

GEOPHYSICAL REPORT  
ON THE  
EUREKA, COBALT and MINE MINERAL CLAIMS  
NANAIMO MINING DIVISION,  
BRITISH COLUMBIA

92F/13E  
Lat. 49° <sup>46'</sup> 51' N; Long. 125° 33' W  
OWNER OF CLAIMS: J. W. McLeod  
OPERATOR: J. W. McLeod  
CONSULTANT: E. P. Sheppard, P. Eng.

BY:  
James W. McLeod, B.Sc.

February 15, 1979

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Eureka, Cobalt, Mine Mineral Claims

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GEOPHYSICAL REPORT  
EUREKA, COBALT and MINE MINERAL CLAIMS

INTRODUCTION

The Eureka, Cobalt and Mine mineral claims are located on the southeast side of Upper Quinsam Lake, Vancouver Island, 24 kilometres from Campbell River, British Columbia. Access to the property is gained by travelling southeast for 37 kilometres by motor vehicle from Campbell River.

The property consists of the Eureka (1 unit), the Cobalt (4 units), and the Mine (2 units) claims. The Eureka and Cobalt claims were formerly known as the Moore and Peever claims and have undergone some geological mapping, geochemical surveys, trenching and 14 shallow percussion drill holes. The Mine claim covers the old Argonaut (Iron Hill) Mine which produced magnetite ore from 1951-1957.

The current owner-operator is J. W. McLeod, the author of this report.

The chalcopryrite, cobaltite and high-grade limestone occurrences, known to date on the property, offer significant targets around which to conduct further exploration work.

The present work consisted of 6.4 kilometres of VLF-EM survey. The work was carried out on the Eureka, Cobalt and Mine claims.

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GEOLOGY & MINERALIZATION

The property is underlain by volcanic and sedimentary rocks consisting of basaltic to andesitic flows and limestone which may belong to the Upper Triassic Vancouver Group. These rocks are in turn intruded in places by the Jurassic Quinsam granodiorites.

The writer has observed chalcopyrite, pyrite, cobaltite, niccolite?, erythrite, annabergite? and malachite on the Eureka-Cobalt claims and magnetite and chalcopyrite on the Mine claim.

SURVEY METHOD

A VLF-EM survey was conducted over portions of the Eureka, Cobalt and Mine claims at a line-spacing of 50 metres and station intervals of 25 metres. The survey was conducted with a Geotronics VLF-EM; Model G28; Serial #V-102 detecting a 18.6 KHz signal transmitted from Seattle, Washington.

The purpose of the survey was to try to locate a continuation of the mineralized shear on the Eureka-Cobalt claims which was seen to trend N 73°. Two lines were run on the southern side of the Mine claim with the hope of encountering a conductive zone.

CONCLUSIONS

The survey conducted over a portion of the Eureka-Cobalt claims reveals a discontinuous series of dip-angle crossovers which are thought by the writer to indicate the

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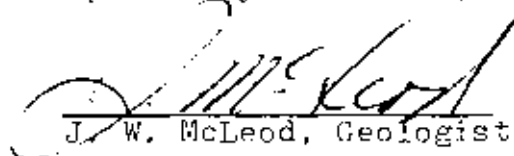
continuation of the N 73° shear with the possibility of mineralization.

No crossovers were encountered in the survey of the Mine claim area.

COST OF PROGRAM

<u>Wages:</u> January 20-23, 1979, inclusive	
1 man \$75/day	
1 man \$100/day .....	\$700
Room & Board	
8 man-days @ \$20/man/day	
	.... 160
Transportation .....	140
Total .....	<u>\$1,000</u>

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Respectfully submitted,

  
J. W. McLeod, Geologist

C E R T I F I C A T E .

I, JAMES W. McLEOD, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a geologist and member of the Geological Association of Canada;
2. I reside at 4086 W. 17th Avenue, Vancouver, B.C., V6S 1A6;
3. I graduated in 1969 from the University of British Columbia, B.Sc. (Geology Major);
4. I have practiced my profession since 1969;
5. I own the Eureka, Cobalt and Mine mineral claims;
6. The above report is based on field work performed by myself during January 1979.

DATED AT VANCOUVER, B.C., THIS 15th DAY OF FEBRUARY, 1979.

  
James W. McLeod, B.Sc.

C E R T I F I C A T E

I, E. PERCY SHEPPARD, of the City of Vancouver, in the Province of British Columbia, hereby certify THAT:

I am a Consulting Geologist, at #1606-M, 1600 Beach Avenue, Vancouver, B.C., V6G 1Y7;

I am a graduate of Dalhousie University, with a B.Sc. in Geology, and have been active in mining exploration and geophysics for over thirty years;

I have reviewed the accompanying report on the Eureka, Cobalt and Mine claims prepared by Mr. J. W. McLeod, Geologist. Mr. McLeod has written a comprehensive report on the geophysical work he performed on the property. I have no hesitation in presenting his material.

