



42A06NW0208 2.4343 OGDEN

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2.4343

REPORT ON A GEOLOGICAL REPORT

RECEIVED

DEC 1 - 1981

MINING LANDS SECTION

OGDEN-8

PROJECT 1043-21

NTS: 42-A-6

AMAX MINERALS EXPLORATION

Timmins, Ontario
October, 1981

J. MacPherson
Geologist

SUMMARY

During June, 1981, a detailed geological survey was carried out on seven (7) claims in Ogden township, District of Cochrane, Ontario.

The property is underlain by sediments and volcanics, the contact between which is reported to host gold bearing quartz veins. The present geology survey revealed only two outcrops, and these were both sediments.

It is recommended that geophysics be run on the property to determine the location of the contact, and that the contact be subsequently drilled to test it's gold potential.

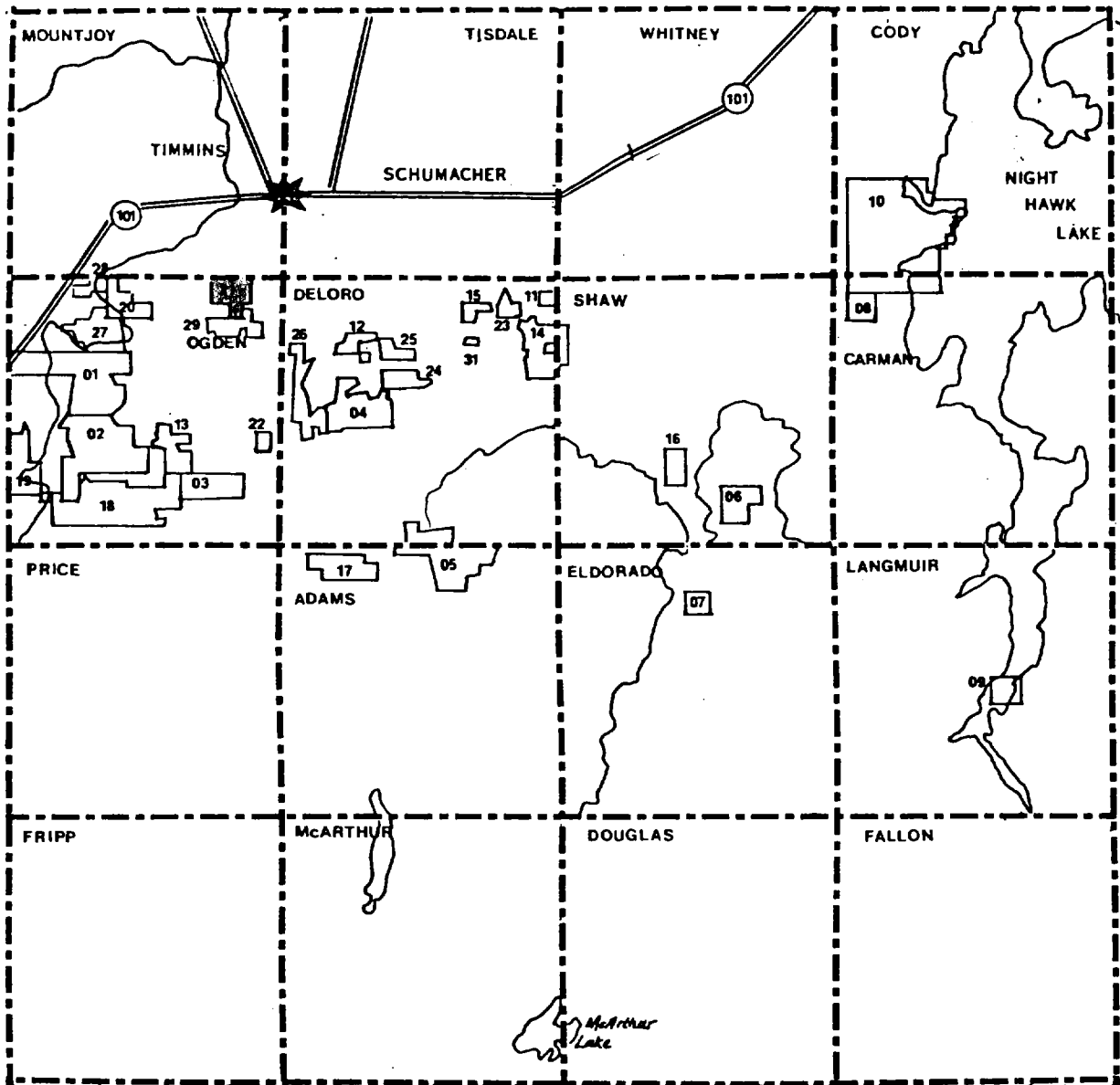
INTRODUCTION

A detailed geological survey was carried out on a group of seven (7) claims in Ogden township during early June, 1981. The claim numbers are P-529983 - 89 inclusive, and are recorded in the name of Amax of Canada Limited.

The property lies in an area which may be favourable to gold mineralization. Geophysical surveys were also completed (magnetometer, VLF) to help with the geological interpretation.

