



32D126E0045 2.3140 HOLLOWAY

010

REPORT ON A GEOLOGICAL SURVEY

RECEIVED

NOV 30 1978

MINING LANDS SECTION

MATHESON CLAIMS

HOLLOWAY-1

PROJECT 839-25

NTS: 32 D/12

AMAX MINERALS EXPLORATION

Timmins, Ontario

Timmins, Ontario  
October 1979

Brian Williamson  
Geologist

## SUMMARY

A geological survey was conducted on a group of claims held by Amax Potash Limited. The property has not been extensively worked before for massive sulphide deposits. Gabbro is known to be present, and ultramafic and felsic volcanic rock may be, but extensive overburden obscures the bedrock geology.

## INTRODUCTION

A group of 5 claims was staked in the name of Amax Potash Limited in December 1978 to cover a conductor located by an earlier (fall 1978) A.E.M. survey. This report describes the methods and findings of a geological and prospecting survey done on the claims in August 1979.

## LOCATION AND ACCESS

The property is located in Holloway township, Larder Lake Mining Division, being three claims east along the northern border of the township from the western border (i.e., in the northwest corner). Access is available by foot, either north along the Harker-Holloway boundary from Highway 101 (along which an old road can be followed for about 1 km); or alternatively, north from highway 101 along an old road about 300 m east of the township boundary, which passes the southeast corner of the claim group.

## TOPOGRAPHY AND RESOURCES

The property sits on an area of hilly, but not rugged topography, predominantly sand and clay covered, with some low hills of poorly exposed outcrop present. The area has been logged over about ten to twenty years ago. Vegetation cover is poplar and birch groves, with thick alder and sapling undergrowth on the overburden, and spruce and jackpine on the outcrop hills. The property is cut in several places by gullies draining into a stream which runs along the south boundary of the claim group, forming the head waters of the Lightning River.

## PREVIOUS WORK

### Observed in Field:

No old claim posts, grids or drilling sites were seen in the course of the survey.

### Assessment Files:

Compilation maps of past work on file with the mining recorder's office shows the property to have been held twice in the past, and one drill hole to have been drilled to the east of the present property, both presumably exploring for asbestos associated with the ultramafic rock present in the area.

## SURVEY METHOD

The property was traversed at intervals of 125 m by Brian Williamson and Tony Makuch (as shown on Map 1, Geological Map) using the pace and compass method. All claim posts, geological and topographic features are correctly located. A set of 1:31640 stereo air photographs flown by Amax in the spring of 1978 were used for additional control.

## GENERAL GEOLOGY

The property lies in Holloway township, in the centre of the Abitibi Greenstone Belt. The most prominent feature of the geology of the area is the Ghost Range Syncline, which strikes approximately east-west, and closes about 3 to 3.5 km east of the property. The rock includes peridotite and gabbros, with rhyolite in the core and along the outside of the south limb of the syncline. Mafic volcanic rocks lie at the base of the sequence (i.e., along the outside of the syncline).

The Destor-Porcupine Fault zone lies about 1.5 km south of the property, with one past gold producing mine (operated by Teddy Bear Valley Gold Mines Ltd.) lying between the property and the fault (from Satterly, 1951 and 1953).

TABLE OF FORMATIONS

CENOZOIC

Recent: Swamp and stream deposits  
Pleistocene: Glacial drift, gravel, sand and clay

-----Unconformity-----

PRECAMBRIAN

Proterozoic: Diabase dykes - 2 generations

-----Intrusive Contact-----

Lamprophyre dykes

-----Intrusive contact-----

Archean: Discordant gabbro bodies

-----Intrusive contact-----

: Layered gabbro-peridotite sills

-----Intrusive contact-----

: Volcanics - Rhyolite, rhyolite agglomerate  
and tuff, and associated chert  
- Andesite, basalt; as pillowed and  
massive flows, individual flows  
separated by flow breccia  
- Ultramafic flows - showing  
spinifex texture

-----Faulted contact-----

: Sediments - Greywacke, argillite, arkose,  
conglomerate

## PROPERTY GEOLOGY

The only rock visible on the property is one small and one large hill of poorly exposed (sub crop) anorthositic gabbro, medium grained and with sericitized plagioclase. No mineralization was seen in any of the rock. Satterly (1953) extrapolates an east-west striking band of peridotite and dunite to the south of these outcrops, and a band of felsic volcanic rocks south of this, along the south boundary of the property.