Mr. McLeod has carried out work under my supervision in the past and I found him to be a competent field geologist;

I have no direct or indirect interest in the property covered by this report, and do not expect to receive any such interest as a result of writing this Certification;

I am a member of the Professional Engineers Association of British Columbia, the American Institute of Mining Engineers, and a Fellow in the Geological Association of Canada.

DATED THIS 15th DAY OF FEBRUARY, 1979, at Vancouver, B.C.

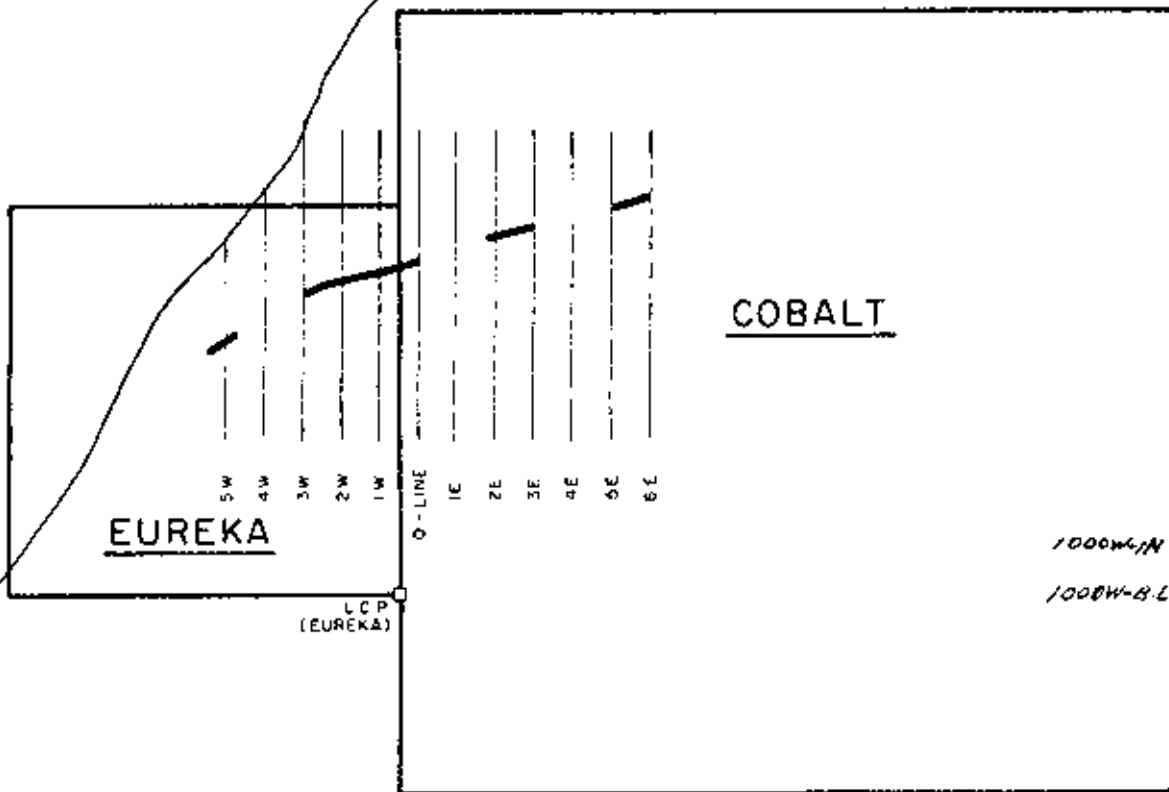


*E. P. Sheppard*  
E. P. Sheppard, P. Eng.





Upper Quinsam Lake



MINE

COBALT

EUREKA

LCP  
(EUREKA)

1000W-N  
1000W-B-L

LCP  
(COBALT)

