



42A03NE0024 63.1726 DOUGLAS

INTRODUCTION

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AN ELECTROMAGNETIC SURVEY WAS CARRIED OUT ON THE PROPERTY TO EXPLORE FOR BASE METAL SULPHIDE DEPOSITS. TWO COPPER-BEARING FRACTURE ZONES ARE KNOWN TO EXIST ON THE CLAIMS, AND THE EM SURVEY WORK WAS DONE WITH THE AIM OF DETERMINING WHETHER THESE ZONES INCREASE IN SULPHIDE CONTENT ALONG THEIR STRIKE, OR WHETHER OTHER SULPHIDE BODIES EXIST UNDER OVERBURDEN IN OTHER PARTS OF THE PROPERTY.

RESULTS

THE EM RESULTS, THE LOCATIONS OF THE TWO SHOWINGS, AND THE TOPOGRAPHICAL FEATURES, ARE SHOWN ON THE MAP WHICH ACCOMPANIES THIS REPORT.

THREE POSITIVE ELECTRICAL CONDUCTORS, NAMED "A", "B", AND "C", WERE LOCATED. IN ADDITION A GREAT MANY OTHER QUESTIONABLE CONDUCTORS HAVING VERY WEAK AND VAGUE RESPONSES WERE LOCATED.

INTERPRETATION OF RESULTS

NONE OF THE CONDUCTORS DISPLAY A STRONG RESPONSE. CONSIDERABLE ROCK IS EXPOSED IN THE AREA, JUDGING BY AERIAL PHOTOGRAPHS, SO IT IS NOT THOUGHT THAT THE UNIVERSALLY WEAK RESPONSES ARE DUE TO DEEP OVERBURDEN. IT IS CONCLUDED THAT RESPONSES ARE WEAK BECAUSE THERE ARE NO MASSIVE SULPHIDE DEPOSITS OF IMPORTANT SIZE WITHIN 150 FEET OF SURFACE.

THE THREE POSITIVE CONDUCTORS ARE THOUGHT TO

INTERPRETATION OF RESULTS (CONT'D)

REPRESENT EITHER CONDUCTIVITY ALONG ROCK CONTACTS OR WITHIN SHEAR ZONES. THIS CONDUCTIVITY MAY WELL BE CAUSED BY SULPHIDES IN SMALL CONCENTRATION, OR BY IONIZED WATER, OR BY CARBONACEOUS STRATA.

THE MANY QUESTIONABLE CONDUCTORS PROBABLY ARE LARGELY DUE TO ROCK CONTACTS, OR OVERBURDEN CHANGES, OR SHEAR ZONES. THEY SEEM TO FORM IN THREE MAIN DIRECTIONS, NORTHEASTERLY, NORTHWESTERLY, AND EAST-WEST. IT MAY WELL BE THAT THEY CAN BE USEFUL IN DETERMINING SHEAR PATTERNS OR FORMATIONAL CHANGES IN STRIKE, WHEN CONSIDERED IN CONJUNCTION WITH GEOLOGICAL MAPPING DATA.

IT IS CONCLUDED THAT GEOLOGICAL MAPPING OF THE CLAIMS WOULD GREATLY AID AN APPRAISAL OF THE MANY CONDUCTORS AND PROVIDE A SOLID BASIS FOR JUDGING THEIR WORTH. FROM THE GEOPHYSICAL STANDPOINT ALONE NONE OF THE CONDUCTORS SHOW MUCH PROMISE, BUT IT SHOULD BE STRESSED THAT THIS IS A JUDGMENT BASED UPON LIMITED DATA.

RECOMMENDATIONS

THE CLAIMS SHOULD BE MAPPED GEOLOGICALLY, WITH DETAILED MAPPING OF THE POSITIVE CONDUCTOR LOCATIONS AND SURFACE SHOWINGS BEING STRESSED.

THE COST OF THIS WORK WOULD BE ABOUT \$1500.00.



ROSS KIDD
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TORONTO, ONTARIO
MAY 17TH, 1965

A P P E N D I X O N E

METHOD OF SURVEY

PICKET LINES WERE CUT ACROSS THE PROPERTY IN THE NORTH-SOUTH DIRECTION AND AT 400 FOOT INTERVALS. THESE LINES ARE CONTROLLED FROM A BASE LINE RUNNING EAST-WEST (TRUE). THE LINES WERE CUT IN MARCH, 1965.

