

2.4473



31E01SE0023 2.4473 CARDIFF

010

REPORT ON GEOPHYSICAL  
and  
GEOLOGICAL SURVEYS  
on  
GRAPHITE PROPERTY OF T.GRIFFIS  
CARDIFF TWP. ONT.

John Rawlinson Lill, B.Sc.P.Eng.

Scarborough, Ontario  
December 29th, 1981



31E015E0023 2.4473 CARDIFF

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INTRODUCTION

Geological and VLF-EM surveys were carried out on the Cardiff, Ontario township property of Mr. T. Griffis, to test for the economic possibilities of graphite mineralization, located in old test pits that were excavated in the early part of the century.

PROPERTY LOCATION & ACCESS

The property consists of two claims numbered EO 6177-78 located in Lot A Con. XIX at the west boundary of Cardiff township, and is about 17 miles west of the town of Bancroft.

The property is held by Mr. T. Griffis, 2010 Islington Avenue, Toronto, Ontario. Access is most easily gained by taking Earles Road which runs easterly from highway 48 about two miles south of Wilberforce.

This road, about a mile long, ends at the farm of Floyd Barnes; but a road that is suitable for pickup truck, and with the farmer's permission, can be followed to the north boundary of the property.

PROPERTY LOCATION & ACCESS (Continued)

The road passes through three fields located near the east boundary. Two lakes connected by a stream, lie near the east boundary of the property.

Immediately west of the fields, the property is generally characterized by steep hills which rise an estimated 150' above the level of the lakes.

Near the township boundary, a steep narrow gorge with vertical walls up to 60 feet on the east side, can be traced for the length of the property. Towards the north part, the east wall becomes lower and less steep.

Growth consists mostly of maples with stands of poplar, birch and spruce. The swampy areas are occupied with cedar.

GENERAL GEOLOGY

The property is located in an area of Grenville metasediments consisting of marbles and mixed gneisses, bordering the Cardiff plutonic complex, which consists of a mixture of granite gneiss and syenites.

GENERAL GEOLOGY (Continued)

Table of formations:

Pleistocene - clay, sand, gravel	
Precambrian - plutonic rocks	gabbro, granite & syenite gneisses & associated basic & acid intrusives.
Grenville Sediments	marble, paragneiss, quartzite, schist.

LOCAL GEOLOGY

The property is mostly underlain by grey weathering white limestone. A band of paragneiss consisting of quartzite and hornblende gneiss is located in the central north part of the property.

A thin layer of granite gneiss overlying the limestone, outcrops east and west of the gorge in the west part of the property.

Generally, strikes are north south with dips  $20^{\circ}$  -  $30^{\circ}$  east.

STRUCTURAL GEOLOGY

A fault is located in the aforementioned gorge with the west side down thrown relative to the east side. Lateral movement, if any, was not determined.

STRUCTURAL GEOLOGY (Continued)

A gully can be traced from the east side of the gorge at 18+00N and 5+00W to the lake at the north end of the property and may represent a fault.

As previously noted, dips are  $20^{\circ}$  -  $30^{\circ}$  east, but along the edge of the gorge, the rocks are contorted with dips up to  $70^{\circ}$ .

MINERALIZATION

Several test pits located in Limestone vary from 2 or 3 feet deep to more than 12 feet deep.

These were probably put down in the early part of the century (circa 1915) when the National Graphite Co., with property located in the north part of Cardiff township was in operation.

Where graphite mineralization was observed in the pits, it generally consists of a seam of heavily mineralized flake graphite up to a foot or more thick with disseminations on either side.

This heavily mineralized seam varies from a few inches to about a foot, generally within a horizontal distance of 10 - 15 feet or less.

MINERALIZATION (Continued)

The attitude of the mineralization conforms with the strike and dip of the formations.

SURVEYS & RESULTS

A grid was cut over the entire property with section lines spaced at 200' normal to a baseline that was run at an azimuth of 339°.

Geological mapping and VLF-EM surveys were carried out over the grid using Annapolis, Maryland as the transmitter.

Two different VLF instruments were used as the first instrument became unavailable for the last part of the survey, which was interrupted for a week while the hunting season was on.

All the pickets located in the fields were removed at the conclusion of the surveys.

Only one conductive zone was located, this lies just west of the baseline running from 6+00N to 10+00N. No structure was mapped during the survey that would account for this.

SURVEYS & RESULTS (Continued)

The zone containing graphite mineralization extends the length of the property and appears to be confined to one horizon.

Near the southwest corner of the property at the township boundary between lines 2+00N and 3+00N are two pits.

Beside one of these, a pile of broken rock highly mineralized with flake graphite is located; but the source was not. One of the pits is partially filled with water and it is assumed that this is the source of the graphite.

Three samples of graphite mineralization from a pit located at 5+00W and 12+00N were analyzed for carbon content.

The results are as follows:

<u>Sample No.</u>	<u>Width</u>	<u>Mineralization</u>	<u>Assay % C</u>
4887	15"	Massive	9.07
4888	12"	Disseminated	5.03
4889	12"	Disseminated	1.27

The weighted average of these assays is 5.01% C across 39".



CONCLUSIONS & RECOMMENDATIONS

The mineralization occurs as discontinuous lenses of flake graphite, (no conductors near the zone were located during the VLF-EM survey.)

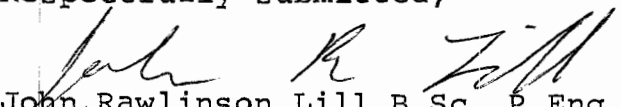
The lenses are located in a zone that traverses the length of the property in a north south direction and conform to the dips which are fairly flat to the east.

The assays received from the three samples taken appear to represent the mineralization in the pits. Although the results do not appear to be of grade and width suitable for mining, they can be described as being interesting.

If further work is undertaken it should consist of drilling.

Calculations show that if the maximum dip of the zone is 30° east and there is no extensive vertical movement along any faulting, vertical holes drilled from the fields should intersect the zone between 300 and 600 feet, depending on where they are located.

Respectfully submitted,

  
John Rawlinson Lill, B.Sc., P.Eng.



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*duplicate*

REPORT ON GEOPHYSICAL

and

GEOLOGICAL SURVEYS

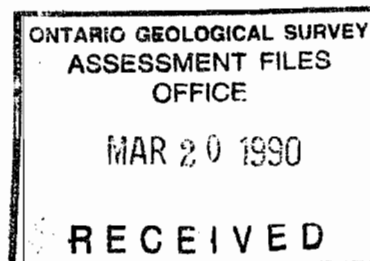
on

GRAPHITE PROPERTY OF T.GRIFFIS

CARDIFF TWP. ONT.

John Rawlinson Lill, B.Sc.P.Eng.

Scarborough, Ontario  
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Respectfully submitted,

*John R. Lill*  
John Rawlinson Lill, B.Sc., P.Eng.