## CONCLUSIONS AND RECOMMENDATIONS

Due to the scarcity of good outcrop on the property, no recommendations can be made based on geology. Ultramafic rocks and felsic volcanic rocks (possibly hosting massive sulphide deposits) may be present on the property.

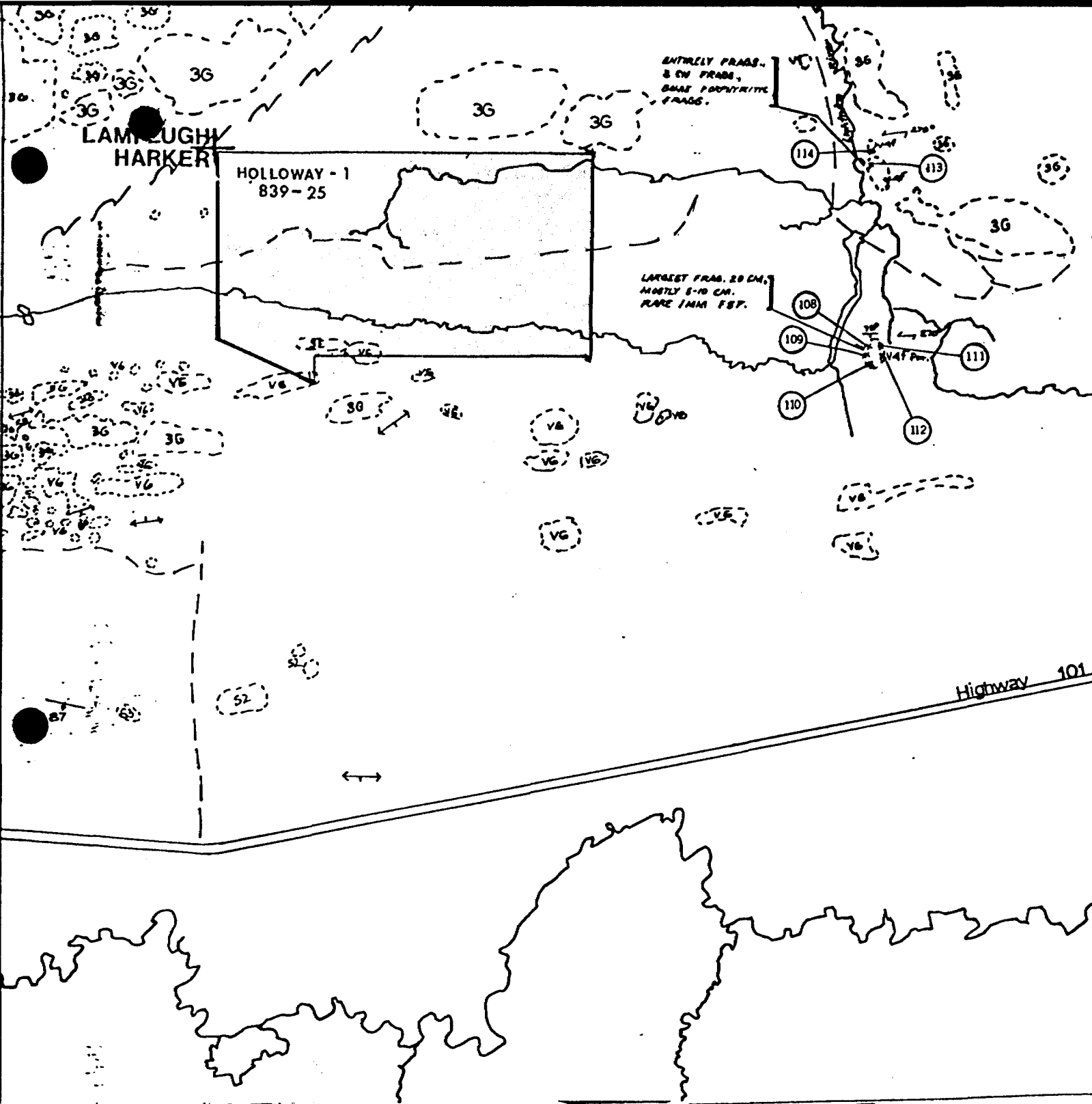
It is suggested that ground geophysics (H.E.M. and magnetometer) surveys be conducted and that drilling proceed if positive results ensue.

