

ALTERATION ZONE G-#2

013620

(G. Sanford)

Alteration zone #2 was observed during helicopter reconnaissance in late August, 1969. It lies at $133^{\circ} 17' W$ and $62^{\circ} 52' N$. on a creek flowing northward into the Earn River, approximately three miles northeast of Peak 5418, Tay River Map Sheet. This alteration zone was examined on August 30, 1969.

During the examination, soil samples were collected and the area was prospected. Soil samples were taken at 100 ft. intervals along 1000 ft. lines running north, south, east and west from the approximate centre of the zone.

The ridge tops two miles southwest of the zone are massive greenish-grey dacite porphyry. Penocrysts of biotite up to two mm. diameter and penocrysts of quartz up to three mm. diameter compose respectively 30 and 20 percent of the rock. The rest is matrix. About one half mile southwest of the alteration zone, the rock type changes to a massive black chert.

The alteration zone itself consists of moderate to strongly folded and faulted grey bedded cherts and black argillites. These rocks are exposed in a canyon about 150 ft. deep. At the southern end of the canyon, unfolded black bedded argillites strike northwesterly-southeasterly and dip about 60° to the southwest. These argillites are overlain by about 30 ft. of sheared and broken black argillites which are in turn overlain by about 10 ft. of a fine grained blue-grey extrusive with scattered one mm. diameter quartz penocrysts. Pyrite can be found along some fractures in this extrusive. The extrusive lies just below ground level and was followed for about 100 ft. northward. This was the only noted occurrence of extrusive rock in the alteration zone. To the north of this position the rocks are intensely folded and badly weathered.

Greenish weathering grey bedded and folded cherts lie at the base of the canyon and are from 30 to 50 ft. thick. These are overlain by 50 to 70 ft. of folded black argillites. There are some black argillites interbedded with the cherts. Due to the folding, the argillites are badly fractured and consequently they weather much more readily than the more resistant cherts.

Folds are best seen in the greenish weathering grey bedded cherts. Two measured fold axis had approximately northwest-southeast strikes and horizontal plunges but there did not appear to be a preferred direction for folding.

The only mineralization encountered was the pyrite in the extrusive rock. This alteration zone is caused by folding and faulting of cherts and argillites and their subsequent erosion.