

03. 1643

REPORT ON
AIRBORNE GEOPHYSICAL SURVEY
OF THE
MOBERLY TOWNSHIP AREA, ONTARIO,
FOR
JELEX MINES



42A135E0869 63. 1643 MOBERLY

I. INTRODUCTION

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This report pertains to the combined airborne EM and magnetometer survey flown on behalf of Jelix Mines Limited over a block of ground in Moberly and Thorburn Townships of Ontario. The survey was flown on November 10, 1964, by the Canadian Aero Mineral Surveys Limited geophysically equipped Otter aircraft, (registration CF-IGM), based at Timmins.

The line direction employed was N 50°E, and the line spacing 1/8 -mile. A mean terrain clearance of 150 feet was maintained throughout the survey. One hundred and thirty-seven line miles of geophysical data were recorded within the survey boundaries.

Canadian Aero Mineral Surveys Limited personnel associated with the survey were as follows:

G. A. Curtis	-	Project Manager
K. J. Atkins	-	Pilot
J. Gaudry	-	Navigator
D. Graham	-	Electronic Operator
J. P. Lloyd	-	Aircraft Engineer
D. J. Sarazin	-	Data Compiler
P. P. Tallyhoe	-	Data Chief
G. Granger	-	Draftsman

The project was supervised by A. R. Rattew, P. Eng., author of this report.

The EM data are presented on a plan map at the scale of 1-inch - 1/4 mile. An airphoto laydown served as a base for this map. Township boundaries and planimetric detail are included.

Details of the equipment carried on the Otter and an explanation of the recorder charts are provided in Appendix II. Appendix III describes our anomaly listing procedures and anomaly rating. Appendix I. is a complete listing of all EM anomalies detected.

II. GEOLOGY

The area is covered by Ontario Department of Mines maps:

No. 139 - (Preliminary) - at the scale of
1 inch = 2 miles;

No. 2046 - at the scale of 1 inch = 4 miles.

Outcrop is extremely scarce in the area and very little known of the geology in detail. In general, it is presumed to be an area of acidic to basic metavolcanics with localized Archean basic intrusives and younger diabase dykes. There is certainly some granite but is difficult to say how extensive it might be.

G.S.C. magnetic maps 299-G and 300-G provide reconnaissance coverage of the area. The maps are compiled from the data flown at 500 feet and contoured to an interval of 100 gammas. The strong feature in the north-east corner of Moberly Township probably represents a basic intrusive. The lesser anomalies in Moberly Township have the appearance of basic volcanics, but some could be due to dykes. If all these features derive from the volcanics, a north-south strike is suggested in the northern part of the Township and an east-north-east strike in the southern part.

III. EM RESULTS

The only EM anomalies plotted on the map are four questionable indications, anomalies 14A, 19A, 20A, and 22A. All are very small features and all are considered probable noise effects.

The EM record quality is very good on this survey so there is no danger of losing a conductivity anomaly on a high noise background. The four EM blips which have been plotted are the only ones with any chance of deriving from a bedrock conductivity contrast.

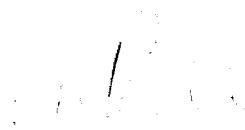
Of the four, anomalies 19A and 20A are given a better chance than the others because they occur close together and have similar characteristics.

IV. RECOMMENDATION

Since all the anomalies are questionable features, ground followup is recommended only if the geological environment is considered especially favourable. In our estimation, anomalies 19A and 20A have a slightly better chance than the others.

If conductors do exist, they are extremely weak, so considerable care must be taken in the selection of ground EM equipment and in the execution of the ground survey.