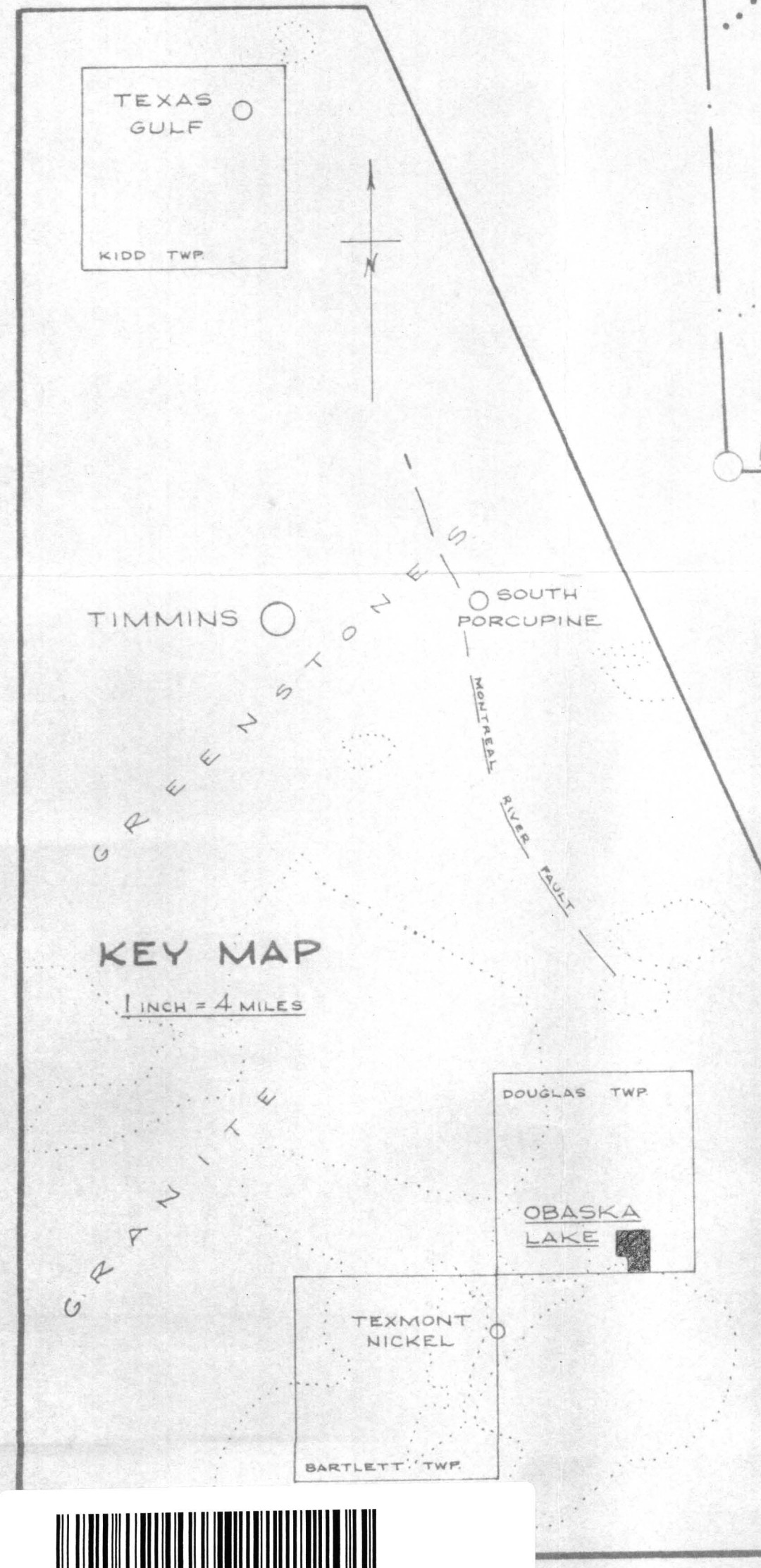
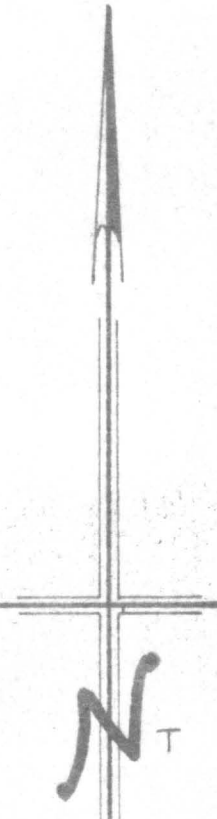
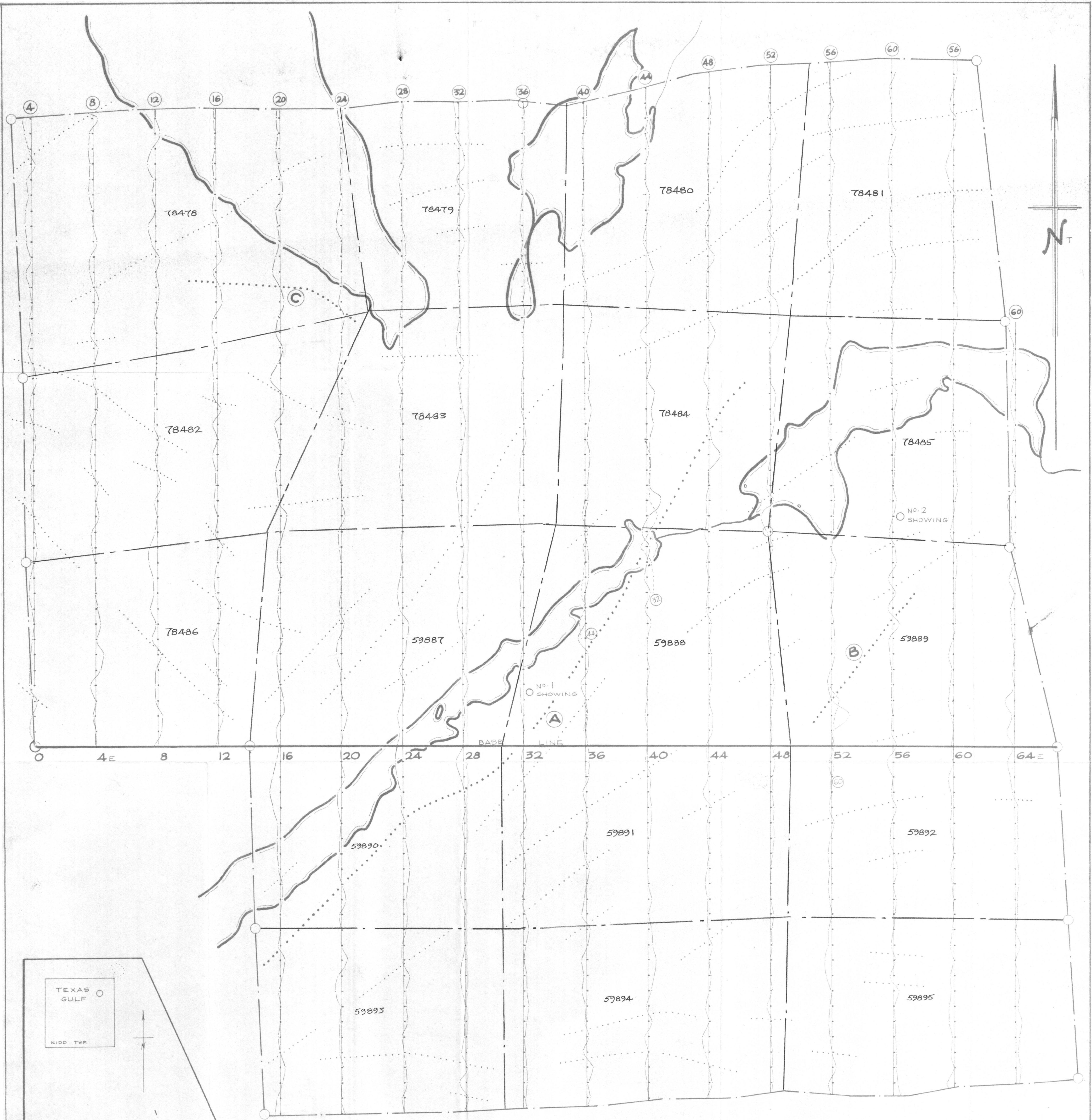
VERTICAL LOOP EM METHOD WAS USED. RECEIVER READINGS OF THE DIP ANGLE OF THE RESULTANT FIELD WERE TAKEN AT 100 FOOT SPACING ALONG THE PICKET LINES AND THESE ARE PLOTTED ON THE MAP. TRANSMITTER SIGNALS WERE SENT OUT FROM ADJACENT PICKET LINES, WITH THE TRANSMITTER MOVED ALONG PARALLEL TO THE RECEIVER. THE FREQUENCY USED WAS 1100 CPS. THE SURVEY WAS DONE IN APRIL, 1965.

