

ROY J. RUPERT  
CONSULTING GEOLOGIST

28 WELCOME AVENUE  
SAULT STE. MARIE, ONTARIO  
P6A 5A5

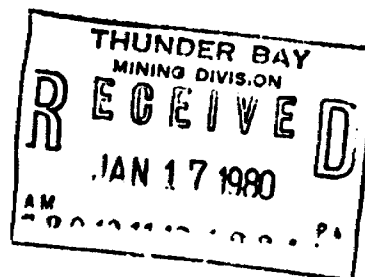
PHONE (705) 254-4130



42C11NE0150 0010 COMMON

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RESIDENT GEOLOGIST  
SAULT STE. MARIE



RADIOMETRIC SURVEY

KASPER SPERLE CLAIMS

COMMON TP., WHITE RIVER, ONTARIO.

Sault Ste. Marie, Ontario.  
Dec. 10, 1979

NOT TO BE REMOVED FROM  
THE OFFICE OF THE RESIDENT  
GEOLOGIST, DEPT. OF MINES  
SAULT STE. MARIE, ONT.

-SSM2124-  
ASSESSMENT WORK

ODM 2.3200

## REPORT OF RADIOMETRIC SURVEY

### KASPER SPERLE PROPERTIES

#### COMMON TP., WHITE RIVER, ONTARIO.

#### INTRODUCTION

On Nov. 25, 26 & 27, the writer examined 20 claims of Mr. Kasper Sperle in two claim blocks. On Mr. Sperle's verbal and written instructions, the survey was designed to provide a preliminary reconnaissance evaluation of the claims, but was not conducted in the detail required for "special provision" assessment work credits.

#### LOCATION & ACCESS

Fig. 1 shows the location of the two claim blocks.

The claims are located in Common Tp. in the judicial District of Algoma and the Thunder Bay Mining Division. Access is via the Danny Lake haul road of Abitibi Ltd. which crosses one block of claims and passes  $\frac{1}{2}$  mile east of the other, as shown on Fig. 1.

The 20 claims included in the block are owned by Mr. Kasper Sperle, P.O. Box 808, Manitouwadge, Ontario, and are claim nos. 518765 to 784 inclusive. During the current survey, work was performed on parts of all claims except 518765, 768, 769, 783 and 784.

