



32D04SW0053 2.4118 GAUTHIER

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**RECEIVED**

JUL 27 1981

MINING LANDS SECTION

R E P O R T   O N

G E O L O G I C A L   S U R V E Y

G A U T H I E R   T O W N S H I P ,   O N T A R I O

B Y

Robert A. MacGregor, P. Eng.

July 17, 1981.

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## I. INTRODUCTION

Linecutting, followed by a geological survey was carried out on 11 claims in Gauthier township from April to June, 1981.

## II. LOCATION ACCESS AND OWNERSHIP

The property is located in the central part of Gauthier township just north of the south boundary, Larder Lake Mining Division, District of Temiskaming, Ontario. The claims are numbered L544734 to 544738 inclusive and L565101 to 565106 inclusive. They are recorded in the name of R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario.

Highway 66, a paved highway passes through the north-east corner of the claims. A bush road passable to 4 wheel drive vehicles extends south from the highway near the east side of the claims. The claims are about 6 miles west of Larder Lake and 12 miles east of Kirkland Lake, both on Highway 66.

### 111. PREVIOUS EXPLORATION

There are a few old pits and trenches on parts of the claims, and evidence of trenching to reach bedrock in the drift covered areas which cover most of the claims. Previous operators are also reported to have put down a number of diamond drill holes.

#### IV. TOPOGRAPHY

Nearly all of the property is covered by Pleistocene sand, gravel or swamp. There are two low hills on which there is some outcrop located. In the sandy areas which cover a large part of the property, forest cover consists of jackpine, spruce and some poplar and labrador tea. The swampy areas are covered with black spruce, alder, willow and some poplar. A stream runs through the east part of the claims, and is flooded for its entire length by a series of beaver ponds.

#### V. MAPPING PROCEDURE

A grid of picket lines were cut for the geological survey. A base line was cut south  $45^{\circ}$  east from the north boundary. Crosslines were cut every 400 feet north-east and south-west from the baseline. Two short baselines were cut from the most northerly and southerly crosslines to reach small angles in the claims. The picket lines were chained and picketed every 100 feet. The pickets were marked with fluorescent red paint for easier observation. Trial lines were run east and west from the picket lines by pace and compass in search of poorly exposed outcrop. All outcrops found were noted in a field book as to rock type and distance from picket lines. This information was then plotted on a 1" = 400' scale plan.

VI GENERAL GEOLOGY

The general geology of Gauthier township has been described by J.E. Thomson and Q.T. Griffis<sup>(1)</sup>. The area is underlain by early Precambrian volcanic, sedimentary, and intrusive rocks. The area is crossed by the Larder Lake Break, a zone of carbonatization and shearing.

The classification used is the same as that for McVittie township to the east. The volcanics are classified as Temiskaming or Keewatin cut by later Algoma intrusives. The geological succession of the area as proposed by Thomson is given in the following table.

## QUATERNARY

Pleistocene	Clay, sand, gravel. Great unconformity.
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## PRECAMBRIAN

Keweenawan or Matachewan.	Diabase. Intrusive contact.
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Algoma	Carbonatized rock or "dolomite" Syenite, syenite porphyry, quartz porphyry, lamprophyrye, diorite and gabbro.
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Intrusive contact.

Temiskaming	<u>Basic Volcanics:</u> Basic lava, sometimes pillowed; spherulitic lava; iron formation and chert; talc-chlorite schist.  <u>Acid Volcanics:</u> Trachyte, Trachytic breccia and agglomerate bedded tuff.
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Temiskaming Continued-Fine-grained Sediments:

Greywacke arkose, quartzite, small amounts of pebble conglomerate; conglomerate with some inter-bedded arkose and greywacke.

Erosional unconformity.

Keewatin:

Basic Volcanics: Andesite, basalt, and pillow lava; diorite lava.

Acid Volcanics: Rhyolite and trachyte; acid fragmental lava, agglomerate, and tuff; bedded tuff.

(1) O.D.M. Report Vol 50 part 8, 1941.

VII PROPERTY GEOLOGY

There are only two areas of outcrop on the claims. The rest is covered by extensive sand plains or swamp.

One small area of outcrop in the north part consists of basaltic volcanics. The outcrop is in an area shown as drift on Map 50(1). The basalt is greenish grey to dark green in colour. The contact is drift covered.

A second area of outcrop consists of felsic intrusive rocks ranging from quartz-feldspar porphyry to feldspar porphyry to syenitic rocks. There is a later diabase dyke cutting through the intrusive rocks. Actual outcrop is quite small, although probably only covered by shallow overburden over a considerable area.

