

42A055E0083 63.1893 THORNELOE

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REPORT ON  
AIRBORNE GEOPHYSICAL SURVEY  
OF A PORTION OF  
THORNELOE TWP

FOR  
ACME GAS AND OIL CO. LTD.

1966

REPORT ON  
AIRBORNE GEOPHYSICAL SURVEY  
OF A PORTION OF  
THORNELOE TOWNSHIP  
FOR  
ACME GAS AND OIL CO. LTD.

I. INTRODUCTION

During the latter part of January 1966 this company undertook a combined airborne geophysical survey for Acme Gas and Oil Company Limited over a part of Thorneloe Township near Timmins in the Porcupine Mining Division of Ontario. Some 18 line miles was completed with this company's geophysically equipped Otter aircraft, employing an in-phase/out-of-phase electromagnetic system and an Elliott magnetometer. This equipment is described in Appendix II of this report.

Lines were flown at 1/8 mile intervals in a north-south direction, with mean terrain clearance of approximately 150 feet.

Canadian Aero Mineral Surveys Limited personnel employed on this project were as follows:

Project Manager	-	G. A. Curtis, Ottawa, Ont.
Pilot	-	G. Deluce, Ottawa, Ont.
Navigator	-	D. Sarazin, Ottawa, Ont.
Equipment Operator	-	T. Peacock, Ottawa, Ont.
Data Compiler	-	G. Granger, Ottawa, Ont.
Draftsman	-	P. Tallyhoe, Ottawa, Ont.

The project was supervised by D.M. Wagg, P.Eng., author of this report.

A plan map accompanying this report shows flight lines plotted on a basemap which has been prepared from an air-photo laydown. Electromagnetic anomalies obtained are plotted on this map.

Included in this report is a listing of anomalies in Appendix I and a description of equipment, records and survey procedures in Appendix II.

## II. GEOLOGY

This area is covered by O.D.M. preliminary Map No. P-141 "Timmins Sheet". It shows the area to be underlain by volcanics with conglomerate and graywacke to the north. Some iron formation is noted on the north boundary of the survey area.

## III. GEOPHYSICAL RESULTS

Only three minor electromagnetic anomalies were detected as shown on the base map.

Anomaly 4A is a very weak, anomaly but shows reasonable conductivity. It appears to be unrelated to any magnetic feature, and would be followed up only if local geologic environment were encouraging.

Anomaly 6A lies on the north edge of a strong magnetic anomaly (itself probably reflecting iron formation). The anomaly

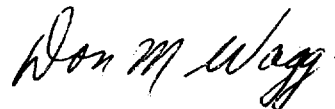
itself is correlated by 200 gammas and a ground check is probably warranted.

Anomaly 16A is also very weak, showing rather weak conductivity. However, it is coincident with a 1000 gamma magnetic high and may represent a conducting portion of iron formation. A short ground check would probably be warranted.

#### IV. RECOMMENDATIONS

Ground followup as indicated above would be on a low priority basis unless local geologic environment was encouraging.

Respectfully submitted,



OTTAWA, Ontario,  
February 10, 1966.

Don M. Wagg, P.Eng., (Ont.)  
Geophysicist.

PROJECT NO. 6056 - THORNELOE TOWNSHIP AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase</u> <u>Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
4 A	4609/13	20/20	150	nil	x	
6A	4792/5	0/40	140	Dir. 200g	x	Anomaly on N. Flank of 6000g Poss. magnetic conductor
16 A	4051/4	10/40	115	Dir. 1000g	3	Weak

Bristol Twp. M.264

THE TOWNSHIP  
OF  
**THORNELOE**

DISTRICT OF  
TIMISKAMING

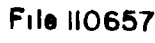

PORCUPINE  
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

**LEGEND**

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	—

**NOTES**

- 400' Surface Rights reservation around all Lakes & Rivers
- Reservation for Deputy Chief Ranger's Headquarters site shown thus  File 110657
- For status of summer resorts contact Dept of Lands & Forests 
- Flooding Rights reserved on Mattagami River & Kenogamissi Lake to H.E.P.C. L.O 7598 File 1163 Vol 3.
- That portion of the Twp lying East of the Mattagami River is in the Timagami Provincial Forest Reserve

