REPORT

ON

GEOPHYSICAL SURVEYS

ON PROPERTY OF

PATRICIA SILVER MINES LTD.

JESSOP TOWNSHIP, ONT.

INTRODUCTION

Geophysical surveys consisting of electromagnetic and magnetometer surveys were carried out on the property of Patricia Silver Mines Ltd. in Jessop township, Ontario.

The following report and accompanying maps describes the results of these surveys.

PROPERTY AND LOCATION

The property consists of 12 claims of approximately 40 acres each in Jessop township, Porcupine Mining Division, Ontario, as shown on the accompanying map. They include parts of lots 6, 7 and 8 in Concession I and have been recorded with the Department of Mines.
as claims:  
P 58889 - 58890  
P 58892 to 58895  
P 59635 to 59638  
P 59630  
P 66047

GEOLOGY

Rock outcrops and geological data are very scarce in the area. Map 2046, published by the Ontario Department of Mines, is a compilation of all available data and this shows a sedimentary-volcanic contact trending northeast in the south part of Jessop township. This suggests a regional trend in this direction and this contact could cut across the south part of the property. On this basis the majority of the property would be underlain by the favorable volcanics.

RESULTS OF THE GEOPHYSICAL SURVEYS AND INTERPRETATION

The geophysical surveys were carried out over a network of lines cut in a northwest direction, as shown on the accompanying maps on a scale of 400 feet to the inch. The electromagnetic survey was carried out
using a Ronka Mark IV unit with a 300 foot coil interval and a Sharpe MF-1 fluxgate magnetometer in the magnetic survey. The results of the surveys are plotted on separate maps accompanying this report.

An examination of the electromagnetic map shows only a few weak responses that may be indicative of a conductive zone. Only two responses were obtained on the property and they are on one line only and thus their importance is questionable unless the overburden is quite deep. One of these, on claim P 59630, appears to be the extension of a zone which goes off the property to the south.

The other response is in the southwest corner of the property on claim 58895. It is quite weak and could be due to overburden.

The magnetic survey indicated an anomalous area in the western part of the property. The readings are not high and the maximum is about 600 gammas above the background. It would appear to represent a slightly more basic rock formation. It is fairly irregular but the contact is generally northeast and may represent the
The one line conductor is within this anomalous area and thus could be within the volcanic rocks. The other zone, if this interpretation is correct, would be within the sedimentary rocks.

**SURVEY METHODS AND INSTRUMENT DATA**

The electromagnetic survey was carried out using the Ronka Mark IV horizontal loop equipment with a 300 foot coil interval. In the horizontal loop type of survey both the in-phase and out-of-phase components of the secondary field are measured, whose special characteristics make possible a fairly accurate evaluation of the conductivity. A conductor caused by sulphide mineralization will produce a curve going from positive readings through zero to negative and back again to positive. Both the in-phase and out-of-phase readings show the same general curve. The ratio between the in-phase and out-of-phase readings over a conductor is an indication of the conductivity of the body. A good conductor would cause a greater deviation of the in-phase component than the out-of-phase component. The opposite is true of a poor conductor.
In some areas secondary currents are induced in swamps and lakes. These anomalies can usually be distinguished from a regular conductor as they cause a response of the out-of-phase component with little or no deviation of the in-phase component.

The magnetic readings were taken with a Sharpe MF-1 fluxgate magnetometer measuring the variations of the vertical component of the earth's magnetic field. Readings were plotted as gammas and contoured on the accompanying maps after correction for diurnal variation.

CONCLUSIONS AND RECOMMENDATIONS

The magnetic survey indicates a slightly more basic rock in the west end of the property. This may represent volcanic rocks as opposed to the sedimentary rocks to the southeast.

The electromagnetic survey indicated two possible weak conductive zones of limited extent. One of these would be in the volcanic rocks whereas the other, which appears to extend off the property, may be within the sedimentary rocks.
Further check work is recommended prior to any consideration of diamond drilling. This could take the form of a vertical loop survey over the conductive zones to obtain greater penetration.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.

Montreal, Que.
May 7, 1965

H.J. Bergmann, P. Eng.
THE MINING ACT
Assessment Work Credits

Name: LOUIS CADESKY ASSOCIATES LTD.

Township or Area: JESSOP TOWNSHIP.

Geophysical 47 Days Work (per claim)

Geological nil Days Work (per claim)

Mining Claims: P 58889, 58890
P 58892 to 58895 inclusive
P 59630
P 59635 to 59638 inclusive
P 66047
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LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- Relative values of the Vertical Component Force of the Earth's Magnetic Field (in Gammas)
- Magnetic Contours
- △ Magnetic Base Station
- ——— Electrical Conductor
- C ——— To 100, Gammas
- D ——— To 700, Gammas
- A ——— H400, To 700, Gammas

MAGNETOMETER SURVEY
—for—
PATRICIA SILVER MINES LTD.
JESSOP TWP, ONTARIO.
—by—
PROSPECTING GEOPHYSICS LTD.

SCALE 1:4000

APR. 1965