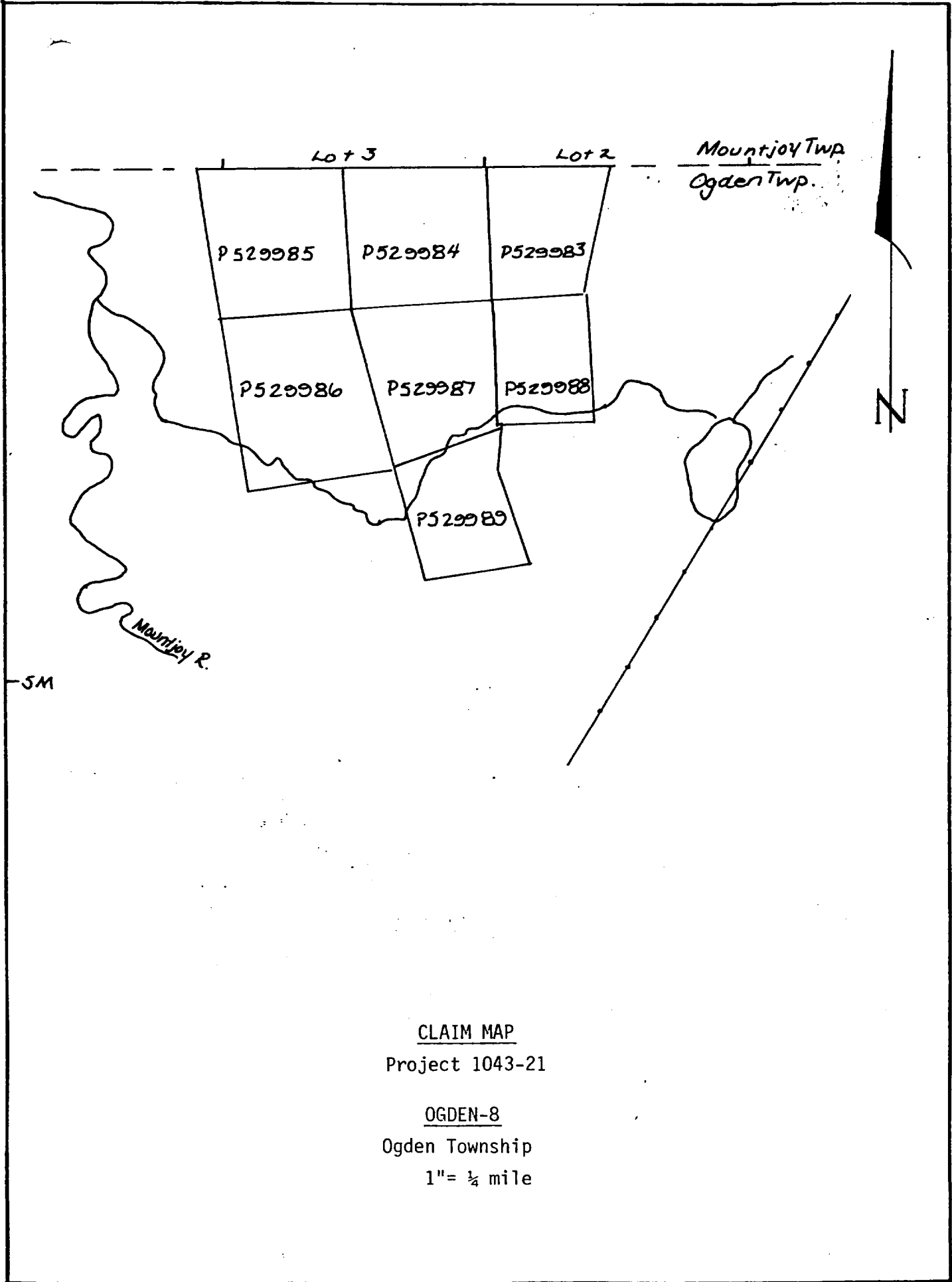
LOCATION AND ACCESS

This group of seven claims is located in north east Ogden township, and abuts against the Ogden-Mountjoy townships border.



LOCATION MAP
Project 1043-21

OGDEN-8
1" = 4 miles



Lot 3

Lot 2

Mountjoy Twp
Ogden Twp.

P529985

P529984

P529983

P529986

P529987

P529988

P529989

Mountjoy R.

N

SM

CLAIM MAP
Project 1043-21

OGDEN-8
Ogden Township
1" = 1/4 mile

The property lies about 1.5 kilometres south west of the city of Timmins. It is easily reached by a gravel road running due west for 2 kilometres from Pine Street South.

TOPOGRAPHY AND RESOURCES

The relief on the property is fairly low. There is one central ridge, which slopes away to the north and west into swamp.

Vegetation consists of poplar and spruce on the ridge and scattered spruce with cedar and alders in the lower areas.

A small stream in the south part of the property and a small pond at the base of the ridge near the only outcrop are sources of water suitable for a diamond drill program.

PREVIOUS WORK

From Assessment Files

The claims appear to have been examined during three different times. First report is of three pits which returned some moderately high gold values from a quartz vein about 5.5 feet wide. A 35 foot shaft was also sunk on the vein at the time, which is located at a sedimentary volcanic contact. The property was subsequently examined by Tanmaco Porcupine Mines in 1946. There is no record of further work by this company after that time.

Globe Exploration worked the area around 1964-65; there is no record of any work by Globe aside from a magnetic and electromagnetic survey.