#### GEOLOGY

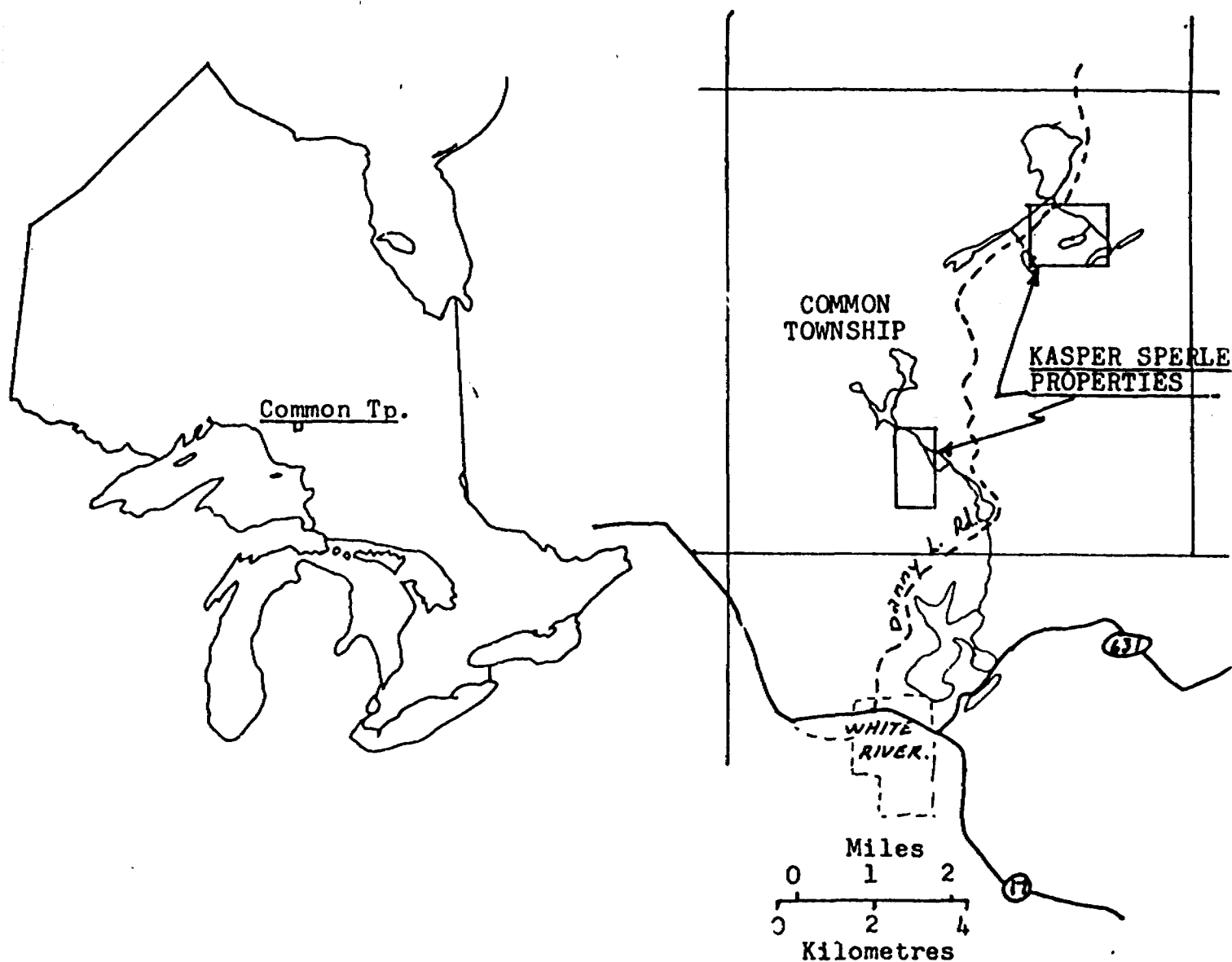
The claims are underlain by Archean granitic rocks of the Superior Province. Outcrops observed on the Ruthie Lake block were hornblende granites or granite gneisses with frequent feldspar-quartz pegmatite bands.

Outcrops observed on the Nabigon Lake block were biotite granite, massive to weakly gneissic.

ODM map 2220 indicates that diabase dykes of probable Proterozoic age intrude the granitic rocks of both blocks.

Topographically, the area is an incised plateau. Hill tops are generally level to gently sloped, with steep-walled valleys 100 to 150 feet deep between them. Streams have steep gradients.

- SSM2124 -



Roy J. Rupert

Consulting Geologist

KASPER SPERLE PROPERTIES

Common Township, District of Algoma, Ont.

LOCATION PLAN

79-12-15

Fig. 1

Surficial deposits of sandy till with abundant boulders comprise a ground moraine which mantles the area. Outcrops are commonly found along the valley walls, usually on steep slope breaks. They generally form low cliffs trending either north-south or northeast-southwest.

Springs are noted at several locations shown on Figs. 2 & 3. Most are clear water springs with strong flows, but a few are low-volume seeps with distinct swamp-gas smells.

#### RADIOMETRIC SURVEY PROCEDURE

The instrument used was a McPhar TV-1 Scintillation Counter with a Thallium doped sodium iodide crystal  $1\frac{1}{2}$ " thick by 1" diameter. The instrument was used with a time constant of 10 seconds to measure "total count" above 0.2 Mev. The scale range selected for this survey has a sensitivity of  $\pm 100$  counts per minute, if radiation flux is reasonably stable. The instrument has capability of discriminating radiation above 2 thresholds at 1.6 and 2.5 Mev., but no circumstances requiring this capability were encountered in this survey.

