



42A03SE0216 2.5169 ENGLISH

010

REPORT ON A GEOLOGICAL SURVEY

ENGLISH-2
PRICE 035-02

RECEIVED
NOV - 5 1982
MINING LANDS SECTION

NTS: 42-A-3/6

AMAX MINERALS EXPLORATION

Timmins, Ontario
August, 1982

S. Davies



42A03SE0216 2.5169 ENGLISH

010C

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SUMMARY

During July of 1982, a geological survey was performed on twenty-two (22) claims in English and Semple townships, District of Sudbury, Ontario.

Sulphide-rich iron formation was found which contained anomalous gold values (5.48 ppm).

It is recommended that a ground magnetic survey be carried out to delineate the iron formation. It is also recommended that the Amax grid be extended four lines west and detailed ground geophysics be conducted on these lines to determine the strike extent of the iron formation.

INTRODUCTION

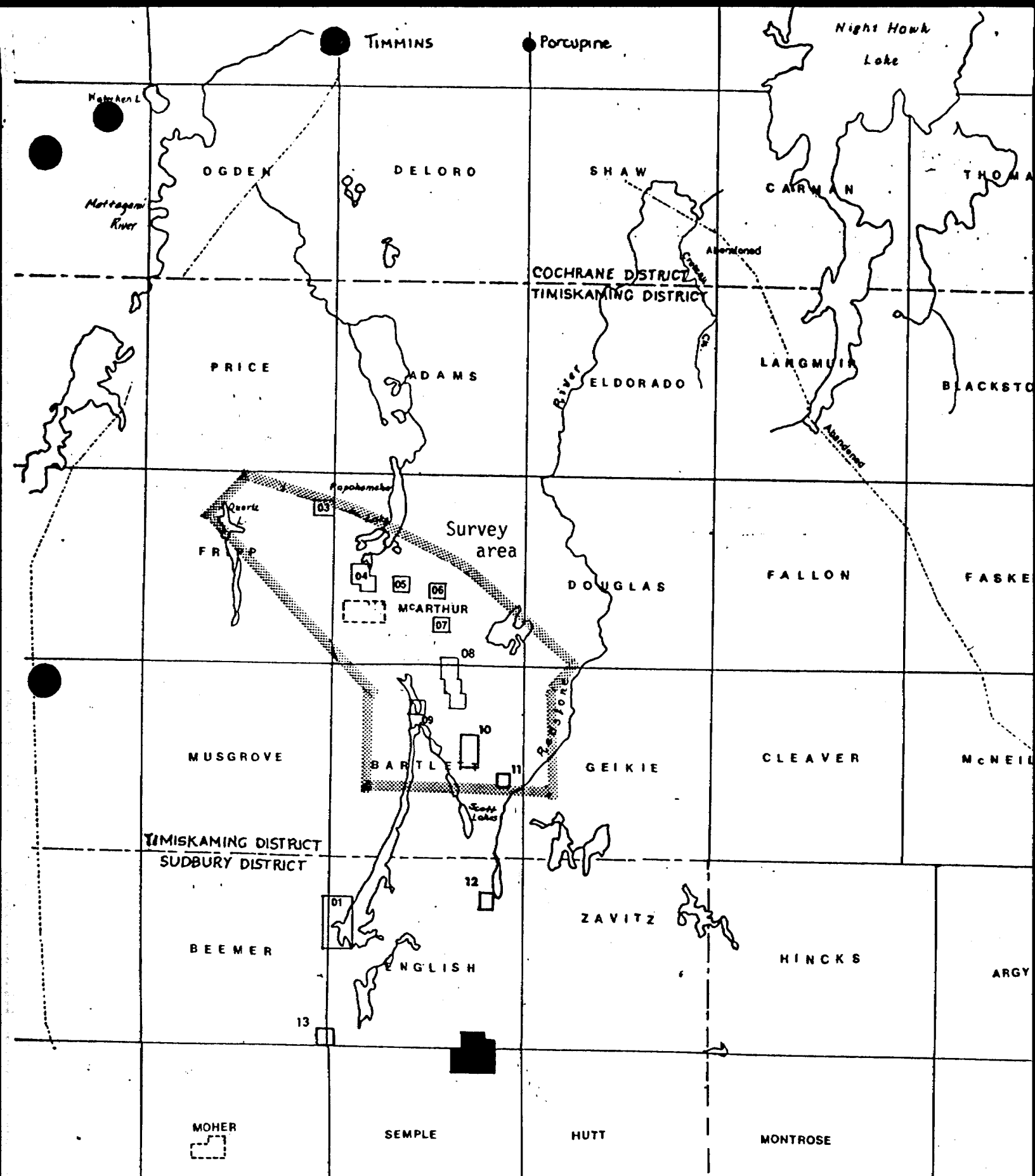
A detailed geological survey was carried out on a group of twenty-two (22) claims in English and Semple townships during July of 1982. The claim numbers are L-529070-74, L-571633-36, L-610851-59 and L-617848-51 and are recorded in the name of Amax of Canada Limited.