TABLE OF FORMATIONS

CENZOIC

Quaternary

Recent

Swamp and stream deposits

Pleistocene

Till, clay, sand, gravel

Unconformity

PRECAMBRIAN

Mafic Intrusive Rocks

Olivine diabase, quartz diabase

Intrusive Contact

Huronian Supergroup

Gowganda Formation, Cobalt Group

Arkose, wacke, argillite, conglomerate

Unconformity

ARCHEAN

Mafic Intrusive Rocks

Diabase

Intrusive Contact

Felsic Intrusive Rocks

Quartz feldspar porphyry, granite, diorite, granodiorite

Metamorphosed Mafic Intrusive Rocks

Gabbro, quartz gabbro

Intrusive and Gradational Contact

Metamorphosed Ultramafic Intrusive Rocks
Serpentinized diorite, peridotite
Intrusive Contact

METAVOLCANICS AND METASEDIMENTS

Metasediments

Conglomerate, lithic wacke, iron formation

Metavolcanics

Felsic Calc Alkalic metavolcanics

Massive, fine-grained flows, tuff, lapilli tuff, breccia

Mafic Calc-alkalic metavolcanics

Massive, fine-grained flows, pillowed flows, tuff, lapilli
tuff and breccia, sheared, carbonated pyroclastics

Tholeiitic Metavolcanics

Massive to medium grained flows, pillowed flows and flow
breccia, minor tuff, lapilli tuff and breccia

Komatiitic Metavolcanics

Peridotite, olivine spinifex, carbonate and talc alteration

In 1974, the old trenches were re-drilled with a plugger drill. There is no record of any results of that work.

Observed in Field

Three old trenches were located in the area indicated by the assessment files. A possible location for the old shaft was also found. It appeared that the shaft has been filled in. There was very little broken rock present in the area, thus the trenches could not be adequately sampled.

