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## PROGRESS REPORT

on

## QUATAM RIVER PROPERTY

## BRITISH COLUMBIA

of

## CAPILANO EXPLORATIONS LTD. (N.P.L.)

by

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Vancouver, B.C.

May 5th, 1970.

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Figure 1 - Geological Map

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Figure 2 - Reconnaissance Soil & Silt Sample Map

#### SUMMARY AND CONCLUSIONS

Additional geological information to that obtained during a preliminary examination of the Quatam River property indicates a potential for an economic porphyry-type copper deposit. The main area of copper mineralization is underlain by an altered breccia of dimensions inferred to be about 2000' by 1000'. The extent of the breccia is approximately known in the northeast-southwast direction but is poorly defined in the northwest-southeast direction, being a minimum of 2000'. The mineralization extending to the southwest of this zone, as noted in the previous report, is now known to be associated with isolated silicified shear zones within the pink granite and Burma Creek granodiorite. No economic potential exists for this type. The apparent extent of, and the widespread copper mineralization in the altered breccia zone make it a prime exploration target.

#### RECOMMENDATIONS

The recommendations as set out in the previous report, dated April 9th, 1970, are confirmed. It is recommended that more surface investigation of the entire property be carried out but that tractor trenching and the induced polarization survey be confined initially to the altered breccia zone. As a revision to the original recommendations, it is recommended that a ground magnetometer survey be carried out over the breccia zone as a possible aid in delimiting its extent.

#### INTRODUCTION

This report is written to revise and detail the geological information on the Quatam River property, as presented originally in the report titled "Report on the Quatam River Property, British Columbia, of Capilano Explorations Ltd. (N.P.L.)" by M.F. Cowan, and dated April 9th, 1970. Reference to that report should be made for general information about the property.

Exploration work carried out on the property during April 1970 consisted of geological mapping and reconnaissance soil and silt sampling. The mapping and geochemical survey was limited to elevations below 3000'. At elevations above 3500' snow depth was 10' and more.

As a result of the mapping, the area of principal interest has been revised and outlined. There is no apparent significant extent of the copper mineralization to the northeast or southwest of the indicated zone. Its extent to the northwest and southeast is obscured by overburden.

An additional six mineral claims were staked along the northeast boundary of the property, bringing to 58 the total number of full-sized claims which comprise it.

#### GEOLOGY

The geology of the property is shown on the accompanying geological map at a scale of 1" = 400". The map suggests a simple porphyry-type intrusive with a breccia pipe lying in the host pink granite.

The relative age of the diorite porphyry is not definitely known, but it may be penecontemporaneous with the Burma Creek granodiorite. In the xenolithic breccia, fragments of the porphyry are incorporated in the granodiorite matrix. Southeast of Copper Creek the same porphyry was found and may occur as small intrusive bodies into the granodiorite.

The diorite bodies along Burma Creek may be either intrusive into the granodiorite or older remnants within it. Gradational contacts obscure the relative age interpretation.

Two distinct variaties of granodiorite underlie the property. The Burma Crock granodiorite is medium to coarse grained with a variable quartz content and some monzonitic phases. The Jones Creek granodiorite is finer grained but of apparently similar composition. Both varieties contain varying proportions of hornblende and biotite.

Evidence of faulting along Copper Creek was found at one location (K on geological map) on the west side of Copper Creek. Here, a 30° wide mineralized shear zone striking northeasterly does not continue across the creek. The showing at location (D) and (E) may be a continuation of this zone, in which case right lateral movement is indicated. Fracturing occurs in and parallel to Burma Creek with abundant potassium feldspar alteration and epidotization along seams in the creek bed. Evidence of offsetting was not observed.

#### MINERALIZATION

The copper mineralization, as originally shown on Figure 1 of the previous report, is now known to be discontinuous west of Copper Creek, being confined to northeasterly striking shear zones that cut both the pink granite and Burma Creek granodiorite, at intervals, in the area lying between Copper and Burma Creeks. The altered breccia east of Copper Creek is apparently extensive as observed in scattered outcrep. Its extent is approximately known in the northeast-southwest direction but entirely inferred in the northwest-southeast direction. As shown on the accompanying geological map, it may have dimensions of 1000<sup>4</sup> x 2000<sup>4</sup> or more in the northwest-southeast direction.