A sulphide rich iron formation is known to outcrop in the area. Previous work indicates that low gold values were found in association with the iron formation.

LOCATION AND ACCESS

The group of twenty-two claims is situated on the English/Semple township boundary in the District of Sudbury, Ontario.

The property is located about 2.5 kilometres along the Matachewan Road. This road exits east from the Papakomeka Lake Road at the English/Semple township line.



LOCATION SKETCH
 Project 035-02, English-2
 Scale: 1:250,000.

Scale 1:250,000

TOPOGRAPHY AND RESOURCES

The relief of the property is high. A series of outcrop ridges were found in the eastern half of the claim group with low swampy ground between the ridges. The land slopes gently to the west and north and is covered predominantly by spruce and alder swamp.

Vegetation consists of mature stands of pine and spruce on the high ground and spruce and alders in the swampy areas.

Water for diamond drilling is available from the Redstone River to the south of the property.

PREVIOUS WORK

From Assessment Files

In 1949, Mr. Alford conducted a geology survey in the area. He proceeded to blast a number of trenches and pits in an iron formation but economic mineralization was not found.

Hollinger, 1962, conducted geology, magnetic and electromagnetic surveys on the property. A total of six (6) packsack holes were drilled but nothing of interest was found.

Found In Field

A number of trenches and pits were found in a sulphide-rich iron formation in claims L-610858 and L-610859. There was also evidence of a grid cut across the eastern claims.

SURVEY METHOD

The survey was performed by S. Davies and L. de St. Jorre during July of 1982. Airphotos at a scale of 1"= $\frac{1}{4}$ mile and air photo blow-ups at a scale of 1:5,000 were used. Amax grid lines were used for control on the eastern claims. Traverse lines at 125 metre intervals were used on the remainder of the claims.

REGIONAL GEOLOGY

Early Precambrian (Archean) metavolcanic and plutonic rocks underlie most of the area.

Two cycles of volcanism are recognized, each consisting of a lower unit of ultramafic metavolcanics, an overlying unit of mafic metavolcanics and an upper unit of intermediate to felsic metavolcanics.

A pre-tectonic, layered gabbroic sill and minor felsic epizonal intrusions are largely confined to the lower sequence of metavolcanics.

Late tectonic stocks of granodiorite and monzonite were emplaced within the metavolcanic-metasedimentary succession. The lower sequence of mafic and ultramafic metavolcanics was intruded by a large complex granitic batholith composed of at least three separate intrusive phases.

