



42J06570017 63.1852 SOUTH OF RIDGE LAKE

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GEOPHYSICAL INVESTIGATIONS  
OF  
AIRBORNE MAGNETIC AND ELECTROMAGNETIC  
ANOMALIES  
SOUTH OF RIDGE LAKE, ONTARIO

SUMMARY

Airborne magnetic and electromagnetic anomalies were found to correlate in the Area South of Ridge Lake. These features were located on the ground when magnetic and electromagnetic surveys were carried out. The two anomalies appear to have a common source. A magnetic zone 3000 feet long with a corresponding conductive zone 1800 feet long strike in a northeasterly direction. The depth to the top appears to be in excess of 100 feet.

It is recommended that the anomalies be tested with a diamond drill along the section of Line D (detail grid) planning to test the conductor axis at a vertical depth of 250 feet. Additional drilling should be planned following the completion of this hole.

GEOPHYSICAL INVESTIGATIONS  
OF  
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I    INTRODUCTION

An isolated aeromagnetic anomaly was outlined in the area South of Ridge Lake. At a later date an airborne electromagnetic survey, flying in two directions over this area, outlined three closely spaced conductors. It was decided to carry out ground geophysical surveys over these features as an initial stage of an exploration programme.

II    LOCATION AND ACCESS

The property comprises 30 contiguous unpatented claims in the south-central portion of the "Area South of Ridge Lake" at latitude  $50^{\circ}, 15'$ , longitude  $83^{\circ}, 30'$ .

The claims are as follows:

P 80914 - 80943 inclusive (30 claims)

Access to the property was from Kapuskasing airport 80 miles north - northwest to the 'North Lake' then 3 1/2 miles southeast across the swamp by Ski-doo trail. Later a trail was cut out to the "South Lake" which lies 2.0 miles due west of the survey grid.

### III GEOPHYSICAL SURVEYS

The geophysical surveys were carried out in three stages: (1) Search and location; (2) layout of main survey grid, magnetic and electromagnetic coverage and (3) detail work on the area of main interest.

The programme started with gridding the property along the claim lines with blazed ski-doo trails that could be readily travelled. Magnetic profiles were observed, (see reconnaissance plan, 1" = 400'), until a large isolated magnetic high was outlined. Then the electromagnetic survey equipment was set-up on the magnetic anomaly and traverses run in order to determine the approximate strike of the electromagnetic conductor.

Following this survey a grid was cut with the baseline east - west, 6300 feet long, and traverse lines extending north and south from this for 1200 feet. Magnetic and electromagnetic surveys were completed over this grid. The results are shown on two accompanying maps, scale 1" = 200'. This work outlined an

elongated magnetic anomaly striking N 60° E, 3000 feet long and 1200 feet wide. It then became apparent that although the reconnaissance electromagnetic work had suggested an east - west strike, two parallel conductive zones gave a misleading strike. The true strike of the conductive feature corresponds directly with the long axis of the magnetic anomaly (i.e. N 60° E).

Since all interest was now confined to the one anomalous area, a detail grid was cut at N 60° E and the lines were labelled A, B, C etc. and the stations IN, IIN, IIIN etc. The results of the work are shown beside the reconnaissance survey, on a scale 1" = 200 feet and its relationship to the main grid is shown.

### DISCUSSION OF RESULTS

The cause of the airborne magnetic and electromagnetic anomalies is best examined on the detail survey grid. The magnetic anomaly appears to be nearest surface on Lines C, D and E. The magnetic peaks tend to correspond to the centre of the conductive zone. The magnetic anomaly extends off the detail grid (it was described earlier as being 3000 feet long). The electromagnetic conductor only extends from Line B to a few hundred feet southwest of Line G, about 1800 feet. This is quite likely an indication that the depth of burial of the electromagnetic conductor increases to the northeast and southwest of Line D, 0 + 00. The conductive

zone varies in width from a single conductive axis to 400 feet and this could result from several parallel conductive bands or be the expression of the edges of a massive conductor.

The survey information suggests a near vertical dip to the anomaly. It should be tested initially on Line D at the baseline. Here, the depth to the top of the conductor appears to be over 100 feet.

#### IV CONCLUSIONS AND RECOMMENDATIONS

The detailed ground survey work suggests the magnetic and electromagnetic anomalies arise from a common source. The depth of burial appears in excess of 100 feet and the zone appears to have width up to several hundred feet. The magnetic anomaly has greater length than the electromagnetic anomaly suggesting deeper burial at the extremes.

