

# GM 18677

REPORT ON A GEOCHEMICAL MAGNETOMETER & EM SURVEY

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REPORT ON A GEOCHEMICAL  
MAGNETOMETER, & E.M. SURVEY  
OVER THE CLAIMS HELD BY  
ELM POINT MINES LIMITED,  
DEVILLE TOWNSHIP, GASPE AREA,  
QUEBEC.

PUBLIC

Ministère des Richesses Naturelles, Québec

3 JAN 1967

SERVICE DES GITES MINÉRAUX

No GM- 18677

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A report on a Geochemical  
Magnetometer, & E.M. Survey  
over the claims held by

ELM POINT MINES LIMITED,

Deville Township  
QUEBEC

INTRODUCTION

At the request of the company a survey, comprising Magnetometer, E.M., and Geochemistry was conducted over the claims of Elm Point Mines Ltd., Deville Township, Quebec, during the period August 2nd to October 7th. The findings are outlined in the following report.

PROPERTY

The Company holds ten (10) contiguous claims, in a rectangular block - five claims east and west and two claims north and south. The claims cover approximately 400 acres and are located by the numbers:

License 230434 - Claims 1, 2, 3, 4, 5,  
" 230435 - " 1, 2, 3, 4, 5.

LOCATION

The claims are located in Deville Township, in the north-western portion of the township in the Electoral District of Gaspé Nord, Province of Quebec, and lie three miles south of the Gaspé Park boundary.

The property is readily accessible from the colonization and highway system, as a 4-way - all weather cross road is located on the claims.

LOCATION (cont'd)

Access to the region is by air, rail or road to nearby centres, and thence by road to the property.

FEATURES AND TOPOGRAPHY

The area is of moderate relief, with flat topped hills rising to 1,500 to 2,000 feet above sea level, and which are separated by valleys 500 to 600 feet deep.

The ground is heavily wooded with spruce, pine, balsam, birch, poplar and maple, with some good sized timbers present. Slash and undergrowth is heavy. The soil cover is of soil, sand and moss and shows very little outcrop.

The property adjoins, on the east boundary, Lessois creek (Ruiss) which provides an ample water supply. Power and communication would be made available from local rural sources or nearby mining properties.

GENERAL GEOLOGY

The geology was well covered in the qualifying report and will not be repeated here.

LOCAL GEOLOGY

The property is believed to be underlain by Battery Point & York River sandstones and shales of Lower and Middle Devonian age.

MAGNETOMETER SURVEY

The magnetometer Survey was conducted over a grid cut in a N.S. direction, with a line spacing of 300' and a station interval of 100'. The instrument used was a McPhar Fluxgate M.700 Magnetometer. A control grid with hourly checks was set up to compensate for diurnal drift and storms.

## RESULTS

Four reasonably strong anomalous areas were located with an increase of 1400 gammas over the background for the property. These have been numbered 1 to 4.

A strong basic Lineation can be inferred in anomalies 1, 2 & 3, and it is felt that # 4 would also be part of the same structure, offset to the south by a fault. These structures could be caused by either dykes, or shear zones <sup>CARRYING</sup> magnetic materials, or a contact zone.

## E.M. SURVEY

The E.M. Survey was conducted over the same grid, with a transmitter-receiver separation of 300'. The instrument used was a McPhar R.E.M. MK V in a vertical loop - broadside configuration with the transmitter to the West on all lines but the most westerly.

The results were plotted as a graphical representation with a crossover from W to E being true and E to W a reverse.

## RESULTS

Eight conductive zones were located that had sufficient continuity and intensity to be of interest. These are designated A, B, C, D, E, F, G & G1, H.

Zone A - B., This zone coincides in strike and location with the anomalous zone located in the Mag survey 1, 2, 3, and can be related to this zone.

Zone C., Related to a 100 gamma Mag low.

Zone D., Discontinuous - no mag relation.

Zone E, F., No mag relation.

Zone G - G1., No mag relation - not validated as a true conductor.

RESULTS (cont'd)

Zone H., Follows a stream bed, probable water shear.

GEOCHEMICAL SURVEY

This survey was conducted over the cut grid with a sample interval of 200'. Samples were taken from the C horizon where possible (approx. 18") and bagged and marked in non contaminative paper bags. These samples were then sent to the laboratory and analyzed for Copper, Zinc, and Nickel in parts per million by spectrographic analysis, which is theoretically accurate to 1 - P.P.M.