Respectfully submitted,

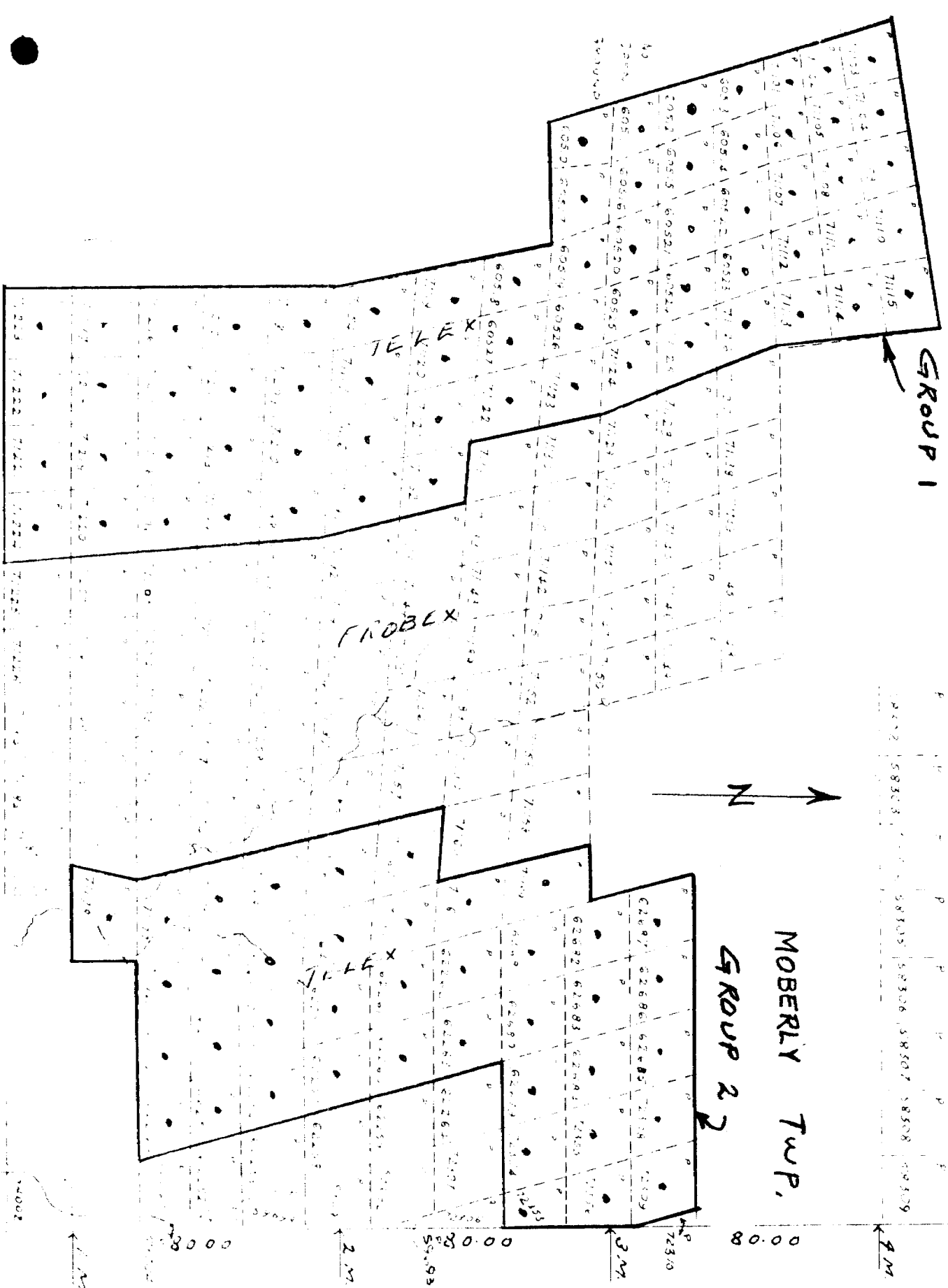

A. R. Rattew, P. Eng.,
Geophysicist.

OTTAWA, Ontario.
November 25, 1964.

APPENDIX I

PROJECT No. 5025 - MOBERLY TOWNSHIP AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
14A	2295/7	40/-	140	nil	x	Probably noise
19A	1678/81	40/--	150	nil	x	Poor character
20A	1494/6	40/-	150	nil	x	Noise ?
22A	1191/3	40/-	150	Assoc ? 100 g	x	Probably noise

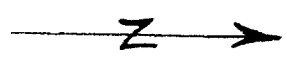


GROUP 1

MOBERLY TWP.

GROUP 2

THORBURN TWP.



80.00

80.00

2.00

3.00

3.00

80.00

80.00

1" = 400'
 38987
 38982
 38982
 38987

MOBERLY TWP

PORCUPINE MINING DIVISION

DISTRICT OF COCHRANE.

Scale, 40 chains to an inch.