Respectfully submitted,

*Brian W. Williamson.*

Brian Williamson  
Geologist

Timmins, Ontario  
September 1979



**LEGEND**

- EM Conductor
- V6 Andesite
- D.D.H. (W direction)
- Outline of 839-25
- - - Mag High

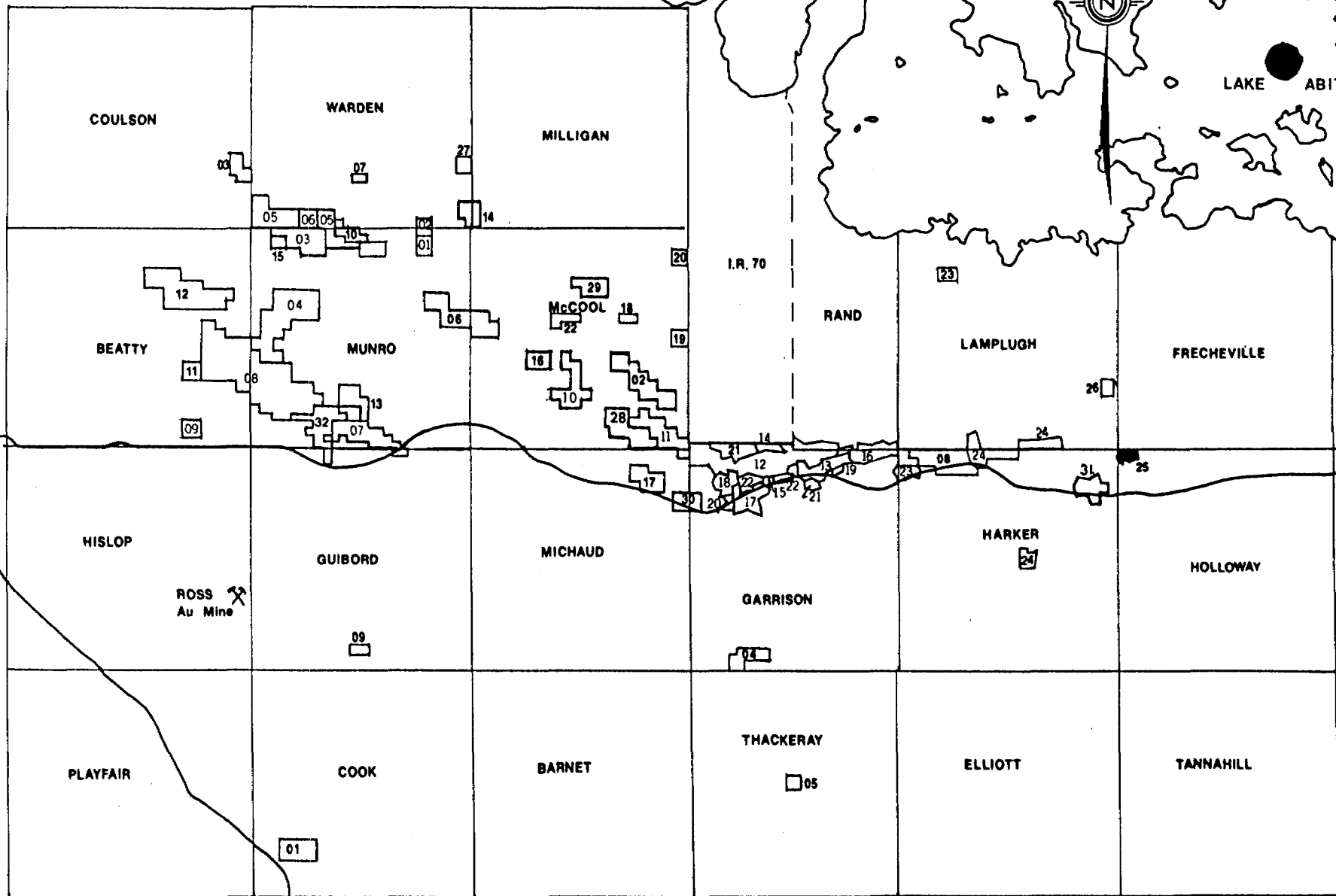
**MATHESON CLAIMS**

**COMPILATION**

COOK - 1 839-25

NTS: 42-A-8

1" = 1/4 mile.



