

Report of mineral claims held by Falconbridge

Purpose: The examination was made to check the gossanous area for porphyry Cu-type alteration and to see if any significant leaching of Cu had taken place.

Conclusions:

1. There has been no significant leaching of Cu minerals
2. The amount of Cu in the outcrops appears to be insignificant in a commercial sense
3. None of the alteration minerals (normally) associated with a porph. Cu deposit were noted.
4. No intrusives were noted. The area appears to be bedded pyroclastics. The strong pyrite mineralization may indicate an old ~~volcanic~~ volcanic vent as the source of the solfataric activity.

Recommendations:

1. Delimit the gossan by prospecting
2. Sample the delimited areas by rock chip samples on a 400 f.t rectangular grid. The presence of dikes should be anticipated and noted. These samples should be assayed for Au, Ag, Pb, Zn, Cu and MoS₂.
3. A detailed regional (3 mi. radius) stream silt sampling program should be done on all drainages and seeps.
4. Utah Constr. Co. Ltd. should be contacted and data on their work in the area should be obtained.
5. The writers feeling is that the target is a massive sulfide and that particular attention should be paid to the presence of Au and Ag.

5. The main yellowish gossan in the river should be sampled in 20ft. intervals along the river bank 'goat trail' The presence of many small quartz veinlets with a black mineral associated w should be noted and carefully sampled.

Discussion of Conclusions

All of the outcrops visited had abundant primary pyrite in the exposures right at the surface. There may be some minor leaching along fractures but in all probability oxidation is prevalent rather than leaching.

Of all the outcrops examined with a 20X hand lens, only one tiny spec of cp was noted.

A green mineral was noted occasionally but is not cupriferous (probably celadonite- a high Fe mica)

In a pyritic outcrop malachite or ~~any~~ other soluble copper minerals would not form. To be of significance the pyritic outcrops should show signs of secondary biotite, secondary orthoclase, reticulate or pervasive quartz and most important, Cu. the alteration noted was pyritic and argillic commonly associated with w sulfataric ~~activity~~ type alteration.

Some bedding controlled Q veining was noted as was a disseminated dark mineral (sp?). These may be associated with fumerolic (sp!) activity but may indicate possible accumulations of metal.

Discussion of Recommendations :

If the grid rock sampling indicates a zoning of metals around the yellow-brown gossan exposed in the river, I would suspect volcanic vent-controlled alteration

If the Ag assays are significant in this area, a short drill hole h would indicate any vertical change in metal zoning.

The rock appears to be early to middle Tertiary and, in the light of Kennecott's discovery in the same unit, near Houston, should be thoroughly examined.

signed G.O.M. Stewart
Aug. 19, 1969
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