# UMEX UNION MINIÈRE EXPLORATIONS AND MINING CORPORATION LIMITED

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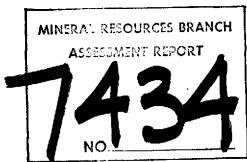
ASSESSMENT REPORT

ON GEOCHEMICAL SOIL SURVEYS FOR COPPER, LEAD, AND ZINC ON THE FAITH CLAIM GROUP

FAITH, NONESUCH MINERAL CLAIMS Record Numbers 85 (5), 56 (11)

> N.T.S. 92B/13W Latitude 48° 53' Longitude 123° 48'

by: A. Pauwels, B.Sc.



Owner and Operator: Union Miniere Explorations and Mining Corporation Limited

Work Dates: March 23 - April 2, 1979

Date: July 19, 1979

### CONTENTS

			Page
INTRODUCTION			. 1
GEOLOGY		• • • • • • • •	. 1
GEOCHEMICAL S	SURVEYS	• • • • • • • • • •	. 1
Soi	ne Placement		. 1 . 2 . 2
CONCLUSIONS A	AND RECOMMENDATIONS		. 3
	Appendices		
APPENDIX I	- STATEMENT OF EXPENDITURES		
APPENDIX II	- AUTHOR'S QUALIFICATIONS		
	$x = V \hat{W}_{t,t}$ (2)	•	
	Figures	fo	llowing page
FIGURE 1 -	Location of Faith and Nonesuch $\epsilon$	laims, 1/50,000	. 1
FIGURE 2 -	Cumulative Frequency versus Copp Zinc, Faith, Mildred and Nonesuc		. 2

FIGURE 3 - Geochemical Soil Sampling for Copper, 1/10,000. . . . in pocket

FIGURE 4 - Geochemical Soil Sampling for Lead, 1/10,000. . . . in pocket

FIGURE 5 - Geochemical Soil Sampling for Zinc, 1/10,000. . . . in pocket

## ASSESSMENT REPORT ON GEOCHEMICAL SOIL SURVEYS FOR COPPER, LEAD, AND ZINC ON THE FAITH AND NONESUCH MINERAL CLAIMS

#### INTRODUCTION

The claims are located 8 kilometers southwest by road from Chemainus, B.C. on the easterly slopes of Mount Brenton. An excellent main logging road, owned by MacMillan Bloedel, traverses the southeastern corner of the Faith claim. A secondary logging road in poor condition traverses the southern part of the Faith claim.

The centre of the property is at latitude 48°53' and longitude 123°48'. Elevations range from 200 meters along the eastern boundary to 1200 meters above sea level on the slopes of Mount Brenton. The claims are within the Vancouver Island ranges of the Insular Mountain physiographic subdivision. Surveys were done from March 23 to April 2, 1979. Work was recorded at the Vancouver recording office on May 1, 1979.

Line placement and sampling were done by Messrs. R. Turna, D. Sketchley, F. Thrane, G. Shahki, and C. Backhouse under the supervision of Mr. A. Pauwels, B.Sc.

#### GEOLOGY

The property is underlain by schistose metavolcanics of the Sicker Group. The claims were mapped by J.R. Deighton in 1976 and found to be underlain by chlorite schist, quartz sericite schist, quartz eye porphyries, and diorite intrusives.

