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REPORT ON A GEOLOGICAL SURVEY

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MAR 25 1981

MINING LANDS SECTION

DELORO

OGDEN-01

PROJECT 1043-01

NTS: 42-A-6

AMAX MINERALS EXPLORATION
Timmins, Ontario

February 1981

J. MacPherson
Geologist

SUMMARY

During August 1980, a geological survey was performed on nine (9) claims in the northwest part of Ogden township, District of Cochrane, Ontario.

The property appears to be underlain mainly by interbedded sediments and tuff.

The horizontal loop survey carried out by Amax in early 1980, outlined the presence of one conductor which was not explained during the geology survey, due to lack of outcrop exposure.

Subsequently, a drill hole was put down and this encountered graphite and pyrite in sediments, thus satisfactorily explaining the conductor.

It is recommended that no further work be done in the area.

INTRODUCTION

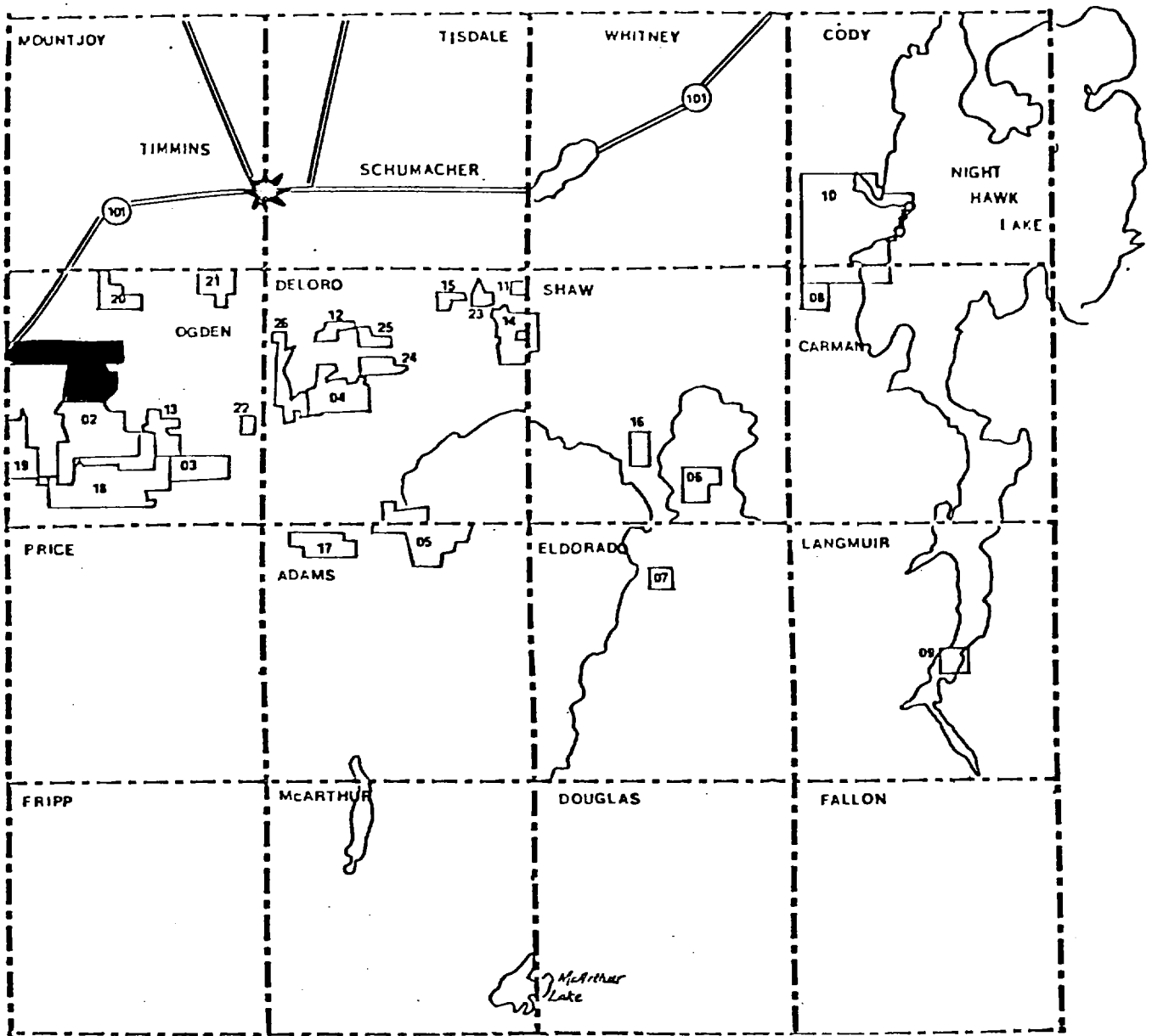
A detailed geological survey was carried out on a group of nine (9) claims in Ogden township during August 1980. The claim numbers are P-549932 to 939 inclusive and P-554122, and are recorded in the name of Amax of Canada Limited.

