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I N T E R O F F I C E M E M O R A N D U M

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(APANTELEYEV)

Subject: Smithers Trip

Partner, I spoke with George Heard (President and Director of Golden Hemlock Explorations) regarding our proposed plans for our trips next week. I know George well. He has offered us the use of thier helicopter (based in the Tatsi camp) whenever we want it and at NO charge. I explained that we hope to visit the Limonite Creek and Louise Lake properties. He said we could second Willard and the helicopter anytime. What a bonus to have Will working on-site! Also, George is one of the principals in Global Mineral and Chemical Ltd. who now owns the Louise Lake deposit (and will be offerred and Explore B.C. grant?)-- so pretty good chance of "getting a lift" into there also. The geologist in-charge/on site at Tatsi is Stu Tennant (ex- Placer Dome). Will is also on site. George has a charter aircraft going to the Tatsi tomorrow (Wed.) with 11 people (potential optioners/investors); if there is a last minute cancellation, he's invited me to join them for the day. Again, what a bonus that would be to our plans.

My travel plans are: drive to P.G. next Tues. the 18th/ drive to Smithers on the 19th (arrive @ noon and staying with Beryl and Erin at the Stork Nest Inn [old Tye Motel])/ in the field [with Inco] on the 20th/ visit Tatsi + Limonite Ck. + Louise Lake on 21, 22, 23. I would like to be in P. G. the evening of the 23rd. I will contact you Mon. 17th or you contact me with any updates. Cheers, Tom.

Large zones, up to 30 m wide, of kaolinitic alteration overprint sodically altered zones in Pits 1 and 2; smaller, less well developed zones of kaolinitic alteration also occur in the Oriole zone.

Pervasive 'SCC'-Type Alteration

Lang (1992) and Stanley and Lang (1993) observed a pervasive 'SCC' (sericite-chlorite-clay; as defined by Sillitoe and Gappe, 1984) alteration assemblage in the Virginia Pit. In contrast to kaolinitic alteration, SCC typically forms a pale green colour due to the presence of green clays and does not obliterate pre-existing textures, having a selective-pervasive character. It comprises a very late stage overprint in which sulphide minerals may or may not be destroyed. This alteration type is only locally developed across the camp and, like the kaolinitic alteration, occurs in proximity to major faults.

Structurally-Controlled Alteration

The second important alteration style in the Copper Mountain camp consists of structurally-controlled by fractures with variable amounts of fill (ranging from closed fractures, through wispy stringer and irregular veinlets, to wide dilatant planar veins). These veins and their associated alteration envelopes can be divided temporally into early, intermediate and late stage varieties. Early veins represent the highest temperature alteration assemblages and were predominantly premineralization; mineralized represent the latest early veins. Intermediate veins are predominantly postmineralization and probably represent a cooler hydrothermal mineral assemblage, but bear a chemical or mineralogical relationship to early veins. Late veins are clearly postmineralization and represent the coolest hydrothermal alteration assemblages. They bear little geochemical or mineralogical resemblance to early veins and in many cases may be unrelated to the hydrothermal system responsible for mineralization at Copper Mountain.

Early Vein Types

Detailed descriptions of vein, envelope and selvage assemblages for veins within the Copper Mountain Camp are presented in Table 5. Specific characteristics of these veins, and their relationships to each other are described below.

Oligoclase/Albite and/or Potassium Feldspar Vein Envelopes

Unfilled fractures with diffuse alteration envelopes are spatially related to pervasive sodic and potassic alteration zones, commonly occurring at their margins. These vein envelopes exhibit the general feldspathic paragenetic and zoning relationships described for pervasive sodic and potassic alteration (Fig. 15) with an albite envelope fringing, and locally cross-cut by, a potassium feldspar envelope. They are interpreted to be contemporaneous with the pervasive sodic and potassic alteration styles, respectively.