DATE OF ISSUE

MAY 22 1979

SURVEYS AND MAPPING BRANCH

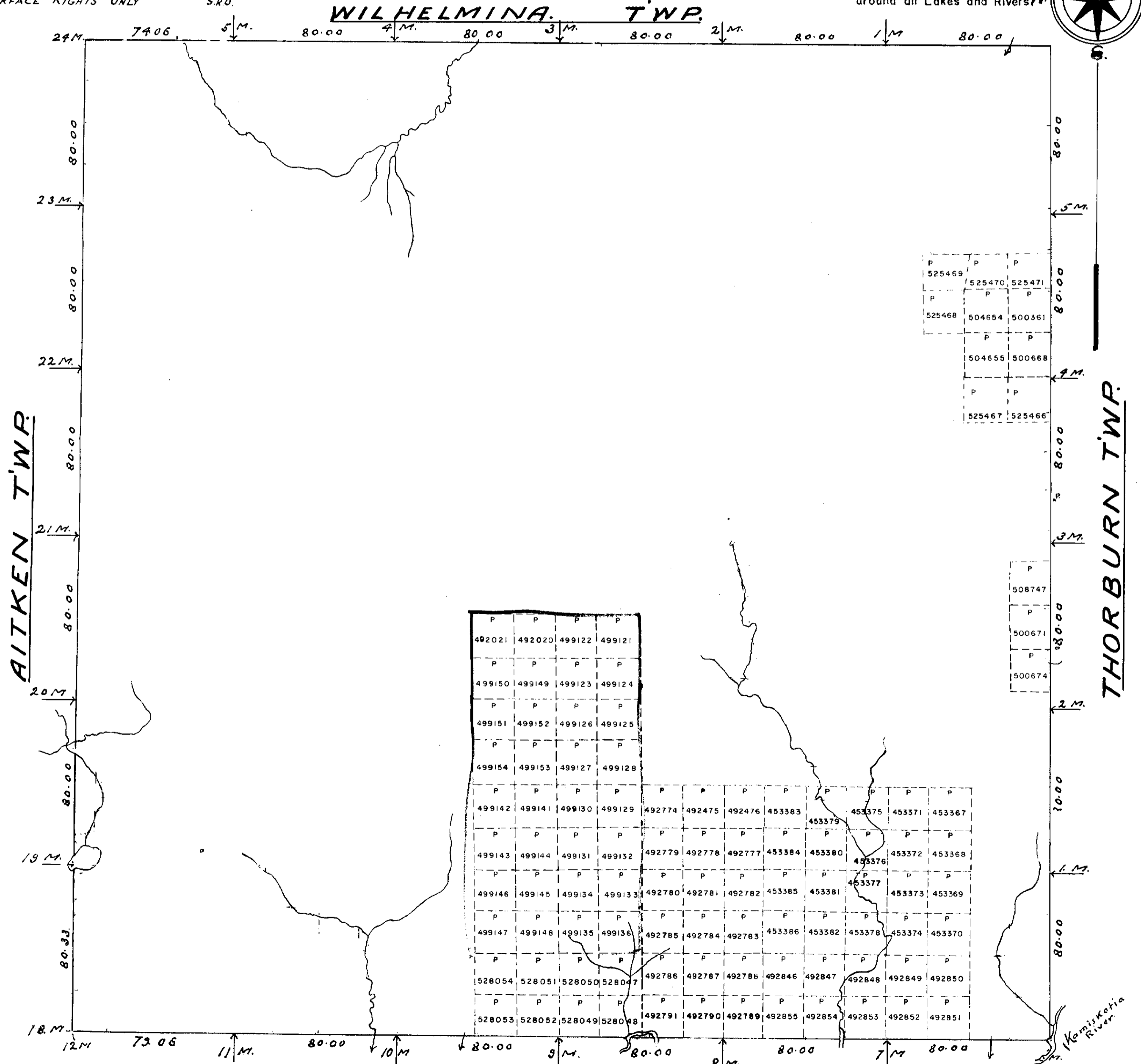
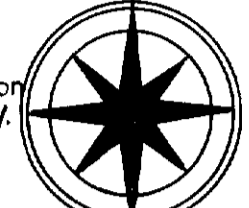
LEGEND

