



32E04SE0023 63.1731 ADAIR

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REPORT ON THE M-2 CLAIM GROUP

ADAIR TOWNSHIP

by

CANADIAN JAVELIN LIMITED

Wyatt S. Hegler,
Mining Engineer

September 2, 1965

107

ADAIR TWP.



106

Joe Lake

105

L 84370	L 84371	L 84372	L 84373	L 84374	L 84375	L 84376	L 84377								
L 84384	L 84383	L 84382	L 84381	L 84380	L 84379	L 84378									
L 84385	L 84386	L 84387	L 84388	L 84389	L 84390	L 84391	L 84392	L 84393	L 84394	L 84395	L 84396	L 84397	L 84398		
		L 84406	L 84407	L 84408	L 84409	L 84410	L 84405	L 84404	L 84403	L 84402	L 84401	L 84400	L 84399		
			L 84411	L 84412	L 84413	L 84414	L 84415	L 84416	L 84417	L 84418	L 84419	L 84420	L 84421		
							L 84672	L 84673	L 84674	L 84675	L 84676	L 84423	L 84422		104
											L 84677	L 84678	L 84679		

3
2
3
2

4' 5' 6' 7'

HEPBURN TWP.

CLAIM GROUP

M-2

ADAIR TWP. ONT.

SCALE 1" = 1/2 ML.	DATE MAY 1-65	NO.
DWG. LEO D.	APP.	FILE

Report On The M-2 Claim Group

Adair Township

Introduction

This report describes work directed by Canadian Javelin Limited on its 62 mining claim group located in the southeastern quarter of Adair Township, Larder Lake Mining Division, District of Cochrane.

The claims were staked during June 1964 and recorded about July 3, 1964. In the records of the company the group is designated as the M2 Group.

This report relates aerial geophysical work done in May 1965, to the claim group.

The claim numbers forming the group are listed below as well as on the group map:

Claim Numbers

L - 84370 - L - 84399	30 claims
L - 84400 - L - 84423	24 claims
L - 84672 - L - 84679	8 claims

Location, Access, Topography

Access is provided by the private roads of the Abitibi Power & Paper Company from either Iroquois Falls, Ontario or Val Paradis, Quebec. Two roads about 3 miles long branching from the Mace Bay road at Mileage 15 and 18 permit car access to the South Patten River, where bridges have been washed out. Joe Lake, about 1 mile long, forms part of the claim boundary and is suitable for float-equipped aircraft.

Unfortunately, the group is largely covered with sand, gravel and clay overburden. A portion of the claim group has been cut as pulp wood. The land is flat and reasonably drained.

Field Work

During May 1964 airborne geophysical work was done by Canadian Aerial Mineral Surveys over the entire group, consisting of magnetometer and electromagnetic surveys some 31 line miles

in length, at 1/8 mile intervals and 150 foot (\pm) flight elevation. The 31 miles were a portion of a general aerial survey totalling some 200 miles. Flight lines were east-west and conformed more or less with the geological structural interpretation. Surveys have been analyzed by Mr. A. R. Rattew, whose report in full forms an appendix to this volume - entitled "Airborne Geophysical Survey of the Joe Lake Area, Ontario & Quebec for Canadian Javelin by C. A. M. S. Project No. 5060".

The survey, as limited to the particular 62 claims indicates one E. M. conductive zone wholly within the group and some 10 - 14 other conductors outside of the claim area.

The magnetometer data has been transcribed from aerial magnetic tapes and the map showing the results accompanies this report. This work was done by Canadian Javelin with the approval of Canadian Aero Mineral Surveys.

Observation

As no ground work was done during the year, the report by S. B. Lumbers written for the Ontario Department of Mines, entitled "Geological Report No. 14, South Patten River Area, 1963", has been extensively employed in the study of the claims. In fact his

report enticed the company to accept the area as one favourable for serious investigations.

Conclusions

The aerial geophysical work has identified one zone within the 62 claims that should be further analyzed using ground E. M. methods to determine the degree of possibility of sulfide deposits on the claims. The other conductive zones should be staked and studied as convenient. Geological ground work consisting of detailed mapping of reported sulfide showing can be done in the spring season most effectively.