#### GEOCHEMICAL SURVEYS

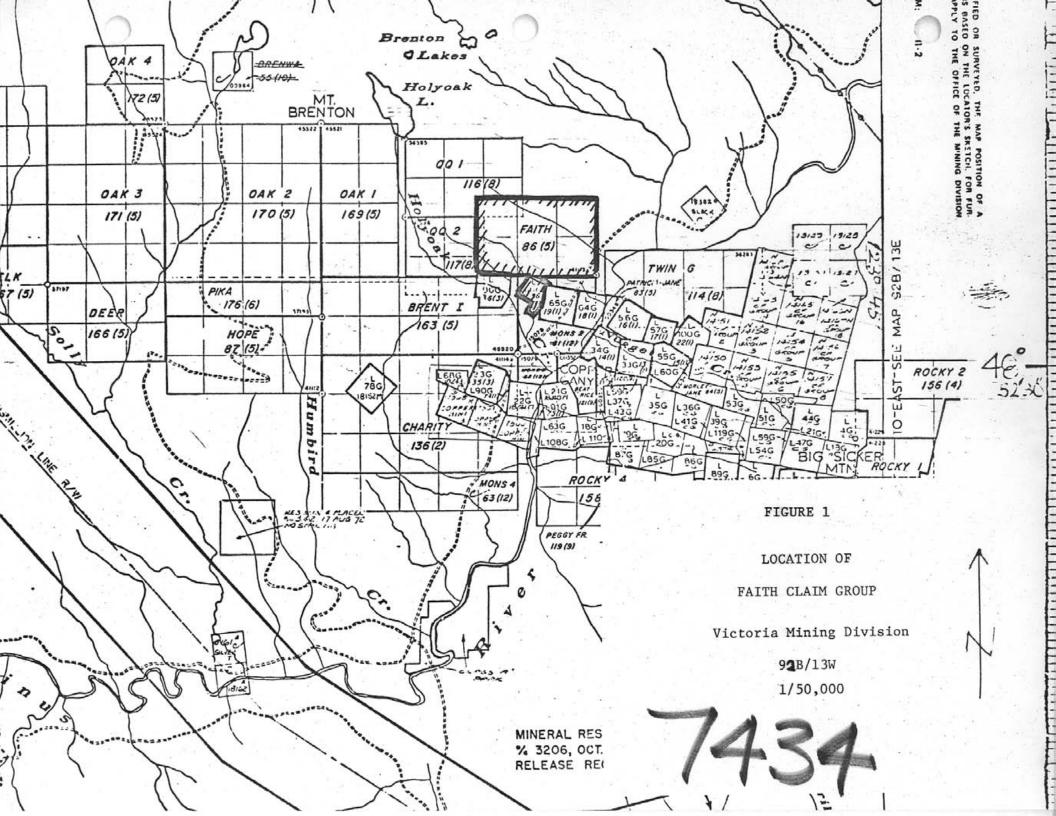
### Line Placement

Lines were traced by compass, marked with coloured vinyl flagging and

Holland, S.S., 1964, Landforms of British Columbia: A Physiographic Outline, B.C.D.M. Bulletin 48

<sup>&</sup>lt;sup>2</sup>Muller, J.E., 1977, Geology of Vancouver Island, B.C., G.S.C. Open File 463

<sup>&</sup>lt;sup>3</sup>Deighton, J.R., Geological reports on the Faith and Nonesuch Claims, Assessment Reports submitted in February, 1977



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 were emplaced every 100 meters along the baseline in a N10<sup>o</sup>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

A total of 243 samples were collected and analysed for copper, lead, and zinc. The soil samples from the adjacent Mildred claim were included in the statistical analysis of the samples from the 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,

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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. A large cluster of coincident anomalous copper, lead, and zinc values were found in the southwestern corner of the property along lines 15 to 9 west.

Anomalous copper and lead values also coincide in the north-central part of the Faith claim, only a few higher zinc values occur in this area. Both anomalous areas are situated on very steep slopes and a large part of the anomalies could well be caused by down slope dispersion from an up slope source situated north and west of the Faith claim boundary.

#### CONCLUSIONS AND RECOMMENDATIONS

The geochemical surveys on the Faith and Nonesuch claims delineated two areas with anomalous lead, copper, and zinc values. To determine the source and cause of these anomalies, rock sampling, prospecting, and soil profile sampling in test pits is recommended.

Respectfully submitted,

A. Pauwels, B.Sc.

## APPENDIX I

## STATEMENT OF EXPENDITURES FAITH CLAIM GROUP

Line Placement and Soil Sampling:	
R. Turna, March 23, 1979 - 1 day @ \$81.20/day D. Sketchley, March 23, 24, 1979 - 2 days @ \$81.44/day F. Thrane, March 26, 1979 - 1 day @ \$56.24/day G. Shahki, March 26, 27, 1979 - 2 days @ \$53.92/day C. Backhouse, March 26, 30, 31, April 1, 2, 1979 - 5 days @ \$43.76/day	\$ 81.20 \$ 162.88 \$ 56.24 \$ 107.84 \$ 218.80
Supervision and Planning:	
A. Pauwels, March 7, 1979 - 1 day @ \$147.08/day	\$ 147.08
Drafting, Report:  A. Pauwels, office, April 27, 1979 - 1 day @ \$140.08/day	\$ 140.08
Truck: 6 days @ \$40/day (including gas)	\$ 240.00
Food and Lodging: 12 days @ \$16/day	\$ 192.00
Shipping of samples	\$ 7.40
Analysis: Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C. V6A 1R6	
234 samples @ \$2.17/ea.	\$ 507.78
Sample bags: 234 bags @ \$0.04/ea.	\$ 9.36
Survey supplies: flagging tape, etc.	\$ 35.00
Office supplies and typing	\$ 100.00
TOTAL	\$2,005.66
	***

#### APPENDIX II

## AUTHOR'S QUALIFICATIONS

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

- 1) I am a graduate of the Rijksuniversitet of Ghent, Belgium, B.Sc. Geology in 1970.
- 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).