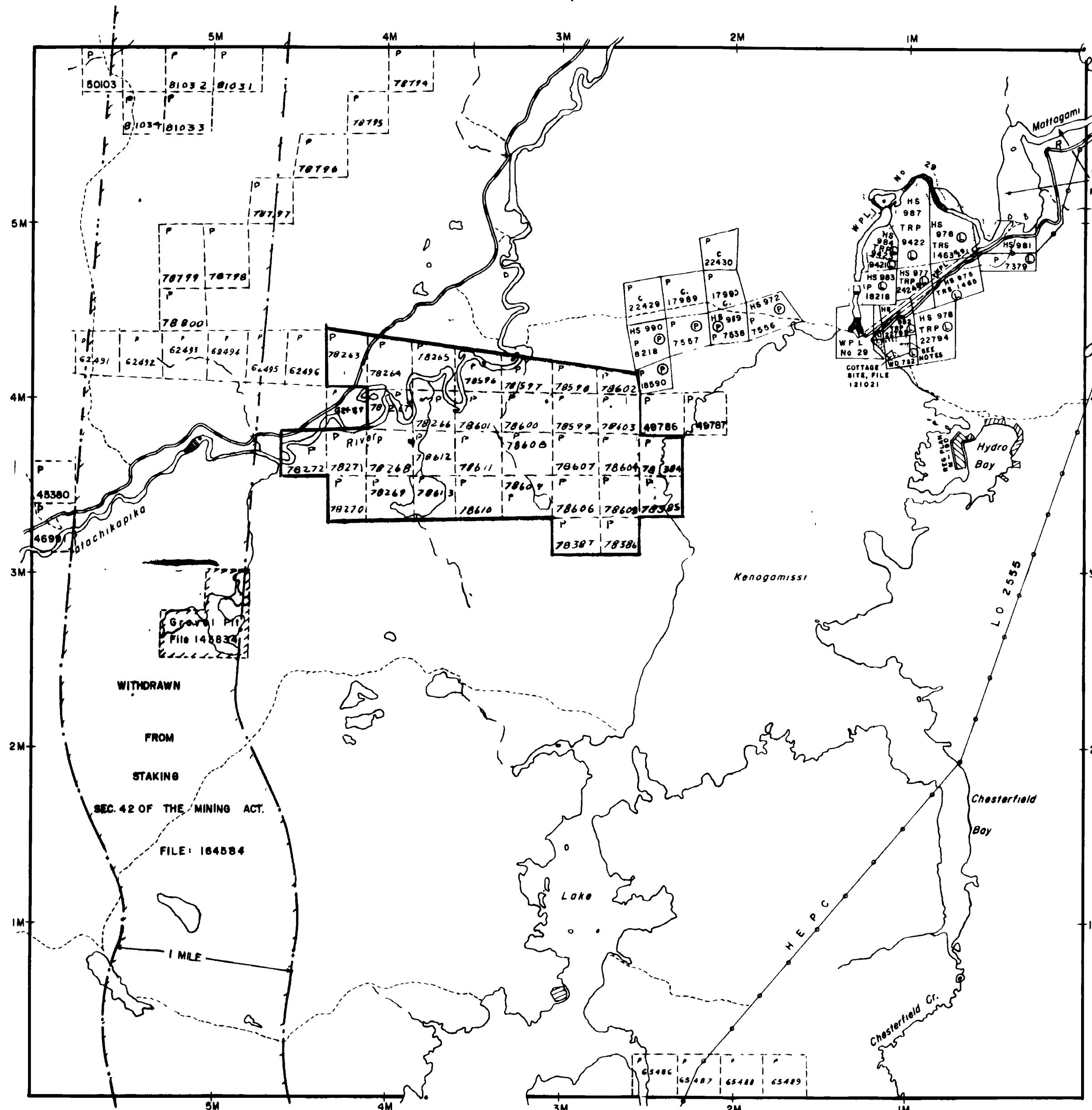
PLAN NO. **M.313**

DEPARTMENT OF MINES

— ONTARIO —

Denton Twp. M.273

Price Twp. M.307



Mc Keown Twp. M.299



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BRISTOL

PRICE

THORNELOE

CARSCALLEN

KENOGAMISSI

LAKE

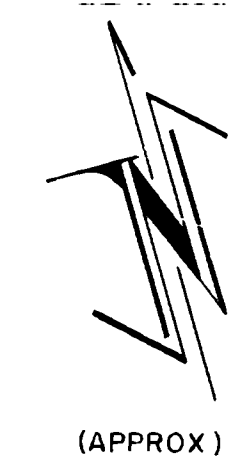
DENTON

McKEOWN

- LEGEND
- 1 A ANOMALY
  - 1 B ANOMALY
  - 2 A ANOMALY
  - 2 B ANOMALY
  - 3 ANOMALY
  - X type ANOMALY

MEAN TERRAIN CLEARANCE 150 FEET  
FLIGHT LINE SPACING 1/8 MILE  
RIVERS AND LAKES  
HORIZONTAL CONTROL BASED ON PHOTO LAYDOWN

AIRBORNE ELECTROMAGNETIC SURVEY  
THORNELOE TOWNSHIP AREA  
ONTARIO  
ACME GAS & OIL CO. LIMITED  
SCALE 1 INCH = 1/4 MILE (approx)



CANADIAN AERO  
Mineral Surveyors LTD.  
OTTAWA & TORONTO, ONTARIO