W8209-00004

Type of Survey(s) **GEO PHYSICAL (VLF-EM) GEOLOGICAL** Township or Area **CARDIFF**  
 Claim Holder(s) **A. T. GRIFFIS** Prospector's Licence No. **A 44602**  
 Address **APT 2206 - 2010 ISLINGTON AVE. TORONTO ONT. M9P 3S8**  
 Survey Company **JOHN R. LILL** Date of Survey (from & to) **23 10 81 12 11 81** Total Miles of line Cut **5.6**  
 Name and Address of Author (of Geo-Technical report) **JOHN R. LILL 40 FIRTH CRES. SCARBORO ONT M1G 2J5**

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	<b>40</b>
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	<b>20</b>
	Geochemical	
	Geophysical	

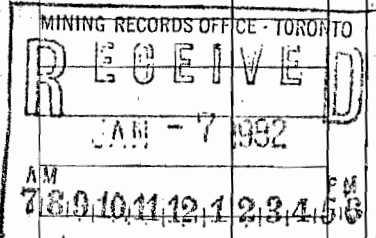
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Geochemical		

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
E0	626177				
	626178				



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. **2**

Date **DEC 29 1981** Recorded Holder or Agent (Signature) *John R Lill*

For Office Use Only

Total Days Cr. Recorded **120** Date Recorded **JANUARY 7, 1982** Mining Recorder *John Chumashy*

Date Approved or Recorded **12/10/81** Director *[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 **JOHN R LILL 40 FIRTH CRES SCARBORO ONT M1G 2J5**

Date Certified **DEC 29 1981** Certified by (Signature) *John R Lill*

Mining Lands Comments

Vib. F. map needs new data.

To: Geophysics Mr Barlow.

Comments

Approved Wish to see again with corrections

Date Oct 29/82

Signature R. Barlow

To: Geology - Expenditures Mr Kustra.

Comments

Approved Wish to see again with corrections

Date Nov 5/82

Signature Kustra

To: Geochemistry

Comments

LD

Approved Wish to see again with corrections

Date

Signature

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

(Tel: 5-1380)

AMR



Report of Work  
(Geophysical, Geological,  
Geochemical and Expenditures)

#82-7  
(file E0626177)  
The Mining Act 2.4473

Note: - If number of mining claims traversed exceeds space on this form, attach a list.  
- Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.  
- Do not use shaded areas below.

Type of Survey(s) **GEO PHYSICAL (VLF-EM) GEOLOGICAL** Township or Area **CHARDIFF**

Claim Holder(s) **M. T. GRIFFIS** Prospector's Licence No. **A 44602**

Address **APT 2206 - 2010 ISLINGTON AVE. TORONTO ONT. M9P 3S8**

Survey Company **JOHN R. LILL** Date of Survey (from & to) **23 10 81 12 11 8** Total Miles of line Cut **5.6**

Name and Address of Author (of Geo-Technical report) **JOHN R. LILL 40 FIRTH CRES. SCARBORO ONT M1C 2J5**

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	40
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Radiometric	
	- Other	
	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	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Expend. Days Cr.		
Prefix	Number		Prefix	Number	
E0	626177		E0	626177	
				626178	

Ministry of Natural Resources  
DEC 14 1982  
CENTRAL REGION

MINING RECORDS OFFICE - TORONTO  
RECEIVED  
JAN - 7 1982  
AM 7 39 10 11 12 1 2 3 4 5 6 PM

MINISTRY OF NATURAL RESOURCES  
CENTRAL REGION  
DEC 14 1982  
RECEIVED  
MINERAL RESOURCES

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. **2**

For Office Use Only

Total Days Cr. Recorded **120** Date Recorded **JANUARY 7, 1982** Mining Recorder **John Charnesky**

Date Approved as Recorded **JAN 14 1982** Brand Director **[Signature]**

Date **DEC 29 1981** Recorded Holder or Agent (Signature) **[Signature]**

Certification Verifying Report of Work  
I, the undersigned, in possession and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work



COPY

Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

The Mining Act

Survey(s) GEOPHYSICAL (VLF-EM) GEOLOGICAL
Township or Area
Claim Holder(s) T. GRIFFIS
Prospector's Licence No. A 44602
Address APT 2206 - 2010 ISLINGTON AVE. TORONTO ONT. M9P 3S8
Survey Company JOHN R. LILL
Date of Survey (from & to) 23 10 81 12 11 8
Total Miles of line Cut 5.6
Name and Address of Author (of Geo-Technical report) JOHN R. LILL 40 FIRTH CRES. SCARBORO ONT M1G 2J5

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Table with columns: Special Provisions, Geophysical, Days per Claim, Man Days, Airborne Credits. Includes handwritten values 40 and 20.

Table with columns: Mining Claim Prefix, Mining Claim Number, Expend. Days Cr. Contains handwritten entries: EO 626177, 626178.

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.

Total number of mining claims covered by this report of work. 2

For Office Use Only
Total Days Cr. Recorded, Date Recorded, Mining Recorder, Date Approved as Recorded, Branch Director

Date DEC 29 1981
Recorded Holder or Agent (Signature) John R Lill

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...
Name and Postal Address of Person Certifying JOHN R LILL 40 FIRTH CRES SCARBORO ONT M1G 2J5
Date Certified DEC 29 1981
Certified by (Signature) John R Lill



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) GEOPHYSICAL GEOLOGICAL  
Township or Area CARDIFF  
Claim Holder(s) T GRIFFIS  
2010 ISLINGTON AVE. TORONTO ONT  
Survey Company JOHN R. L'YI  
Author of Report JOHN R. L'YI  
Address of Author 40 FIFTH CRES SCARBORO ONT M1C 2J5  
Covering Dates of Survey OCT 23/81 - NOV 12/81  
(linecutting to office)  
Total Miles of Line Cut 5.6

MINING CLAIMS TRAVERSED  
List numerically

(prefix) (number)  
E.O. 6.2.6.177  
6.2.6.178

SPECIAL PROVISIONS  
CREDITS REQUESTED

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

ENTER 20 days for each  
additional survey using  
same grid.

Geophysical  
-Electromagnetic 40  
-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: DEC 29/81 SIGNATURE: John R. L'YI  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications \_\_\_\_\_

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 2

If space insufficient, attach list



GEOPHYSICAL -- GEOLOGICAL -- GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
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TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOPHYSICAL GEOLOGICAL
Township or Area CARDIFF
Claim Holder(s) T. GRIFFIS
2010 ISLINGTON AVE, TORONTO ONT
Survey Company JOHN R. LILL
Author of Report JOHN R. LILL
Address of Author 40 FIRTH CRES, SCARBORO ONT M1E2J5
Covering Dates of Survey OCT 23/81 - NOV 12/81
(lincutting to office)
Total Miles of Line Cut 5.6

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

E.O. 626177
626178

SPECIAL PROVISIONS
CREDITS REQUESTED

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

ENTER 20 days for each
additional survey using
same grid.

Geophysical DAYS
per claim
-Electromagnetic 40
-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: DEC 29/81 SIGNATURE: John R. Lill
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 63A, 426

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS 2

If space insufficient, attach list

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 \_\_\_\_\_

2.4473

February 3, 1982

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R.M. Charnesky  
Mining Recorder  
Ministry of Natural Resources  
Whitney Block, Room 1522  
99 Wellesley Street West  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Madam:

We have received reports and maps for a Geophysical (Electromagnetic) and Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims EO.626177 et al, in the Township of Cardiff.