SURVEY METHOD

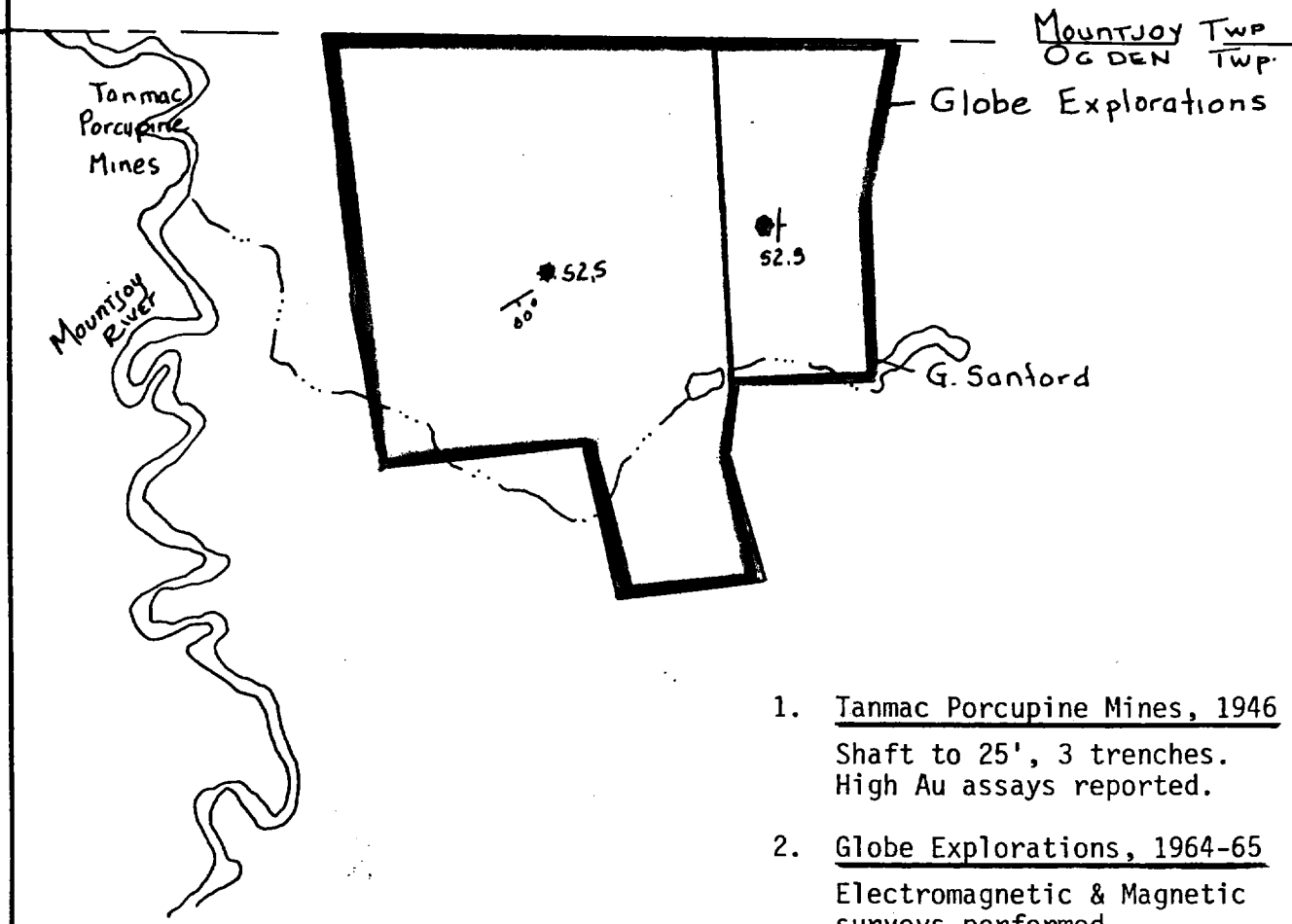
The survey was performed by J. MacPherson, P. Lickley, D. Messenger and A. Plackitt during June, 1981. Air photos at a scale of 1:30,000 and air photo blow-ups at a scale of 1:5,000 were used as control for the mapping.