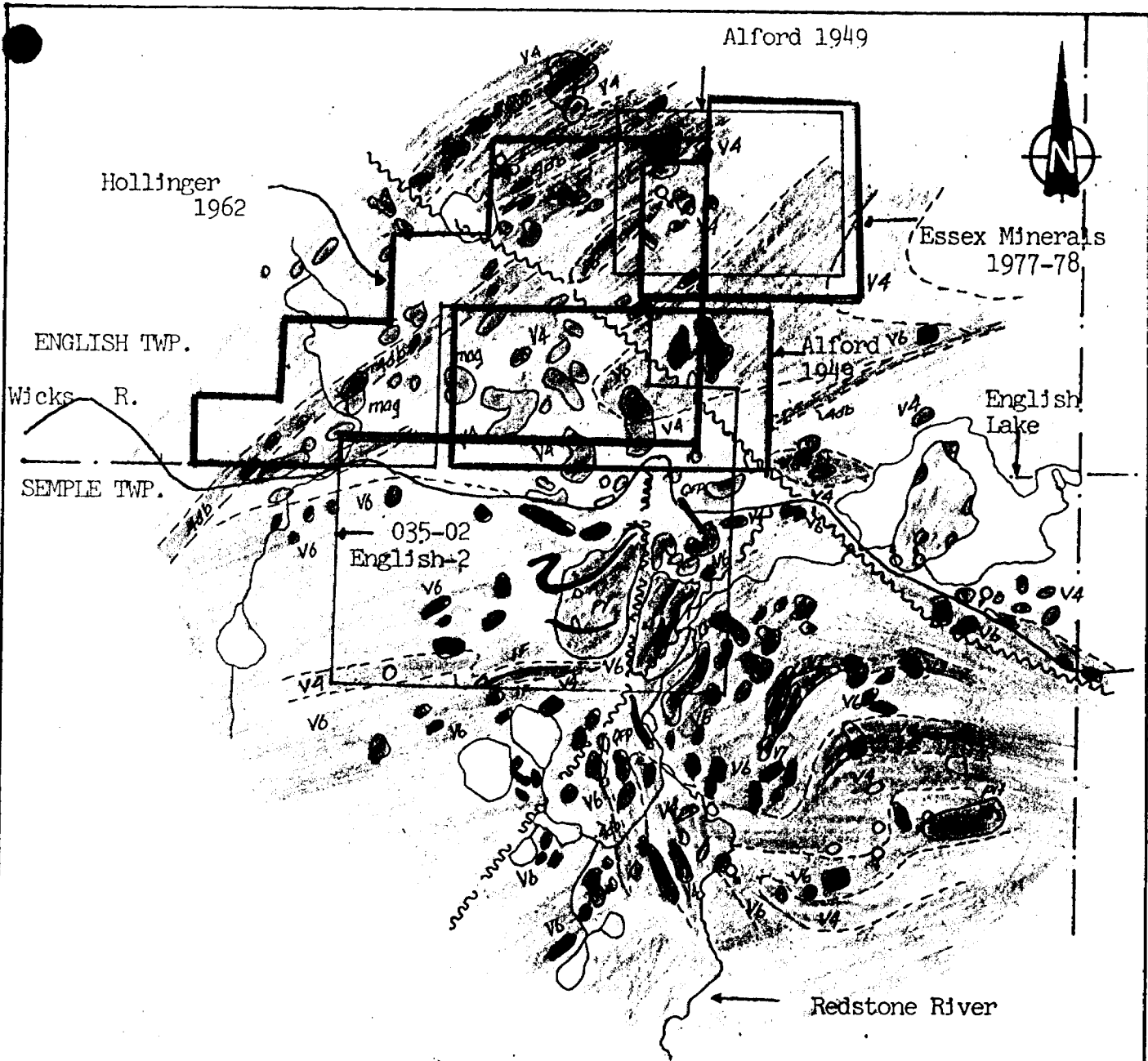
Diabase dykes are numerous and are not confined to a specific metavolcanic sequence.

The major structural features in the area consist of a domal structure in Geikie township that is flanked by large synclines to the north and south and numerous north-trending faults which are probably part of the Onaping Lineament.

PROPERTY GEOLOGY

Project 035-02 is underlain by rocks of the Upper and Middle Volcanic Formations in the Lower Volcanic Group.

The predominant rock types consist of intermediate to mafic volcanics (andesite), felsic volcanics (dacite) and felsic to intermediate pyroclastics (dacitic tuff and agglomerate).



