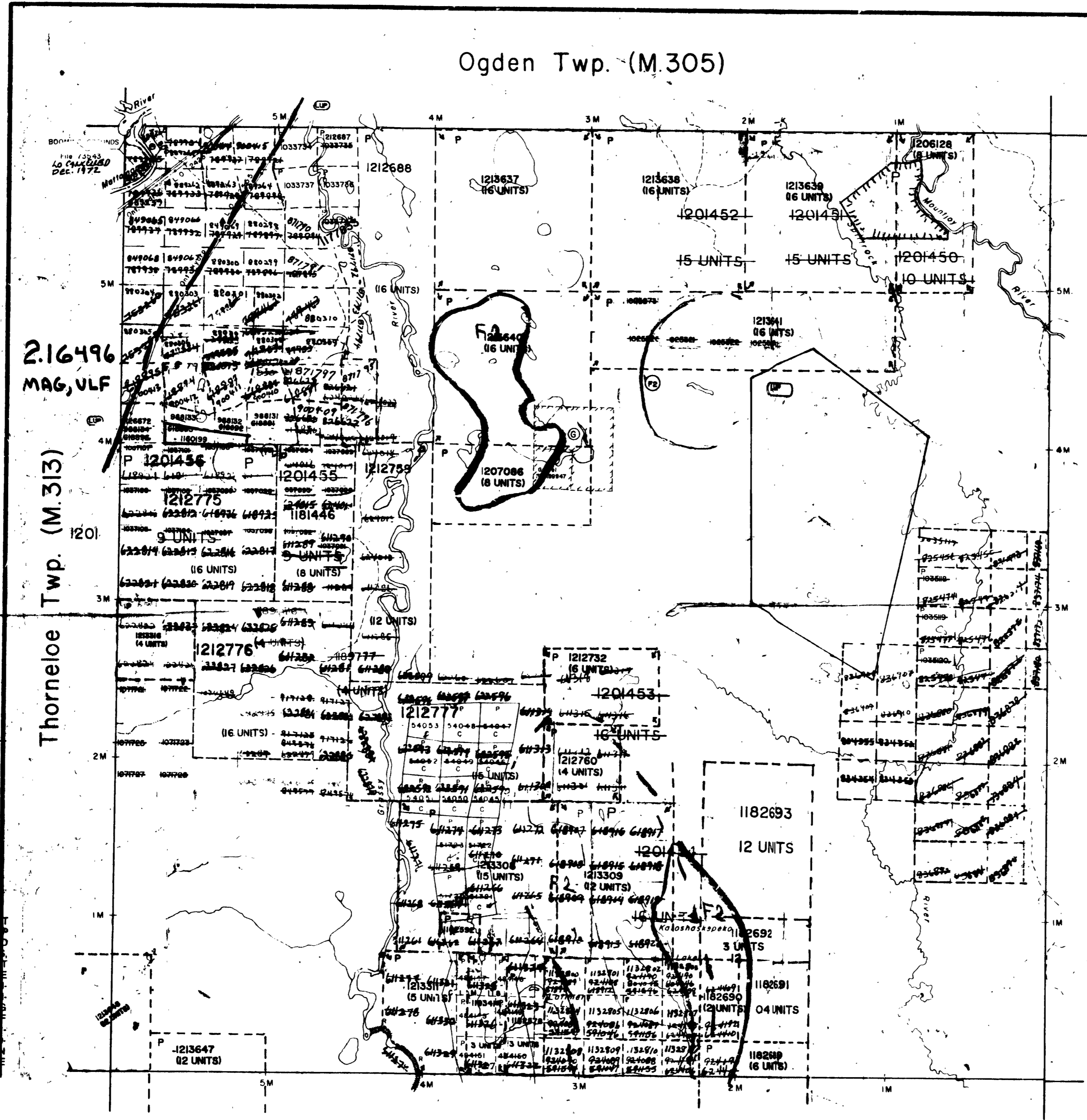
✓ Assessment Files Library  
Sudbury, Ontario

301

BVICE TWP

305 M

### Ogden Twp. (M.305)



2.16496  
MAG, VLF

Thorneloe Twp. (M.313)

Frapp Twp. (M.281)

Adams Twp. (M.261)

THE TOWNSHIP OF

# PRICE.

2.16496

DISTRICT RECEIVED  
COCHRANE  
MAY 9 - 1996

PORCUPINE MINING LANDS BRANCH  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

#### DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS
- " SURFACE RIGHTS ONLY
- " MINING RIGHTS ONLY
- LEASE, SURFACE AND MINING RIGHTS
- " SURFACE RIGHTS ONLY
- " MINING RIGHTS ONLY
- LICENCE OF OCCUPATION
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED

#### NOTES

- 400' surface rights reservation along the shores of all lakes and rivers.
- Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).
- Order No File Date Disposition
- (LUP) APPLICATION PENDING UNDER PUBLIC LANDS ACT  
NOTICE RECEIVED 93-MAR-30  
(SNOWMOBILE TRAIL)
- (LUP) APPLICATION PENDING UNDER PUBLIC LANDS ACT  
NOTICE RECEIVED 93-JAN-23  
(WASTE DISPOSAL SITE)
- (S) THIS TWP SUBJECT TO FOREST ACTIVITY IN 1995/96.  
AREAS DESIGNATED EXACTLY AS SUBMITTED BY MNR TIMMINS.
- SAND AND GRAVEL
- (Q) QUARRY PERMIT

Rec. Oct. 3/79  
This township lies within the Municipality of the CITY OF TIMMINS.