Respectively Submitted,



Wyatt S. Hegler,
Chief Engineer.

September 2, 1965



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REPORT ON
AIRBORNE GEOPHYSICAL SURVEY
OF THE
JOE LAKE AREA,
ONTARIO AND QUEBEC,
FOR
CANADIAN JAVELIN LIMITED.

I. INTRODUCTION

This report pertains to the combined airborne EM and magnetometer survey flown on behalf of Canadian Javelin Limited over a block of ground on the Ontario-Quebec border north of Lake Abitibi. Most of the block lies in Adair, Abbotsford and Hepburn Townships of the Province of Ontario, with only a small portion extending over the provincial boundary into Quebec. The survey was flown May 5, 1965 by the Canadian Aero Mineral Surveys Limited geophysically equipped Otter aircraft (registration CF-IGM) based at Lasarre.

The flight lines were oriented east-west and were spaced at 1/8 mile intervals. The geophysical data acquired totalled 200 line miles. The mean terrain clearance of the aircraft during survey was approximately 150 feet.

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

G. A. Curtis	-	Project Manager
Dale Smith	-	Pilot
D. J. Sarazin	-	Navigator
D. Graham	-	Operator
R. Sarsfield	-	Aircraft Engineer
G. Granger	-	Data Compiler
A. Martin	-	Draftsman
P. Tallyhoe	-	Data Chief

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 equals $\frac{1}{2}$ mile. An uncontrolled airphoto mosaic served as the base for this map.

Appendix I is a complete listing of all EM anomalies detected.

Appendix II describes the equipment, the records, the survey and map compilation procedures, and the data presentation system.

II. GEOLOGY

The majority of the survey area is covered by the Ontario Department of Mines map 2025 contained in Geological Report No. 14. The map is published at the scale of 1 inch equals $\frac{1}{2}$ mile.

The survey block samples part of the belt of Adair meta-volcanics, which is presumed to be the belt which contains the Normetal Mine, a few miles to the east. The indicated strike of these rocks ranges between east-west and northwest-southeast. In composition the volcanics range from acidic through basic and several different rock divisions are recognized within the volcanic assemblage.

To the south the Adair volcanics are flanked by an assemblage of metasediments. To the north they are in contact with the Mistawak batholith, an acidic intrusive complex. Near the provincial

boundary the volcanic belt is split by another acidic intrusive, the Patten River pluton.

Several sulphide showings are reported in the area, all consisting of disseminated and stringered pyrite and pyrrhotite with low values.

III. GEOPHYSICAL RESULTS

Seven conductors have been located, all in the western third of the survey area.

Conductors 1 through 6 are all interpreted as bedrock conductors, and all are considered prospects for massive sulphide mineralization. Of these conductors, all but number 5 have directly coincident magnetic anomalies suggesting a pyrrhotite content. The strongest EM anomalies are in zones 1 and 3, so this is where the largest concentrations of sulphides should be expected.

It is interesting that the strike of conductors 1 and 3 is about north-south which does not appear to be concordant with the northwest-southeast strike of the volcanics in this vicinity. The strike of the shorter conductors 2, 4, 5, and 6 cannot be established.

All of these conductors, 1 through 6, occur in the vicinity of outcropping acidic volcanics. Tuffs are prevalent in these acidic volcanics and it is possible that graphitic tuffs are responsible for some of the EM anomalies. However, if this were the case, we would expect the conductors to be concordant. Zone 1

contains two or more parallel conductors on some lines which could be interpreted as an indication of graphite. On the other hand, conductors 2, 3, and 6 occur very close to sulphide showings. Conductors 1 through 6 all merit careful ground examination.

Note that in zone 1 the correlation of anomalies from line 6 to line 7 is uncertain. While anomaly 7A seems to "line up" well with the anomalies to the north, the character of anomaly 7B is very similar to that of 6E[?] and this correlation is tempting.

Note also that the northernmost anomaly in zone 3 is a weak questionable feature, as is the northern anomaly in zone 4.

Conductor 7 is indicated by weak out-of-phase anomalies on three lines. It is interpreted as a probable surface conductor, although it is sufficiently narrow that the source could be a weak conductor within the bedrock. Tuffaceous rocks are mapped nearby and the conductor appears to parallel the strike of the volcanics, so if it were a bedrock conductor a weak graphitic tuff would be the most probable source.