LEGEND

- | | | |
|-----|---|-------------------------------|
| V4 | ■ | Dacite |
| V6 | ■ | Andesite |
| V7 | ■ | Basalt |
| IF | ■ | Iron Formation |
| QFP | ■ | Quartz Feldspar Porphyry |
| 4db | ■ | Diabase |
| | | Outcrop |
| | | Fault - inferred |
| | | Geological Contact - observed |
| | | Geological Contact - inferred |
| | | Township Line |
| | | Drill Hole |
| | | Pit |
| Au | | Gold |
| mag | | Magnetite |
| py | | Pyrite |

- | | | |
|---|-----------------|-----------------|
| — | Alford 1949 | - geology sur. |
| | | - pits in I.F. |
| — | Essex Minerals- | geology, EM |
| | 1977-1978 | and mag sur. |
| — | Hollinger 1962- | geology, EM |
| | | and mag sur. |
| | | - 3 holes drill |

AMAX MINERALS EXPLORATION

PROJECT : Price (035)
 GROUP : 035-02, English 2
 TOWNSHIP: English & Semple
 SURVEY : Compilation
 DATE : August, 1982
 SCALE : 1" = 1/2 mile

TABLE OF FORMATIONS

PHANEROZOIC

CENOZOIC

Quaternary - Pleistocene and recent

-----Unconformity-----

PRECAMBRIAN

LATE PRECAMBRIAN, MIDDLE PRECAMBRIAN - Olivine, quartz diabase

Huronian Supergroup

Cobalt Group

Gowganda Formation: Greywacke, arkose, conglomerate

-----Unconformity-----

EARLY PRECAMBRIAN (ARCHEAN)

Mafic Intrusive Rocks

Diabase

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

Felsic Intrusive Rocks

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

Metamorphosed Mafic and Ultramafic Rocks

Gabbro, serpentized peridotite, quartz gabbro

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

METAVOLCANICS AND METASEDIMENTS

Intermediate to Felsic Volcanics:

Tuff, breccia, massive to pillowed flows, interlayered
siltstone, greywacke

Mafic Metavolcanics:

Massive and pillowed flows, tuff, volcanic breccia,
pyroclastic rocks

Ultramafic Metavolcanics:

Serpentized peridotite, spinifex texture flows,
tuff, carbonatized peridotite

Chlorite-sericite schist and talc-chlorite schist were also found in the proximity to intrusives and shears.

A sulphide-rich iron formation was found outcropping in several places in the centre of the claim group. Massive sulphides (pyrite and minor chalcopyrite) upwards of 70% was found in association with the iron formation.

Numerous quartz-feldspar porphyry dykes intrude the volcanics. They contain approximately 5% disseminated pyrite.

Three faults were interpreted in the eastern claims. The major fault, striking about 20° , has an offset of up to 400 metres.

An anticline axis was also interpreted to be present in claims P-610857 and P-610858. It strikes roughly east-west and plunges to the east. Chlorite-sericite schist is associated with the fold axis.

CONCLUSIONS AND RECOMMENDATIONS

The property is located overlying rock of the Upper and Middle Volcanic Formations of the Lower Volcanic Group. Sulphide rich iron formation was sampled and assayed and returned anomalous gold values (5.48 ppm).

It is recommended that further detailed field sampling should be carried out.

A ground magnetic survey is also recommended to delineate the iron formation.