The claims lie to the south of the Larder Lake "Break" although the "Break" appears to be dipping south and could underlie the claims at depth. Gold deposits in the area are associated with this "Break".

#### VII. CONCLUSIONS

The property is largely covered by overburden which makes a geological assessment tentative. Gold deposits have been found on the Queenston property to the north in rocks associated with the Larder Lake "Break". There is a possibility of the "Break" extending onto the property at depth.

Geophysical surveying of the property may help in projecting the geology from known areas to the north and on the property across the extensive drift areas.

Respectfully Submitted.



Robert A. MacGregor, P. Eng.

July 17, 1981



GEOPHYSICAL TECHNICAL DATA

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

Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_

Station interval \_\_\_\_\_ Line spacing \_\_\_\_\_

Profile scale \_\_\_\_\_

Contour interval \_\_\_\_\_

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 \_\_\_\_\_

INDUCED POLARIZATION 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 \_\_\_\_\_



AUDIT NUMBER  
**261558**



Ministry of  
Natural  
Resources

**Mining Claim**

The Mining Act

NO.  
**L 565101**

RECORDED IN THE NAME OF <b>Lucien Lacasse</b>		LICENCE NO. <b>K 18234</b>	RECEIPT NO. <b>A225090</b>	DATE RECORDED <b>May 20, 1980</b>
ADDRESS <b>Larder Lake Ontario</b>		DATE AND TIME OF STAKING <b>May 16, 1980 at 8:05 a.m.</b>		
ASSESSMENT WORK CREDITS ASSIGNED TO OTHER CLAIMS	OFFICE USE ONLY	DATE RECORDED	BALANCE	DESCRIPTION OF CLAIM
				<b>GAUTHIER TOWNSHIP Former L 511773 Including land under water</b>  <small>RESERVATIONS — 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS. SAND AND GRAVEL RESERVED.</small> <b>Excluding hydro line Excluding road</b>
DATE	DAYS WORK			(565101) RECEIPT NO.
<b>Nov.10/80</b>		<b>Transfer all interest to Robert A. MacGregor,</b>		
		<b>K-15070</b>	<b>(565101)</b>	<b>B00450</b>
<b>May 19, 1981</b>	<b>40</b>	<b>Geological Work to be deleted</b>		<b>(544734)</b>
		This abstract is representative of the records of		
		Mining Claims L 565102 to L 565106 inclusive.		
		Dated at Kirkland Lake, this 11thday of August		
		1981.		
		<i>ALG</i>		
		Larder Lake Mining Division.		