Several weak, questionable, single-line anomalies have been included on the map. Of these, anomalies ^{Consider} 1A, 1B and 5B may be "cultural" anomalies resulting from man-made conductors. Anomalies 5C and 16B are probably noise effects. Anomaly 19A, although very weak, has a somewhat better chance of being a legitimate EM response.

IV. RECOMMENDATIONS

Conductors 1 through 6 are all recommended as prospects for massive sulphide mineralization, warranting careful ground examination. Conductor 3 is the best of the prospects, with strong, clean anomalies on three lines and an exceptionally strong response on line 11. Zone 1 is the next best but the conductor multiplicity in this zone may be considered somewhat discouraging.

Conductor 7 is interpreted as a surface conductor or at best, a weak graphitic zone, and no followup is recommended.

In a "saturation" exploration programme the best of the questionable anomalies would require examination. These are 1A, 1B, 5B, and 19A.

Respectfully submitted,



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

OTTAWA, Ontario,
June 29, 1965.

PROJECT NO. 5060 - JOE LAKE AREA

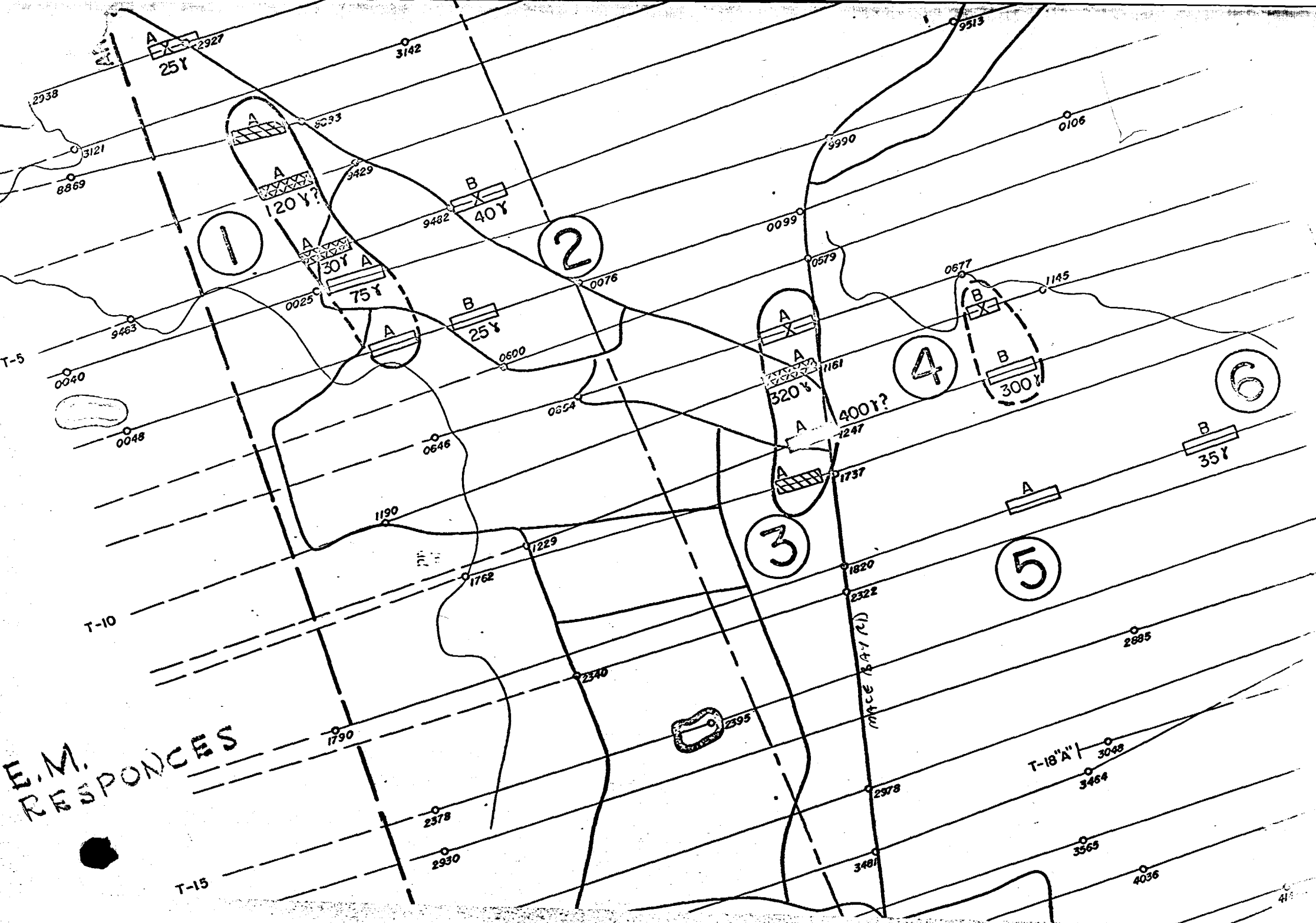
<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
1 A	2926/9 ✓	-/40	135	Dir. 25g	x	Possible culture
1 B	2767/70 ✓	20/30	135	nil	x	
2 A	3178/81	20/30	135	nil	x	<i>Can. Superior</i> Possible culture
3 A	8879/82	200/180	135	nil	2B	
4 A	9432/5	150/280	140	Dir? 120g	2A	
5 A	9473/6	180/100	135	Dir.W 30g	2A	Double
5 B	9482/5	20/20	135	Dir. 40g	x	Noise probable
5 C	9619/22	30/30	135	E.Flank 200g	x	Poor character
6 A	0020/4	120/80	140	Dir. E 78g	3	Multiple
7 A	0063/6	20/80	140	nil	3	
7 B	0068/71	60/70	125	Dir. E 25g	3	Double
9 A	0665/8	40/20	140	nil	x	Poor character, Possible culture
10 A	1161/4	250/180	135	Dir. 320g	2A	
10 B	1148/50	30/-	155	nil	x	Possible turbu- lence noise
11 A	1245/8	1000/500	135	Dir? 400g	1A	
11 B	1257/60	20/30	150	Dir.300g	3	Weak
12 A	1738/41	320/320	130	W.Flank 200g	2B	
13 A	1830/3	40/40	150	E.side 70g	3	Weak
13 B	1841/4	70/100	150	Dir.35g	3	Double
16 A	2864/7	-/50	155	W.side 30g	x	Poor character, Prob. surface conductor
16 B	2823/6	70/-	150	nil	x	Turbulence noise probable