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: A.T. Griffis  
Toronto, Ontario

cc: John R. Lill  
Scarboro, Ontario



Harcourt Twp. M.100

THE TOWNSHIP  
OF  
**CARDIFF**  
PROVISIONAL COUNTY OF  
HALIBURTON  
EASTERN ONTARIO  
MINING DIVISION  
SCALE: 1-INCH = 40 CHAINS

**DISPOSITION OF CROWN LANDS**  
 PATENT, SURFACE AND MINING RIGHTS ..... ●  
 " SURFACE RIGHTS ONLY ..... ○  
 " MINING RIGHTS ONLY ..... □  
 LEASE, SURFACE AND MINING RIGHTS ..... ■  
 " SURFACE RIGHTS ONLY ..... ▣  
 " MINING RIGHTS ONLY ..... ▤  
 LICENCE OF OCCUPATION ..... ▼  
 ROADS  
 IMPROVED ROADS ..... ———  
 KINGS HIGHWAYS ..... ———  
 RAILWAYS ..... ———  
 POWER LINES ..... ———  
 MARSH OR MUSKEG ..... ———  
 MINES ..... ———  
 CANCELLED ..... ———

**NOTES**  
 This Map Is Not To Be Used  
 —FOR SURVEY PURPOSES—  
 400' Surface Rights Reservation along the  
 shores of all lakes and rivers.  
 Surface rights only on Lot 32 Con 10  
 reserved by Order-in-Council 2097/56  
 for Township purposes  
 Mining Claims staked in this Township  
 are subject to Sec.118 of the Mining Act(R.S.O.70)

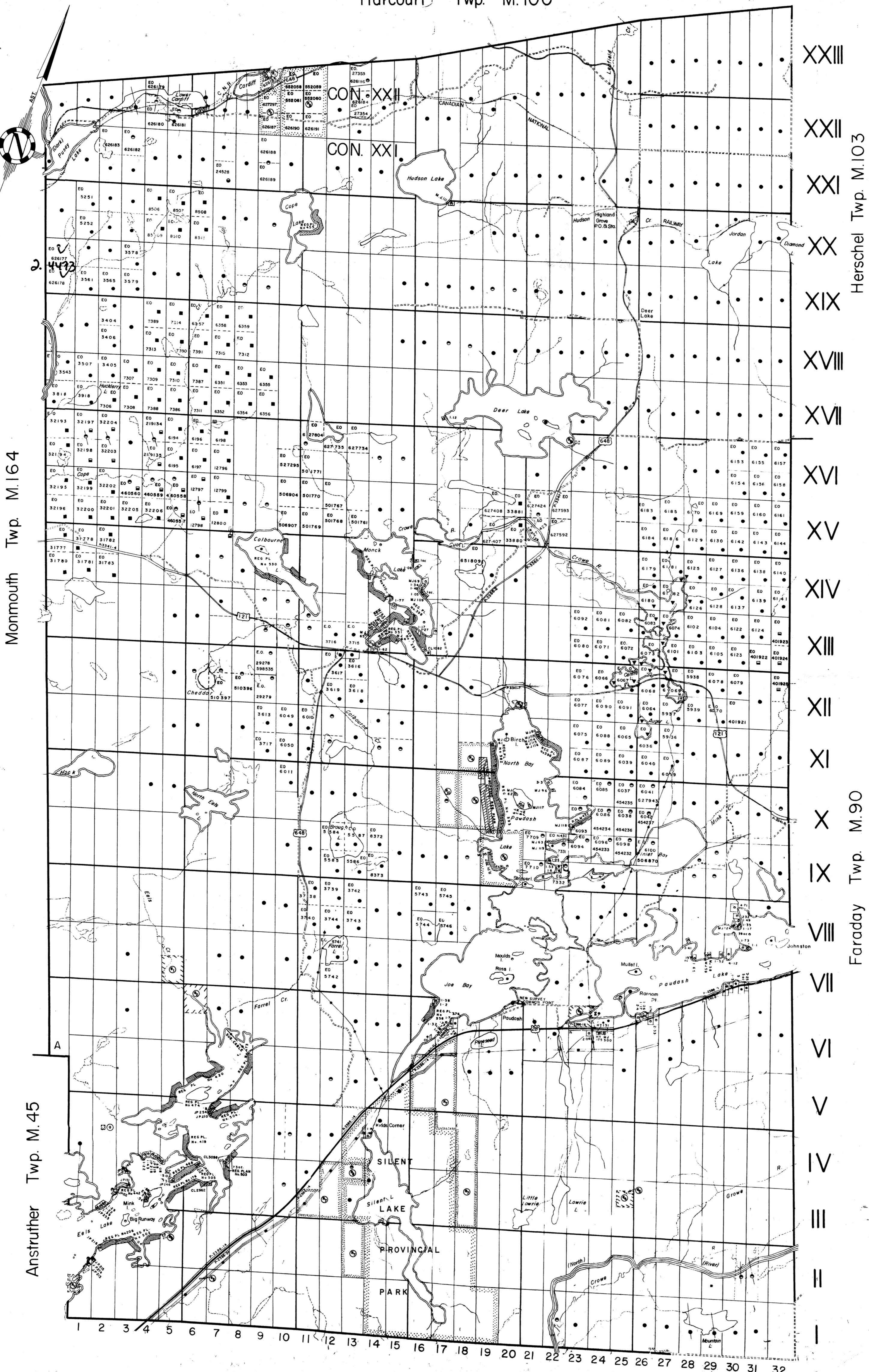
**SAND and GRAVEL**  
 (M) MNR Gravel Pit No.189 file 118518  
 (M) MTC Gravel Pit No. 468  
 (M) Gravel file 28794  
 (M) Gravel Pit No 143 file 154688  
 (M) Gravel file 154688  
 (M) MNR Gravel Pit No. 113 file 105057 v.2  
 (M) Quarry Permit

**Areas withdrawn from staking under Section 43 of the Mining Act. (R.S.O. 1970)**

Order No.	File	Date	Disposition
(M) Sect 42	19715	May 31, 1965	surface rights only
(M) " "	" "	Feb 26, 1969	" "
(M) " "	" "	Dec. 8, 1964	" "
(M) " "	10371	June 26, 1969	" "
(M) " "	" "	July 17, 1968	" "
(M) " "	" "	Mar. 3, 1969	" "
(M) W48/76	7598 v.8	Aug 9, 1976	surface & mining rights
(M) " "	" "	" "	mining rights only
(M) MNR Reserve	188503	June 15, 1978	surface rights only
(M) Al-W/79	18221	Mar 26, 1979	surface & mining rights
(M) Reserve	28766	Oct 3, 1919	Expropriated by Fed. Govt.