It is recommended that the anomalies be tested with a diamond drill hole on Line D to cut the conductive zone at a depth of 250 feet under the conductive axis.

Respectfully submitted,

SCOPE MINING AND EXPLORATION  
CONSULTANTS LIMITED



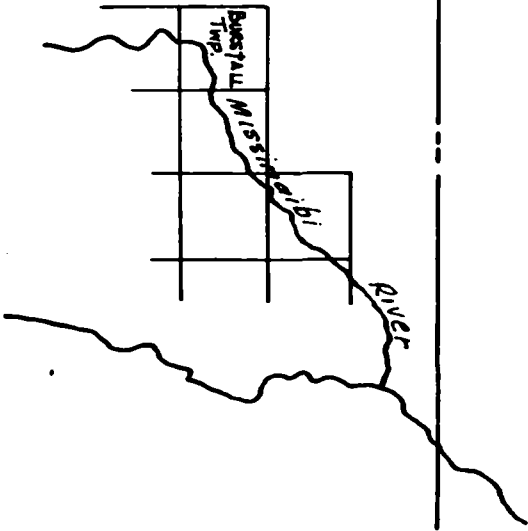
Tom Gledhill, P.Eng.  
Geophysicist.

TORONTO, ONTARIO

APRIL 29th, 1965.

COCHRANE  
SUBURBY

PROPERTY →



CLAIM GROUP.

P	P	P	P	P	P	P
80943	80938	80933	80928	80923		
P	P	P	P	P		
80942	80937	80932	80927	80922		
P	P	P	P	P		
80941	80936	80931	80926	80921	80918	
P	P	P	P	P	P	
80940	80935	80930	80925	80920	80917	80915
P	P	P	P	P	P	P
80939	80934	80929	80924	80919	80916	80914



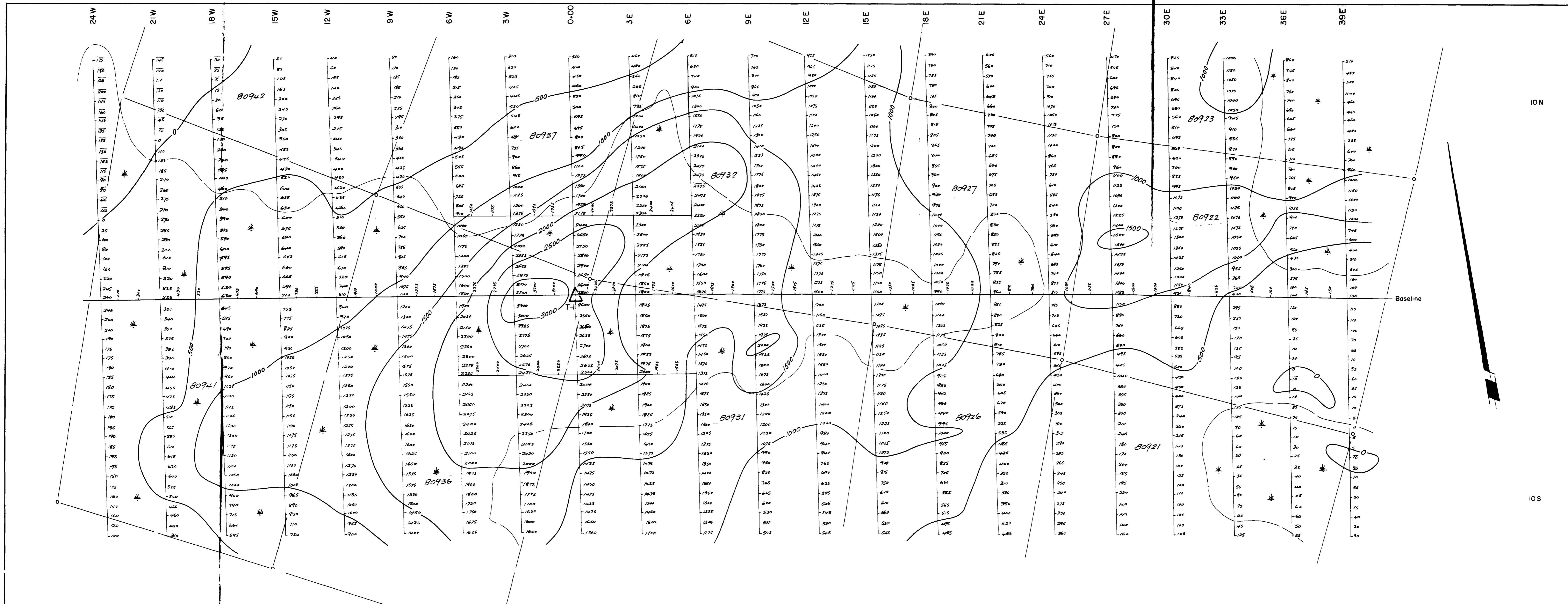
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ONTARIO