DEPTH PENETRATION OF THE EM FIELD WAS ABOUT 150 FEET.

TOPOGRAPHICAL DETAILS ARE TAKEN FROM THE GROUND WORK AND FROM AERIAL PHOTOGRAPHS.

THE LONG NARROW LAKE AT THE CENTER OF THE CLAIMS IS SUITABLE FOR AIRCRAFT LANDINGS IN SUMMER OR WINTER, AND THE CAMPSITE FOR THE WORK PROGRAM WAS AT THE NE END OF THE LAKE. THE NEAREST AIRBASE IS AT SOUTH PORCUPINE (SEE KEY MAP).

THE GENERAL GEOLOGY IS ALSO SHOWN ON THE KEY MAP. THE CLAIMS ARE UNDERLAIN LARGELY BY GREENSTONES OF THE PORCUPINE BELT, WITH A GRANITE INTRUSIVE AT THE SOUTH BOUNDARY. SNOW PREVENTED ROCK EXAMINATION DURING SURVEY WORK.



ELECTROMAGNETIC RESULTS
DOUGLAS TWP. OPTION
OBASKA LAKE MINES LIMITED
 PORCUPINE AREA ONTARIO

Scale: 1 in. = 300 FEET

LEGEND

- DIP ANGLE PROFILE 1" = 30" NORTH ANGLES
- CONDUCTOR
- QUESTIONABLE CONDUCTOR
- TRANSMITTER LINE



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APRIL, 1965

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