REPORT ON A GEOLOGICAL SURVEY

CALVERT-2

PROJECT 1131-02

NTS: 42-A-15

RECEIVED
MAY 12, 1982

MINING LANDS SECTION
AMAX MINERALS EXPLORATION

Timmins, Ontario
August, 1981

P. Bateman
SUMMARY

A group of eight (8) claims were staked in late August, 1980, to cover conductors detected by an A.E.M. survey carried out over Calvert and surrounding townships.

In June of 1981, a geological mapping-prospecting survey was undertaken to locate geophysical grids, claim posts, and outcrops.

No evidence of previous diamond drilling was observed or of any previous geophysical grids.

INTRODUCTION

On June 9, 1981, a geological mapping-prospecting survey was undertaken on a group of eight (8) claims staked on August 30, 1980, in the name of Amax of Canada Limited.

This report describes the methods and results of that survey.

LOCATION AND ACCESS

The claim group consists of eight (8) claims taking up lot 12 of Concession III of Calvert township, northeastern Ontario. It is approximately 8 kilometres west and 2 kilometres south of the town of Iroquois Falls.

Access is by following Wilson Lake road,
FIGURE 1

SCALE: 1" = 4 miles

LOCATION SKETCH
Project 1131-02, Iroquois Falls

CALVERT TOWNSHIP
NTS: 42/A/16
approximately 2.5 kilometres south of the intersection of highways 11 and 578, for approximately 1 kilometre to the claim group.

TOPOGRAPHY AND RESOURCES

The eastern portion of the claim group is relatively flat lying, the Iroquois Falls airport bordering the eastern edge. Towards the west, there are steep hillsides dipping down towards Wilson Lake for most of its perimeter. In the northeast there are some hilly areas of sandy eskers which have been quarried by the Department of Highways. Similar pits occur in the south of the property.

The vegetation is dominantly jackpine in the north and east with poplars and birch surrounding much of the lake in the west.

Wilson Lake cuts through most of the western claims.

PREVIOUS WORK

No previous work has been recorded in this area and no old claim posts or previous grids were discovered.
**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
SURVEY METHOD

Traverses were made by P. Bateman and M. Villeneuve in a northwest-southeast direction from the group boundaries at 125 metre intervals. The bearings of the traverses were 315° and 135°. All claim lines, posts, grid lines and physical features were located and tied in. A 1:5000 blow-up of an Ontario Government 1" = 1/4 mile scale air photo, number 79-4831,8-190, was used for control while mapping.

REGIONAL GEOLOGY

The township is underlain for the most part by mafic and intermediate metavolcanics. In the northeast section there is part of a felsic batholith. In the northwest section there are some metamorphosed mafic and ultramafic rocks, the former also occurring in the west central region. Diabase dykes are numerous and strike in a north-south direction. In the west central region there is an antiform with a west-northwesterly striking axis. A fault, bearing northwesterly, strikes through the whole township.

PROPERTY GEOLOGY

Due to the heavy glacial overburden no outcrop
was observed on the property. Geophysical interpretation indicated intermediate to mafic metavolcanics.

Pleistocene geology consists for the most part of sand and gravel forming eskers. The rest is dominantly outwash clay.

CONCLUSIONS AND RECOMMENDATIONS

As a result of the steep topography surrounding the lake it is thought that the H.E.M. survey results are invalid to some degree. To further complicate matters, a power line runs through a portion of the property.

It is therefore recommended that a Pulse E.M. survey be carried out on this property to better delineate the location of conductors before a drill program is considered.

Respectfully submitted,

Timmins, Ontario
August, 1981

Philip Bateman
LIST OF REFERENCES

References: Geological Compilation Series Map
Timmins-Kirkland Lake
D.R. Pyke, L.D. Ayres and D.G. Innes
1970, 71
# APPENDIX A

## SCHEDULE OF CLAIMS

**PROJECT 1131-02; Calvert-2**

<table>
<thead>
<tr>
<th>Claim Group</th>
<th>Township</th>
<th>Number</th>
<th>Claim Numbers</th>
<th>Recording Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1131-02</td>
<td>Calvert</td>
<td>8</td>
<td>P-583153</td>
<td>September 3/80</td>
</tr>
<tr>
<td>Calvert-2</td>
<td></td>
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<td>P-583154</td>
<td>September 3/80</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>P-583160</td>
<td>September 3/80</td>
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</table>
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 583153 et al in the Township of Calvert.