Normal background readings in areas of the claims with sandy till and normal forest cover was 900 to 1100 counts per minute. Over bare level outcrops or boulders, readings of 1500 to 2200 counts per minute were normal, with a few readings to 2500 counts per minute.

During the entire survey, audio output from the instrument was monitored to detect any anomalous conditions between stations and extra stations were added in cases where high frequency audio output was noted. This identified a number of stations with readings of  $1\frac{1}{2}$  to 2 times the general background of 900 to 1100 c.p.m. While travelling between traverse lines, and while conducting a search for claim lines of claims 518781 and 782 in slash areas, the instrument was monitored on fast count (1 second time constant). This latter process located one anomalous radioactive area over a smelly seep spring on claim 518781.

Stations were established by pace and compass methods, along claim lines where possible, at intervals of 100 feet or less over all areas of solid ground. A total of 198 stations were established along  $3\frac{1}{2}$  miles of line.

The survey was conducted during a wet snowfall, with about 3 inches of snow on the ground at the beginning and about 8 inches when the survey was completed on the Nabigon Lake block. Despite the light snow cover, most outcrops were still recognizable either visually or by observation of slope and vegetation changes. Detailed geological observation of outcrops was curtailed by snow cover.

RESULTS & INTERPRETATION

Figs. 2 & 3 show results of the survey.

No anomalous areas of apparent economic significance were found.

The highest readings noted were 2500 counts per minute over level bare outcrops. One reading of 3400 c.p.m. was noted on a cliff face but it could be explained by outcrop geometry, rather than as an anomaly caused by an increase in radioactive minerals. No readings as high as 2 times background were noted.

A water seep in fine gravel and with a strong swampy smell was noted in the central part of claim 518781. An anomalous but variable reading of 4000 c.p.m. over a 300 square foot area was noted there. It was apparently caused by radon gas dissolved in the spring water, and varied with wind conditions. This is a common phenomenon and it is not considered an economically significant anomaly.

RECOMMENDATIONS

No further radiometric surveying or other work is recommended on these claims as the result of this survey.

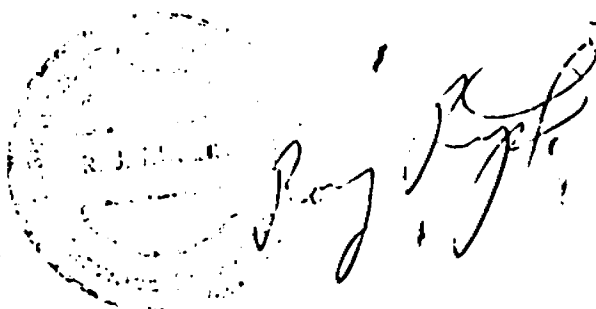
ASSESSMENT WORK DATA

Persons necessarily employed in this survey and hours of work are:

Roy J. Rupert, office, Nov. 25(2), Dec. 4(3), 5(5)	10
field, Nov. 26(10), 27(10)	20
J.F. Paquette, field, Nov. 26(10), 27(10)	20
Mrs. V. McCron, Typist, Dec. 10(2)	2
	—
	52

Assessment credits available  $\frac{52}{8} \times 7 = 45\frac{1}{2}$  assessment work credits

15 claims : 3 days





900

File \_\_\_\_\_



## Ministry of Natural Resources

# GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

**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.**

Type of Survey(s) Completed Project

Township or Area                     

Claim Holder(s) John J. & Mary J. Smith

Survey Company J. R. Davis

Author of Report A. J. B. 1234

Address of Author 2111 1st Ave. N.E. Wash. D.C.

Covering Dates of Survey. Dec 17 - 18, 1972  
(linecutting to office)

Total Miles of Line Cut 4

**SPECIAL PROVISIONS**  
**CREDITS REQUESTED**

**ENTER 40 days (includes line cutting) for first survey.**

**ENTER 20 days for each additional survey using same grid.**

## Geophysical

**-Electromagnetic**

--Magnetometer.

–Radiometric.

--Other.