UPPER QUINSAM

VLF - EM PLAN  
SLOPE CROSSOVERS

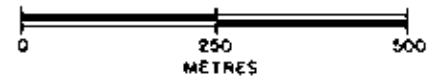
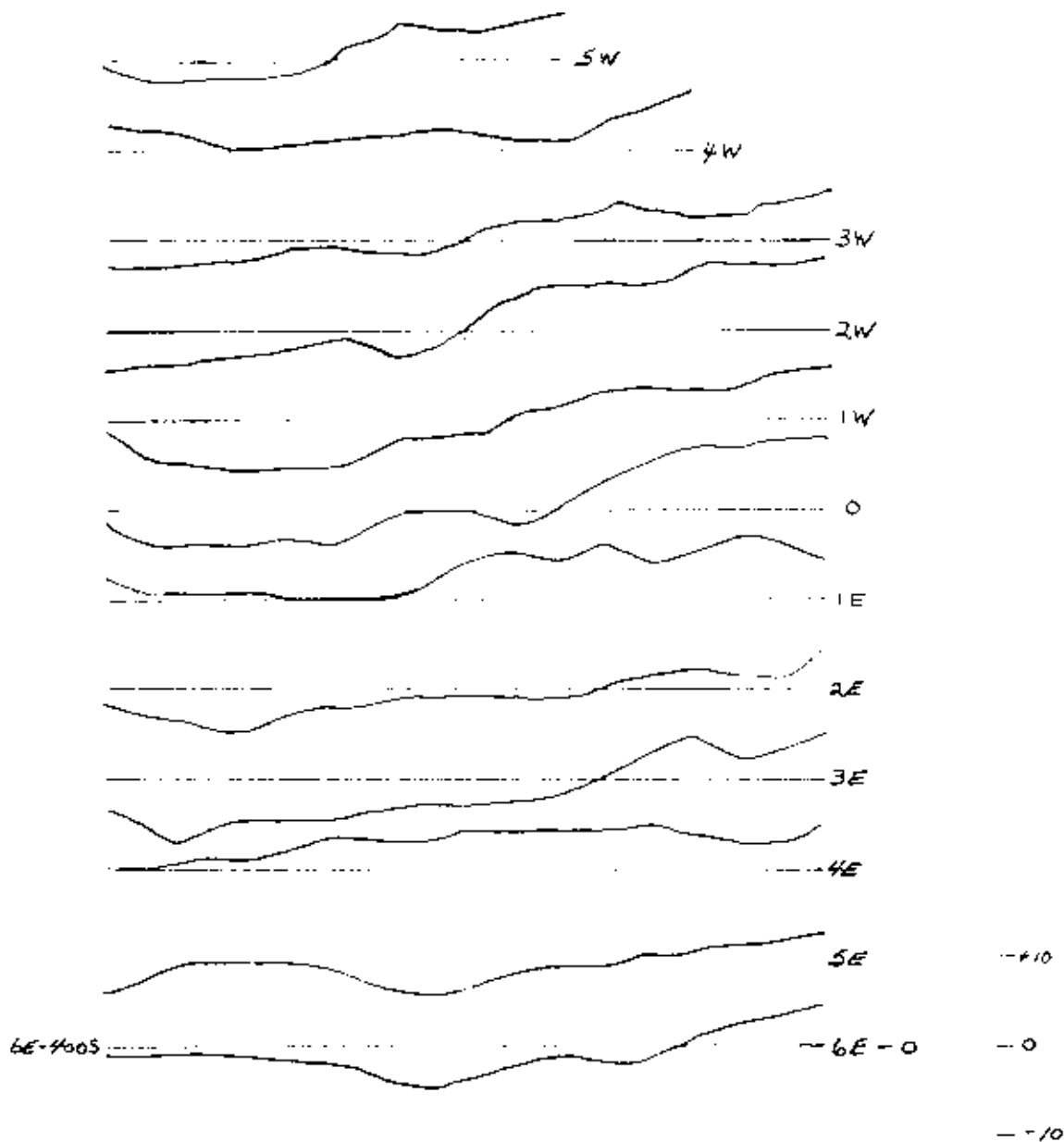


FIG. 2



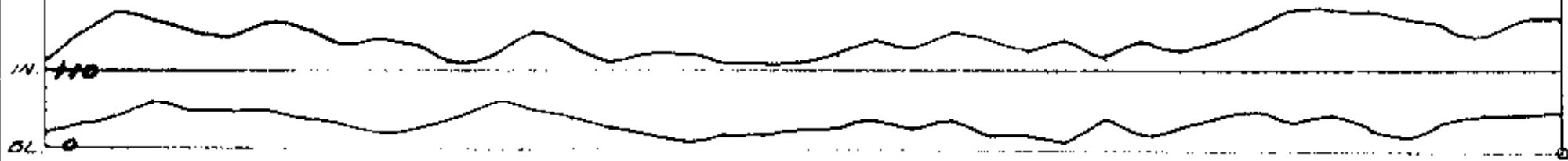
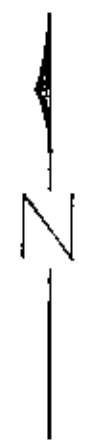
SEATTLE  
WASH.

VLF - EM PLAN  
DIP-ANGLE PROFILES



FIG 3

MLNE



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VLF-EM PLAN  
DIP-ANGLE PROFILES

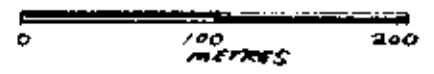


FIG. 4