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PROSPECTING GEOPHYSICS

REPORT

ON THE PROPERTY OF

JELEX MINES LTD.

EVELYN TOWNSHIP, ONT:

INTRODUCTION

The following report and accompanying maps describe the results obtained in the geophysical surveys carried out on the property of Jelex Mines Ltd. in Evelyn township in the Timmins area of Ontario.

PROPERTY AND LOCATION

The property consists of 37 claims of approximately 40 acres each, situated in Concessions 1 and 2 of Evelyn township, Porcupine Mining Division, Ontario.

The claim group is shown on the accompanying maps and are registered with the Department of Mines as follows:

				No. of Claim
P 7085	18 to P 7	70865	Inclusive	8
р 6076	54 to P 6	50768	Ħ	5
P 6078	7 to P 6	50790	Ħ	4
P 7055	7 to P 7	70559	tt	3

						<u>No. of</u>	Clai
P	70562	and	P	7056 3		2	
P	70 868	and	P	70869		2	
Ρ	70872	and	P	708 73		2	
P	70876	to	P	70883	inclusive	8	
P	67983	and	Ρ	67984		2	
P	70554					<u> </u>	
					Total:	37	

GEOLOGY

According to Map 2046, published by the Ontario Department of Mines, Evelyn township is almost entirely drift covered. From the data available, it would appear that the property may be underlain by volcanic, although the southern portion may be underlain by sedimentary rocks which lie to the south.

GEOPHYSICAL SURVEY RESULTS AND INTERPRETATION

An electromagnetic survey was carried out over the entire property along a network of lines at 400 foot intervals, as shown on the accompanying map. A magnetometer survey was completed on a small portion of the property and the results of this are shown on a

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separate map.

The electromagnetic survey indicated four weak possible conductive zones, as shown on the accompanying map. The responses are extremely weak and it is quite possible that they are entirely due to the overburden conditions. There are also a number of other irregular responses but these can be attributed to the overburden.

The magnetic survey covered only a small portion of the property and one of the weak conductive responses. The readings were quite uniform and do not suggest any irregularity in the underlying formations.

SURVEY 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 outof-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 A-2 magnetometer measuring the variations of the vertical component of the earth's magnetic field. Readings were plotted as gammas and contoured on the accompanying map after correction for diurnal variation.

CONCLUSIONS AND RECOMMENDATIONS

The electromagnetic survey indicated some weak responses that could possibly represent conductive zones beneath the overburden. However, there is also a distinct

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possibility that they may be due to the overburden conditions and prior to any investigation by diamond drilling, it is recommended that further detail geophysical work be carried out using equipment capable of greater penetration. A large vertical loop electromagnetic unit using maximum coil separation could be used.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.

Montreal, Que. Aug. 3, 1965.

H.J. Bergmann, P. Eng.



