# KERR ADDISON

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To FILE 92G/16 From T. BRULAND

FIRE CREEK PROPERTY, Hycroft Resources Sept. 8/86 .....Date .... Subject and Development Corp.

> The property is located on Fire Creek, 7.0 km northwest of the north end of Harrison Lake along Lillooet River with an elevation between 30m and 915m. Latitude 49°47'30" N and Longitude 122°15'W (Figure 1).

Access to the property is via Provincial Highway 9 and ACCESS: 7 from Harrison Hot Springs to Harrison Mills and on Forestry gravel road along the west side of Harrison Lake and Lillooet River to Fire Creek. Harrison Hot Springs is 0 km, turn west on Higway 7 at 6.2 km and right by Harrison Mills at 20.7 km and right toward Hemlock Valley at 20.9 km. Continue along west side of Harrison Lake to Linham logging camp at the north end of Harrison Lake and along Lillooet River past Fire Creek. left at 115.5 km. Area examined during property visit is southwest of LCP for LELA and FIRE at 117.2 km.

Due to the time-consuming drive to the property from Harrison Hot Springs, 3.5 hours each way, only about 2.5 hours were spent examining what was believed to be the most essential part of the property.

The Fire Creek Property is composed of the HADES and OWNER: BRIMSTONE claims with a total of 15 units, 100% owned by Hyoroft Resources and Development Corporation of Vancouver. The claims were staked in 1980 and the expiry date is October 24, 1986.

I helieve that Hycroft Resources and Development Corporation also own the claims to the north LELA and FIRE (Fig. 1).

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HISTORY: The claims were staked in 1980 when rusty weathering pyritic boulders were found in Fire Creek during a regional exploration program. Results from samples taken before and during staking returned anomalous gold values of up to 470 ppb. The samples were also anomalous for Cu, Pb, Ag and As.

In 1981 a programme was completed on the property which outlined a mineralized zone approximately 1000 m long and 350 m wide and 70 m deep straddling the steep canyon of Fire Creek. This zone is anomalous in Au, As, Ag, Ba and Pb and depleted in Zn. Rock chip samples contain up to 1950 ppb Au. The mineralization and style of alteration was believed to resemble that of a siliceous hydrothermal hot spring model.

In 1984 the property was optioned to Tenguille Resources Ltd. who carried out Airborne VLF-EM and magnetometer surveys as well as Airphoto Tectonic survey. A diamond drill hole was attempted from the road on the south side of Fire Creek but the drill could not penetrate the gravel - till overburden. The property was returned to Hycroft in 1985.

In 1985 a detailed survey was done on the property which included mapping, soil and rock sampling. A total of 222 soil samples and 233 rock samples were collected with Au values ranging from <1 ppb to 993 ppb for soil samples and from <1 to 9920 ppb for rock samples. This outlined two strong Au soil anomalies of 1000 by 100 m and 300 by 50 m.

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GEOLOGY: The Fire Creek Property is located within the Fire Lake group which is a mass of volcanic and sedimentary rocks estimated to be at least 4500 m thick (Roddick, 1965). Roddick described three units, an upper part consisting chiefly of a thick greenstone formation made up of medium grained plagioclase fragments in a very fine grained tuffaceous matrix, chlorite schist, and minor conglomerate, quartzite and greywacke. The middle part is composed chiefly of dark slate and argillite with minor greywacke. The lower (oldest) part is chiefly fine grained thinly bedded granulite, with minor andesite, limestone and conglomerate. On basis of fossils from one bed of the thick assemblage Roddick regards the Fire Lake Group as being of Jurassic to early Cretaceous age.

The rocks mapped on the property (Hycroft Resources and Development Corp.) are believed to represent the broad part of the upper greenstone formation. The rock types have been obscured by metamorphism, hydrothermal alteration and by complex faulting.

The oldest rocks on the property are shales with minor andesitic tuffs. Overlying this unit and largely in fault contact is a uniform scapolite schist. Above this and in apparent fault contact is a feldspar crystal tuff.

Alteration on the property is found in the form of jasperoid, intense silicification with black chalcedonic silica as massive pods and lenses, bleaching and secondary sericite and clay minerals. Talc is present in the bleached sericite schist.

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MINERALIZATION: Sulphide content is generally less than 1% while bleached andesitic tuff locally contain up to 5% sulphides in the form of disseminated pyrite.

Rock and soil samples collected on the property have outlined several anomalous areas for gold. Soil samples vary between less than 1 and 993 ppb Au. Two anomalous soil areas with more than 100 ppb Au were located on the property, 100 by 1000 m and 50 by 300 m respectively. These soil anomalies coexist with high Au values in rock samples (Figure 2). Gold values in rocks varied between less than 1 and 9920 ppb.

RECOMMENDATION: The most outstanding feature seen on the property during the property examination was the extent of the bleached and silicified schist. Although time only permitted examination of rocks on the north side of Fire Creek the bleaching and silicification seems to be present to considerable extent on the south side of the creek. The bleached and silicified area is believed to be in excess of 250 m by 250 m.

The presence of bleached silicified schist with locally black chalcedony, talc, sericite and clay alteration and jasperoid on the edge of the bleached area indicate to me that this could be the silica cap of an epithermal deposit.

Buchanan (1981) states that epithermal deposit is basically located in Tertiary volcanics. Panteleyev (1986), however, thinks that epithermal ore can be located in all rock types, particularly those that sustain large, open-fracture system

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#### RECOMMENDATION - cont'd

over extended periods of time during hydrothermal activity. Panteleyev also points out that epithermal deposits can be located not only in Tertiary rocks but also in Jurassic and Cretaceous \_rocks, which is the believed age of the rocks on the Fire Creek property.

This property has not been explored with an epithermal model in mind but rather for deposits similar to Brittania deposit and the Seneca "Kuroko" type deposit. The property's location close to the Harrison Lake Fault system with numerous present hot springs indicate than an epithermal model is better suited than the previously applied models.

During the 1981 program it was found that a mineralized zone on the property was anomalous in Ag, As, Ba and Pb as well as Au. Eight samples collected during the property examination will be analysed for Ag, As, Sb, Hg, ba, Pb, Zn and Cu in addition to Au to try to help locate this property in the silica cap of an epithermal deposit.

The presence of high but erratic gold values in the bleached silicified schist on the property indicates we could be above an economic Au deposit.

Since the presence of gold mineralization in the silica cap is known, the emphasis in future exploration should be to map the extent of the silica cap. Samples should also be collected to locate areas anomalous in one or several of the

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following, Ag, As, Sb, Hg, Ba, F, Tl, B, Cu, Pb and Zn. It is believed that this will be helpful in locating drill hole targets for testing the mineralized potential on this property.

<u>CONCLUSION</u>: Due to the fact that the claims expire later this year we should get in contact with Hycroft Resources and Development Corporation as soon as possible to find out what their terms for optioning of the property are, and maybe do work this year to apply for assessment credits for the property. I do not think it is essential to know the result from the latest samples to initiate this process.