The copper mineralization and alteration is similar in both the breccia zone and the shear zones to the west although sericite has developed in the shear zones but is generally absent in the breccia. Copper mineralization in the form of both disseminated grains and tight seems of chalcopyrite occurs in the diorite bodies along Eurma Creek. Scattered, isolated grains of chalcopyrite occur at various places in the pink granite.

There is a fairly widespread association of magnetite with the copper mineralization. It occurs both in the silicified shear zones and altered breccia as disseminated grains and blebs, and along seams and short fractures. Its widespread occurrence may render a ground magnetometer survey effective in outlining areas of interest beneath the overburden.

#### GEOCHEMICAL SURVEY

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Several anomalous areas are indicated by the soll sampling but correlation of anomalous values with the breccia zone was not successful. This could be due to the extremely disturbed nature of the overburden as a result of logging operations. The anomalous values at the eastern extremity of the diorite body along Burma Creek warrant further investigation.

Nost of the silt samples were taken from Burma Creek and did not indicate any anomalous areas. There is almost no silt in Copper Creek. The two samples taken from the lower reaches were of dry silt. Silt sampling does not appear to be a very useful exploration tool for this area.

> Respectfully submitted, BACON & CROWHURST LTD.

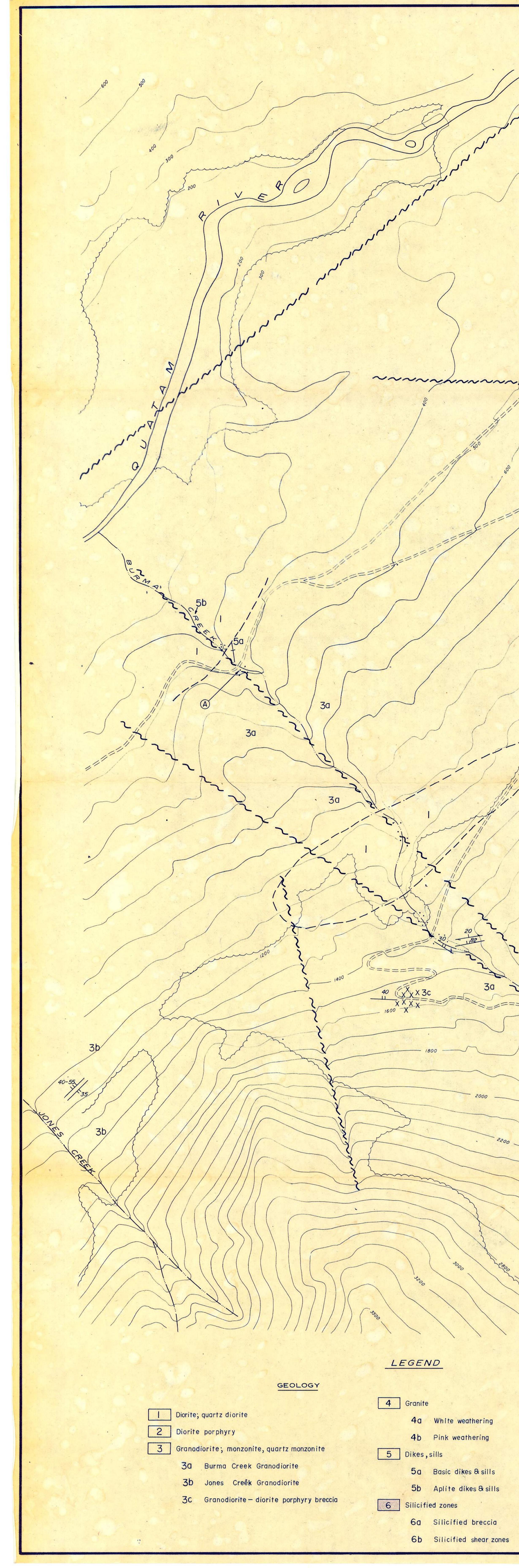
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## APPENDIX

# LIST OF ADDITIONAL CLAIMS

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] Granite	====	Creeks Logging roads Slash approximate extent	
<ul><li>4a White weathering</li><li>4b Pink weathering</li></ul>	N.N NN	Slash, approximate extent Major faults, fractures; observed, Contacts, observed, inferred	inferred
] Dikes, sills		Joints, fractures Sheeting	E-L
<ul> <li>5a Basic dikes &amp; sills</li> <li>5b Aplite dikes &amp; sills</li> </ul>		Dikes, sills Shear zones	
5b Aplite dikes & sills	0		

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A Chip sample location

X X X Xenolithic breccia

Copper mineralization, sparse Copper mineralization, abundant