MATHESON

LAKE ABITIBI

COULSON

WARDEN

MILLIGAN

BEATTY

MUNRO

RAND

LAMPLUGH

FRECHEVILLE

HISLOP

GUIBORD

MICHAUD

HARKER

HOLLOWAY

PLAYFAIR

COOK

BARNET

THACKERAY

ELLIOTT

TANNAHILL

ROSS  
Au Mine

I.R. 70

Hwy. 101

Hwy. 11

SCALE : 1" = 4 miles

Lanplugh Twp.  
Harker Twp.

525490	525491	525492
	525494	525493

Frecheville Twp.  
Holloway Twp.

CLAIM MAP  
Project 839-25  
HOLLOWAY-1  
Holloway Township

1" = 1/4 mile

FIG.



LIST OF REFERENCES

Satterly, J. (1951)

The Geology of Harker Township,  
Ontario Department of Mines,  
Vol. LX, Part VII, 47 pp.

Satterly, J. (1953)

The Geology of the North Half of  
Holloway Township,  
Ontario Department of Mines,  
Vol. LXII, Part 7, 38 pp.



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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) Geological  
Township or Area Holloway  
Claim Holder(s) Amax Potash Limited  
Survey Company \_\_\_\_\_  
Author of Report Brian Williamson  
Address of Author 255 Algouqui Blvd W. Timmins, Ont.  
Covering Dates of Survey August - September 1979  
(linecutting to office)  
Total Miles of Line Cut \_\_\_\_\_

MINING CLAIMS TRAVERSED  
List numerically

L - 525493  
(prefix) (number)  
L - 525494  
L - 525490  
L - 525491  
L - 525492

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 \_\_\_\_\_  
- Magnetometer \_\_\_\_\_  
- Radiometric \_\_\_\_\_  
- Other \_\_\_\_\_  
Geological 20  
Geochemical \_\_\_\_\_