## Geological

## Geochemical

**DAYS**  
**per claim**

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

Magnetometer 1 Electromagnetic        Radiometric         
(enter days per claim)

DATE: 12/1/54 SIGNATURE: [Signature]  
Author of Report or Agent

Res. Geol.                      Qualifications 2.1480

## Previous Surveys

**File No.**

Type

Date \_\_\_\_\_

**Claim Holder**[illegible]

## MINING CLAIMS TRAVERSED

TB 512 761  
 (prefix) (number)  
 TB 518 761  
 TB 518 770  
 TB 518 771  
 TB 518 772  
 TB 518 773 NC  
 TB 518 774  
 TB 518 775  
 TB 518 776  
 TB 518 777  
 TB 518 778  
 TB 518 779  
 TB 518 780  
 TB 518 781  
 TB 518 782 N.C.

**Self space insufficient. attach list**

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JAN 17 1980  
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**TOTAL CLAIMS** 1.5

# GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS — If more than one survey, specify data for each type of survey

Number of Stations 196 Number of Readings 196  
 Station interval 100 feet or less Line spacing irregular  
 Profile scale n. 2.  
 Contour interval n. 2.

## MAGNETIC

Instrument \_\_\_\_\_  
 Accuracy — Scale constant \_\_\_\_\_  
 Diurnal correction method \_\_\_\_\_  
 Base Station check-in interval (hours) \_\_\_\_\_  
 Base Station location and value \_\_\_\_\_  
 \_\_\_\_\_

## ELECTROMAGNETIC

Instrument \_\_\_\_\_  
 Coil configuration \_\_\_\_\_  
 Coil separation \_\_\_\_\_  
 Accuracy \_\_\_\_\_  
 Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line  
 Frequency \_\_\_\_\_  
 (specify V.L.F. station)  
 Parameters measured \_\_\_\_\_

## GRAVITY

Instrument \_\_\_\_\_  
 Scale constant \_\_\_\_\_  
 Corrections made \_\_\_\_\_  
 \_\_\_\_\_  
 Base station value and location \_\_\_\_\_  
 \_\_\_\_\_  
 Elevation accuracy \_\_\_\_\_

## RESISTIVITY

Instrument \_\_\_\_\_  
 Method ☐ Time Domain ☐ Frequency Domain  
 Parameters — On time \_\_\_\_\_ Frequency \_\_\_\_\_  
 — Off time \_\_\_\_\_ Range \_\_\_\_\_  
 — Delay time \_\_\_\_\_  
 — Integration time \_\_\_\_\_  
 Power \_\_\_\_\_  
 Electrode array \_\_\_\_\_  
 Electrode spacing \_\_\_\_\_  
 Type of electrode \_\_\_\_\_

## SELF POTENTIAL

Instrument \_\_\_\_\_ Range \_\_\_\_\_

Survey Method \_\_\_\_\_

Corrections made \_\_\_\_\_

## RADIOMETRIC

Instrument 4" Plan TV-1 Scintillation Counter

Values measured True 1' Count

Energy windows (levels) no count 2.5 Mev Threshold

Height of instrument 3' 10" ft Background Count \_\_\_\_\_

Size of detector 1" Thick by 1"  $\phi$

Overburden Thin 1' Marine, many boulders, variable thickness, see report.  
(type, depth - include outcrop map)

## OTHERS (SEISMIC DRILL WELL LOGGING ETC.)

Type of survey \_\_\_\_\_

Instrument \_\_\_\_\_

Accuracy \_\_\_\_\_

Parameters measured \_\_\_\_\_

Additional information (for understanding results) \_\_\_\_\_

## AIRBORNE SURVEYS

Type of survey(s) \_\_\_\_\_

Instrument(s) \_\_\_\_\_  
(specify for each type of survey)

Accuracy \_\_\_\_\_  
(specify for each type of survey)