**DATE OF ISSUE**  
**DEC - 2, 1982**  
 Ministry of Natural Resources  
 TORONTO

PLAN NO. - **M.69**  
 ONTARIO  
 MINISTRY OF NATURAL RESOURCES  
 SURVEYS AND MAPPING BRANCH

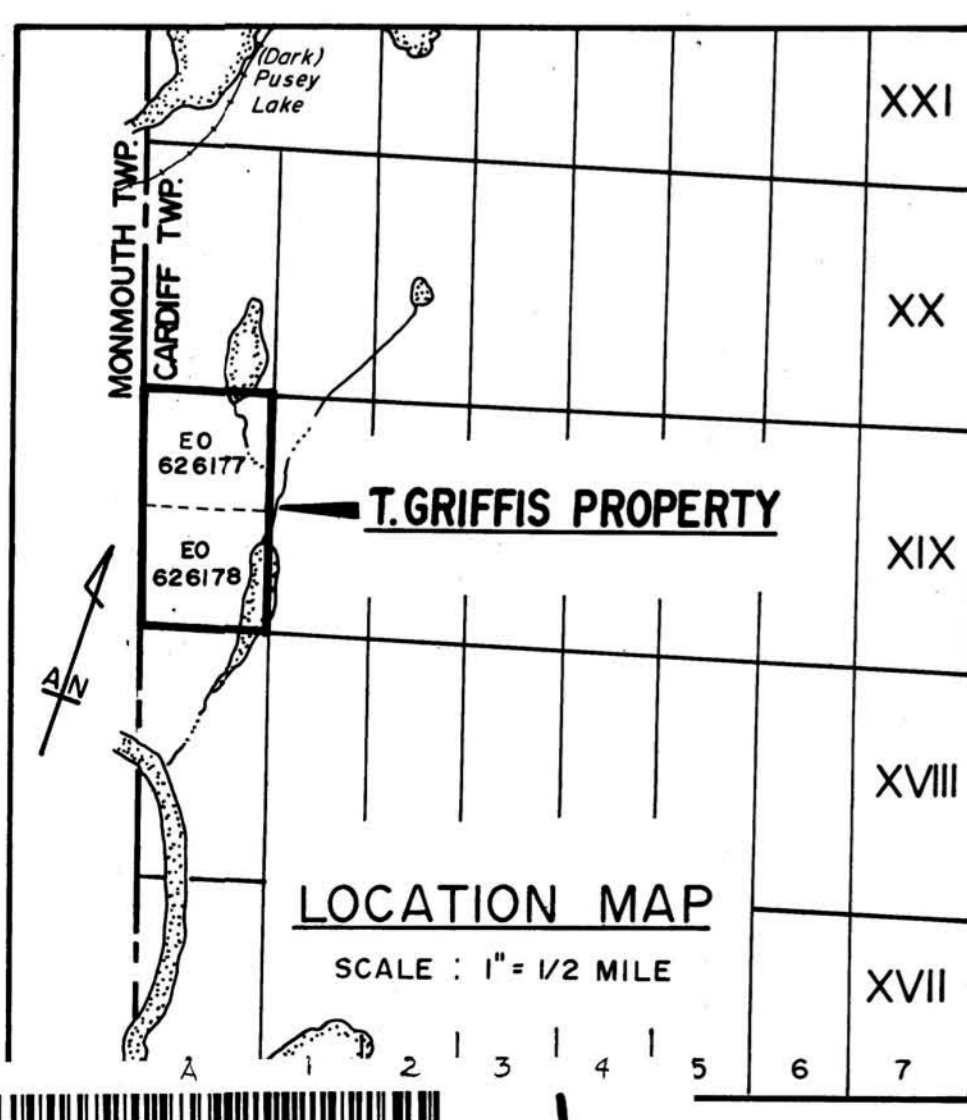
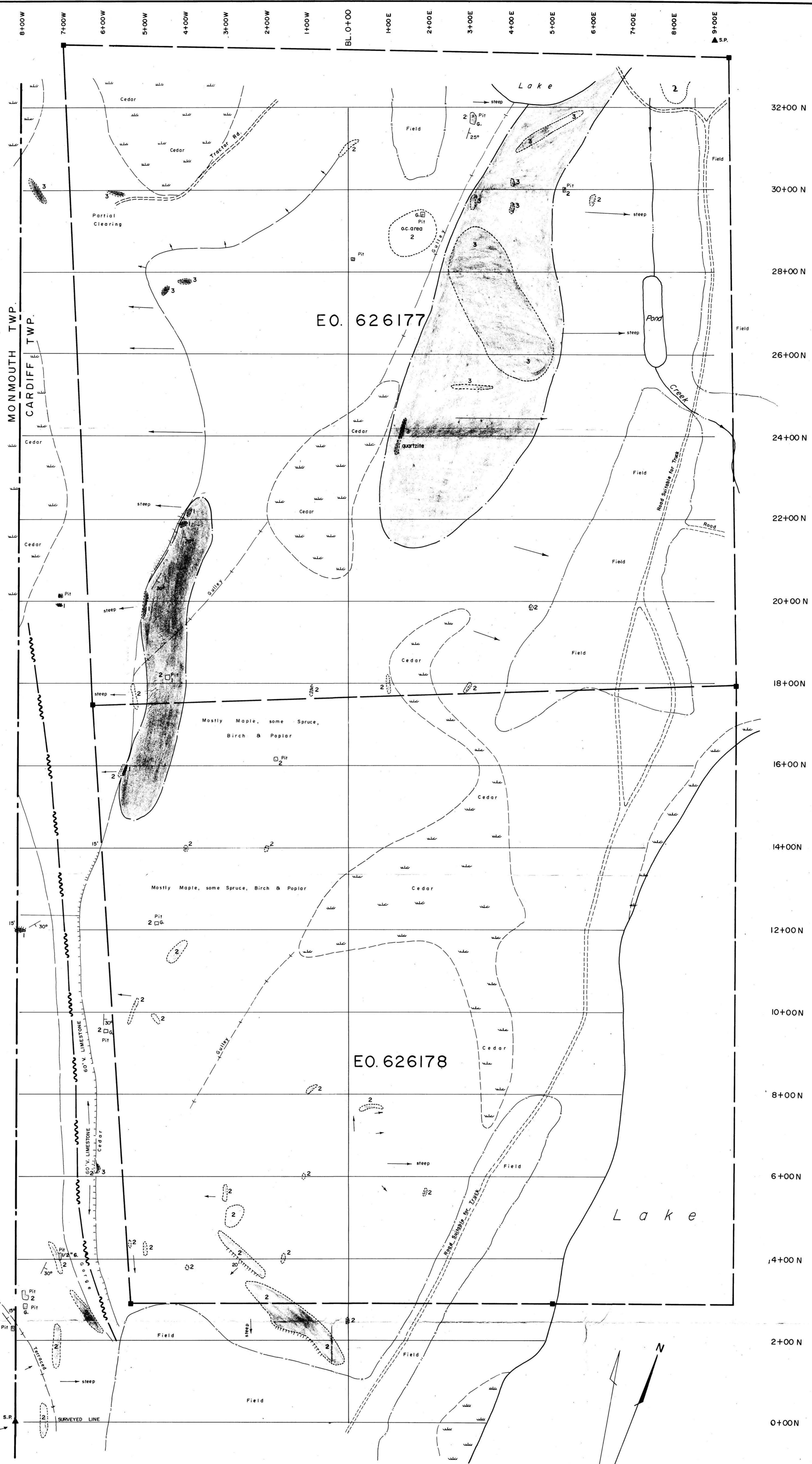


Monmouth Twp. M.164  
 Anstruther Twp. M.45  
 Faraday Twp. M.90  
 Chandos Twp. M.73

XXIII  
 XXII  
 XXI  
 XX  
 XIX  
 XVIII  
 XVII  
 XVI  
 XV  
 XIV  
 XIII  
 XII  
 XI  
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 VIII  
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L E G E N D

