

## HO CREEK CONCLUSIONS.

Twelve man days were spent prospecting and sampling in and around the HO Creek area, Tulsequah map sheet. Regional geology sets the HO Creek area entirely within Inklin  $\xi$  sediments. The Nahlin fault trends WNW-ENE 0.5 km north of HO Creek, where quartz-carbonate<sup>altered</sup> ultramafics can be traced for many kilometers.

The BOAT claim group lies directly across Yeth Creek and is 1 km to the west of HO Creek. Though the BOAT claims straddle the Nahlin fault, the area of interest is geologically very similar to that of the HO Creek area.

135 soil samples were collected from contour lines to the west and east of HO Creek. Two lines of 1 km each and a 0.5 km line were sampled to the west, while to the ~~west~~<sup>east</sup> four lines up to 1200m were sampled into a gulch that ~~was~~ is termed HO EAST. Both ~~sample~~<sup>sample</sup> ~~spacing~~<sup>spacing</sup> ~~was~~<sup>was</sup> ~~so~~<sup>so</sup> soil samples were collected in 50m intervals. Three silt samples were collected from ~~near~~ the HO ck area; 1 from HO Creek, 1 from HO EAST Creek and the third from a northeast flowing tributary of HO Creek.

Soil development is adequate to the east of HO Creek while to the west it is fairly poorly developed. B horizon soil was collected whenever possible otherwise soil type was noted.

The fly camp was situated a couple of hundred meters south of the waterfall on HO Creek. This camp-site was practical for most of the work done. Access over the falls is possible via a ledge-pathway located on the west side of the falls. A rope may be secured above the falls for added safety in using this route.

Geologically, the areas of interest were confined to a breccia pipe zone at the waterfalls and in ~~some~~ rhyolite cliffs a few hundred meters west ~~at~~ and above the falls. Prospecting at HO EHST revealed little alteration of Eocene sediments by Tertiary intrusions though a couple of rocks sampled from the creek show promise.

Breccias from the pipe zone of HO Creek contain Eocene sediment and Tertiary (Sioko?) ~~Altrusion~~ volcanic rock fragments. Fragments are rounded to angular and may be up to boulder size. Flow textures can also be observed in breccias with fragments slightly welded and aligned. Eocene sedimentary rock fragments are mostly dark grey siltstone but possibly sandstone fragments are present as well. Pyrite may or may not be disseminated within siltstone fragments, at times ~~average~~  $> 1\%$ . Siltstone fragments probably average a smaller size than volcanic rock fragments. Clay altered quartz-feldspar porphyry rock fragments are ~~the~~ the most abundant volcanic rock fragment. A dull-light green alteration material (talc??) is also found in the quartz-feldspar porphyry fragments. Another type of volcanic rock fragment (possibly sandstone??) may contain up to  $1\%$  disseminated pyrite. These <sup>volcanic rock</sup> fragments are ~~do not~~ are not clay

altered like quartz-feldspar porphyry fragments. A green fuchsite-looking mineral can often be seen usually associated with the volcanic rock fragments.

The matrix of the breccia varies in colour from light to dark grey. Silicification (of breccia in general) is not evident, but may be light at times. Pyrite may be disseminated up to 1% in the matrix. The darker grey matrix appears much finer grained while the lighter grey matrix can appear fairly granular (volcanic??).

Thin quartz and carbonate veins intrude the breccia.

Porphyritic rhyolites and rhyolite breccias (??) are found in outcrop in the cliffs just west of Ho Creek. While prospecting Ho Creek the rhyolites are most abundantly found between Yeth Creek and half-way up to the waterfalls. Feldspar phenocrysts, as well as some of the fragments (?), are often clear altered. Quartz-eyes may also be seen in the rhyolites. The rhyolites vary in colour from a bleached light grey to dark grey. Pyrite occurs as dissemination and as stringers up to 0.5%. These are often very juicy ~~rock~~ looking rocks, but in 1982 we didn't manage to get any to run Au.

A small galena vein or a <sup>fig.-mg. diorite(?)</sup> ~~vein~~ was found in Ho Cr. These sulphides <sup>veins</sup> don't appear to be very extensive or abundant.

The various quartz-feldspar porphyry dykes & related Tertiary intrusions which cut Sukkuk sediments and the

breccia pipe do not cause a great deal of alteration. Tertiary sediments in the prospect area were found to be generally unaltered and unmineralized. A sufficient source of silica and a "motor" to drive a hydrothermal system can be found in the rhyolites. There is enough indication of faults in the area to assume sufficient channels to focus solutions to form a deposit. Possibly there was simply one phase of brecciation with no subsequent silicification, pyritization and re-brecciation.

Geochemical analysis for gold, silver, arsenic and antimony was done for all rocks, soils and slits. ICP geochemical analysis was done for two breccias and two rhyolites.

NOTE:

A small gouge zone was sampled from a north-east flowing tributary of the ch. This gouge material likely contains a few varieties of sulphide.  $Al_2$ -Dolomite veins caught up in this zone also contain abundant pyrite and other sulphides (fine grained).