PROJECT NO. 5060 - JOE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
17 A	3016/21	-/40	140	nil	3	Probable surface conductor
18 A	3436/41	-/40	140	nil	3	Probable surface conductor
19 A	3532/4	-/40	135	E.Flank 70g	x	Very weak

24

E.M. RESPONCES



1

2

4

6

3

5

A EX 2927
25Y

A
120Y?

A
30Y A
75Y

B
40Y

B
25Y

A
320Y

A
400Y?

B EX
300Y

B
35Y

T-18 "A" |
3048
3464

MACE BAY (N)

T-5

T-10

T-15

2938

3121

8869

9463

0040

0048

3142

9033

9429

9482

0076

0600

0646

1190

1762

1229

2340

1790

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9990

0099

0579

0677

0106

1145

1161

1247

1737

1820

2322

2978

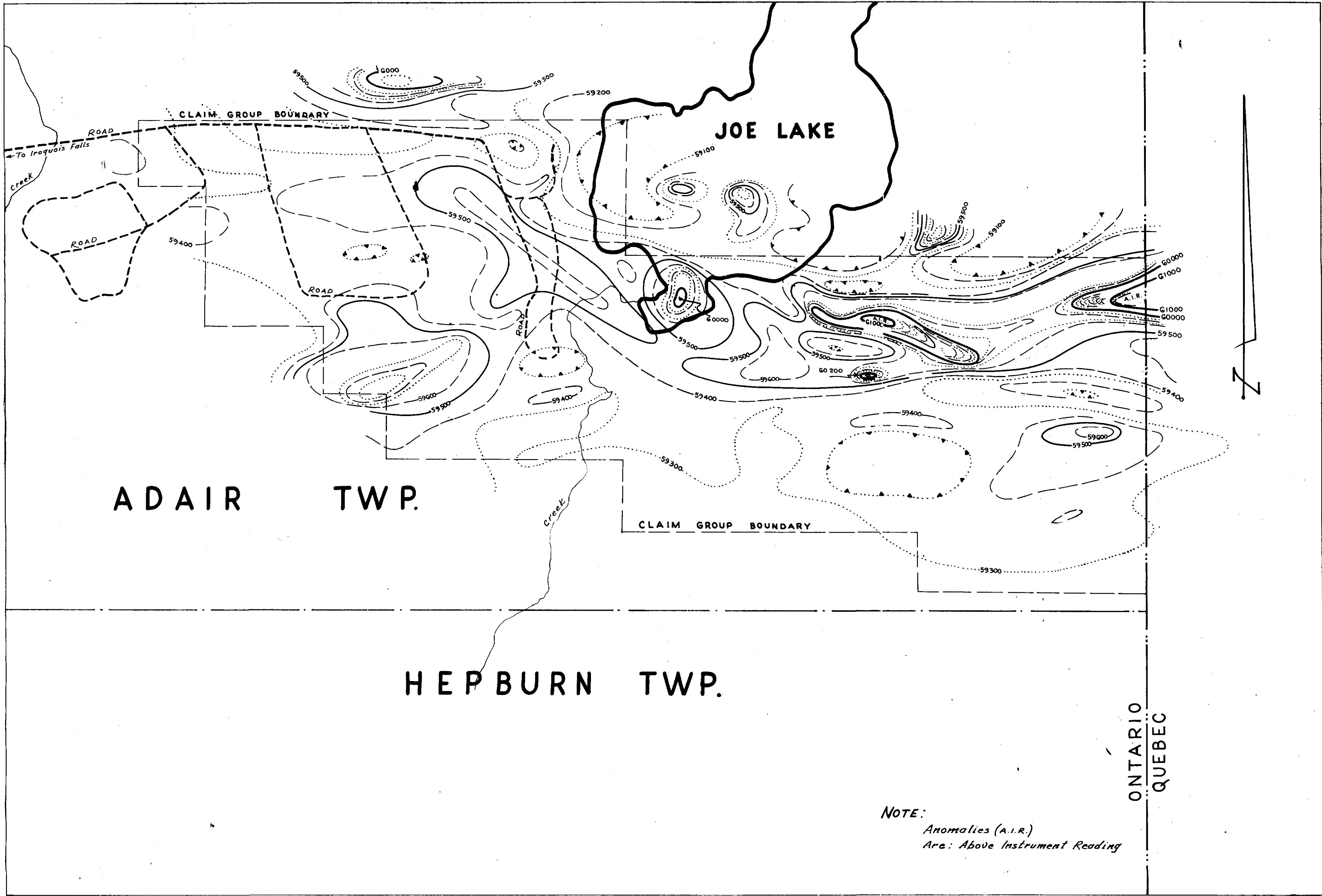
3481

2685

3565

4036

4608



NOTE:
 Anomalies (A.I.R.)
 Are: Above Instrument Reading

SCALE: 1" = 1/4 MILE (APPROX)	
DATE	August 1965
DWG. L.S.D.	APP. <i>[Signature]</i>
No M-2	FILE ONT.