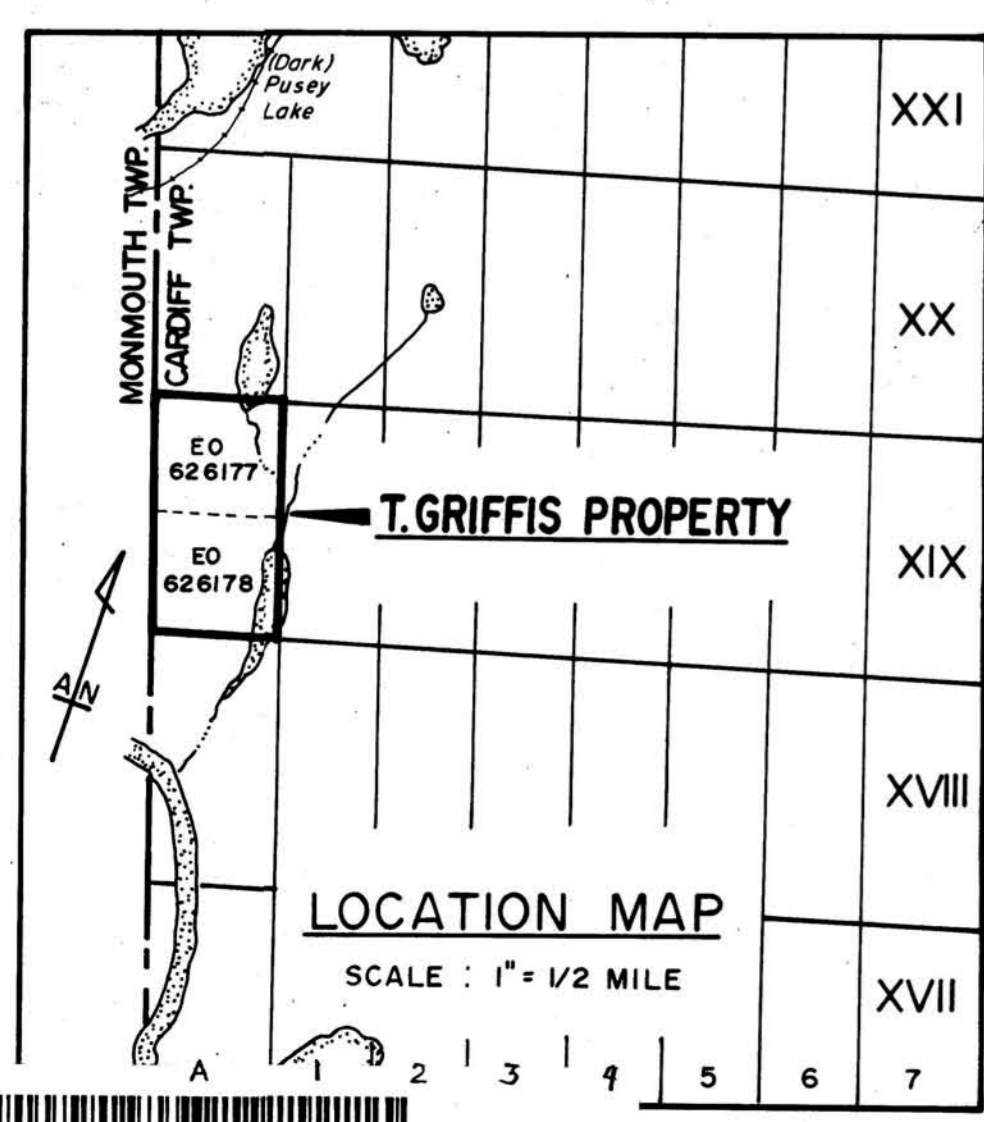
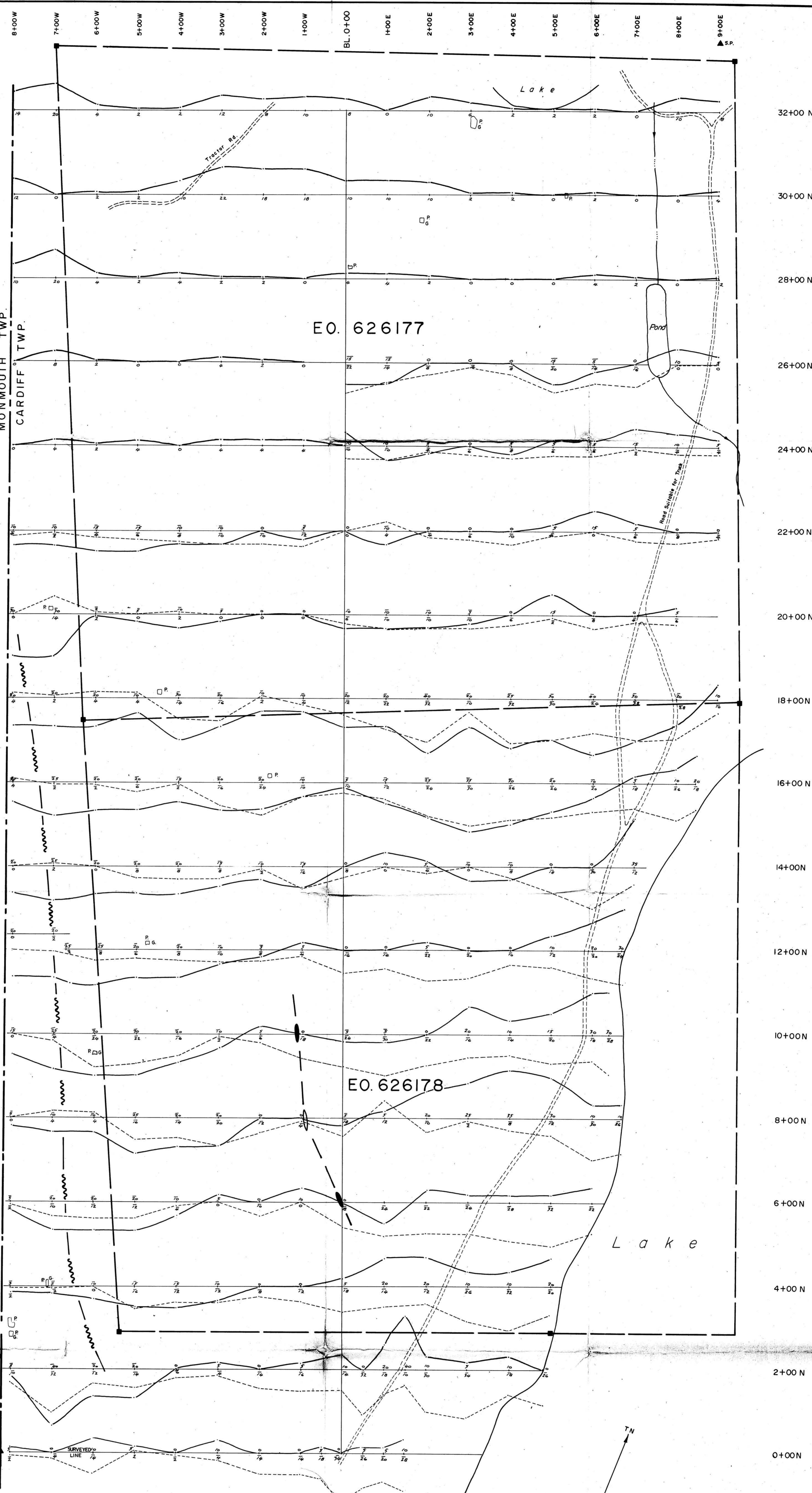
- 1. Granite gneiss
- 2. Limestone
- 3. Hornblende, biotite gneiss, quartzite
- Outcrop, outcrop area
- Geological contact
- Fault
- 30° Strike and dip of bedding
- g. Graphite
- Pit Test pit
- Swamp
- Field
- Abrupt slope
- 60° V Vertical
- Down slope
- ▲ S.P. Survey post
- Claim post, line
- Township line
- Road



GEOLOGICAL MAP  
**T. GRIFFIS PROPERTY**  
 CARDIFF TWP., ONTARIO  
 SCALE : 1" = 100'

