

REGIONAL GEOLOGY

The geology of the Stewart area is typified by moderately folded, intermediate volcanics and sediments intruded by a succession of plutons. Those areas around many of the deposits are washed by a distinctive red iron alteration forming a broad band in which the numerous showings occur.

The lowermost formation within the Sulphurets claims is the Unuk River Formation of dark green volcanoclastic rocks. The Unuk River Formation is composed of medium-grained matrix-supported lapilli tuffs of andesite composition. This andesite lapilli tuff forms the host for most of the vein deposits in the Stewart area and appears to be the favored host rock at Sulphurets. The Unuk River Formation is believed to be as much as 10,000 feet thick. Above the Unuk River Formation is the Salmon River Formation of siltstone, greywackes and other fine to medium-grained epiclastic and pyroclastic rocks. Both these formations are similarly iron-stained with pervasive pyrite-sericite alteration over most of the property. In the Sulphurets area these two formations are cut by two elongate sub-parallel northerly-trending zones of intrusive rocks which are probably Middle Jurassic in age. These intrusive rocks range from diorite to granite or syenite in composition and appear to be sub-alkaline. The intrusive rocks roughly enclose a northerly-trending 10 km. lineal zone of intense alteration. Sericite and pyrite are the most abundant alteration minerals with other assemblages locally dominated by K-feldspar, chlorite and propylitic minerals. Porphyry copper-molybdenum mineralization occurs in the north and north-west portions of the

property and is often associated with K-feldspar and sericite alteration.

The gold mineralization is structurally controlled and is usually in the volcanic rocks, near the sedimentary contact, adjacent to intrusive rocks and within a wide zone of intense sericite-dominated alteration. The veins consist of quartz carbonate with up to 20 per cent sulphides ranging from simple veins to complex vein zones and stockworks. Pyrite, sphalerite, galena, tetrahedrite, electrum, argentite, pyrargyrite, chalcopyrite, barite and molydenite have been indentified in these veins.

GEOLOGY OF THE WEST ZONE

The mineralization of the West Zone is located in the volcanics near the volcanic sedimentary contact. This contact marks a northwest-trending zone of alteration about 100 meters wide paralleling the hornblende-feldspar-porphyr-y-syenite contact immediately to the west. The complex vein system within this zone may be up to 40 meters thick and contain in excess of 60 percent vein material. A pervasive sericite-silica alteration marks the zone which abutts against the syenite on the northwest and appears to continue to the southeast. The zone has a length of 400 meters plus and may extend further to southeast. This zone has now been drilled on approximately 20-meter spaced sections throughout its length.

The West Zone is open to the south but appears to be weakening south of Section 52+20S. The zone is cut by the syenite on the north but appears to plunge below existing drill holes to the north. The zone is defined to a depth of 150 m.

(500 feet). Two holes have been drilled to intersect the zone at about 250 and 300 meters (1,000 feet). These holes intersect mineralization which compares favourably with the rest of the zone.

SHORE ZONE

The Shore Zone is located along the western shore of Brucejack Lake, approximately one-half km east of the West Zone and forms a broad, 150 meter wide zone of alteration along a strong north-west trending fault zone. Stratigraphically, it appears to be in a similar setting to the West Zone near the volcanic sedimentary contact. This zone is open to the northwest and appears to be continuing to the southeast underneath Brucejack Lake.

DRILLING

A total of 6,242 meters (20,473 feet) of drilling was completed, on the West Zone in 44 holes in 1986. One hole for 136.6 meters (448 feet) was drilled on the Gossan Hill Vein and two holes for 267.1 meters (876 feet) were drilled on the Shore Zone in 1986. Total drilling in the 1986 season was 6,643.7 meters (21,797 feet). The holes were all logged by Ron Wells, M Sc. and these logs are included in Appendix I. On completion of the logging, the sections of vein material were marked and those sections split in a mechanical splitter. Sample widths were kept to minimum mining width or greater. The split off portion of the cores was put into bags and transported to our laboratory in Stewart for fire assay. The other half of the core was returned to the box and stacked in the yard for future reference.