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R E P O R T

THE O.F. CLAIM GROUP

6 Miles E.N.E. of Likely, B. C.
52° 40' N. lat. 121° 38' W. long.

CARIBOO MINING DIVISION

for

KEWEENAW SYNDICATE

by

Albert F. Reeve, P.Eng.,
Cordilleran Engineering Limited

June, 1968

REPORT

on

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TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTION	1
PROPERTY	2
BACKGROUND	3
RESULTS	5
a) Geology	5
b) Geophysics	6
c) Geochemistry	7
SUMMARY & CONCLUSIONS	8
RECOMMENDATIONS	10

APPENDIX - MAPS

Fig. 1 - Property Plan showing work carried out to date.	1" = 1,500'
Fig. 2 - Magnetic Plan	1" = 200'
Fig. 3 - Geochemical plan with geology notes.	1" = 200'

INTRODUCTION

This report generally summarizes the results of exploration to date on the QF claim group and particularly describes work carried out during the period of May 20 to June 1, 1968.

Three sketches showing the location of the property and details of work done in 1968 are appended.

PROPERTY

<u>Claim Name</u>	<u>Record No.</u>	<u>Assessment Anniversary</u>	<u>Remarks</u>
QF #1 to #10	43571 to 43580	Sept.12,1968	
QF #23 to #26	43593 to 43596	" " "	
QF #28	43597	" " "	
QF #30	43598	" " "	Abando-
QF #32	43599	" " "	ment
QF #54	55436	Apr.8,1969	
QF #56	55438	" " "	Recom-
QF #57	55439	" " "	mended.
QF #58	55440	" " "	
QF #53	45435	Apr.8, 1969	Hold
QF #55	45437	" " "	
QF #11 to #22	43581 to 43592	Sept.12,1968	
QF #34	43600	" " "	
QF #36	43601	" " "	
QF #38	43602	" " "	Hold
QF #40	43603	" " "	
QF #42	43604	" " "	
QF #44	43605	" " "	

BACKGROUND

The following is a brief outline of the events associated with the acquisition and exploration of the QF Claim Group. (See Fig. 1.)

1. August 1967 - discovery of broad Copper, Geochemical Anomaly near Quesnell Forks by reconnaissance sampling.
2. September 1967 - Staked 35 claims, QF Group, to protect anomaly.
Approximate cost - \$350.00
3. September 1967 - Reconnaissance soil and stream sediment sampling and detailed prospecting.
Approximate cost - \$600.00
4. October 1967 - Acquisition of Maud and Axe Claims (12) from Andrews et al of Quesnel.
Approximate cost - \$600.00
5. October 1967 - Stripping (D-8 bulldozer) Mapping and geochemical sampling of trenches
Approximate cost - \$4,000.00
6. April 1968 - Acquisition of 6 additional QF Claims by staking.
Approximate cost - \$250.00
7. May 20 to June 1, 1968

During this period a geochemical anomaly on Claims 12 and 14 was investigated by doing additional sampling and a limited magnetic survey in an area about 2000' x 1700'. The

geology of the property was re-examined, a rock trench was excavated and slashing of fallen trees was done along the 1967 dozer cuts according to instructions from the B. C. Forestry Department.

The field crew consisted of:

Dr. F.D. Forgeron, Geochemist

A.F. Reeve, Geologist

L.P. Duquette, Prospector

D. Forgeron, Field Assistant

Approximate cost: \$ 2,500.00

Total cost of work to date: \$ 8,300.00

RESULTS

(a) Geology

Prior to trenching carried out in 1967 there was very little outcrop on the QF Group and anomalous amounts of copper in stream sediments and soils could not be explained.

Subsequent trenching and mapping outlined a W.N.W. trending volcanic intrusive complex. Intrusive rocks are composed of medium grained pinkish to grey feldspar with variable amounts of quartz and fine laths of hornblende. Volcanics in the area of interest are principally green andesite and basaltic flow rocks containing coarse crystalline pyroxene (probably augite). A few outcrops are composed of fine grained non-porphyrific dacite which is light green to grey-buff in colour. Rocks along the intrusive contacts are shattered and altered in the following manner: There are two dominant sets of steeply dipping fractures and shears trending about 160° Az and 240° Az. Some of these are filled with quartz veinlets and pink syenite. Other features associated with contact alteration are: bleaching, particularly adjacent to veining; pyritization and magnetite.

Minor copper mineralization was noted at several locations in the bulldozer cuts:

1. As fine, sparse disseminations of chalcopyrite in intrusive rocks on Claim Nos. 32 and 9.
2. As coarse grains of chalcopyrite in a shear zone about 1 foot wide on Claim No. 6.
3. On Claim No. 2 chalcopyrite occurs in synite cut by old workings at the Bullion townsite.
4. Faint coatings of chalcopyrite and native copper occur in altered contact rocks on Claim No. 12.

