

COSMAT 1-12

August 26/71

Dear Com,

We stopped 12 claims here and were glad to hear the silt results confirmed the rubianic results making this camp worthwhile. We ~~called~~ called it the COSMAT group

C for copper (hopefully)

OS for Osilina

MAT for Matello

Labelling on the grid (low line N60°E) I sort of got the South's and West's skewed up so that moving 30° from west on the low line you are actually going south on the grid - oh well it's easy to follow.

The grid is completely soil sampled where there is earth and mapped at 400 feet to the inch. Some of the surrounding geology can be found from camp #8 - rock samples and several gneissosites etc.

There seem to be 4 rock types you can break this into, all gradational one into the other. This is caused by border zones developed upon the intrusion of the diorite into the volcanics. The original volcanics can be seen on the mountain to the north - massive, block, argillite phenocrysts etc. Then there is a zone of partially recrystallized volcanics with feldspar becoming visible as white blebs or a fine white matrix. A few spots of chloropyrite are seen in this with accompanying malachite often surrounding mafic crystals or xenoliths - but not much.

The next phase is a medium grained <sup>granite</sup> diorite with varying amounts of mafics from 30% - 60%. This is the zone where most of the copper is seen; very few zones of concentrated chalcos were seen except at outcrops T5-391, 395, 397 but most every or every second rock you crack has a couple of very small specks of chalcos in it. This is truly disseminated and not in pockets and is spread over almost all of the rock of this type. The highest concentrations seem to be up the river cut between lines 725 and 645. If this copper were concentrated anywhere it may be a hot area selling as it is disseminated throughout. There seems to be a fair bit of attention to epidote and/or k-spar. Copper is often found in the epidote zones. Some open fractures are filled with pink calcite and even some gypsum (!) was found in one crack. There are few veins or veinlets like the surrounding areas. Only one small quartz-feldspar dike was seen.

The last unit is the gneissic coarse grained diorite with very little sulphides at all. It makes you wonder if the <sup>3rd</sup> unit, instead of being a phase of the diorite, is a separate intrusion.

We continued the site sampling south to see if the unconformity continues around and down the creek, and finished the river to the North.

A soil sample anomalous away from the outcrop would surely be exciting to see.

Terry