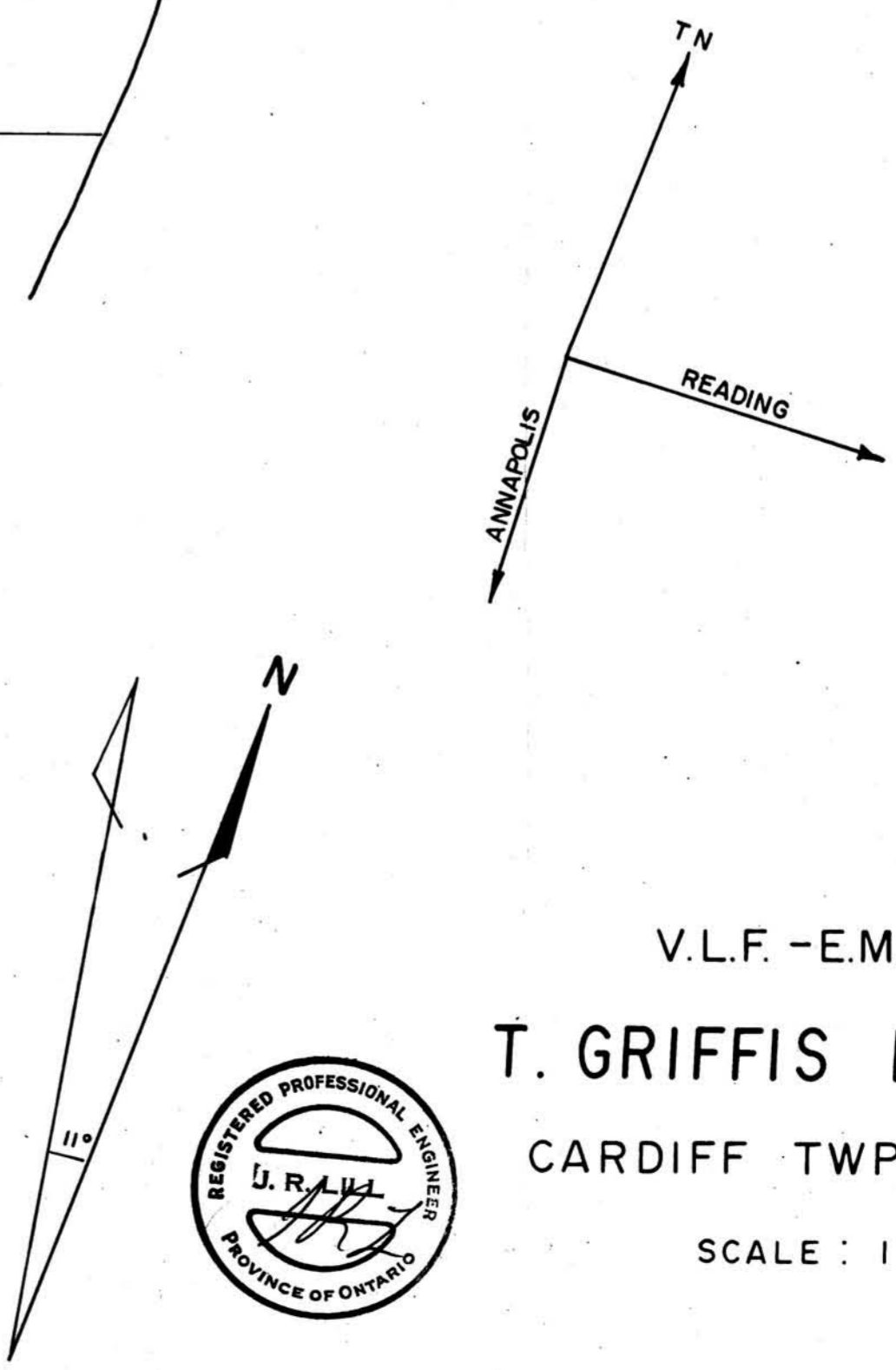
24473





**LEGEND**

Quadrature		In Phase	
Instrument: Ronka E.M.-16		Instrument: Scintrex Scopas SE-81	
Scale: 1" = 30'		Dip angle scale: 1" = 30'	