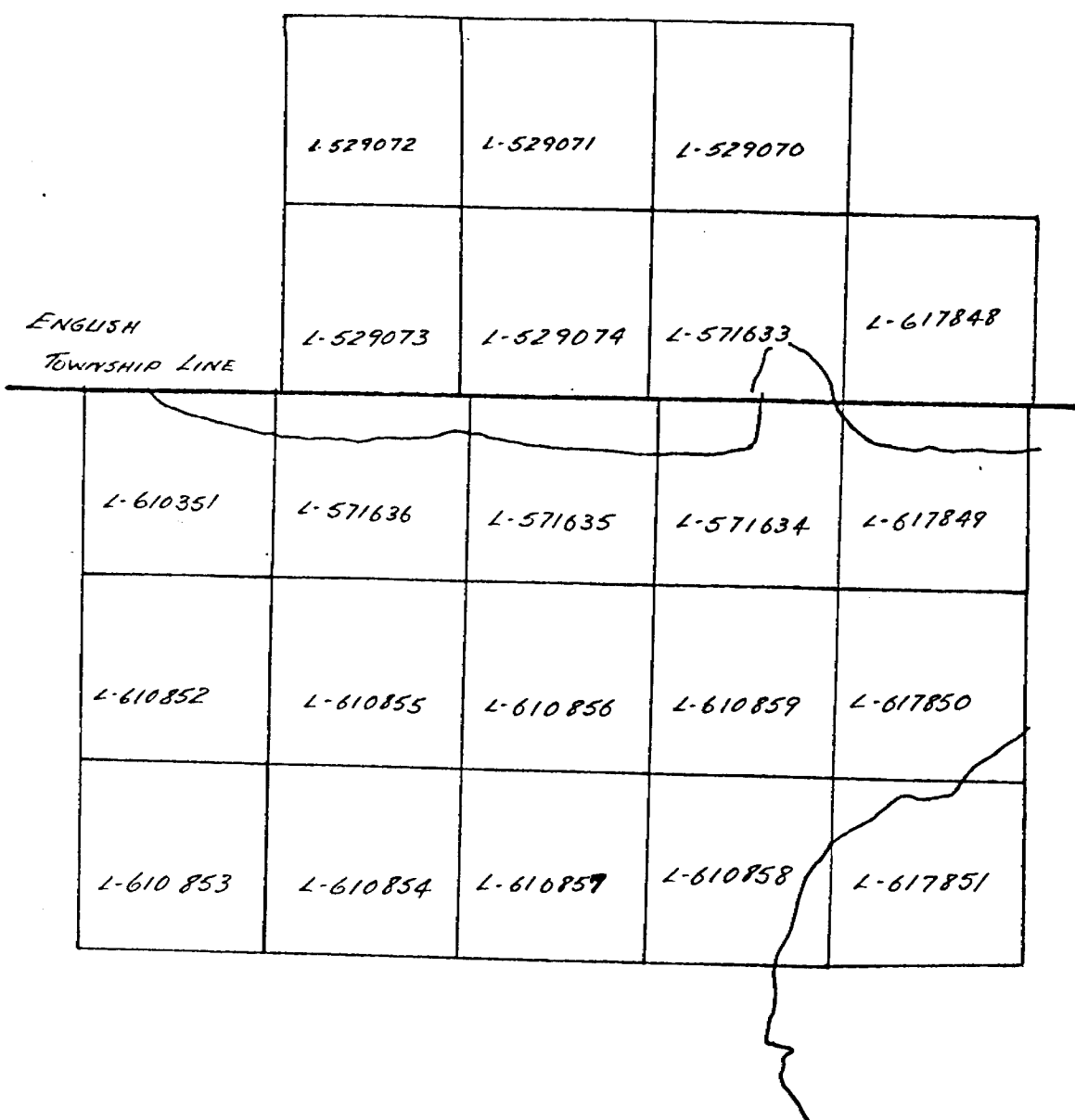
The Amax grid should be extended four lines to the west, south of the base line and ground geophysics be conducted south of the base line to determine strike extent of the iron formation under the swampy terrain.

Respectfully submitted by,

S Davies

S. Davies

Timmins, Ontario
August, 1982



CLAIM SKETCH

Project 035-02

ENGLISH -2

English and Semple Twps.

Scale: 1" = 1/4 mile

APPENDIX A

SCHEDULE OF CLAIMS

PROJECT PRICE

035-02

Claim Group	Township	Number	Claim Numbers	Recording Date
035-02 English-2	English	22	L-529070	March 18, 1981
			L-529071	March 18, 1981
			L-529072	March 18, 1981
			L-529073	March 18, 1981
			L-529074	March 18, 1981
	Semple		L-571633	March 18, 1981
			L-571634	March 18, 1981
			L-571635	March 18, 1981
			L-571636	March 18, 1981
			L-610851	March 18, 1981
			L-610852	March 18, 1981
			L-610853	March 18, 1981
			L-610854	March 18, 1981
			L-610855	March 18, 1981
			L-610856	March 18, 1981
			L-610857	March 18, 1981
			L-610858	March 18, 1981
			L-610859	March 18, 1981
			L-617849	April 22, 1981
		L-617850	April 22, 1981	
		L-617851	April 22, 1981	
		L-617848	April 22, 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