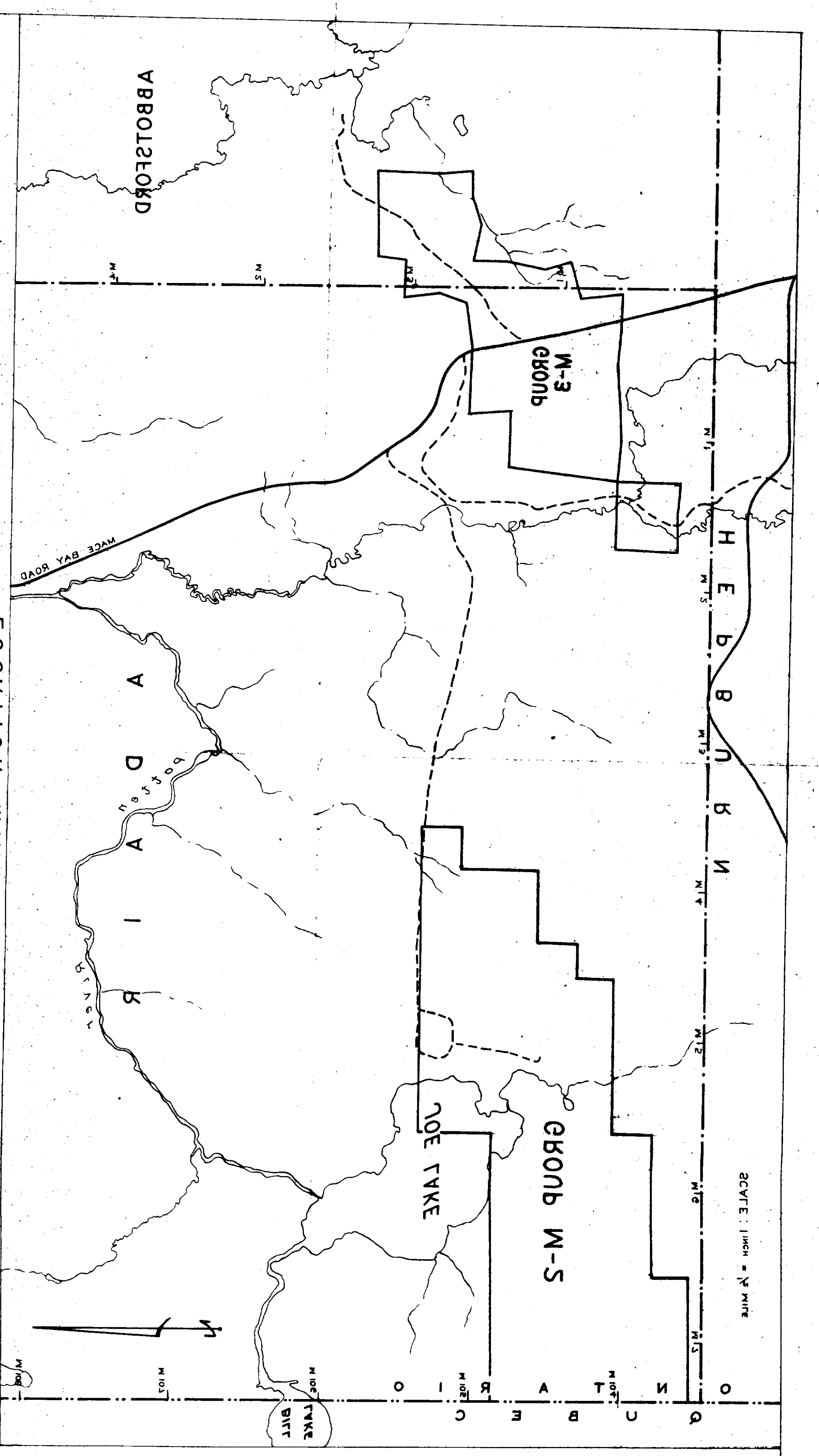
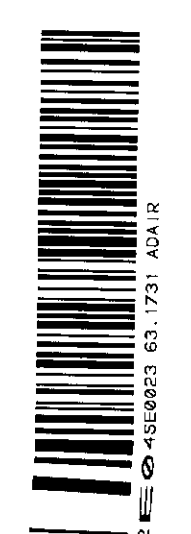
CANADIAN JAVELIN LTD.
AERO-MAGNETIC INFORMATION
M-2 CLAIM GROUP
 ADAIR TOWNSHIP, ONTARIO



32E04SE0023 63.1731 ADAIR

NO.	DATE	SHEET
ONE	1958	1
TWO	1958	2
THREE	1958	3
FOUR	1958	4
FIVE	1958	5
SIX	1958	6
SEVEN	1958	7
EIGHT	1958	8
NINE	1958	9
TEN	1958	10