Pace and compass traverse lines at 400 foot spacings were used as reference lines for the mapping program.





REGIONAL GEOLOGY

The volcanic rocks of the Timmins area consist of the older Deloro Group and the younger overlying Tisdale Group.

The Deloro Group is confined to a large domal structure



1. Tanmac Porcupine Mines, 1946
Shaft to 25', 3 trenches.
High Au assays reported.
2. Globe Explorations, 1964-65
Electromagnetic & Magnetic
surveys performed.
3. G. Sanford, 1974
Plugger drill around old
trenches. Results unknown.

-  S2 Greywacke
-  S Undifferentiated sediment
-  Outcrop Boundary
-  Township Boundary

AMAX MINERALS EXPLORATION
 PROJECT : DELORO (1043)
 GROUP : 1043-21 ogden-8
 TWP : OGDEN
 Survey : Compilation
 Date : August, 1981
 SCALE : 1" = 1/4 mile

centred in Shaw township. It grades from andesite and basalt flows in the lower portion to dacite and rhyolite pyroclastics near the top. Oxide iron formation is the marker horizon which is used to separate the two major groups of rocks. A major change in volcanism marks the beginning of the Tisdale Group, the Lower Volcanic Formation of which is marked by serpentinized ultramafic flows.

The Destor-Porcupine Fault is the major structural feature in the area, along with the Porcupine Syncline to the north and the Shaw Dome to the south.

PROPERTY GEOLOGY

This property is interpreted to lie north of the Destor Porcupine Fault in the Tisdale Group of rocks.

Only two outcrops were found; both of these were fine to medium grained greywacke, cut by numerous quartz-calcite stringers. The rocks were moderately carbonatized. Old reports indicated the presence of volcanic rocks in the shaft dump but none were located, due to the shaft and dump area having been recently bulldozed over. (1974?)

CONCLUSIONS AND RECOMMENDATIONS


The property is located on a volcanic-sedimentary contact which has been reported to host a quartz vein system which carries

fairly good gold values.

The geology survey did not locate this contact due to poor outcrop exposure. A number of caved trenches and an old shaft location were located.

It is recommended that geophysical surveys be run on the property to outline the contact between the sediments and the volcanics. A drill hole could then be put down to test the gold potential of the contact area.

Timmins, Ontario
October, 1981


J. MacPherson
Geologist

APPENDIX A

SCHEDULE OF CLAIMS

OGDEN-8

PROJECT 1043-21

| <u>Claim Group</u> | <u>Township</u> | <u>Number</u> | <u>Claim Numbers</u> | <u>Recording Date</u> |
|--------------------|-----------------|---------------|----------------------|-----------------------|
| 1043-21 | Ogden | 7 | P-529983 | January 19, 1981 |
| Ogden-8 | | | P-529984 | January 19, 1981 |
| | | | P-529985 | January 19, 1981 |
| | | | P-529986 | January 19, 1981 |
| | | | P-529987 | January 19, 1981 |
| | | | P-529988 | January 19, 1981 |
| | | | P-529989 | January 19, 1981 |

DECLARATION

I, Joseph A. MacPherson, of the City of Sudbury, in the Province of Ontario, with a mailing address of 255 Algonquin Blvd. West, Timmins, Ontario, do hereby declare:

1. I am a geologist employed by Amax of Canada Limited, with offices at 255 Algonquin Blvd. West, Timmins, Ontario.
2. I completed an honours B.Sc. programme (geology) in 1980 at Laurentian University in Sudbury, Ontario.
3. I did personally set forth the facts as outlined in this report and did conduct or supervise, or review, the work contained herein.
4. I do not have, nor do I expect to have, any interest in the properties held by Amax of Canada Limited.


Joseph A. MacPherson

Dated at Timmins, Ontario



Ministry of Natural Resources

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

1043-21

The Mini

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

P-529983

#498



42A06NW0208 2.4343 OGDEN

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Type of Survey(s)
Geological Survey

Claim Holder(s)
Amax of Canada Limited

Survey Company
Amax Minerals Exploration

Survey Dates (linecutting to office)
06 81
Day | Mo. | Yr. | Day | Mo. | Yr.

