NTS 926/16

KERR ADDISON MINES LIMITED

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To R. A. Dujardin From Fred Daley 926/16

Property Examination

Subject Fire Creek Claims, Hycroft Resources Date October 24, 1986

Kerr Addison personnel sent 2 days (Oct. 8,9) examining the "Fire" and "Brimstone" claims of Hycroft Resources. The claims are located approximately $7\ km$ northwest of the north end of Harrison Lake and were previously visited and described by T. Bruland. The purpose of our visit was to examine a larger area than was possible for Tor, and to evaluate the overall exploration potential of the claims.

Gold values of up to 9200 ppb are associated with a pyritic quartz sericite schist unit exposed in cliff outcrops along Fire Creek. Within this ochre weathering lithology there are also "jasperoid" zones and evidence of regional northwest strike slip faulting. The package of quartz sericite schist and surrounding chlorite schist occur as a pendant within the Coast Crystalline Complex.

Although initially regarded as a volcanogenic massive sulphide environment, recent work has tried to highlight the possibility of an epithermal precious metal setting based on the occurrences of

- Felsic acid volcanics
- ii. "Jasperoid" Zones (or zones of intense silicification)
- iii. Faulting
 - iv. Anomalous gold values associated with "Jasperoid" zones and pyritic "black chaldedony".

It is my feeling that the styles of mineralization and alteration are not the result of a localized metalliferous hydrothermal system, but rather represent a regional metamorphic overprint on an interdigitating volcano-sedimentary package. This is based on several observations:

Α. Stratigraphy.

- The felsic volcanics (quartz sericite schists) tend to occur as lenses and in some cases pinch out quite sharply into the barren andesite tuffs (now chlorite schists). This lensy nature may present problems in continuity at a drilling stage.
- An examination of road cuts south of the claims shows a relatively unmetamorphosed section of pyritic argillite, greywacke, quartzite (chert?) andesite tuff and rhyodacite (rhyolite?) tuff. It is not hard to envision this sequence, with a slight increase in contact metamorphism, progressing to the phyllite-jasperoidchlorite schist-sericite schist assemblage seen in the main area of interest on the claims.

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B. Structure

- i. There is a regional northwest alignment to all structural fabrics
 - a. Faulting. The majority of faults seen, and inferred from outcrop patterns, are normal strike slip faults with a northest to west-northwest orientation subparallel to stratigraphic contacts. A couple of features not seen associated with faulting which would be of importance in an epithermal genesis are; a lack of cross-cutting faults and a lack of late stage or multi-stage faulting which could infer a continuation of ground preparation and fluid movement over a suitable length of time.
 - b. Foliation. A limited amount of time was spent examining internal foliations. Again, a dominant northwest orientation is seen, parallel to the regional foliation direction of the Fire Lake group in this area of the Coast Mountains.
 - c. Sulphide (pyrite) Lenses. Disseminated pyrite occurs as streaks and lenses parallel to the foliation within the quartz sericite schist and "feldspar crystal tuff". Where sulphide content increases to form lenses (up to .35m wide) there is again a northwest elongation to the pods.

C. Sulphide Mineralogy

i. Pyrite was the only sulphide mineral seen. As mentioned previously the precursor sediments and tuffs are pyritic so an external source is not required. Common hydrothermal minerals sometimes seen in epithermal deposits but which were not seen here are arsenopyrite, stibnite and realgar. As well, there is no evidence of base metal mineralization. Aside from the ubiquitous pyrite, the setting appears to be relatively metal poor.

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D. Alteration/Veining

- i. I feel the development of the quartz-sericite and chlorite schists is related to regional metamorphism, not hydrothermal alteration.
- ii. The previously mapped "jasperoid" occurrences look suspiciously like pervasive silicification; they are devoid of any internal texture, they have vague boundaries, and do not appear to be rooted to a structural "feeder zone".
- iii. There is no evidence of multi phase veining, in fact the only true "veins" seen were small, post-metamorphic, cross-cutting bull white quartz veinlets. There is no evidence of either significant "veining" or a change in fluid chemistry (quartz, quartz-carbonate, amethyst, sulfosalts, etc).

Finally, we examined an old adit exposed at low water levels in Fire Creek. The adit was driven for 7m, in a north-westerly direction, into quartz-sericite schists ("feldspar crystal tuff") that hosts lenses and pods of semi-massive pyrite (as seen at the adit mouth). Apparently the mineralization is very restricted as there is no evidence in the adit of significant sulphide continuity.

Interestingly enough, the highest gold value on the property (9200 ppb) comes from a sample taken from a weathered semi-massive pyrite pod (\underline{not} "black chalcedony" as previously reported) along a northwest trend from the old adit. My feeling is that this sample represents a very small concentration of pyrite (similar to that seen in the old adit) and does \underline{not} indicate an enrichment in precious metals in an epithermal setting.

In consideration of all of the above observations, I recommend that Kerr Addison not option the Fire Creek claims.

Fred Daley Project Geologist