Q12

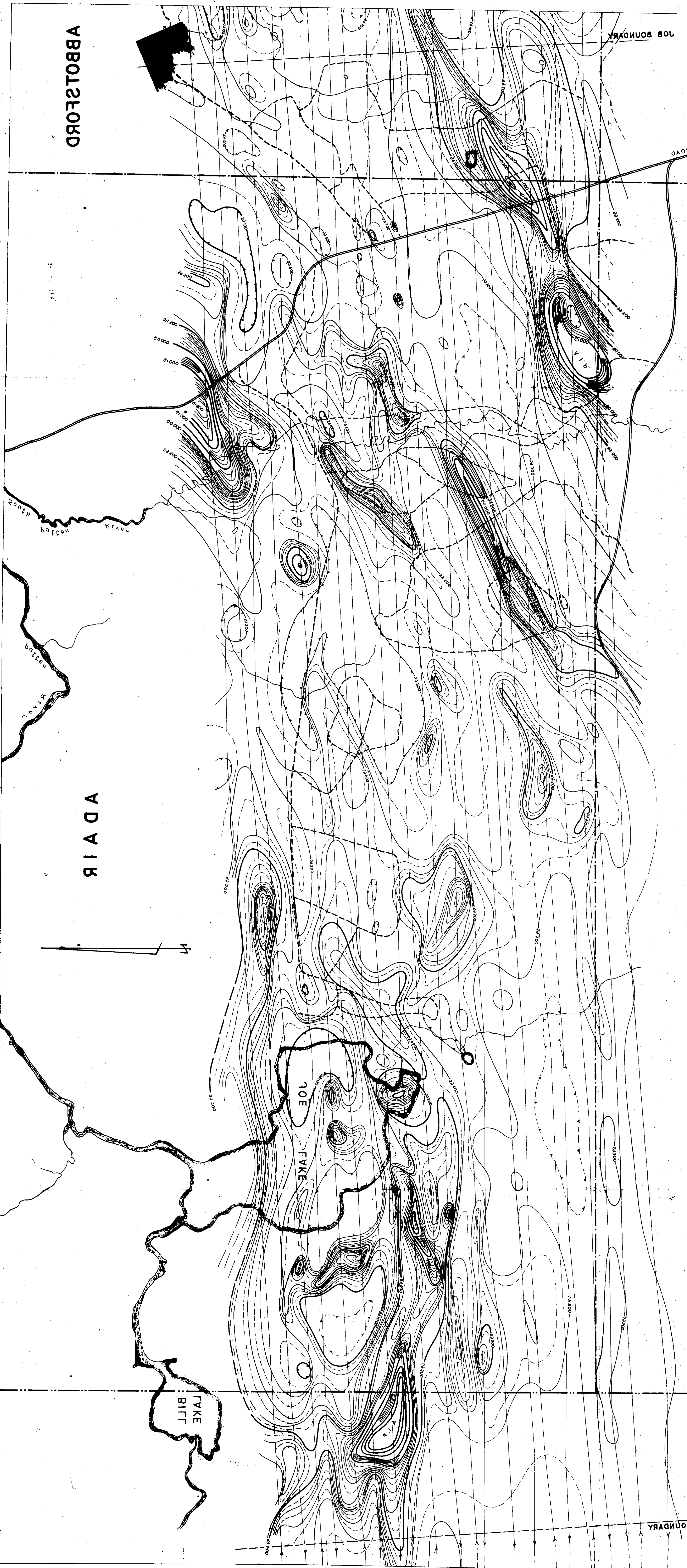


LOCATION MAP

HEBBURN

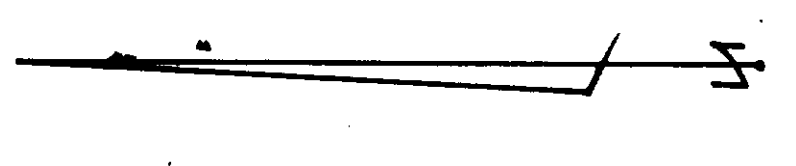
- LEGEND**
- FLIGHT LINES
 - MAGNETIC DEPRESSION
 - 50 GAMMAS
 - 100 GAMMAS
 - 200 GAMMAS
 - ISOMAGNETIC LINES
 - CLAVIN GROUP BOUNDARY
 - ADAIR BOUNDARY BOUNDARY
 - LOAMSHUB BOUNDARY
 - SECONDARY ROAD
 - MAIN ROAD
 - SYMBOLS

ONTARIO
QUEBEC



ABBOTSFORD

ADAIR



LAKES
BILT

JOB BOUNDARY