Name and Address of Author (of Geo-Technical report)
J. MacPherson, 255 Algonquin Blvd. West, Timmins, Ontario. P4N 2R8

Special Provisions Credits Requested

Mining Claims Traversed (List in numerical sequence)

| Instructions | Geophysical | Days per Claim |
|---|-------------------|----------------|
| For first survey: Enter 40 days. (This includes line cutting) | - Electromagnetic | |
| | - Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | - Radiometric | |
| | - Other | |
| | Geological | 20 |
| | Geochemical | |

| Mining Claim | | | Mining Claim | | |
|--------------|--------|------------------|--------------|--------|------------------|
| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
| P | 529983 | 20 | | | |
| | 529984 | 20 | | | |
| | 529985 | 20 | | | |
| | 529986 | 20 | | | |
| | 529987 | 20 | | | |
| | 529988 | 20 | | | |
| | 529989 | 20 | | | |

| Instructions | Geophysical | Days per Claim |
|---|-------------------|----------------|
| Complete reverse side and enter total(s) here | - Electromagnetic | |
| | - Magnetometer | |
| | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Instructions | Days per Claim |
|--|----------------|
| Note: Special provisions credits do not apply to Airborne Surveys. | |
| Electromagnetic | |
| Magnetometer | |
| Radiometric | |

| | |
|---|---------------------------------|
| Expenditures (excludes power stripping) | RECEIVED |
| Type of Work Performed | |
| Performed on Claim(s) | NOV 30 1981 |
| | AM 7 30 10 11 12 1 2 3 4 5 6 PM |

| | |
|---|--------------------|
| Calculation of Expenditure Days Credits | Total Days Credits |
| Total Expenditures | |
| \$ | ÷ 15 = |

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Report Completed
Date of Report: Nov. 27, 1981
Recorded Holder or Agent (Signature): Rosemary Hettley

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
Joseph MacPherson

RECORDED
NOV 30 1981

For Office Use Only No.

Total Days Cr. Recorded: 140
Date Recorded: Nov 30/81
Date Approved as Recorded: June 16, 1982

Total number of mining claims covered by this report of work: 7

Branch Director: [Signature]

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DEC 15 1981
MINING LANDS SECTION



Mining Lands Comments

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To: Geophysics

Comments

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Approved Wish to see again with corrections

Date _____ Signature _____

To: Geology - Expenditures

Mr Kustro

Comments

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Approved Wish to see again with corrections

Date *May 14/82* Signature *CKustro*

To: Geochemistry

Comments

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| |

Approved Wish to see again with corrections

Date _____ Signature _____

December 7, 1981

2.4343

Office of the Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P.529983 et al, in the Township of Ogden.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

J. Skura/bk

cc: AMAX Minerals Exploration
Timmins, Ontario
Attention: Rosemary Tittley

November 27, 1981

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DEC 1 - 1981

MINING LANDS SECTION

Mr. F. W. Matthews,
Ontario Ministry of Natural Resources,
W 1617, Whitney Block,
Queen's Park,
Toronto, Ontario.
M7A 1W3

Dear Sir:

Enclosed herewith please find two (2) copies of a report on a geological survey which was carried out over the below listed contiguous mining claims located in Ogden township, along with their respective survey plans.

| | | | |
|----------|----------|----------|----------|
| P-529983 | P-529984 | P-529985 | P-529986 |
| P-529987 | P-529988 | P-529989 | |

A "Report of Work" concerning the above survey has been filed with Mr. William Good, Mining Recorder for the Porcupine Mining Division.

Thank you.