Aircraft used \_\_\_\_\_

Sensor altitude \_\_\_\_\_

Navigation and flight path recovery method \_\_\_\_\_

Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_

Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_



2.3200

order

M.1237

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

DATE OF ISSUE  
JAN 24 1980  
SURVEYS AND MAPPING  
BRANCH

# COMMON

THUNDER BAY MINING DIVISION

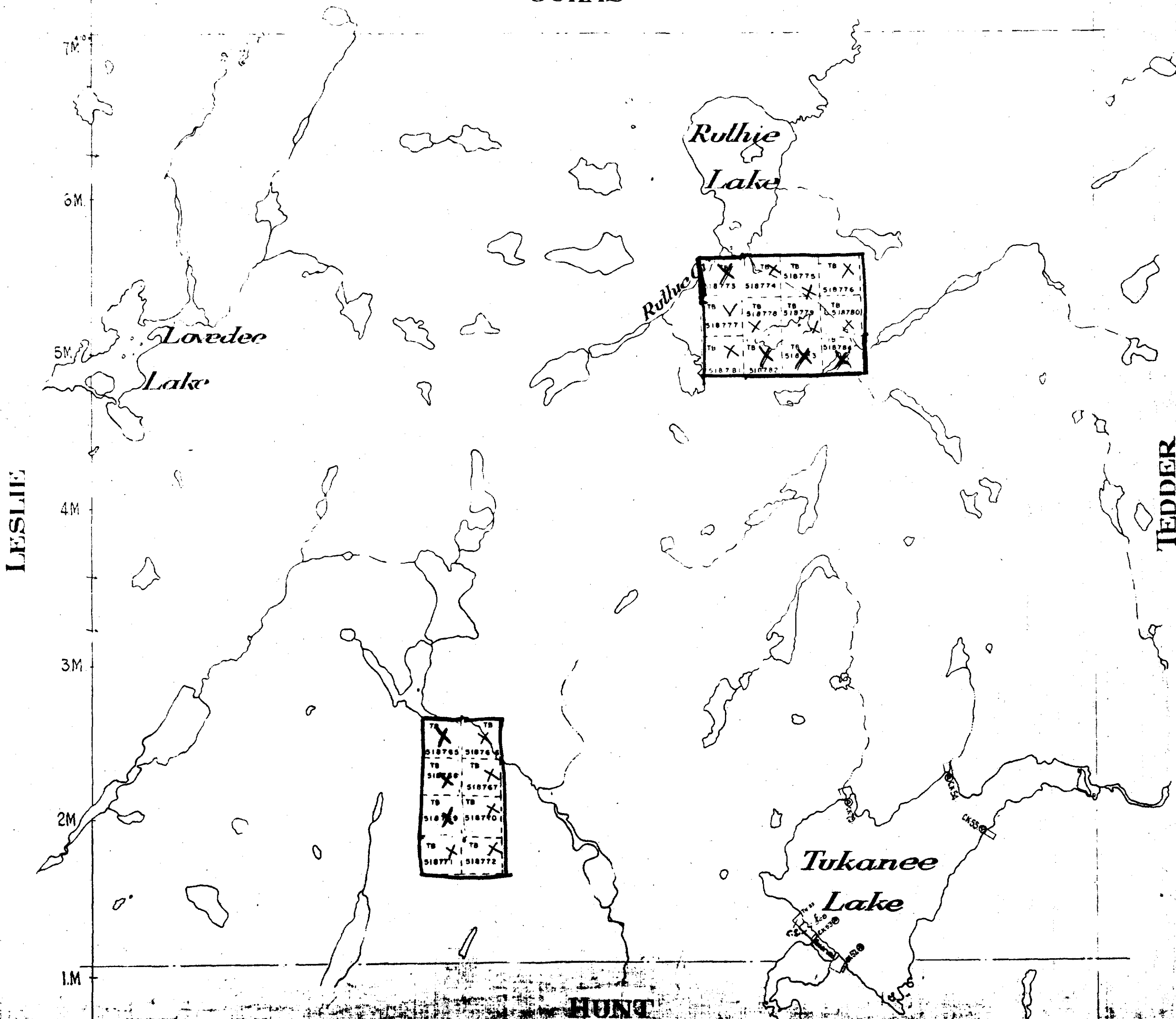
DISTRICT OF ALGOMA

Scale - 40 Chains = 1 inch

North Ast