#317

Type of Survey(s) **Geological Survey**

Claim Holder **Amx of Canada Limited**

Address **255 Algonquin Blvd. West, Timmins, Ontario. P4N 2R8**

Survey Company **Amx Minerals Exploration**

Date of Survey (from & to) **07 82** Total Miles of line Cut **2.5169**

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

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	20
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
L	529070	20
	529071	20
	529072	20
	529073	20
	529074	20
	571633	20
	571634	20
	571635	20
	571636	20
	610851	20
	610852	20
	610853	20
	610854	20
	610855	20
	610856	20
	610857	20
	610858	20
	610859	20
	617848	20
	617849	20
	617850	20
	617851	20

RECEIVED
 OCT 19 1982
 MINING LANDS SECTION

LARDER LAKE
 MINING DIV.
RECEIVED
 SEP 28 1982

AM 7 18 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6. PM

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

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.

Total number of mining claims covered by this report of work. **22**

For Office Use Only

Total Days Cr. Recorded **440** Date Recorded **SEP 28 1982** Mining Recorder *[Signature]*

Date Approved as Recorded **83:05:06** Branch Director *[Signature]*

Date **Sept. 21, 1982** Recorded Holder or Agent (Signature) *[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
J. MacPherson
255 Algonquin Blvd. West, Timmins, Ont. P4N 2R8

Date Certified **Sept. 21/82** Certified by (Signature) *[Signature]*

Jan 26/83

Mining Lands Comments

- no qualifications

To: Geophysics

Comments

Approved Wish to see again with corrections

Date

Signature

To: Geology - Expenditures

W/R Kuska

Comments

The qualifications in report are for the project supervisor

Approved Wish to see again with corrections

Date

March 17/83

Signature

C Kuska

To: Geochemistry

Comments

LD

Approved Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

317

2/5169

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 529070 et al in the Township of English and Semple.

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

DW:sc

cc: Amax of Canada Limited
Timmins, Ontario
Attn: Sandra Davies.



MINERALS EXPLORATION
(A Division of AMAX OF CANADA LIMITED)

255 Algonquin Blvd. West
Timmins, Ontario
P4N 2R8

Telephone: (705) 264-5247

Our File: 035-02

November 4, 1982

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

RECEIVED

NOV - 5 1982

MINING LANDS SECTION

Dear Sir:

Re: Mining Claims L.529070 et al.,
English and Semple Townships

Enclosed herewith please find two (2) sets of a report and accompanying plan concerning a Geological Survey which was carried out over a total of twenty-two (22) contiguous mining claims located in English and Semple townships, northeastern Ontario.

A Report of Work has been filed with Mr. George Koleszar, Mining Recorder for the Larder Lake 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 - 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) Geological Survey

Township or Area English and Semple Townships

Claim Holder(s) Amax of Canada Limited

Survey Company Amax Minerals Exploration

Author of Report Sandra Davies

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

Covering Dates of Survey July 1982
(linecutting to office)

Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

L	529070
(prefix)	(number)
L	529071
L	529072
L	529073
L	529074
L	571633
L	571634
L	571635
L	571636
L	610851
L	610852
L	610853
L	610854
L	610855
L	610856
L	610857
L	610858
L	610859
L	617848
L	617849
L	617850
L	617851

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

Geophysical

- Electromagnetic _____

- Magnetometer _____

- Radiometric _____

- Other _____

Geological 20

Geochemical _____

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

ENTER 20 days for each
additional survey using
same grid.