PLAN NO. M-307

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



200

301

BVICE TWP

305 M

**REFERENCES**

**AREAS WITHDRAWN FROM DISPOSITION**

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
SEC. 43/70		17/15/72	S.R.O.	164584

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

**SAND AND GRAVEL**

- ① GRAVEL FILE 143834
- ② M.N.R. GRAVEL RESERVE
- ③ M.N.R. GRAVEL PIT 258 FILE 11467

- ① THIS TWP. SUBJECT TO FOREST ACTIVITIES IN 1994/95. FURTHER INFO AVAILABLE ON FILE.
- ② THIS TWP SUBJECT TO FOREST ACTIVITY IN 1995-96. FURTHER INFORMATION AVAILABLE ON FILE.

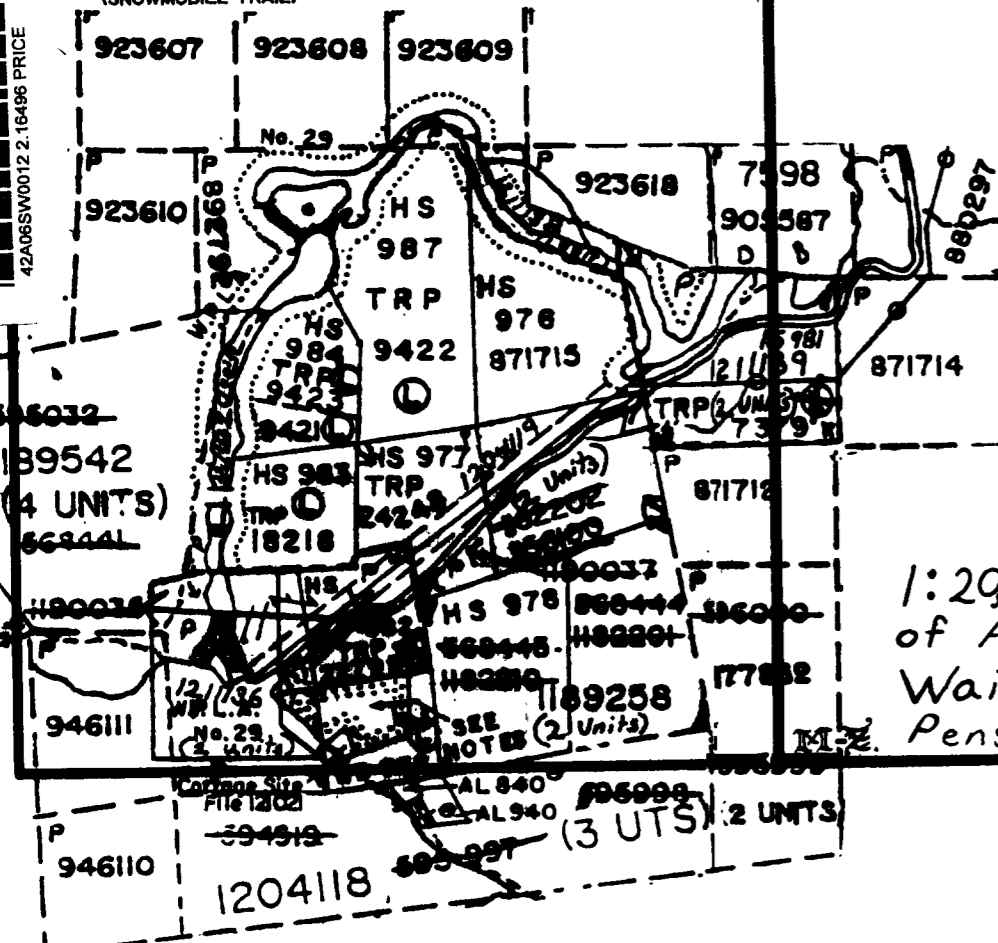
**NOTES**

210 Reservation for Deputy Chief Ranger's Headquarters site shown thus File: 110657

Flooding Rights on Kenogamissi Lk. & Mattagami R. are reserved to Ont. Hydro - L.O. 7598. File: 1163 vol. 3