Station: NSS Annapolis, Maryland			
21.4 KHz			
	Conductor, strong		Conductor, weak
	Fault		Test pit
	Graphite		

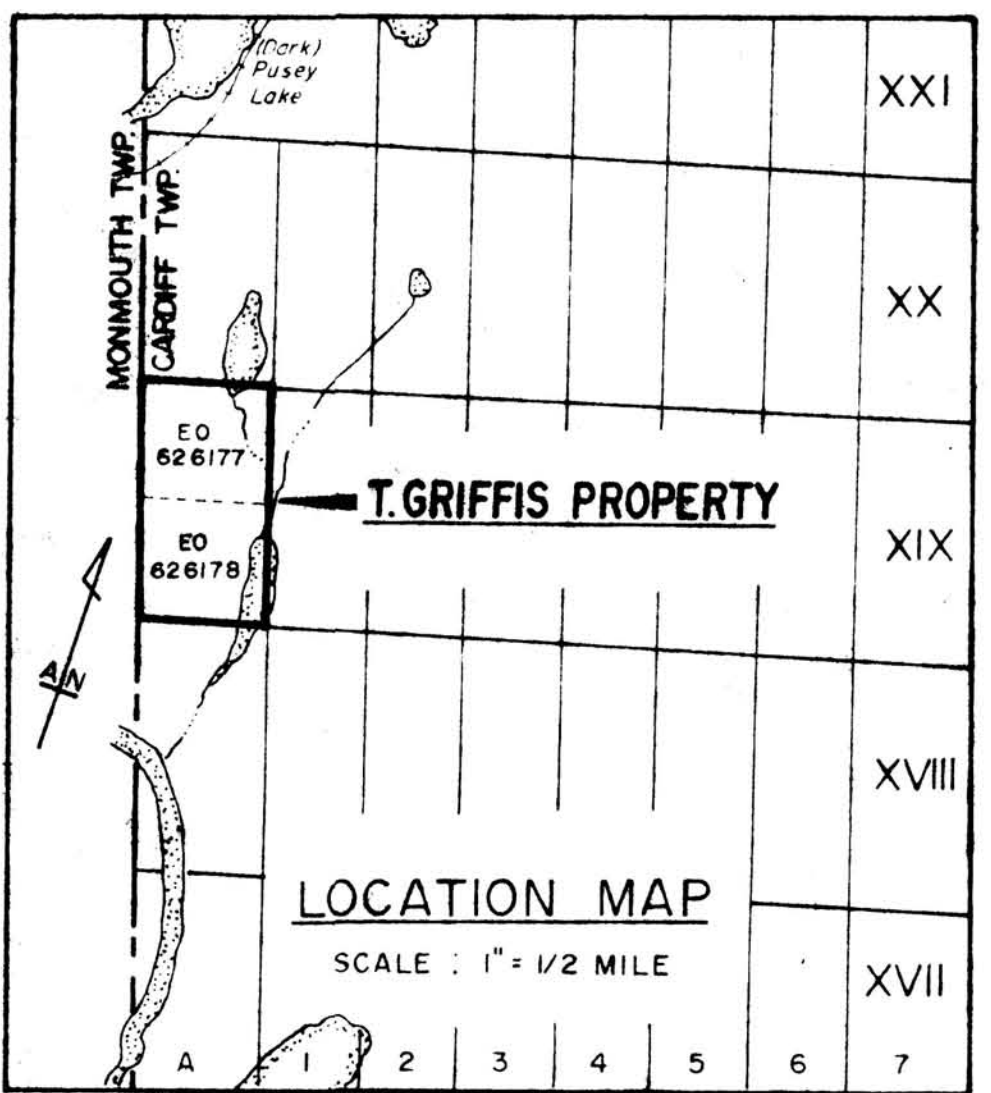
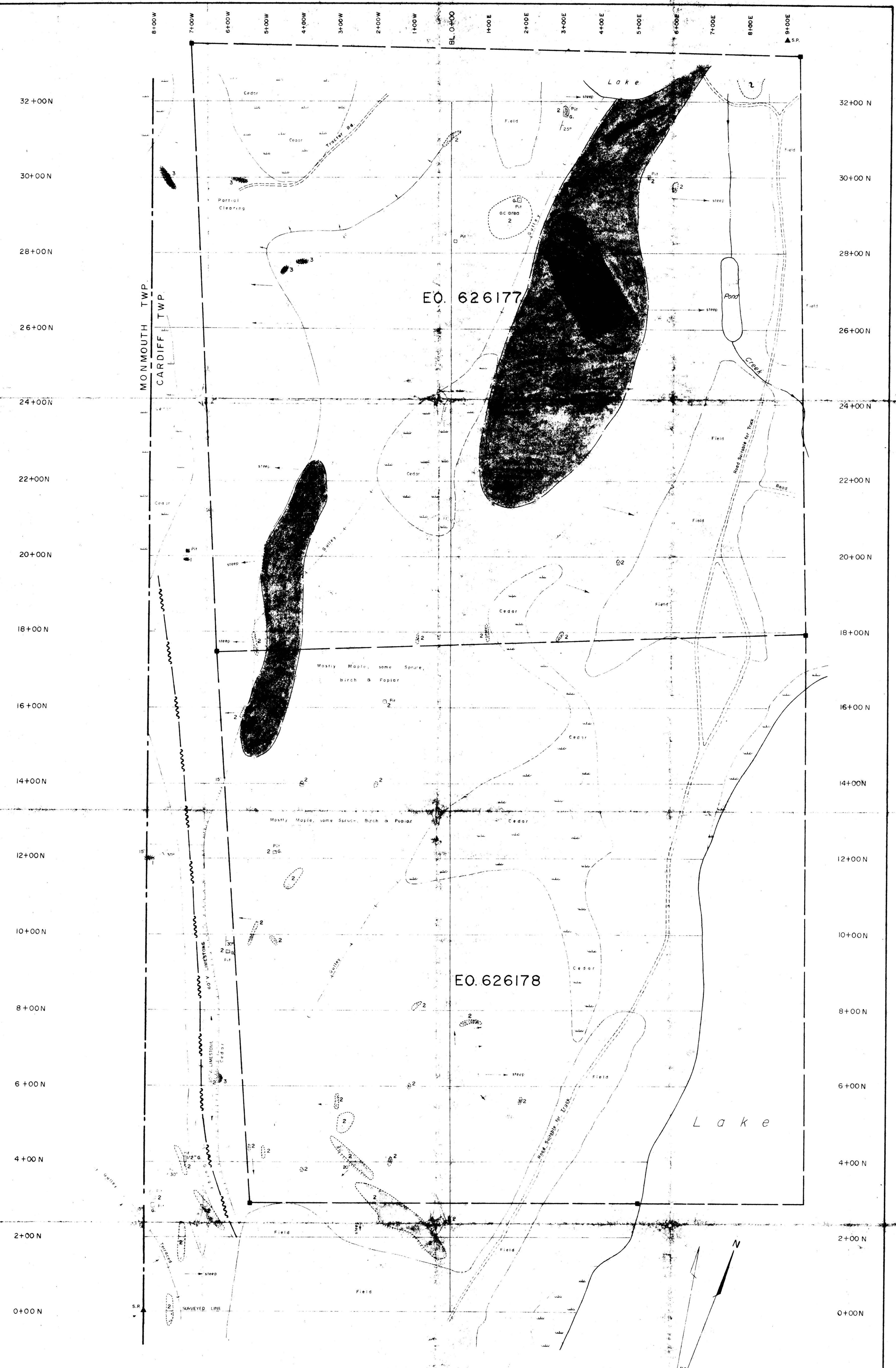


