**INTRODUCTION**

The Belleterre group of claims is located in the North/East portion of Macdiarmid Township and the South/East portion of Reid Township, in the Porcupine Mining Division of Ontario. The 61 unpatented mining claims are numbered as follows:

- P. 61511 - P.61558 incl.
- P. 61501 - P.61506 incl.
- P. 57972 - P.57973 incl.
- P. 57976 - P.57978 incl.
- P. 57983 - P.57984 incl.

**LOCATION AND ACCESS**

The claim group is located approximately 15 miles North/West of Timmins. It is traversed in a North/South direction by the Matagami River and may be reached by either boat or aircraft.

**GEOLOGY AND PREVIOUS WORK**

No outcrops are known to occur within the area covered by this claim group. It may however be inferred that the property is underlain by Precambrian rock types consisting mainly of Keewatin-type volcanics intruded by ultrabasic and acid rock types.

No previous work has been reported within the area covered by this claim group.

**GEOPHYSICAL SURVEYS**

The property was surveyed in June and July of 1965 using a Sheridan-Kelk electromagnetic survey instrument and an Askania Torsion Balance magnetometer.

Phase and amplitude readings were taken at 50 and 100 foot intervals along North/South crosslines with 200 foot centers. Magnetometer surveys were taken in select areas only.

The results are presented at the scale of 1" = 200 feet with the electromagnetic profiles at the scale of 1" = 50 units on five separate map sheets.

All of which is respectfully submitted,

April 28, 1966.

G. Disler, P. Eng.
INTRODUCTION

The Belleterre group of claims is located in the North/East portion of Macdiarmid Township and the South/East portion of Reid Township, in the Porcupine Mining Division of Ontario. The 61 unpatented mining claims are numbered as follows:

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LOCATION AND ACCESS

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GEOLOGY AND PREVIOUS WORK

No outcrops are known to occur within the area covered by this claim group. It may however be inferred (O.D.M. Map No. 2046 - 1964) that the property is underlain by Precambrian rock types consisting mainly of Keewatin-type volcanics intruded by ultrabasic and acid rock types.
Line cutting was carried out in June and July, 1965 with four East/West base lines (A - A1 - B & C) and North/South cross lines spaced at 200 foot intervals.

The E.M. survey was carried out during that same period by Philip and Robert Roby along these established picket lines and a detailed magnetometer survey covering the south portion of the property only was carried out by D. Irwin and J. Dillman.

The electromagnetic survey employed the Sheridan-Kelk Dual Frequency Magniphase Electromagnetic Instrument (Instrument No. 18) operated in the horizontal coil configuration with a transmitter-receiver separation of 200 feet. The instrument which has an output of 1.5 watts may be operated at either 800 or 2,400 cycles per second. In general readings of the amplitude and phase of the resultant field at the high frequency (2,400 c.p.s.) were recorded at station intervals of 100 feet. In anomalous areas the station interval was reduced to 50 feet and readings at both the high and low frequencies (800 c.p.s.) were recorded.

Plotted on the accompanying map at the scale of 1" = 200 feet, are profiles of the high frequency phase and high frequency amplitude. The scale of the phase and amplitude
profiles is 50 units to the inch and the conductors as indicated by this survey are marked in an appropriate manner.

Amplitude and phase measurements were recorded along a total of 6,350 stations.

CONDUCTIVITY DETERMINATION

The ratio "R" (shown in red on the accompanying maps) refers to the high frequency phase response. When significant conductors are detected the ratio is plotted beside the conductor. In general the ratio increases as the conductivity of the detected conductor increases and a ratio greater than 1.0 is considered to represent a good conductor, 0.6 to 1.0 a moderate conductor, and less than 0.6 a poor conductor.

These ratios are completely independent of the absolute size of the conductor, length, depth of burial, etc., and are dependent solely on the material comprising the conductor.

MAGNETOMETER SURVEY

The magnetometer survey employed an Askania Torsion Balance Magnetometer with a scale constant of 2.36 gammas per scale division and a sensitivity of 2.3 gammas. The magnetic responses as plotted on the accompanying map, are corrected for diurnal variations and instrument drift and are contoured at an appropriate interval.
Readings were taken at 100 foot intervals along North/South picket lines in the South portion of the property (claims nos. 61505, 61506, 57977, 57978) where a conductor was located on eight cross lines extending over a distance of approximately 1,500 feet in an East/West direction. Readings were taken at 25 or 50 foot intervals in the vicinity of the conductor.

**INTERPRETATION OF RESULTS OF THE GEOPHYSICAL SURVEY**

The survey revealed some 40 conductors, 8 of which have a moderate conductivity with R being in the order of 0.8 or greater, all other conductors have to be classified as poor.

Where these conductors are recorded on more than one cross line, they appear to indicate generally an East/West strike.

The longest conductor extends over 1,500 feet in an East/West direction (claims Nos. 61505 & 57978). A detailed magnetometer survey (see map) revealed that this conductor is not correlated with any anomalous magnetic indications. However, some 500 feet further to the North 2 moderate conductors appear to be located at the periphery of a magnetic anomaly with a magnetic relief in the order of 1,000 gammas, possibly representing a basic intrusive.
Further detailed geophysical surveys coupled with diamond drilling are recommended to investigate at least 6 of the moderate to good conductors. This work is planned for the fall of 1966.

August 29, 1966.

All of which is respectfully submitted.

G. Disler, P. Eng.
April 21st, 1966

Mr. R. V. Scott,
Director,
Mining Lands Branch,
Ontario Department of Mines,
Parliament Buildings,
Toronto 2, Ontario

Dear Sir:

Re: Mining Claims P-57972-73, P-57976-78 incl., P-57983-84, P-61501-06 incl., P-61511-58 incl.

An assessment work credit of 37.8 days, geophysical, was recorded on each of the above mining claims on April 19th.

These claims are recorded in the name of J. P. Sheridan, Suite 1606, 4 King Street West, Toronto 1, Ontario.

The reports and maps are being forwarded direct to the Department.

Yours very truly,

C. D. Egerton,
Mining Recorder.

CDE/jt
BELLETERRE QUEBEC MINES LTD.

DETAIL MAGNETOMETER SURVEY

MCDAIRIM TWP. PORCUPINE MINING DIVISION DISTRICT OF COCHRANE

CONTOUR INTERVAL 100 GAMMAS     SCALE : 1" = 200 FT.

E. M. CONDUCTOR AXIS

61506 - 61505

APPROX. POSITION OF BASE LINE "A2"
MACDIARM, MAGNIPHASE SURVEY
BY SHERIDAN GEOPHYSICS
REID & MACDIARMID TWPS.
DISTRICT OF COCHRANE
PORCUPINE MINING DIVISION
AMPLITUDE 495
50 UNITS
200 FT.