400' surface rights reservation around all lakes & rivers

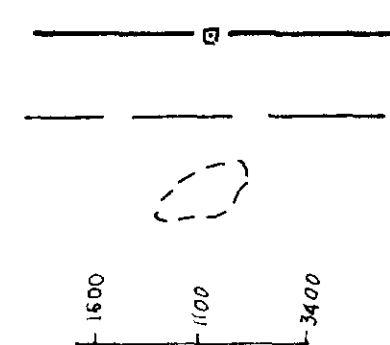
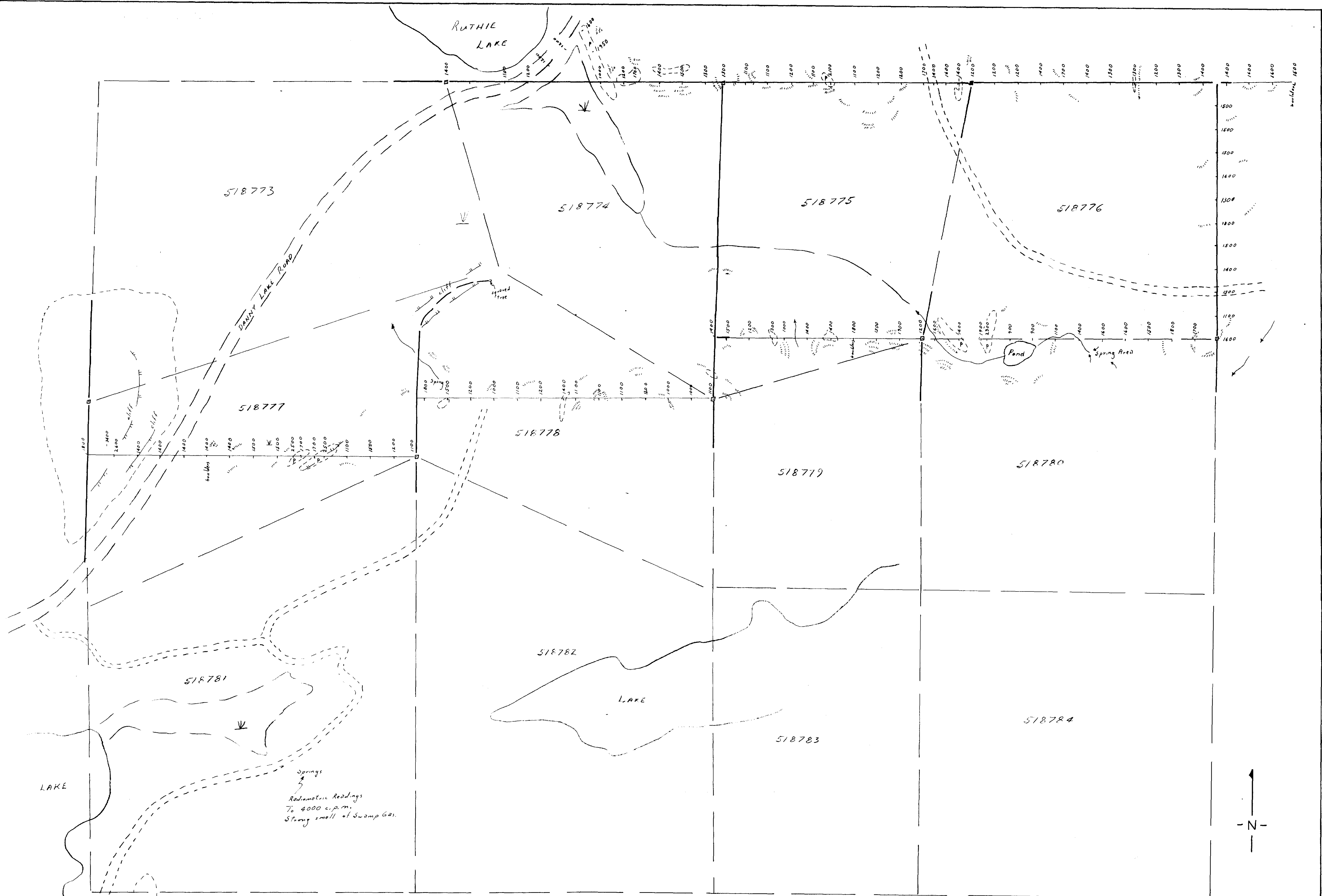
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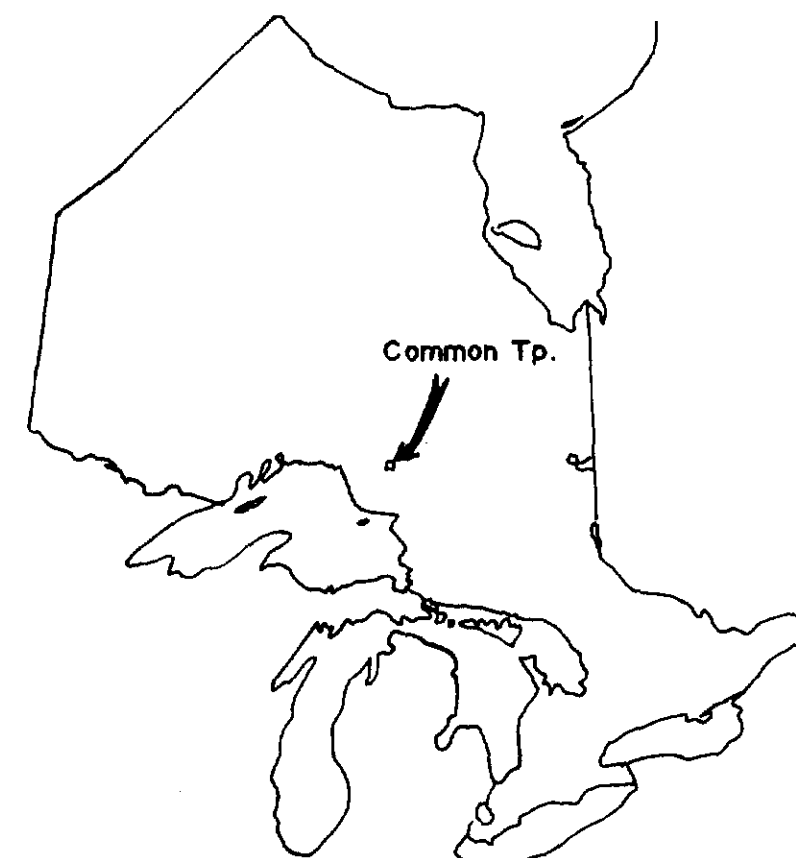
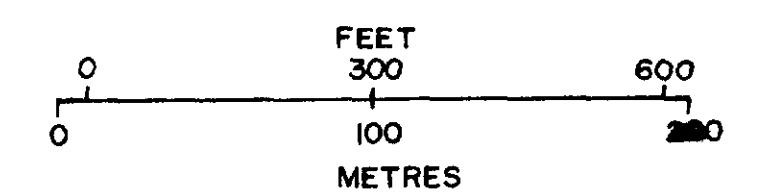