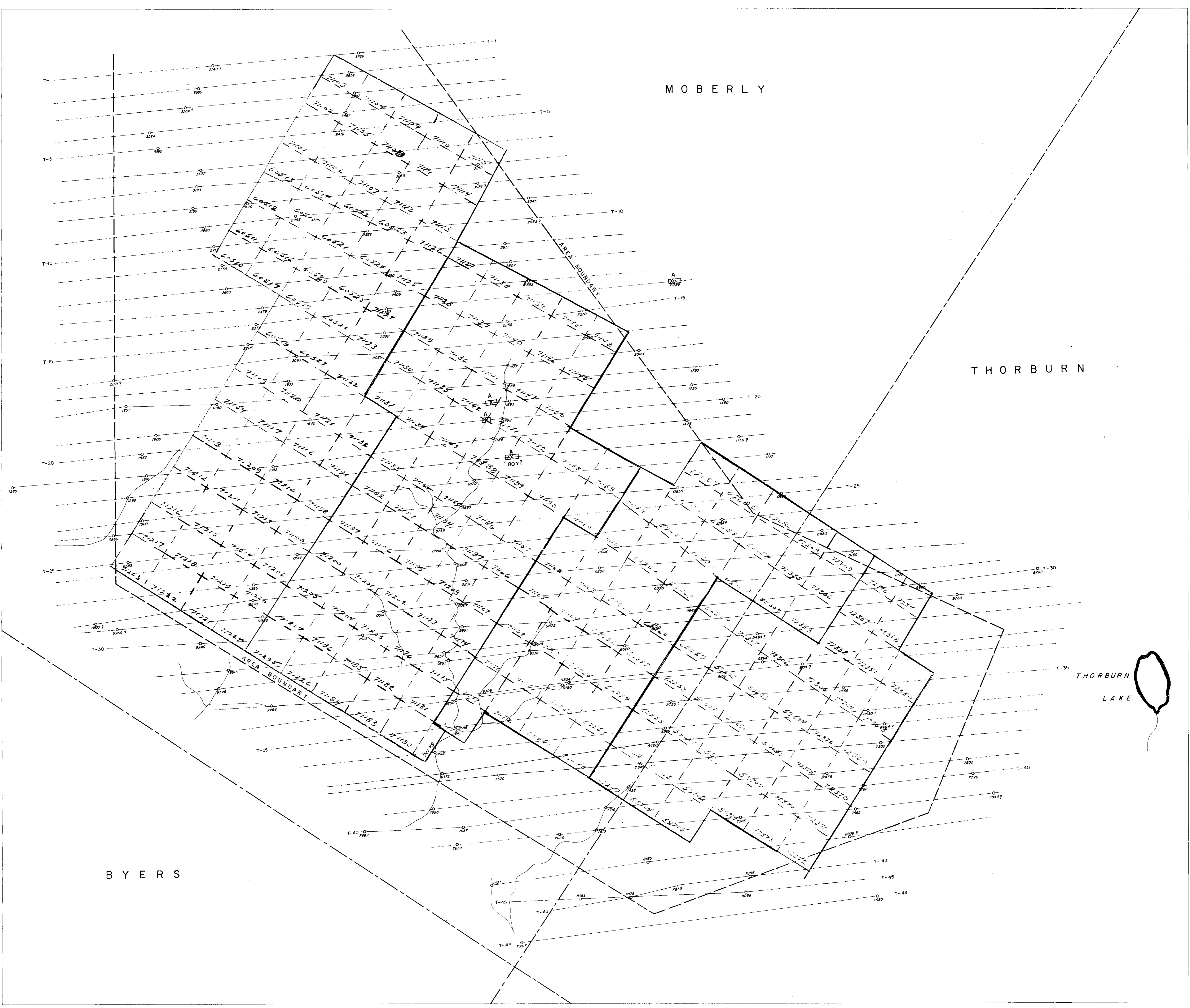
- CANCELLED
- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY

- C.
- ⊙
- C.S.
- ⊙
- Loc.
- L.O.
- M.R.O.
- S.R.O.

NOTE

400' Surface Rights Reservation around all Lakes and Rivers





MOBERLY

THORBURN

BYERS

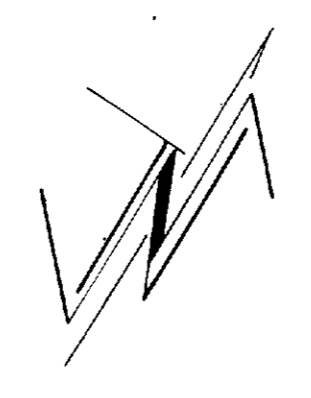
THORBURN LAKE

LEGEND

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

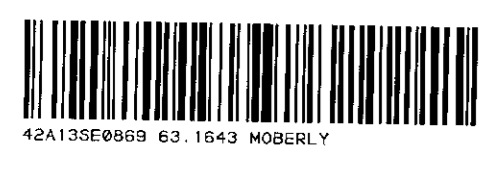
MEAN TERRAIN CLEARANCE... 150 FEET
 FLIGHT LINE SPACING... 1/8 MILE
 RIVERS AND LAKES
 HORIZONTAL CONTROL... BASED ON PHOTO LAYDOWN