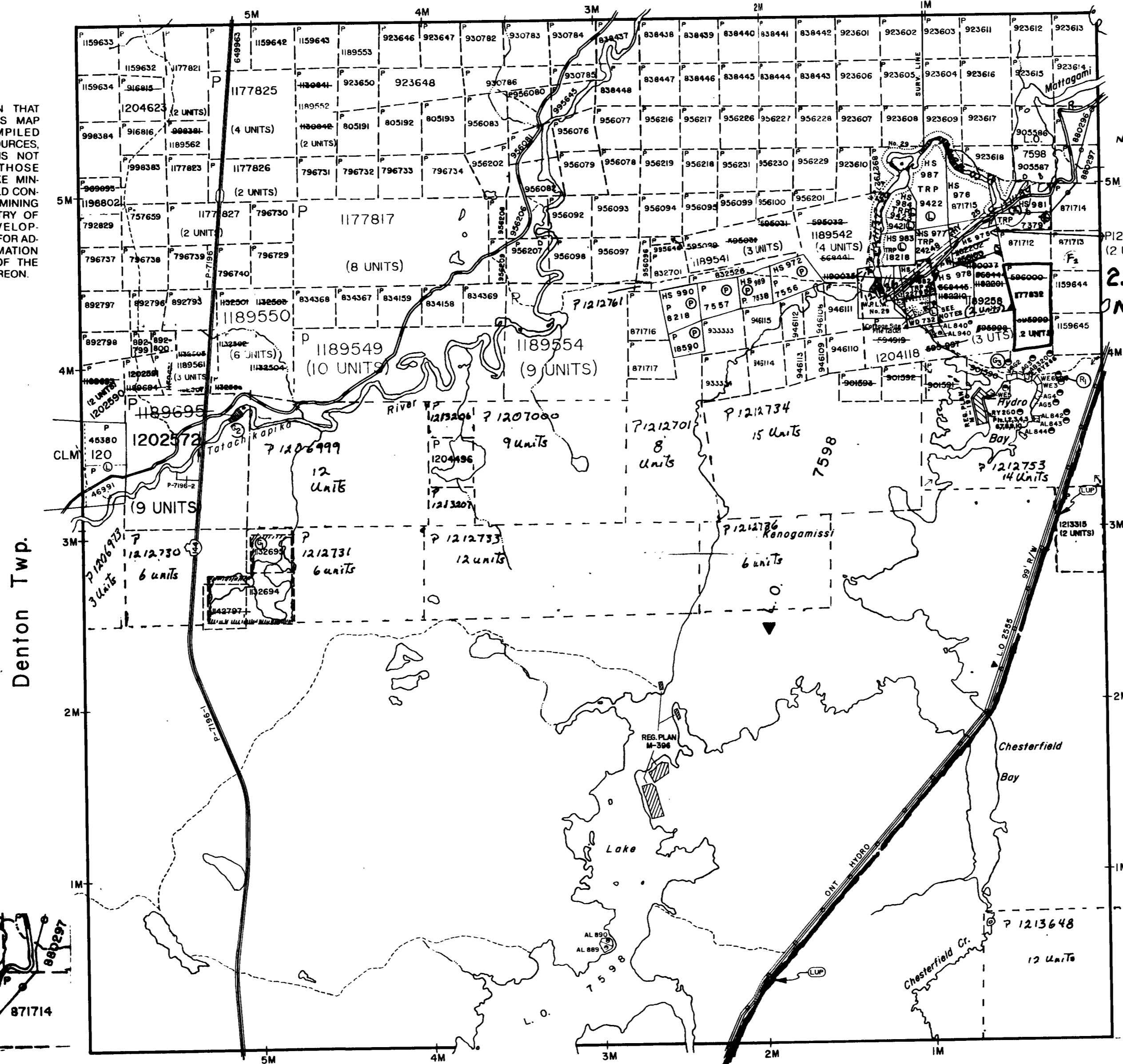
THIS TOWNSHIP LIES WITHIN THE MUNICIPALITY OF THE CITY OF TIMMINS

UP APPLICATION PENDING UNDER PUBLIC LANDS ACT NOTICE RECEIVED 93-MAR-30 (SNOWMOBILE TRAIL)



1:20,000 Plot of Area Around Waiwaitin Falls (Dam) and Penstock.

**Bristol Twp.**



Note: See insert in lower left-hand corner for more detail around the dam and penstock area.

2.16496  
MAGYLF

Price Twp.

**Mc Keown Twp.**

**LEGEND**

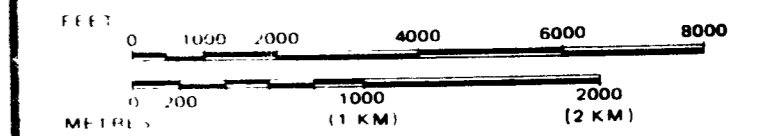
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAIL
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS



TOWNSHIP *not updated*

**THORNELOE**

M.N.R. ADMINISTRATIVE DISTRICT  
**TIMMINS 2.164 96**  
 MINING DIVISION  
 PORCUPINE  
 LAND TITLES / REGISTRY DIVISION  
 COCHRANE

RECEIVED  
 MAY 9 - 1996

Ontario Ministry of Natural Resources Land Management Branch

Date MARCH 1985

Number

ACTIVATED JULY 3, 1992 BY D.C.  
 CHECKED BY GRW

**G-3229**