Claim line and post, observed.

Claim line, presumed.

Outcrop, "p" indicates observed bands of feldspar-quartz pegmatite in granite gneiss.

Radiometric reading, total count of gamma radiation over 0.2 M.e.v., McPhar TV-1 scintillometer, counts/minute.



ROY J. RUPERT CONSULTING GEOL.

KASPER SPERLE PROPERTY  
RECONNAISSANCE RADIOMETRIC SURVEY

SURVEY: 79-11-26, RJR, JFR.  
DRAWING: 79-12-3, RJR.

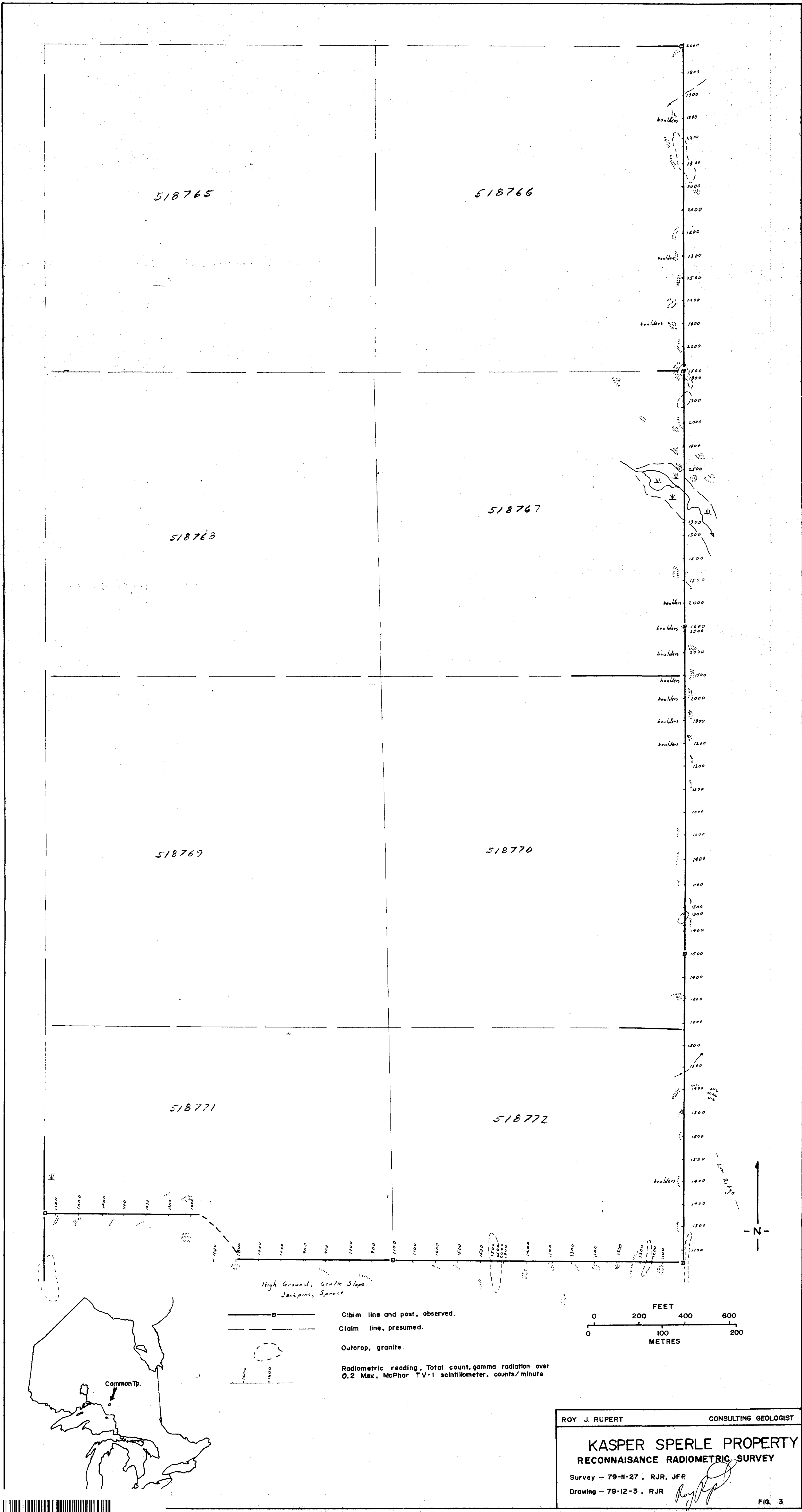
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FIG. 2

COMMON-0010 2



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ROY J. RUPERT

CONSULTING GEOLOGIST

**KASPER SPERLE PROPERTY  
RECONNAISSANCE RADIOMETRIC SURVEY**

Survey - 79-11-27, RJR, JFR

Drawing - 79-12-3, RJR

FIG. 3



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