Yours truly,
AMAX OF CANADA LIMITED

Rosemary Tittley
Rosemary Tittley (Mrs.)
Land Recorder

Encs. 2

c.c. K. Clemis/E. Barclay, Toronto

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 _____
Instrument _____
Accuracy – Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

MAGNETIC

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

ELECTROMAGNETIC

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

GRAVITY

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 _____

INDUCED POLARIZATION

RESISTIVITY

SELF POTENTIAL
Instrument _____ Range _____
Survey Method _____
Corrections made _____

RADIOMETRIC

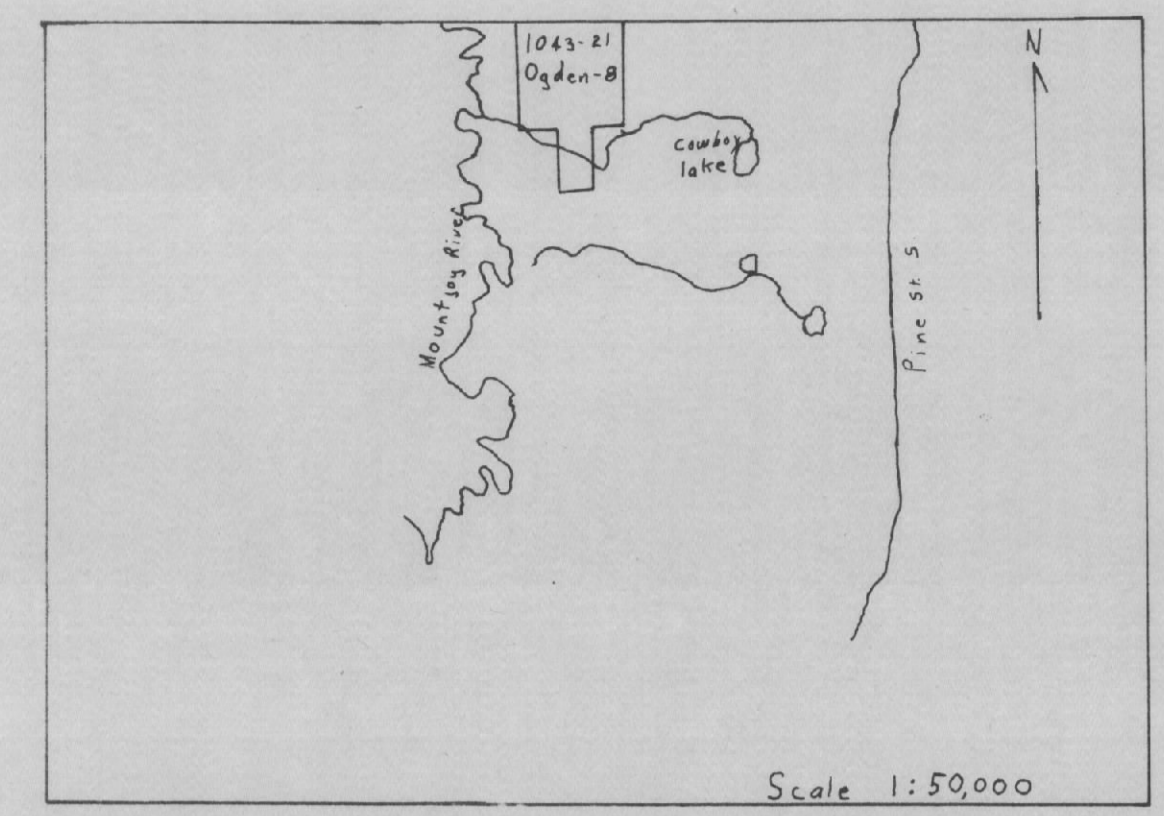
Instrument _____
Values measured _____
Energy windows (levels) _____
Height of instrument _____ Background Count _____
Size of detector _____
Overburden _____ (type, depth – include outcrop map)

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 _____



INDEX MAP

LEGEND

- SEDIMENTS
- S2 Greywacke
- SYMBOLS**
- P_y PYRITE
- Q_v QUARTZ VEIN
- Q_s QUARTZ STRINGERS
- CO₂ CARBONATE >40%
- OUTCROP BOUNDARY
- CLAIM POST LOCATED
- └ TRENCH
- (S) SWAMP
- (P) POND
- TOWNSHIP BOUNDARY
- === GRAVEL ROAD
- BUSH ROAD

AMAX MINERALS EXPLORATION
 GEOLOGICAL SURVEY
 Ogden-8, 1043-21
 Ogden Township
 District of Cochrane
 Scale 1:5,000

NTS 42-A-6
 To Accompany Report By *J. Macdonald* Timmins Office
 June 1981