(b) Geophysics

(see fig. 2.)

A localized magnetic survey carried out on claims 8, 12, 13 and 14 in May of this year was useful for geological interpretation. Total magnetic relief of 2,000 gammas in the vertical field component was observed. Outcrop information suggests that the high irregular observations in south-east part of the survey area are caused by augite andesite. Lower (less than 600 gammas) and more regular results form an EW trending feature which is associated with fractured intrusive material and siliceous volcanic rocks.

(c) Geochemistry

The results of detailed sampling and soil profile data (May, 1968) are shown on figure 3.

Ninety-eight samples were taken from the B soil horizon on a 100' x 400' grid. Background copper content is less than 100 parts per million. Anomalous values of 178 to 2200 p.p.m. Cu. occur in an area 1400' x 700'. Mo. is generally low and irregular, however higher than average amounts are associated with anomalous coppers.

The study and sampling of a soil section 10' thick in a trench on the north half of claim #12 produced the following result: Below the B horizon and above solid bedrock the soil contains 1200 to 7600 p.p.m. Cu. (.12% to .75%). Samples of fresh rock blasted from a point near the base of profile assayed .06% Cu.

The composition of the section from surface to bedrock is as follows:

1. 1 ft. well developed A and B horizon.
2. 2½ ft. of grey gritty C horizon.
3. 2½ ft. of gossam breccia (old slide) consisting of angular rock fragments cemented with iron oxide. This is the gossam associated with the geochemical anomaly referred to in our previous report dated January 1968.
4. 4 ft. of grey C and decomposed bedrock.

This is located on a steep to moderate slope which is drained by a number of small surface and underground streams.

SUMMARY AND CONCLUSIONS

1. Initial Exploration on the Q.F. claim group near Likely, B.C. late 1967 was based on a broad, vaguely defined copper geochemical anomaly.
2. No important copper mineralization has been found in the anomalous area. The property still offers some modest exploration potential in terms of geology and geochemistry. The total cost of exploration to date including property acquisition and administration is \$8550.
3. For the purposes of evaluating the work done to this point and consideration of future plans, the claim group is divided into 2 areas. (see fig. 1.)

Area A - 21 claims - This part of the property can be considered as thoroughly explored by prospecting, geochemical sampling and stripping. Anomalous geochemical results are probably caused by scattered traces of chalcopyrite associated with intrusive-volcanic contact zones.

Area B - 18 claims - Exploration work here is incomplete. Three specific geochemical targets have not been investigated;

Area B (cont'd.)

- a) Deep soil samples from the profile on claim #12 carry up to .75% copper indicating a source up slope.
 - b) A soil sample on claim #15 carries 740 p.p.m. Cu.
 - c) Two stream sediment samples on claim #19 run 325 and 1100 p.p.m. copper.
4. Limited detailed work done in May 1968 suggests that magnetics are useful for tracing siliceous intrusive and volcanic rocks (map unit A) which appear to be the most likely source of copper mineralization.
- Figures 2 and 3, appended, show that rock unit A, a low, quiet magnetic feature and positive copper values produce a clearly coincident E-W trend.
5. Further limited exploration work is justified to complete investigation of the original geochemical anomaly. No further physical work should be done until systematic geochemical and geophysical surveys, on a marked grid, are completed, so that specific targets can be defined and pursued.

RECOMMENDATIONS

A. Abandon the following 21 claims:-

Q.F. 1 to 10 inclusive

Q.F. 23 to 26 "

Q.F. 30

Q.F. 32

Q.F. 54

Q.F. 56

Q.F. 57

Q.F. 58

B. Hold the following 20 claims for at least one additional year by applying assessment work:

Q.F. 53

Q.F. 55

Q.F. 11 to 22 inclusive

Q.F. 34

Q.F. 36

Q.F. 38

Q.F. 40

Q.F. 42

Q.F. 44

C. The following exploration programme is suggested for the 20 claims shown as area A on figure 1 of this report.

Recommendations (cont'd.)

C. (cont'd.)

1. Line cutting, 20 miles @ \$40 (blazed lines, chained & flagged)	\$ 800.00
2. Soil sampling and analysis (1000 samples @ \$2.00)	2,000.00
3. Magnetic survey, 20 miles @ \$40	800.00
4. Supervision and office overhead	1,000.00
5. Travelling expense including vehicle	600.00
6. Miscellaneous expenses	300.00
7. Contingency allowance	500.00


Total estimated cost: \$ 6,000.00

Contingent upon the success of the above follow-up,
mechanical stripping may be done for approximately \$5,000.00.

Respectfully submitted,

CORDILLERAN ENGINEERING LIMITED




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