The property covers several air electromagnetic anomalies uncovered during a helicopter survey by Amax during the fall of 1979.

Detail ground geophysical surveys consisting of magnetometer and horizontal loop (high and low frequency) were carried out during the early part of 1980.

LOCATION AND ACCESS

The group of nine (9) claims surveyed is part of a larger group of twenty-nine (29) claims situated in the northwest corner of Ogden township, partially bordering Bristol township, in the District of Cochrane, Ontario.



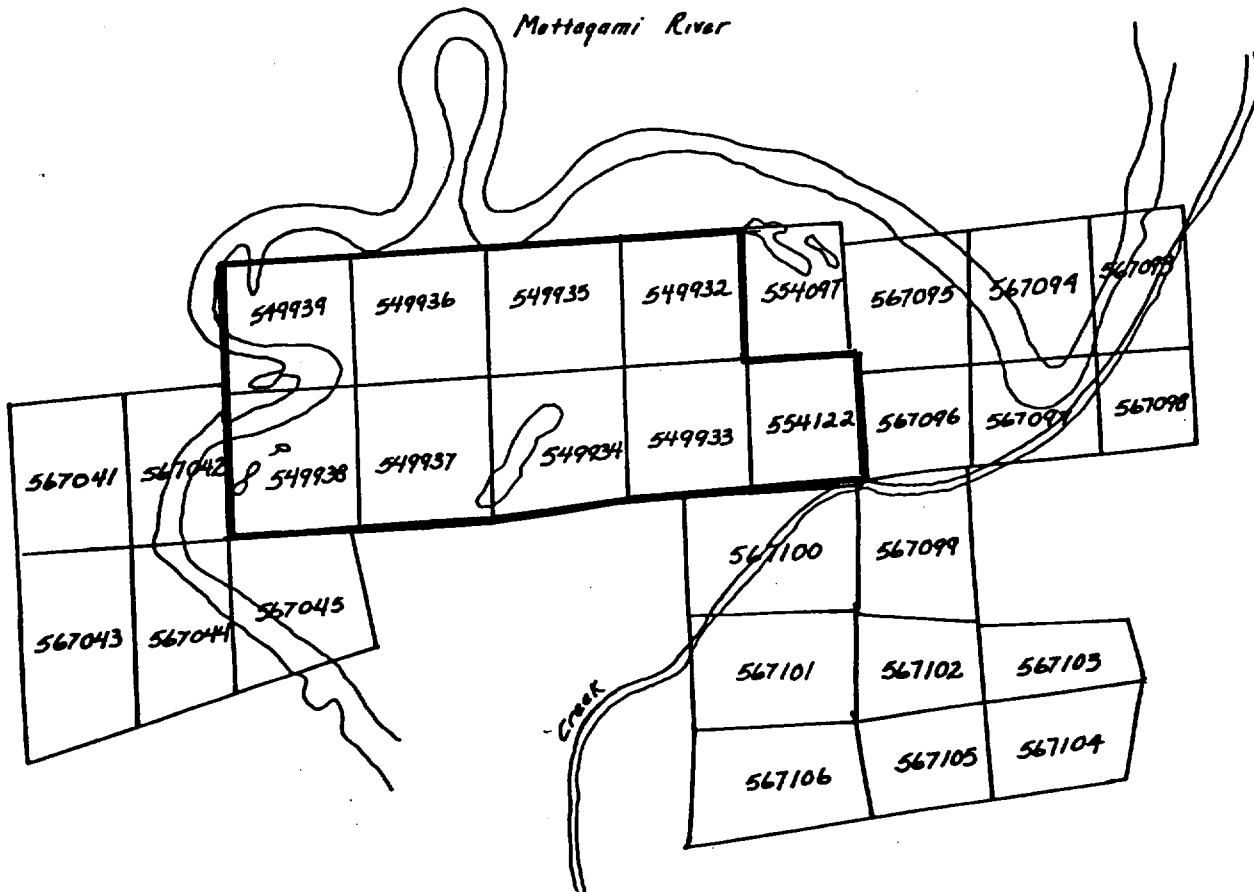
LOCATION SKETCH

1043-01, Ogden-1

Ogden Township

Scale: 1" = 4 miles

OGDEN TWP.



————— Area of Survey

CLAIM SKETCH
1043-01, Ogden-1
Scale: 1:30,000

Access to the property is possible by a good gravel road leading south from Timmins to a power station on the Mattagami River at Wawaitan Falls. Between five (5) and six (6) miles south along this road, several bush roads (most still driveable) exit west directly onto the property.

TOPOGRAPHY AND RESOURCES

The relief on the property is moderate. There are several sand ridges present with low marshy ground in between. Generally, the land slopes down to the west and southwest, towards the Mattagami River.

Vegetation consists of good stands of spruce with birch and poplar on the sandy areas, and scattered spruce and birch with some alders on the lower areas. Some of the stands of timber have been cut.

A small lake on the southwest part of the grid and the Mattagami River to the west and north are excellent sources of water for a diamond drill programme.

PREVIOUS WORK

From Assessment Files:

Several drill holes were put down to the east and south of the location of the Amax grid. The conductor to the east, a possible extension of the one on Amax ground, was found to be graphite in sediments with minor tuff and intermediate flows. The same is true of the conductor to the south.

SURVEY METHOD

The survey was performed by J. MacPherson and P. DeGagne during late August and early September 1980. Air photos at a scale of 1:30,000 and the Amax detail geophysical grid were used as control.

Off the grid, traverse lines were run using pace and compass at 400 foot intervals across the remaining claims.

GENERAL 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 centred in Shaw township. It grades from andesite and basalt flows in the lower portion to dacite and rhyolite pyroclastics near the top. 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 of it and the Shaw Dome to the south.

PROPERTY GEOLOGY

There was no outcrop exposure on the property; hence the geology is unknown. However, a drill hole recently completed by Amax after the geology survey on a geophysical conductor on the grid, intersected interbedded sediments (greywacke, argillite, mudstone) and intermediate tuff.