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Sept. 1, 1982 SIGNATURE: Sandra Davies
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No. Type Date Claim Holder

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 22

OFFICE USE ONLY

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 _____

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 _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

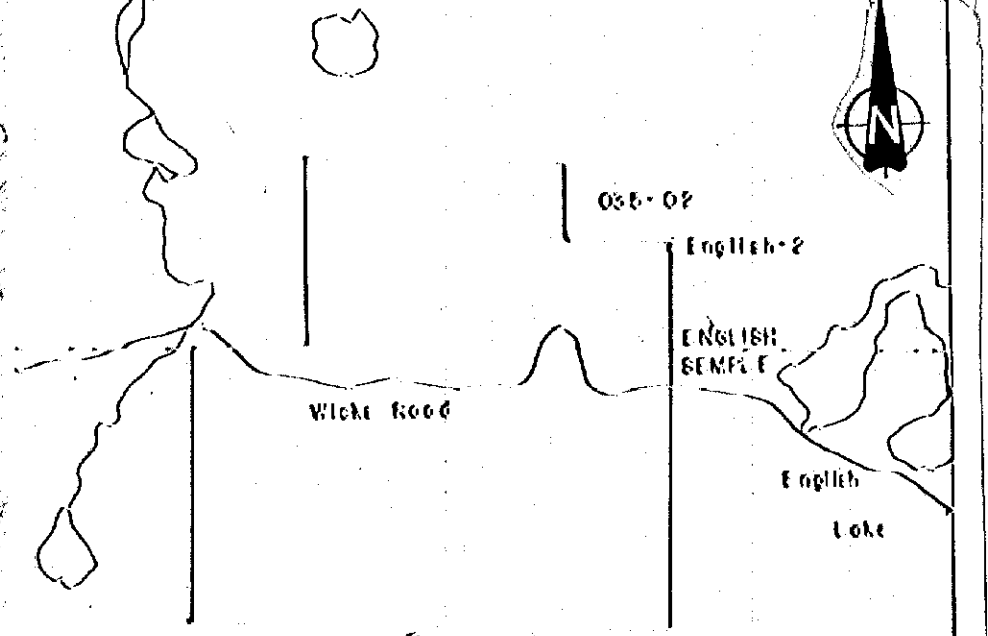
Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



Scale 1" = 1/2 mile

INDEX MAP

LEGEND

- | | | |
|----------|----------------|----------------------------|
| [Symbol] | V4 | DACITE |
| [Symbol] | V6 | ANDSITE |
| [Symbol] | V9F | FELSIC TUFF |
| [Symbol] | V9I | INTERMEDIATE TUFF |
| [Symbol] | V10F | FELSIC AGGLOMERATE |
| [Symbol] | chl. ser. sch. | CHLORITE - SERICITE SCHIST |
| [Symbol] | tal. chl. sch. | TALC - CHLORITE SCHIST |
| [Symbol] | BIF | OXIDE IRON FORMATION |
| [Symbol] | SIF | SULFIDE IRON FORMATION |
| [Symbol] | QFP | QUARTZ - FELDSPAR PORPHYRY |

SYMBOLS

- | | |
|----------|-------------------------------|
| [Symbol] | CLAIM POST |
| [Symbol] | TRAVERSE LINE |
| [Symbol] | GRID LINE |
| [Symbol] | FOLIATION - DIP KNOWN |
| [Symbol] | FOLIATION - DIP UNKNOWN |
| [Symbol] | FAULT (INFERRED) |
| [Symbol] | GEOLOGICAL CONTACT - OBSERVED |
| [Symbol] | GEOLOGICAL CONTACT - INFERRED |
| [Symbol] | OUTCROP |
| [Symbol] | TRENCH |
| [Symbol] | SWAMP BOUNDARY |
| [Symbol] | SWAMP |
| [Symbol] | GRAVEL ROAD |
| [Symbol] | BUSH ROAD |
| [Symbol] | OLD TRAIL |
| [Symbol] | TOWNSHIP LINE |
| [Symbol] | CARBONATE |
| [Symbol] | PORPHYRITIC |
| [Symbol] | SERPENTINIZED |
| [Symbol] | PYRITE |
| [Symbol] | QUARTZ POD |

carb.
porph.
serp.
py.
Qtz. pod

Amox Minerals Exploration
English and Semple Townships
GEOLOGY SURVEY
085-02, English-2
Scale 1:5000

N16 49/1/8 AUGUST 1982
TO ACCOMPANY REPORT BY TIMING OFFICE
S. Davies

D. 5169



200