LOCATION PLAN

1" to 20 miles

April 1965

Scope



ION

IOS

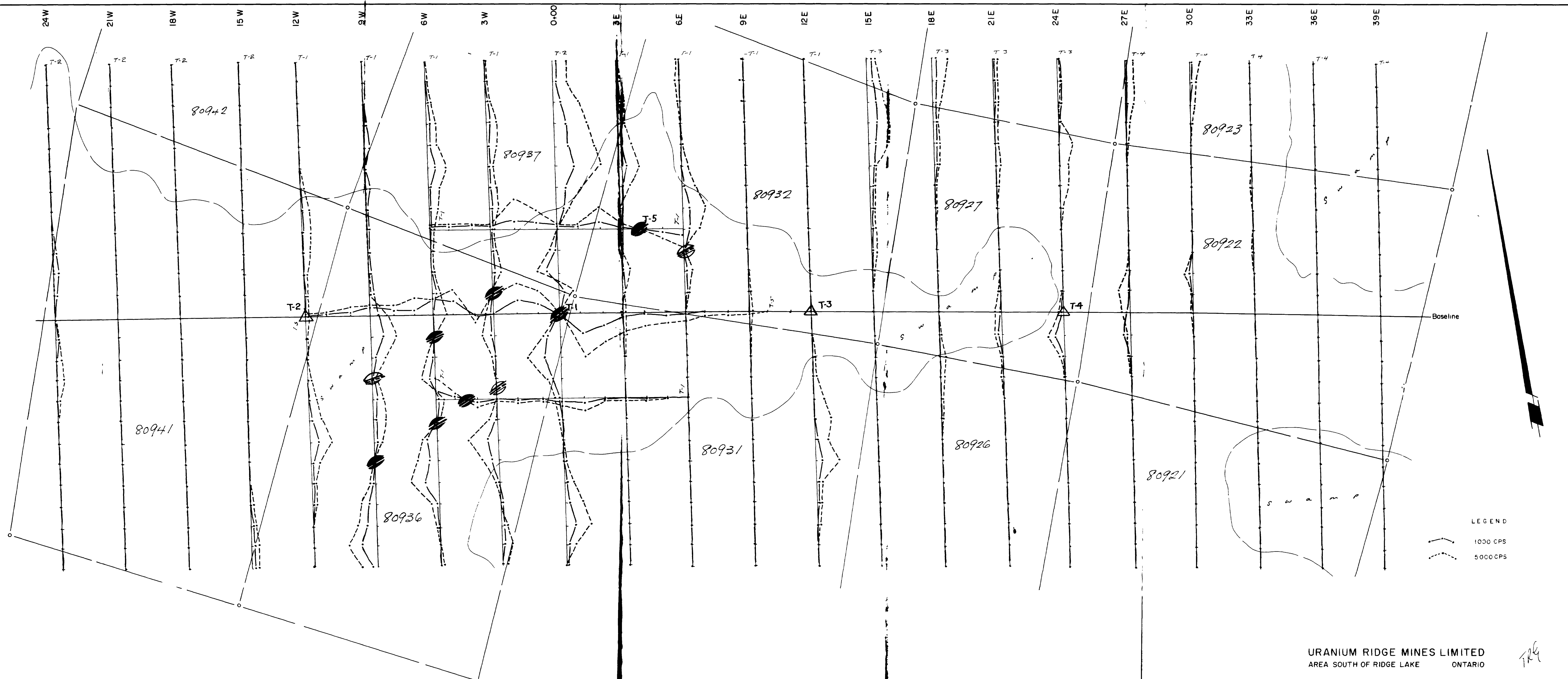
URANIUM RIDGE MINES LIMITED  
 AREA SOUTH OF RIDGE LAKE ONTARIO