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

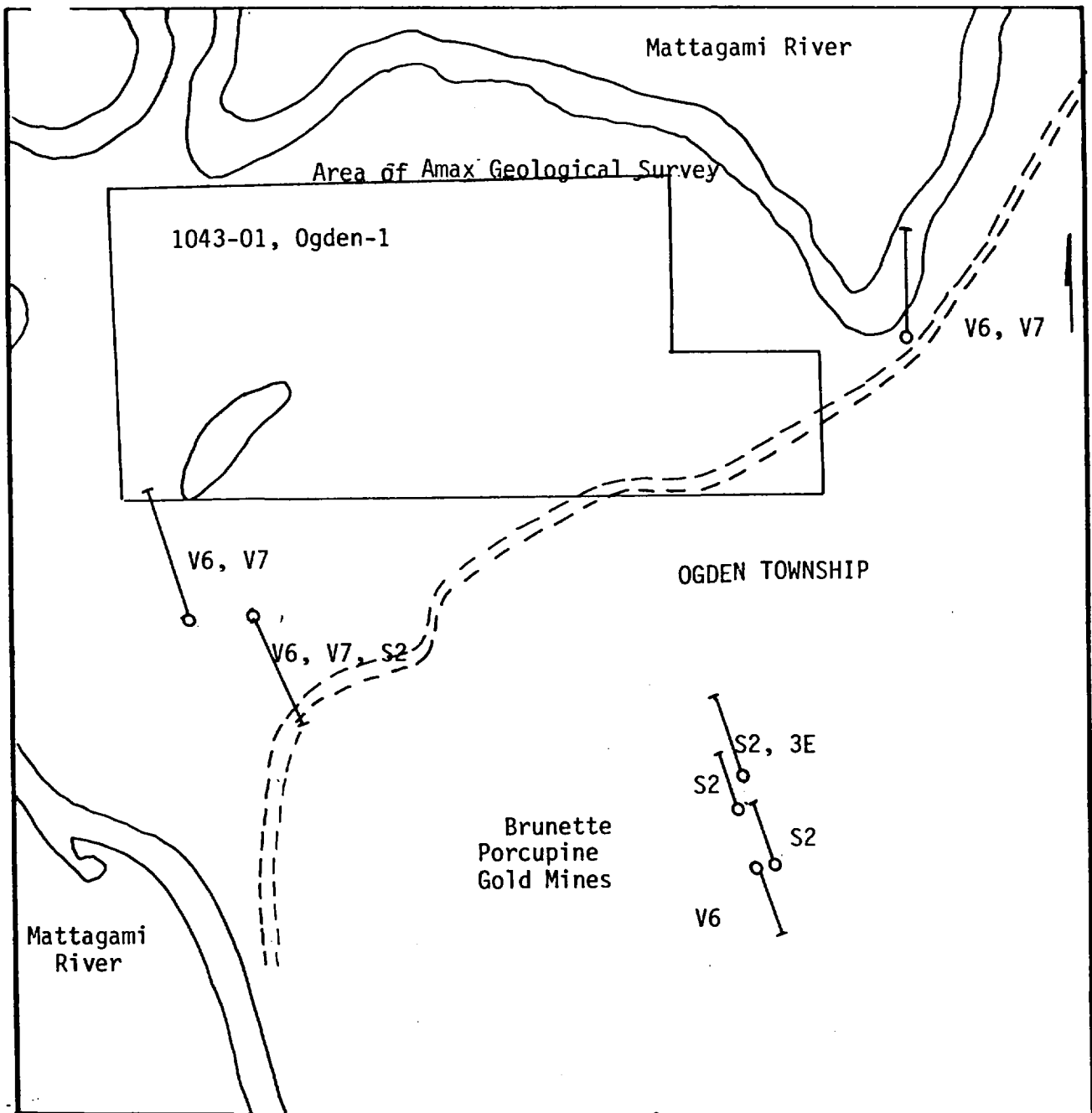
Massive, fine-grained flows, pillowed flows, tuff, lapilli
tuff and breccia, sheared, carbonated pyroclastics

Tholeiitic Metavolcanics

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

Komatiitic Metavolcanics


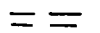

Peridotite, olivine spinifex, carbonate and talc alteration



LEGEND

- V6 Andesite
- V7 Basalt
- S2 Greywacke
- 3E Peridotite

SYMBOLS

-  Drill Hole
-  Gravel Road
-  Mattagami River

AMAX OF CANADA LIMITED

- Project Name :** DELORO
- Group Name :** 1043-01, Ogden-1
- Township :** Ogden
- N.T.S. :** 42/A/6
- Survey :** Compilation
- Date :** February 1981
- Scale :** 1:15,000

CONCLUSIONS AND RECOMMENDATIONS

The geophysical conductor was explained by the presence of graphite in the drill hole.