AUDIT NUMBER  
**261731**



Ministry of  
Natural  
Resources

**Mining Claim**

The Mining Act

NO.  
**L-544734**

RECORDED IN THE NAME OF  
**Robert James MacGregor**

LICENCE NO.  
**K14445**

RECEIPT NO.  
**A225242**

DATE RECORDED  
**May 30, 1980**

ADDRESS  
**Dobie, Ontario.**

DATE AND TIME OF STAKING  
**May 16, 1980  
at 11:00 a.m.**

P.T.  
**X**

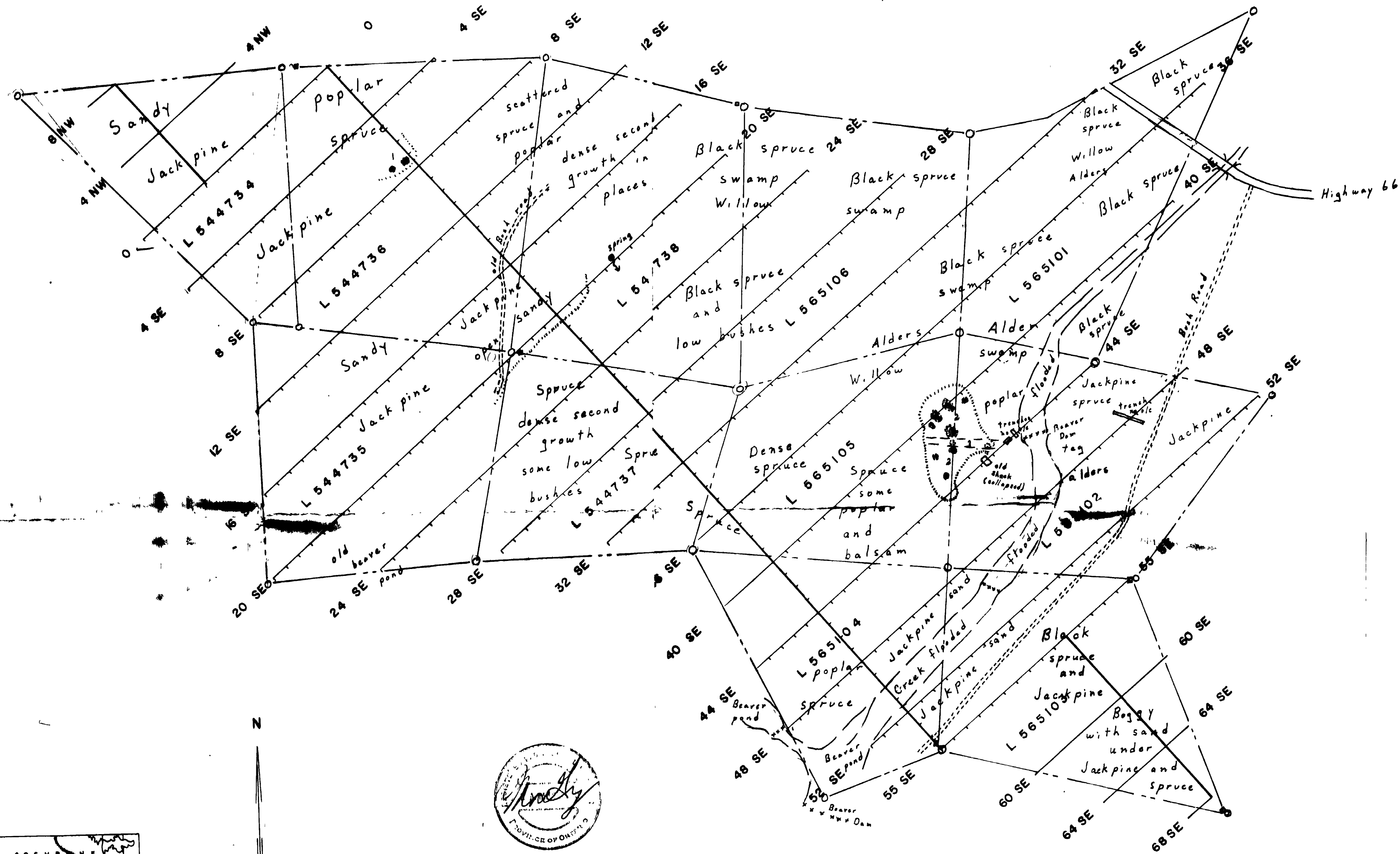
ASSIGNMENT WORK CREDITS  
ASSIGNED TO OTHER CLAIMS

OFFICE USE ONLY	DAYS RECORDED	BALANCE

DESCRIPTION OF CLAIM  
**GAUTHIER TOWNSHIP  
Former L-512647**

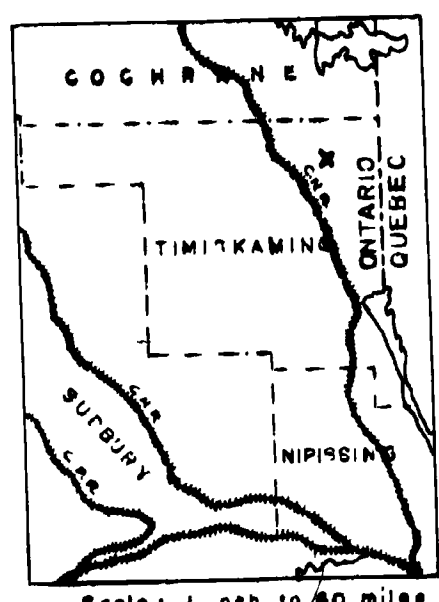
RESERVATIONS - 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS  
SAND AND GRAVEL RESERVED.

DATE	DAYS WORK	DESCRIPTION	(544734)	RECEIPT NO.
Nov. 10/80		Transfer all interest to Robert A. MacGregor, K-15070	(400241)	B004505
May 19, 1981	40	Geological Work to be deleted	(544734)	
This abstract is representative of the records of mining claims L 544735 to L 544738 inclusive.				
Dated at Kirkland Lake, this 11th day of August, 1981.				
<i>[Signature]</i>				
Larder Lake Mining Division.				



GEOLOGICAL SURVEY  
 GAUTHIER SOUTH GRID  
 GAUTHIER TOWNSHIP  
 SCALE 1" = 400'

- LEGEND**
- DIABASE
  - QUARTZ-FELDSPAR PORPHYRY  
FELDSPAR PORPHYRY, SYENITE
  - BASALT



Scale: 1 inch to 40 miles

8.9 line miles