It must be remembered that the science of Geochemistry is based on the transfer of metallic ions by means of ground water, from a metal source to the subsoil by the movement of the ground water, and the anomalous area located is usually transferred by topographic movement to an area other than directly over the anomalous source. This motion is generally downhill, therefore topographic notations are of critical importance.

A background, threshold and anomalous value are then calculated, based on all samples supplied, and contours drawn.

RESULTS

A series of anomalous zones in all three metals were located and are shown on the map.

3) Zinc zones are marked Z1 to Z8

4) Copper zones are marked C1 to C4.

8) Nickel zone were located N1 to N8.

Z1 - No correlation

N1 - Related to a single strong E.M. crossover.

C1, N2, Z2, - Coincident and related to Gf crossover.

Z3, N3, N4, N6, N7, C2, Z4, C3, C4, Z8 - related to and coincident with Mag. Anomalies 1,2,3 7 4, and E.M. conductors A & B.

Z7, N8., - related to Mag C, and downhill.

Z5, N5., - Probably related to refuse associated with the road and stream.

Z6., - no relation.

### CONCLUSIONS

Several areas of strong coincidence of the Mag, E.M. & Geochemistry were located that would present valid targets for further work.

In order of importance these are:

1) The zone comprising Z3, N3, C2, N4, Z4, N6, C3, N7, C4, Z8, 1, 2, 3, 4, A & B. which could be a fault shear or contact zone carrying mineralization along the zone. This zone has length of 5000 feet and a possible width of 200 feet. The Geochemical zones are related topographically to the zone legitimately. This is a prime drill target - ( 3 to 4 holes).

2) Z7, N8, C. Located well topographically - possibly a parallel fault or contact structure related to zone (1), ( 1 hole).

3) C1, N2, Z2, - Probably related to G1 or E & F. Check topography - may be a plug or inlier.

4) N1 - G., Strong X over and N1 anomaly - possibly 1 hole.

### RECOMMENDATIONS

The results of the survey presented ~~4~~ targets areas for diamond drill holes, two of which are very strong and valid. Zone 1) is of great interest and potential and could be considered to be most encouraging area.

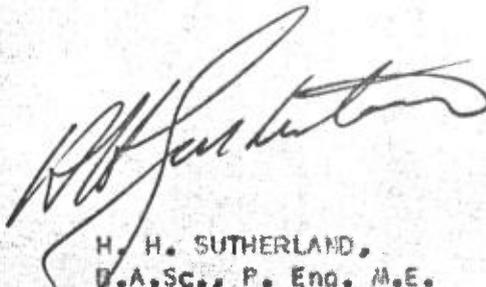
A programme of 4 holes positive and 2 tentative is recommended, the cost of which is as follows:-

<u>RECOMMENDATIONS (cont'd)</u>	<u>BASIC</u>	<u>TENTATIVE</u>
4 holes @ 300' = 1200'		
@ 5.00 per foot	\$ 6000.00	
2 holes @ 300' = 600'		
@ \$ 500 per foot		3000.00
Supervision & Travel =	<u>1000.00</u>	<u>500.00</u>
	\$ 7000.00	\$ 3500.00

The target areas presented have a very strong potential and should be aggressively explored.

Respectfully Submitted,

Oct 29, 1966



H. H. SUTHERLAND,  
D.A.Sc., P. Eng. M.E.

CERTIFICATE

I, the undersigned, do hereby certify:

- (1) I am a Mining Geologist with offices located at No. 12 Richmond St. East, in Toronto.
- (2) I have been practicing my profession continuously for over 14 years.
- (3) I am a graduate of the University of Toronto, 1952, with a degree in Mining Engineering.
- (4) I have no interest, nor expect to receive any interest in the property or securities of ~~the~~ Point Mines Limited.
- (5) I am a member of the Association of Professional Engineers of Ontario.
- (6) This report was based on personal supervision and performance of the surveys and examinations performed and research in private and public publications pertinent.

DATED at Toronto this 29th day of October, 1968.

  
H. H. SUTHERLAND, JR.  
B.A. Sc., P. Eng., M. E.