It is recommended that there be no further work done on the area.

Respectfully submitted,



J. MacPherson
Geologist

Timmins, Ontario
February 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

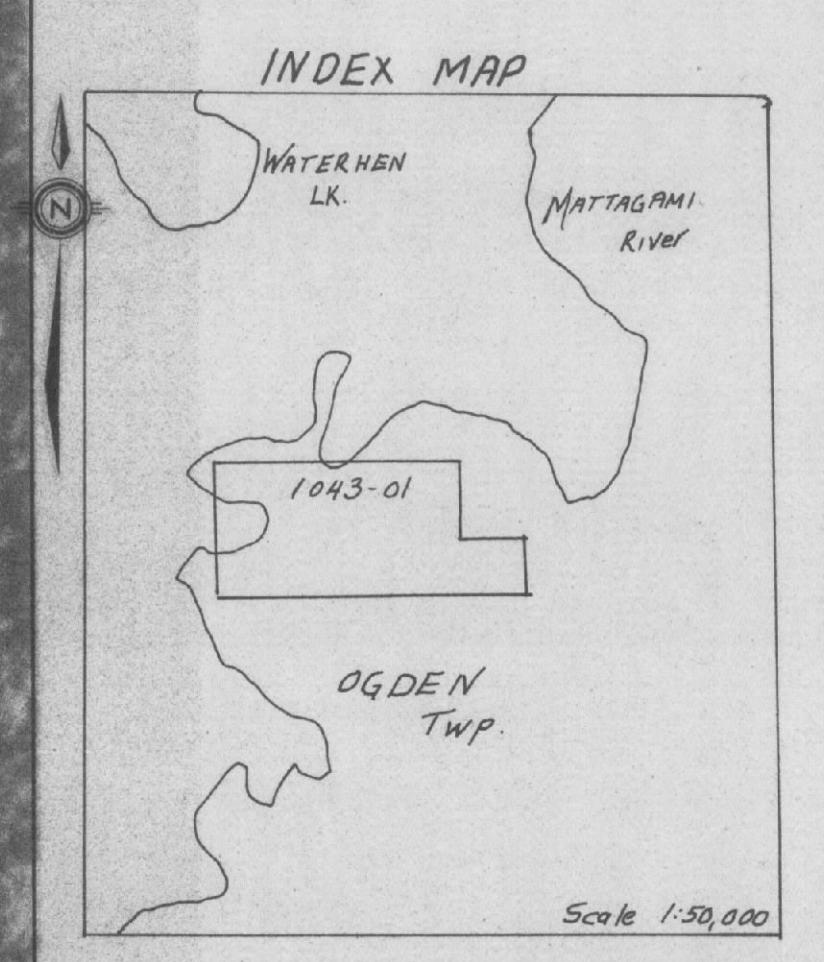
Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)
Parameters measured _____

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 _____



- LEGEND**
- V2 RHYODACITE
 - V9i INTERMEDIATE TUFF
 - S8 ARGILLITE
 - S8G ARGILLITE WITH GRAPHITE

- SYMBOLS**
- - - AXIS OF H.E.M. CONDUCTOR
 - CLAIM POST LOCATED
 - CUT GRID LINES
 - TRAVERSE LINES (Space ; Compass)
 - - - BUSH ROAD
 - === GRAVEL ROAD

DRILL LOG SUMMARY
(1043-01-1)

0 - 57.0	OVERBURDEN
57.0 - 68.2	INTERBEDDED V2, V9i
68.2 - 86.9	INTERBEDDED S8, S8G
86.9 - 123.1	INTERBEDDED V9i, S8

NOTE: No Outcrop Found

AMAX MINERALS EXPLORATION
GEOLOGICAL SURVEY
OGDEN-1, 1043-01
DELORO PROJECT
OGDEN TOWNSHIP, ONT.
SCALE 1:5000
NTS. 42-A-6 DATE: FEBRUARY '81
TIMMINS OFFICE
TO ACCOMPANY REPORT BY *J. MacPherson*