**MAGNETOMETER SURVEY**

SCALE 1" to 200'

April 1965





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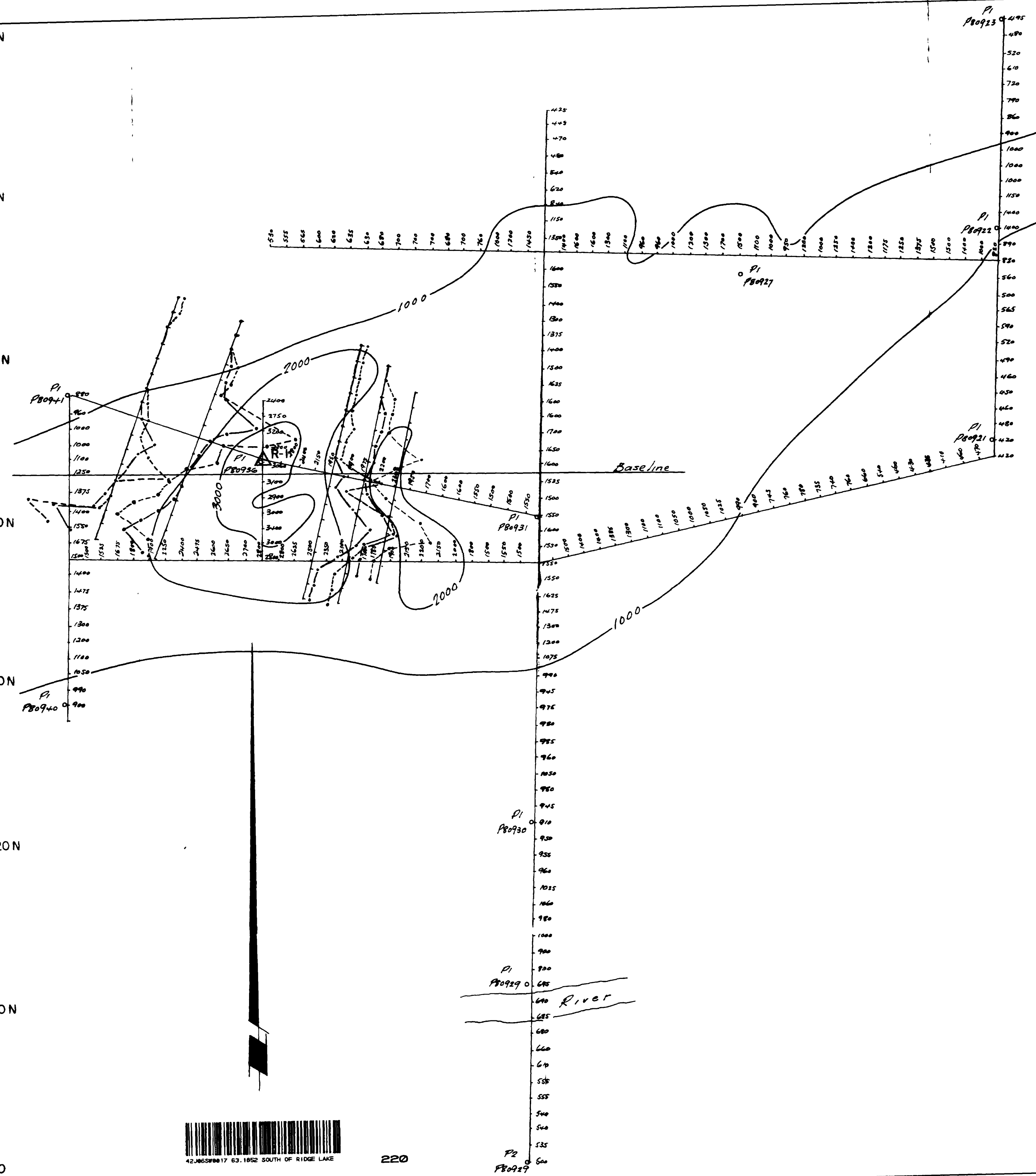
**ELECTROMAGNETIC SURVEY**