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

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

DATE: October 5/79 SIGNATURE: [Signature]  
Author of Report or Agent

Res. Geol. LID Qualifications 03109 + m

Previous Surveys

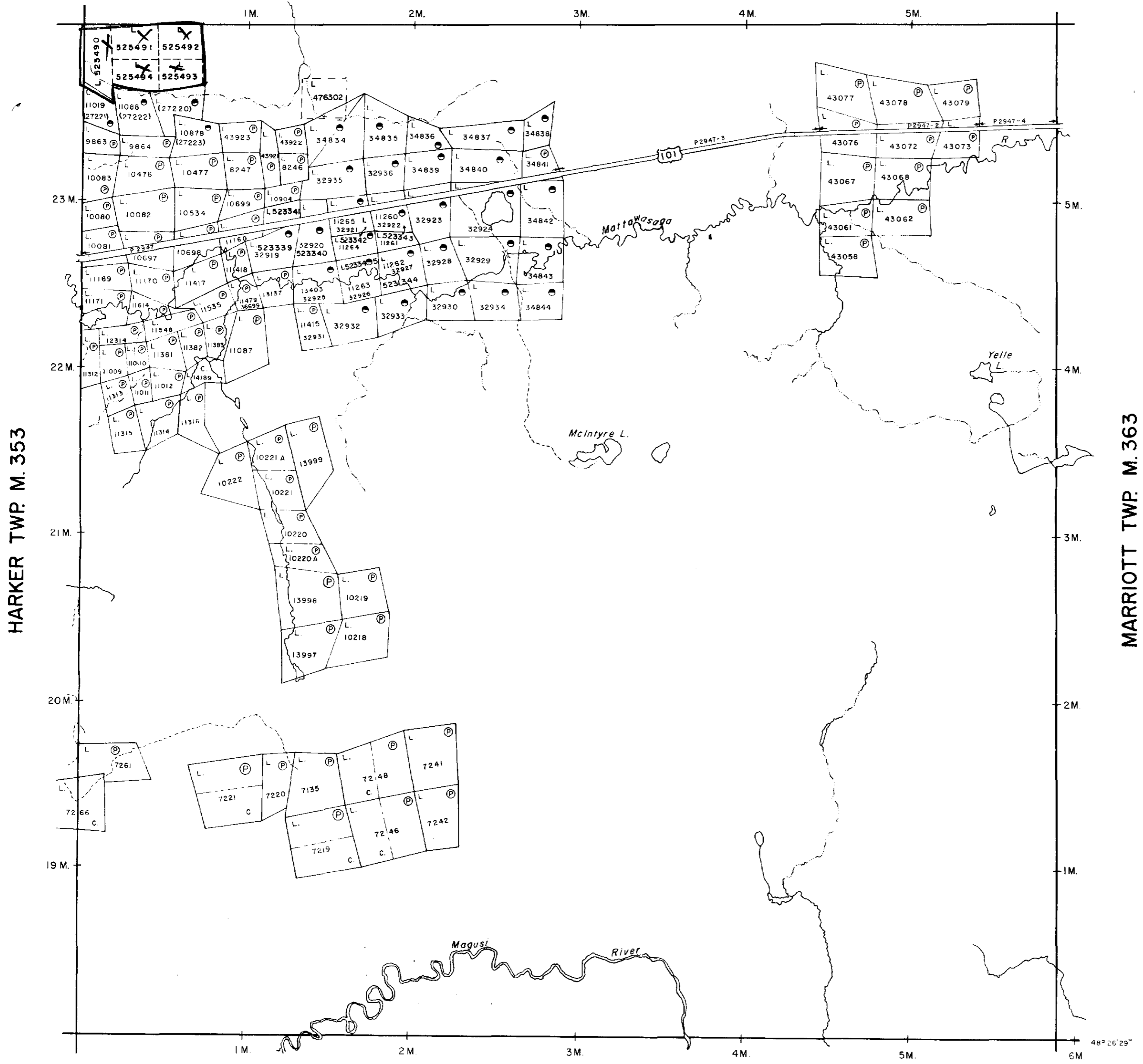
File No. Type Date Claim Holder

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 5

If space insufficient, attach list

FRECHEVILLE TWP. M.348



NOTES

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

DATE OF ISSUE  
DEC - 5 1979  
SURVEYS AND MAPPING  
BRAND

LEGEND

- PATENTED LAND (P) or \*
- PATENTED FOR SURFACE RIGHTS ONLY (P)
- LEASE (L)
- LICENSE OF OCCUPATION (L.O.)
- CROWN LAND SALES (C.S.)
- LOCATED LAND (Loc.)
- CANCELLED (C)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- HIGHWAY & ROUTE NO. (101)
- ROADS (—)
- TRAILS (---)
- RAILWAYS (—+—)
- POWER LINES (—+—+—)
- MARSH OR MUSKEG (wavy line)
- MINES (X)

TOWNSHIP OF 2.3140  
**HOLLOWAY**  
DISTRICT OF COCHRANE  
LARDER LAKE MINING DIVISION  
SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. K.K.L. PLAN NO. **M.356**  
DATE MARCH '72

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

TANNAHILL TWP. M.390



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200

48° 26' 29"  
79° 31' 04" Approx.

LAMPLUGH TWP  
HARKER TWP

FRECHEVILLE TWP

HARKER TWP  
HOLLOWAY TWP

Mixed Alder, Spruce, + Poplar  
(clay, sand)

L-525491

L-525492

L-525490

L-525494

L-525493

Mixed Alder, Spruce, Poplar  
(clay, sand)

**LEGEND**

- x ○ outcrop
- geological contact
- - - inferred geological contact
- ~ fault
- ⌋ pillows with top determined-inclined, vertical, overturned
- == road
- ..... old, overgrown road
- ≡ township boundary
- edge of swamp
- ∇ swamp
- claim post located
- old post
- ⊠ land survey post
- ⊙ shaft, pit, trench
- diamond drill hole - direction unknown
- ⊕ diamond drill hole (DOH) - direction known
- Radem cross-over
- qcv quartz carbonate veining
- traverse line



Scale: 1cm=50m  
□ 3G - gabbro

AMAX POTASH LIMITED  
GEOLOGICAL SURVEY  
MATHESON PROJECT  
HOLLOWAY - 1, 839-25

DRAWN BY B.W.  
SCALE 1cm = 50m

DATE Oct. 1 79  
NTS 32-D-5  
32-D-12