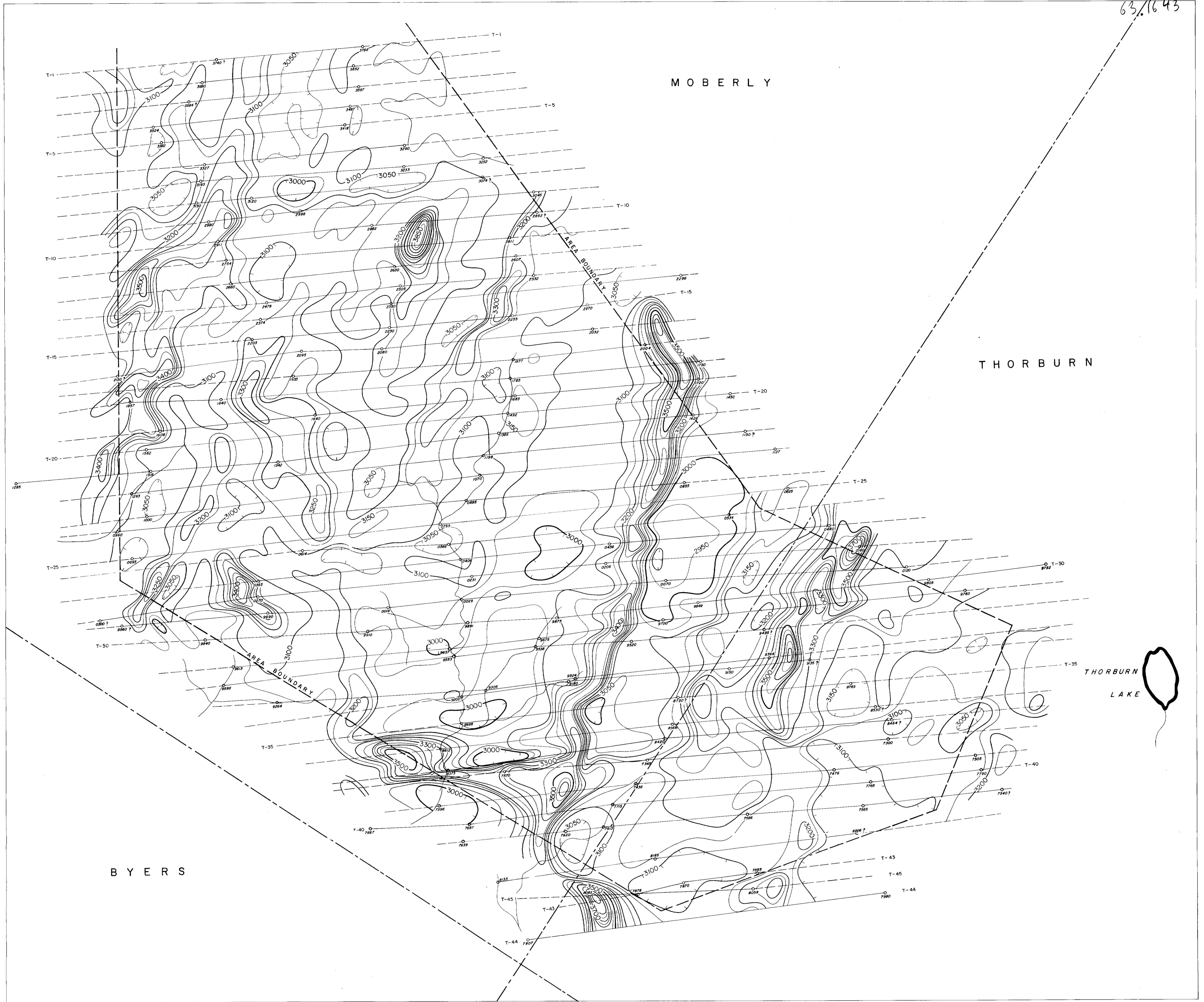
AIRBORNE ELECTROMAGNETIC SURVEY
 MOBERLY TOWNSHIP AREA
 ONTARIO
 JELEX MINES LIMITED
 SCALE : 1 INCH = 1/4 MILE (approx)



(APPROX)

CANADIAN AERO Mineral Surveys LTD.
 OTTAWA & TORONTO, ONTARIO





BYERS

MOBERLY

THORBURN

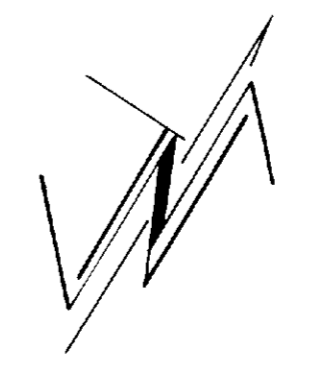
THORBURN LAKE

LEGEND

- CONTOUR INTERVAL...50 GAMMAS
- 500 GAMMA CONTOUR
- 100 GAMMA CONTOUR
- 50 GAMMA CONTOUR
- MAGNETIC LOW

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

AIRBORNE MAGNETOMETER SURVEY
MOBERLY TOWNSHIP AREA
 ONTARIO
JELEX MINES LIMITED
 SCALE : 1 INCH = 1/4 MILE(approx)



(APPROX)

