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**A REPORT ON  
GEOPHYSICAL SURVEYS  
CONDUCTED OVER THE PROPERTY OF  
NORTH D'ARCY EXPLORATIONS LTD.**

**INTRODUCTION**

Under contractual agreement between North D'Arcy Mines Ltd. and Earth Services International, Geophysical surveys, comprising Magnetometer and Electromagnetometer were run over the 36 claim group held by North D'Arcy Explorations in Fintry and Auden Townships. The survey was performed during September, October and November of 1970.

**PROPERTY AND LOCATION**

The company holds a 36 claim group in the North West corner of Auden Township and North East corner of Fintry Township. The claims straddle the Magagami river approximately 11 miles North of Highway 11 and 40 miles West of Hearst. Access is by means of a poor bush road to the property, by ATV or snow vehicle. The river is too shallow and fast for aircraft landings or for safe navigation.

The claims occupy a long irregular rectangle in an East West long axis.

The claim numbers are 213077 to 213112, inclusive.



### TOPOGRAPHY AND FEATURES

The terrain is of low relief with maximum elevations of 75 feet, and with little rock exposure except on the river banks and hillsides. The soil cover is sand and clay with heavy 2nd growth conifers and softwoods. Swamp areas are frequent. The main feature is the river, which is wide, shallow and fast flowing. Small creaks are found on both East and West ends, with a large beaver pond on the West side.

Considerable rock exposure is noted near the rapids and copper mineral and staining are present.

### GEOLOGY

The geology has been well covered in the Engineer's report and various O.D.M. publications and will not be reviewed here.

Rock types present comprise conglomerates, greenstones and acid volcanics.

### SURVEY DATA

A picket grid of 200 foot interval was out over the claims in a North South direction with N. W. base and tie lines.  
Station interval was 100 feet. The survey interval was 400 x 100 feet. Readings were taken at each station using a Morhaug M700 Fluxgate magnetometer and a Crone VLF Radon E.M. All readings taken were corrected for temperature, diurnal and time drifts



as required from a control grid set up on the claims.

Results are presented on the accompanying map in numerical and graphical form.

### MAGNETOMETER

The magnetometer results indicated a band of magnetic anomalies running in an E.W. direction across the centre of the claims. These are indicated by alphabetical sequence in order of intensity and importance from A to Q.

### ELECTROMAGNETOMETER

A series of E.M. conductors were located, again striking E.W. and in a very large part co-inciding with the magnetic anomalies.

These are numbered in numerical sequence in descending order of strength and importance from 1 to 17.

### CONCLUSIONS

A number of co-incident Magnetic and E.M. anomalies were located of such a nature as to indicate the presence of massive sulfides in quantity. It will be necessary to determine by drilling the character and content of the sulfides.

The structures located should be drilled in descending order of intensity.

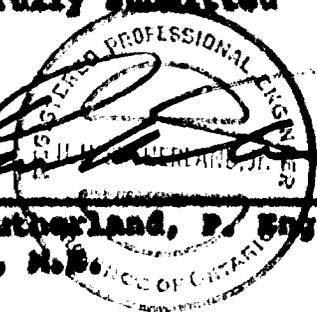


**RECOMMENDATIONS**

An initial programme of 2000 feet of drilling using AXF core should be implimented.

The initial 2 holes should be close to the river on the East side. Further holes should be drilled to the West and East in the anomalies indicated.

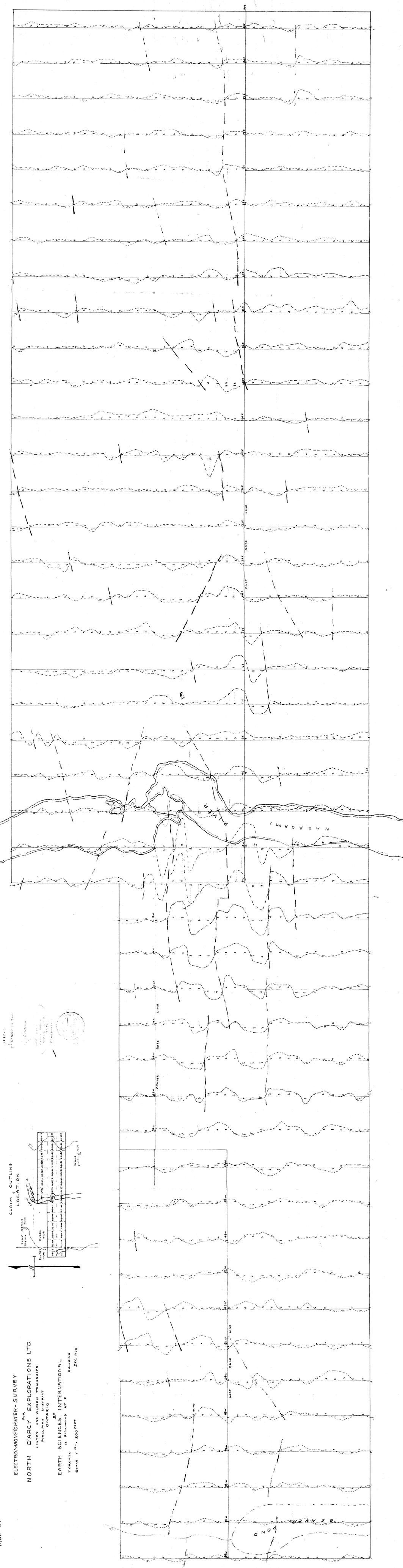
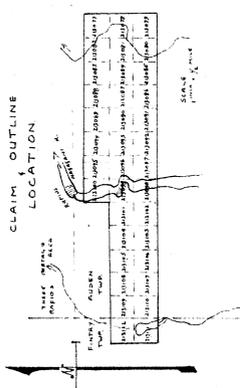
Respectfully submitted

  
H. A. Sutherland, P. Eng.  
B.A.Sc., M.B.  


Toronto, Ontario.  
February 1, 1971.

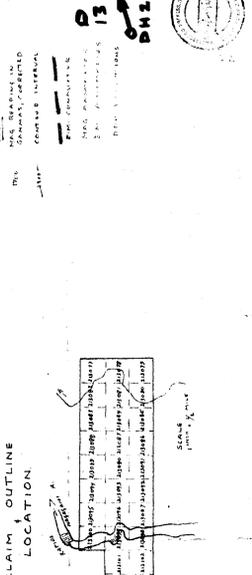
MAP #1

ELECTROMAGNETIC SURVEY  
 FOR  
 NORTH DARCY EXPLORATIONS LTD  
 FINLAY AND AUDEN TOWNSHIPS  
 PREQUELIN DISTRICT  
 ONTARIO  
 EARTH SCIENCES INTERNATIONAL  
 TORONTO 12, RICHMOND ST. E.  
 CANADA  
 SCALE 1" = 200' MET  
 DEC. 1970



MAGNETOMETER SURVEY  
 FOR  
**NORTH DARCY EXPLORATIONS LTD.**  
 FINLAY AND AUDEN TOWNSHIPS  
 PARISH OF DISTRICT OF  
 ONTARIO

**EARTH SCIENCES INTERNATIONAL**  
 TORONTO 12 RICHMOND ST. E. CANADA  
 DEC. 1970  
 SCALE 1:200,000



LEGEND  
 MAGNETOMETER SURVEY  
 CLAIM OUTLINE  
 LOCATION  
 1:200,000

