ASSESSMENT REPORT ON
GEOCHEMICAL SOIL SAMPLING ON
MILDRED MINERAL CLAIM

L96G, Victoria Mining Division
Record Number 36(3)
Latitude 48°53'N
Longitude 123°49'W

by
Andre M. Pauwels, B.Sc.

Owner and Operator: Union Miniere Explorations
and Mining Corporation Limited

Work Dates: March 25-26, 1979
Date: May 22, 1979
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INTRODUCTION

The claim is located 7 kilometers northwest by road from Chemainus, B.C. on the eastern slopes of Mount Brenton. An excellent main logging road, owned by MacMillan Bloedel, is located less than 1 kilometer east of the Mildred claim. A secondary logging road in poor condition ends shortly east of the claim. The centre of the property is at latitude 48°53'N and longitude 123°49'W. Elevations range from 400 to 700 meters above sea level. The claim is within the Vancouver Island ranges of the Insular Mountains physiographic subdivision.¹

Fifty-eight soil samples were taken over the Mildred claim. Line placement and sampling was done by Messrs. R. Turna and C. Backhouse under the supervision of A. Pauwels, B.Sc.

GEOLOGY

The property is underlain by schistose metavolcanics of the Sicker Group.² The claim was mapped in detail by J.R. Deighton³ in 1976 and found to be underlain by chlorite schist, quartz sericite schist, quartz eye porphyries and diorite intrusives.

GEOCHEMICAL SURVEYS

Line Placement

Lines were traced by compass, marked with coloured vinyl flagging and distances measured with a hip chain. Stations were marked every 25 meters. Distances on slopes were corrected to horizontal through measurements of the slope with a visual dip angle meter. The baseline runs east-west and lines


²Muller, J.E., 1977, Geology of Vancouver Island, G.S.C. Open File 463

were emplaced every 100 meters along the baseline in a N10°E direction. Samples were taken at 50 meter intervals along the lines.

**Soil Sampling and Analytical Methods**

At each sample site a hole was excavated with a shovel and 0.5 to 1 kg of medium brown coloured B soil horizon was collected and placed in a kraft sample bag. The B soil horizon is well developed and the soil samples were taken from the top of the B horizon at a depth of 10 to 30 cm. Soil profiles and the respective soil horizons are well developed over the claims and overburden cover is thin.

The copper, lead, silver, and zinc in the soil samples were analysed by Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C. Soil samples were dried at 75°C and sieved to -80 mesh. A 0.50 gram sample of this sieved soil was digested in dilute aqua regia in a boiling water bath for 1-2 hours, bulked with demineralized water, and analysed by atomic absorption. The sensitivity of the analytical method for the various metals is: 
Cu, 1 ppm; Pb, 2 ppm; and Zn, 1 ppm.

**Results**

An insufficient number of samples were taken over the Mildred claim to do a valid statistical analysis of the results. The soil samples from the Mildred claim were included in the statistical analysis of the samples from the adjacent Faith and Nonesuch claims. The cumulative frequency versus copper, lead, and zinc concentration for soil samples collected from the Faith, Mildred and Nonesuch mineral claims is illustrated in Figure 2. The plots indicate two distinct populations for each metal. The first population for each metal is thought to represent background concentrations in the underlying bedrock. The second, higher population for each metal is considered probably anomalous and caused by base metal mineralization. Values equal or in excess of 150, 18 and 150 ppm are considered probably anomalous for copper, lead and zinc. Zones of overlap, or possibly anomalous values exist from 110-150 ppm for copper, from 14 to 18 ppm for lead, and from 110 to 150 ppm for zinc. The values for copper, lead, and zinc are illustrated on Figures 3 to 5. Copper and zinc values are contoured at 110, 150 ppm and lead values at 18 ppm.

Probable anomalous values of copper, lead and zinc largely coincide in
FIGURE 2
FAITH, MILDRED AND NONESUCH
MINERAL CLAIMS
Cumulative frequency versus ppm for Copper, Lead and Zinc.
the southern half of the Mildred claim. The area of anomalous values is situated on steep sloping terrain and the anomaly is open to the west and the south.

CONCLUSIONS AND RECOMMENDATIONS

Geochemical soil surveys located a large area of coinciding anomalous copper, lead and zinc values.

Prospecting, mapping and profile sampling in test pits is recommended to determine the cause and the source of these anomalous base metal values in the soils.

Respectfully submitted,

Andre M. Pauwels, B.Sc.
APPENDIX I

STATEMENT OF EXPENDITURES

Line Placement and Soil Sampling

R. Turna, March 23, 1979 - 1 day @ $81.20/day $ 81.20
C. Backhouse, March 24-26, 1979 - 3 days @ $43.76/day $131.28

Analysis

58 soil samples @ $2.17/sample $125.86
(analysed by Acme Analytical Laboratories Ltd.,
852 East Hastings Street, Vancouver, B.C. V6A 1R6)

Supervision

A. Pauwels, 1/2 day @ $140.08/day $ 70.04

TOTAL $408.38*

*The total amount exceeds the amount declared on Statement of Exploration and Development received and recorded on March 27, 1979. At the time of recording the work, not all costs could be evaluated yet.
APPENDIX II

AUTHOR'S QUALIFICATIONS

I, Andre M. Pauwels of 4900 Mariposa Court, Richmond, B.C. hereby certify that:


2) I have practised my profession since 1970 with Union Miniere Explorations and Mining Corporation Limited (UMEX) in Ontario (1970-1972) and British Columbia (1972-1979).
Geochemical Soil Survey for Lead
FAITH, NONESUCH & MILDRED MINERAL CLAIMS.

Scale: 1/5000
NTS 92 B 13W


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Geochemical Soil Survey for Zinc
FAITH, NONESUCH & MILDRED MINERAL CLAIMS.

To Accompany "Assessment Report on Geochemical Soil Sampling on Mildred Claim"
by A. Paauwe B. Sc. May 22, 1979

Scale: 1" = 5000' NTS 92B 13W

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