

0430 0076

BALD MOUNTAIN

LITTLE BALD MOUNTAIN

GEOLOGICAL SUMMARY

Geology

The L.B.M. (Little Bald Mountain) property is underlain by a sequence of Paleozoic carbonate rocks with gentle easterly dips. Structure is complicated by major north-northeast-trending normal faults (i.e. East and West Faults) and northwest-trending normal faults with smaller displacements. The Bald Mountain stock (exposed in Water Canyon) is not exposed on the property, except as related orange weathering quartz-eye porphyry dikes.

The stratigraphic column from top to bottom includes the upper Ordovician Laketown Dolomite comprising light to grey weathering sandy dolomites exposed on the down-dropped block on the eastern side of the East Fault zone.

The Eureka quartzite, a light grey to white orthoquartzite, is exposed only in the disturbed area along the East Fault zone.

The Antelope Valley Formation forms the dip-slope between the East and West Faults on the eastern flank of Little Bald Mountain and consists of three members. The uppermost, informally called Blue Sponge, is not exposed on the property. The Ragged Yellow member, hosting Zone 1 mineralization, consists of tan to yellow, medium to thick bedded grey limestone with interbedded calcareous shale. The Basal Dolomite member is predominantly massive bedded, fetid, fossiliferous limestone up to 250 feet thick.

The Ninemile Formation is a beige to brown weathering, platy, sandy dolomite and is underlain by the grey to dark grey weathering Goodwin Limestone. The Goodwin is predominantly a flaggy limestone with light grey silt interbeds and a very small shale component.

The Windfall Formation has been divided into three members. Only the upper two members are seen on the property. The Transition Beds, immediately below the Goodwin Limestone, are nodular limestones that have been partially altered to green to light grey calc-silicates by the Bald Mountain stock. The Bullwacker member of the Windfall Formation consists of thin to medium bedded shaly carbonate with a well-developed slaty parting.

Mineralization

The three mineralized zones along the East Fault appear to be predominantly structurally controlled. Jasperoid replacement of the Ragged Yellow member of the Antelope Valley Formation has taken place parallel to 050° shear zones and 135° cross structures. Weaker mineralization also extends along the strike of selected horizons within the Ragged Yellow member.

Of the three mineralized zones along the East Fault indicated by geochemical surface sampling, only Zone 1 has been drilled to date. Other anomalies occur in the Windfall Formation which is also host to the Amex Placer deposits to the north.

Within Zone 1, a geological reserve of approximately one million tons averaging 0.085 ounces per ton gold was outlined by a 1984 drilling program totaling 15,000 feet. It is considered that the current open pit will extend through 1986 into 1987, to be followed by underground mining of the high-grade jasperoid feeder zones at about 0.2 ounces per ton gold.

Current drilling is designed to delineate underground reserves and extensions, and to test Zone 2 and Zone 3 mineralization.

In Zone 1, the highest grade material (up to 1.0 ounce per ton gold) occurs in strongly silicified and brecciated zones altered to a reddish brown jasperoid often associated with tabular barite crystals. A clay matrix jasperoid breccia provides intermediate grade material (0.1 ounces per ton gold). Low-grade mineralization (0.01 - 0.05 ounces per ton gold) occurs in partly silicified, dolomitic, silty carbonate of the Ragged Yellow member.

Pre-mineralization quartz-eye porphyry dikes, probably related to the Tertiary Bald Mountain stock, occur in Zone 1. A portion of the Amex Placer Top deposit consists of mineralized and altered intrusive material.

Alteration and mineralization are structurally controlled by three sets of subvertical faults and fractures. Although general grade trends and attitudes of substantial features can be identified, a detailed geological interpretation is difficult, given the complex structural history of Zone 1. Multiple stages of brecciation have been cut by three sets of faults with measurable offsets. Each fault set had movement at different times and each may have moved a number of times. The geometry of the hydrothermal alteration facies is controlled by the porosity provided along fault planes and at fault intersections. Projection of alteration facies in detail requires an assumption of which fault or fracture set is controlling mineralization or alteration at that particular point. Such assumptions at this time are speculative but will be enhanced by detailed mapping as the open pit is developed.

JGS/ck

September 24, 1985