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: 416/965-1316

J. Skura/amc

cc: Amax Minerals Exploration  
Timmins, Ontario  
Attn: Mr. Philip Bateman

cc: Amax of Canada Limited  
Timmins, Ontario  
Attn: Mrs. Rosemary Tittley
**Ministry of Natural Resources**

**Report of Work**

*Geophysical, Geological, Geochemical and Expenditures*

**1131-02**

[Cover page information]

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**Calvert**

**Geophysical Survey**

- **Claim Holder(s):** Amax of Canada Limited
- **Survey Company:** Amax Minerals Exploration
- **Prospector's Licence No.:** A-38495
- **Survey Dates (line cutting to office):** 09 06 81
- **Total Miles of Line Cut:**

---

**Type of Survey(s):**

- **Geophysical**
  - Electromagnetic
  - Magnetometer
  - Radiometric
  - Other
- **Geological**
- **Geochemical**

**Expenditures Days Credits**

- **Days per Claim:**
  - Geophysical: 20
  - Geological: 20
  - Geochemical: 20

---

**Special Provisions Credits Requested**

- **For first survey:*** Enter 40 days. (This includes line cutting)
- **For each additional survey:*** using the same grid:
  - Enter 20 days (for each)

---

**Man Days**

- **Complete reverse side and enter total(s) here:**

---

**Airborne Credits**

- **Note:** Special provisions credits do not apply to Airborne Surveys.

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**Calculation of Expenditure Days Credits**

<table>
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<tr>
<th>Total Expenditures</th>
<th>Total Days Credits</th>
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<tbody>
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<td>$16</td>
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**Report Completed**

**Date of Report:** April 27, 1982

**Recorded Holder or Agent (Signature):**

**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:**

R. J. Roussain

255 Algonquin Blvd. West, Timmins, Ontario, P4N 2R8
Ministry of Geotechnical Report
On Approval

Mining Lands Comments

To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections  Date  Signature

To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections  Date  Signature

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections  Date  Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1693 (81/10)
May 7, 1982

Mr. F. W. Matthews,
Ontario Ministry of Natural Resources,
W1617, Whitney Block,
Queen's Park,
Toronto, Ontario.
M7A 1W3

Dear Sir:

Enclosed herewith please find two (2) copies of a report by Mr. Philip Bateman who was employed by Amax for the 1981 summer field season, concerning a geological survey which was performed over the below listed mining claims located in Calvert township, along with the survey plans.

P-583153  P-583154  P-583155  P-583156
P-583157  P-583158  P-583159  P-583160

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

Thank you.

Yours truly,

AMAX OF CANADA LIMITED

Rosemary Tittley (Mrs.)
Land Recorder

Encs. 2
c.c. K. Clemiss/E. Barclay, Toronto

RECEIVED
MAY 12 1982
MINING LANDS SECTION
STATEMENT OF QUALIFICATION

I, Randall J. Roussain, residing at 1221 Government Road, South Porcupine, Ontario, employed as a Geological Technician by Amax of Canada Limited, to hereby certify that:


I have been continuously employed as a Geological Technician for over thirteen (13) years in all phases of mining exploration.

I was personally present on the property and did supervise the survey as reported.

R. J. Roussain
**Type of Survey(s):** Geological Survey

**Township or Area:** Calvert

**Claim Holder(s):** Amax of Canada Limited

**Survey Company:** Amax Minerals Exploration

**Author of Report:** Philip Bateman

**Address of Author:** 255 Algonquin Blvd. West, Timmins, Ont.

**Covering Dates of Survey:** June 9, 1981

**Total Miles of Line Cut:** (linecutting to office)

### SPECIAL PROVISIONS

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<tr>
<td>- Electromagnetic</td>
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<tr>
<td>- Magnetometer</td>
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<tr>
<td>- Radiometric</td>
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<td>- Other</td>
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<td>Geological</td>
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<td>Geochemical</td>
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### MINING CLAIMS TRAVERSED

**List numerically**

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<th>(number)</th>
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**AIRBORNE CREDITS** (Special provision credits do not apply to airborne surveys)

<table>
<thead>
<tr>
<th>Magnetometer</th>
<th>Electromagnetic</th>
<th>Radiometric</th>
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**DATE:** May 7, 1982

**SIGNATURE:** Rosemary

**Author of Report or Agent**

**Res. Geol. Qualifications**

**Previous Surveys**

<table>
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<th>File No.</th>
<th>Type</th>
<th>Date</th>
<th>Claim Holder</th>
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**TOTAL CLAIMS:** 8
GEOPHYSICAL TECHNICAL DATA

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

<table>
<thead>
<tr>
<th>Number of Stations</th>
<th>Number of Readings</th>
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<tbody>
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</table>

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

Instrument

Coil configuration

Coil separation

Accuracy

Method:  
- Fixed transmitter  
- Shoot back  
- In line  
- Parallel line

Frequency ____________________________ (specify V.L.F. station)

Parameters measured

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

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 ____________________________