V.L.F.-E.M. SURVEY  
**T. GRIFFIS PROPERTY**  
 CARDIFF TWP., ONTARIO  
 SCALE: 1" = 100'

**NOTE:** Lines 24+00 N, 26+00 N West, 28+00 N, 30+00 N & 32+00 N  
 Surveyed with Scintrex Scopas VLF Receiver SE-81

2.4473





**LEGEND**

- Granite gneiss
- Limestone
- Hornblende, biotite gneiss, quartzite
- Outcrop, outcrop area
- Geological contact
- Fault
- Strike and dip of bedding
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- Abrupt slope
- 60° V Vertical
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- Township line
- Road

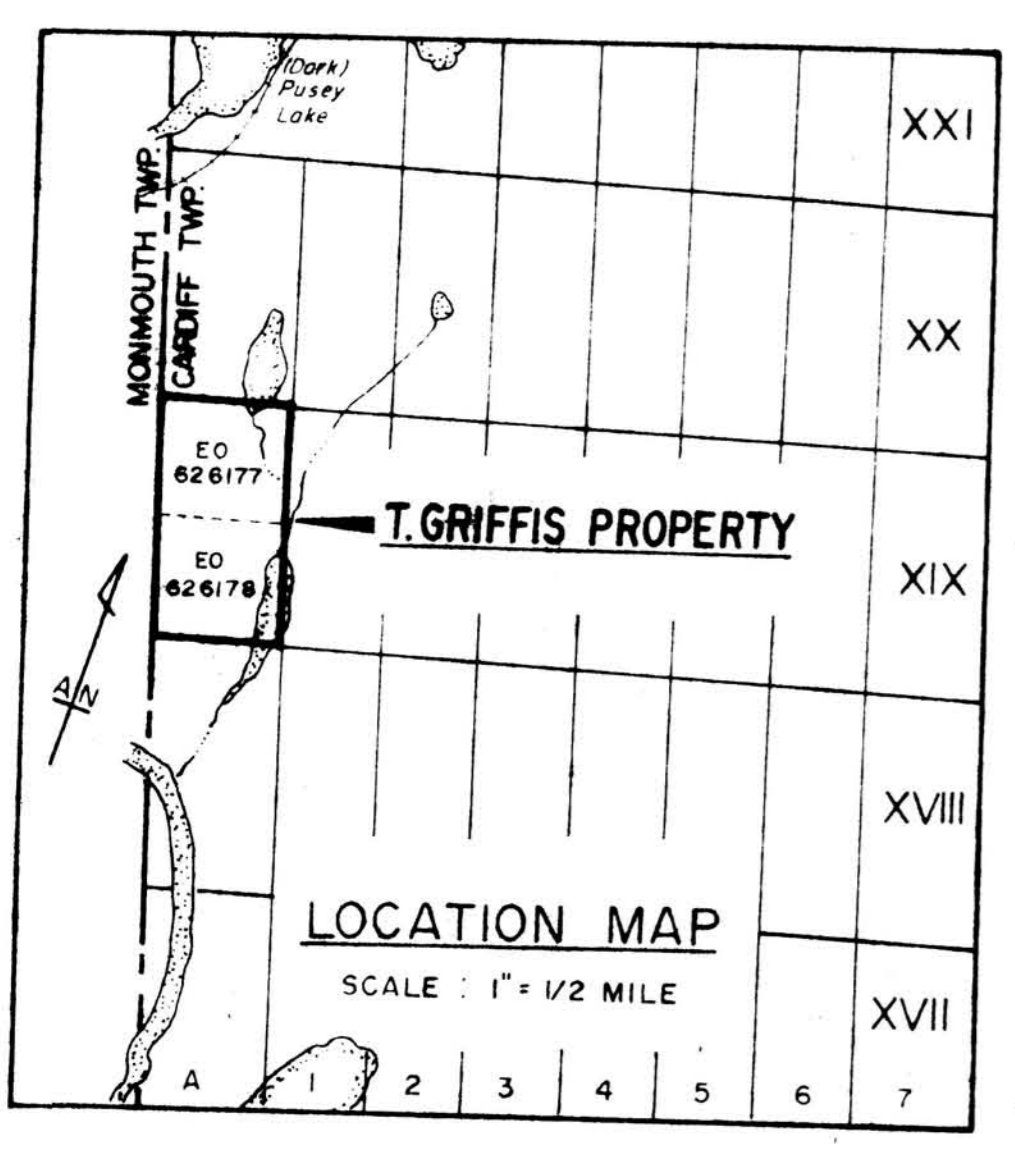
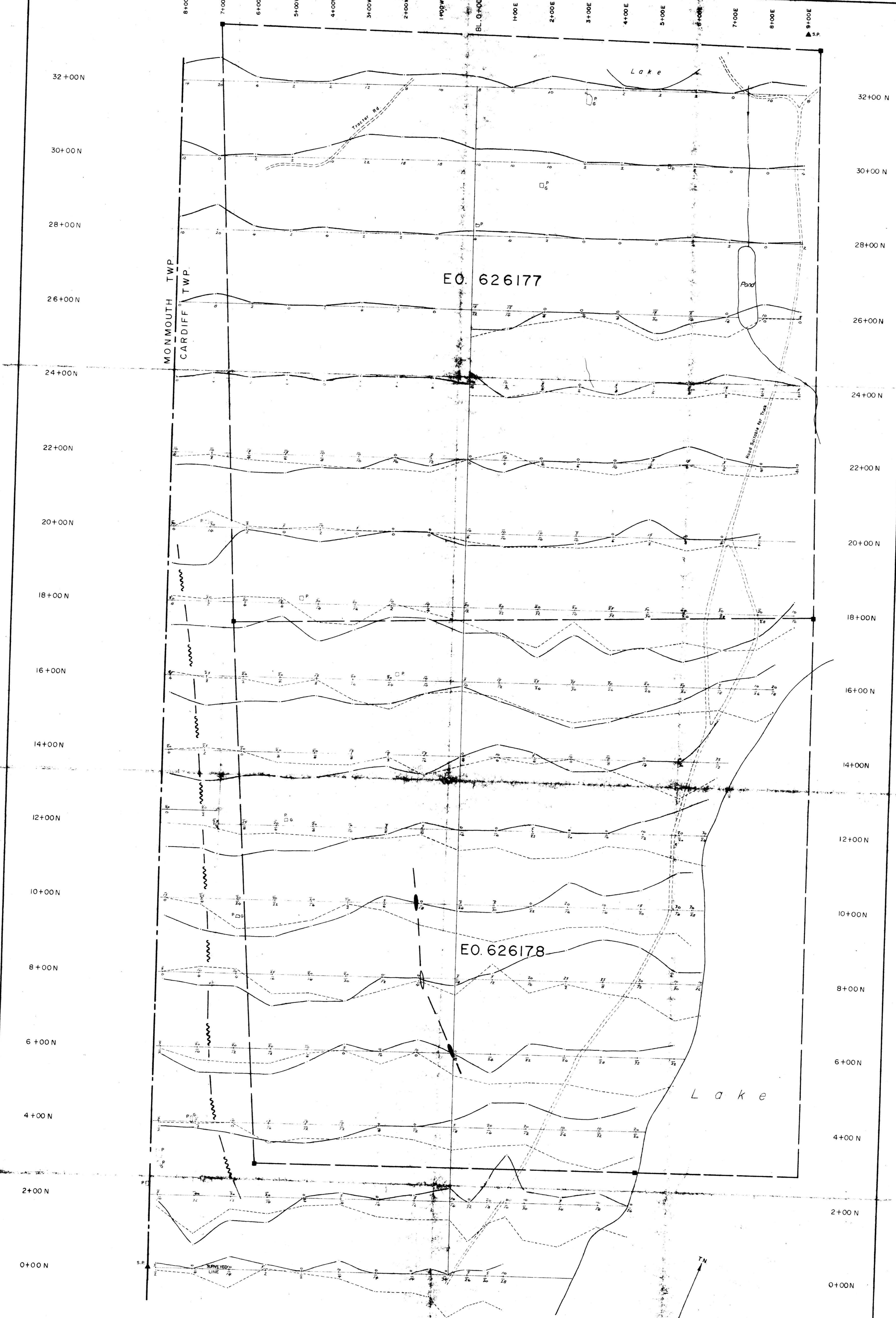


GEOLOGICAL MAP  
**T. GRIFFIS PROPERTY**  
 CARDIFF TWP., ONTARIO  
 SCALE: 1" = 100'

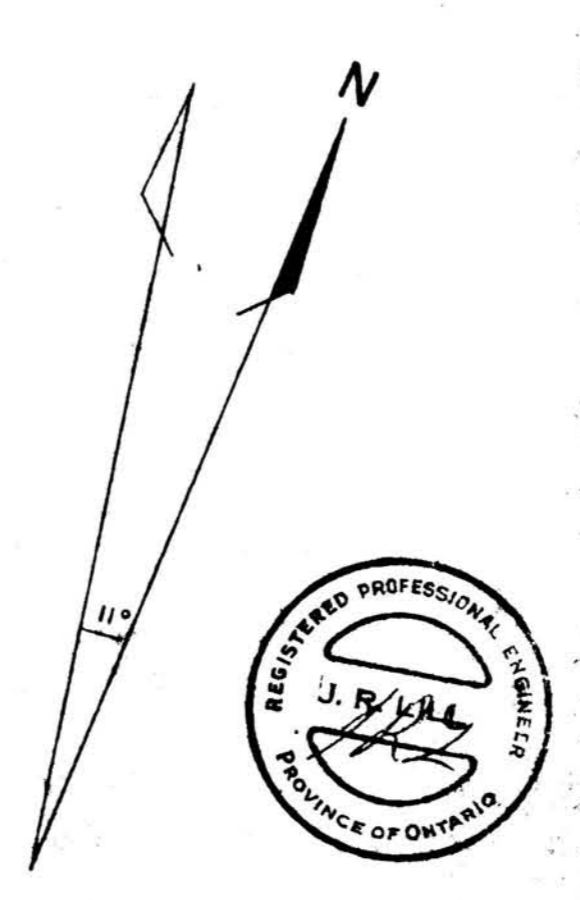
ONTARIO PROFESSIONAL SURVEY  
 ASSESSMENT FILES  
 OFFICE  
 1847-19-023  
**RECEIVED**

24473  
dupl.





- L E G E N D**
- |  |                   |                                   |                 |
|--|-------------------|-----------------------------------|-----------------|
| Quadrature                                   |                   | In Phase                          |                 |
| Instrument: Ronka E.M.-16                    |                   | Instrument: Scintrex Scopas SE-81 |                 |
| Scale: 1" = 30'                              |                   | Dip angle scale: 1" = 30%         |                 |
| Station: NSS Annapolis, Maryland<br>21.4 KHz |                   |                                   |                 |
|  | Conductor, strong |                                   | Conductor, weak |
|  | Fault             |                                   | Test pit        |
|  | Graphite          |                                   |                 |



ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE  
MAR 26 1980  
RECEIVED

V.L.F.-E.M. SURVEY  
**T. GRIFFIS PROPERTY**  
CARDIFF TWP., ONTARIO  
SCALE: 1" = 100'

NOTE: Lines 24+00N, 26+00N West, 28+00N, 30+00N & 32+00N  
Surveyed with Scintrex Scopas VLF Receiver SE-81