

NOTES

RE: PATTERSON PROPERTY

- (1) GRID Ron Bilquist has put in a well marked and picketed cut out Base line along bearing  $291^\circ$  commencing @ the River and running roughly parallel to the transmission line. the Base line commences where the transmission line crosses the river and is designated BL 16+50 N. STA 53+50 E is on the E side of the Main Rd and centered on the power line. cross lines are flagged, blazed and picketed, are easy to see and well marked. Base line is flagged with glt orange flagging and cross lines are in blue. stations are every 25 meters and marked by pickets.

At this time of year the new vegetation has not obliterated visibility. it is to be expected that increased foliage ferns and devil's club etc will cut down visibility of lines somewhat but the line quality is such that no difficulty should be experienced in this regard.

- (2) Terrane The area is characterized by a series of volcanic flows. These commonly form distinct topographic knobs devoid of vegetation separated by forested and occasionally swampy terrane.

The flows appear to slope to the South West resulting in generally very steep and ~~scars~~ common N.E.

facing cliff development. these steep faces may be in part controlled by westerly and NWwesterly trending faults and fractures. (a common attitude on minor quartz veins and mineralized shears is  $090^{\circ}/90$  to  $60$  N and  $120$  to  $140$  /  $50^{\circ}$  to  $90^{\circ}$  NE.) cliff development is commonly only a few feet but often reaches 50 to 200 feet which causes definite problems ~~both~~ in establishing the grid and will cause difficulty in running the geophysical surveys and interpreting the data.

A topographic base map would be most useful for mapping and interpreting results of ~~both~~ geological ~~and~~ geophysical & geochemical surveys.

### ③ ACCESS

Access to the property is exceptionally good due to logging activity spanning an excess of 50 years. Several generations of logging have occurred with natural regeneration of 2<sup>nd</sup> growth timber between 45 and 55 years ago. Old railroad grades are present and could be ~~repaired~~ rehabilitated relatively easily providing further access to the property.

Recent logging roads ~~built~~ ~~within~~ combined with access to the transmission line and the Main Macmillan-Bloedel Haul road (ASH RIVER Rd) provide a variety of <sup>ready</sup> access to most parts of the property.

#### (4) GEOLOGY

The property is underlain on the northern <sup>& western</sup> portion (Thunder Mtn) by a medium grained Hornblende - biotite quartz diorite. The South Eastern portion is underlain by Karmutsen Volcanics. The limits and contact relationships has not been fully determined.

G.S.C. open file 463 by J.F. Muller 1977 ~~described~~ describes the Karmutsen as having "... a lower member about 2600 m thick of pillow lavas; a middle member, about 800 m thick of pillow breccia and aquagene tuff; and an upper member, about 2900 m thick of Massif flows with minor interbedded pillow lavas, breccia and sedimentary layers. ... " most of the volcanics observed between Great Central Lake and the Ash River Rd appears to encompass at least part of the ~~central~~ <sup>middle</sup> ~~and~~ <sup>members</sup> and possibly the upper part of the lower member, at least the rocks fit the description of this portion of the succession.

well

### (5) Mineralization

Very little sulphide mineralization was observed in any of the rocks observed. Quartz, both with and without sulphide is found sparsely, but wide spread across the property. quartz is found as veinlets, stringers, breccias and ~~as veins~~ <sup>occasionally</sup> as ~~pillow~~ intra-pillow formations. It commonly associates with epidote and chlorite in the latter mode of occurrence and is almost totally devoid of sulphide. This style of mineralization has been observed, by the writer, associated with a gold prospect within the Karmutsen formation in the Queen Charlotte Islands. It appears to fit description of mineralization near deep ocean rift systems recently discovered to contain significant gold occurrences in the 10 to 50 gram/tonne range of values. (Cordilleran Round-Up, 1987) This type of deposit is not well documented <sup>in the literature</sup> and may be worth further consideration if any response for Au, Sb, Hg or As is found in any of the samples submitted.

Qtz breccias are found in a few locations, both in place and as float. Quartz in this mode is commonly vuggy and associates with  $14 \frac{1}{2}$  Crs

these occurrences could ~~also~~ be related to the volcanism from which the volcanics were derived. or a result of much later hydrothermal activity perhaps related to the ~~Cretaceous~~ Cretaceous intrusions locally in evidence.

Quartz, both with and without sulphides, <sup>(COP & PY)</sup> is found also in occasional stringers and veinlets, commonly. The quartz is commonly vuggy and stringers vary from less than a centimeter to a few inches in width.

Anomalous amounts of Au in even very small quartz occurrences may prove to be important leads to larger deposits masked by either overlying barren flows or adjacent overburden.

Occasional shear zones and faults display secondary copper mineralization as well as primary chalcocite, pyrite and minor bornite. Local quartz may or may not be present in this circumstance. Epidote and chlorite commonly accompany mineralized shear zones.

Quartz veins and stringers commonly trend ~~NW-SE~~ ~ 090 and dip vertical to steeply ~~NW~~ to the north.

Shear zones bearing quartz and copper mineralization commonly trend 120° to 140° and dip steeply to the north east.

The mineral occurrence at ~~the~~ two old adits located along the drainage from "MUD LAKE" and approx. 425 m from the Main Rd. has the potential to develop up to several meters of width of mineralization, both adits are badly caved and ~~would benefit~~ by the mineralization is strongly shear controlled and contains well developed quartz & sulphid mineralization within the gouge and as veins within the shear, suggesting multiple stages of mineralization.

An old railroad grade passes alongside the mineralization and could easily be cleaned off of trees providing an excellent access route for a small crawler backhoe/loader and on future drilling operations.

The shear zone appears to extend over several kilometers and, at least to the SW of the adits, occasional Ankeritic float along this trend suggests that mineralization along the shear zone might be significantly more extensive than has been previously recognized. The exploration of this trend in both directions from the adits should be a prime objective of both Mapping and Geophysical ~~programs~~ <sup>surveys</sup>.

The presence of roads, distinctive topography, several generations of logging and numerous features such as clearing, lakes and swamps make mapping using stereo pairs of air photos and a photo blow-up base ~~the most desirable technique~~ ~~for the rapid assembling of data.~~ as ~~the~~ one of the most effective and least expensive ~~first pass~~ mapping techniques. This is particularly <sup>so</sup> ~~particularly~~ considering the importance of structural elements such as <sup>volcanic</sup> flows, faults, ~~and~~ shears and veins to the mineral occurrences.

**CAUTION** Old steel cable is common throughout the logged areas both old and new. The cable is not always obvious where several decades of ferns, and leaf litter have buried it. Cable commonly occurs alongside roads and railroad grades but is not found there exclusively. These occurrences will undoubtedly give rise to spurious geophysical anomalies and care must be exercised in interpreting an anomaly along a road as either "natural" or "cable induced" as roads, (such as at the adits), commonly follow topographic features which may be controlled by mineralized features.