SCALE 1" to 200', 20" April 1965

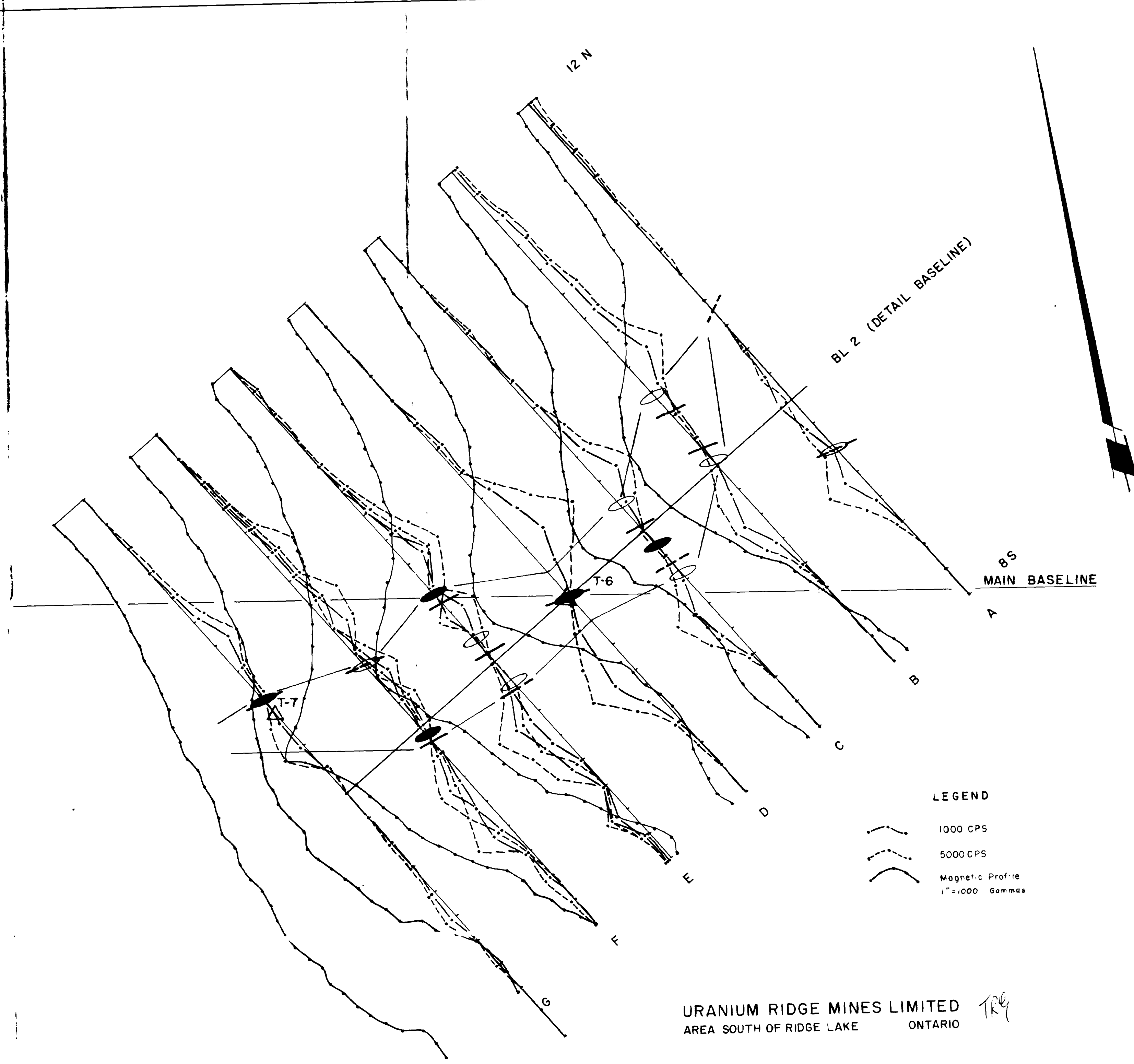
*TRG*



-70 N  
-60 N  
-50 N  
-40 N  
-30 N  
-20 N  
-10 N  
0



220



LEGEND  
 --- 1000 CPS  
 --- 5000 CPS  
 --- Magnetic Profile  
 1" = 1000' Gammas

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 AREA SOUTH OF RIDGE LAKE ONTARIO

RECONNAISSANCE SURVEY  
 AND  
 E.M. DETAIL

SCALE 1" to 200', 20"  
 1" to 400', 10"

April 1965