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Location The property is north of Harrison Hot Springs on the east side of Harrison Lake, about 130 kilometers east of Vancouver?

Program in 1988
Assay Information

In 1988, 23000 feet of combined surface and underground diamond drilling. This followed up an extensive underground drift sampling and drilling program conducted in 1987.

Ownership / History

Bema Gold Corporation owns 60% of the property and controls the remaining 40% through its subsidiary, Abo Resource Corp. Bema took over operation of the property (in July, 1988) from Kerr Resources and acquired Kerr's interest. [proper name?]

General Geology

The property consists of ^{220 units in,} 25 claims

Gold - ABO
Exp/Inten 1988
report
(standing files)

General Geology

The property is underlain largely by sedimentary and volcanoclastic rocks, ^{probably} of the Cretaceous Brokenback Hill Formation of the _____ Group.

A number of calc alkaline, intrusive rocks, mainly of diorite and quartz diorite, cut and metamorphose these country rocks. In the mineralized area, these form a series of small stocks that may coalesce at depth and be offshoots of the nearby Hicks Lake batholith. Sericite from quartz veins ^{from} the lower ^{part} yielded a potassium-argon age of $23 \pm$ Ma and ^{hornblende from} similar quartz diorite at Doctors Point, across Harrison Lake, yielded $25 \pm$ Ma (Ray, 1982).

Exploration has focussed on 7 known mineralized stocks on the property. The stocks are multiphase with many dark to light-colored dykes cutting the quartz diorite host. Emplacement is interpreted to have been

(2)

Locally, the diorites have ^{steeply dipping} alternating light and dark layers on centimeter scale. This mineralogical segregation may be due to crystal separation during ^{stock} emplacement as described by Ray () for Smelter stocks at Docters Point

passive (Kahlert, pers comm 1989) ↓. Kahlert described screens of ^{metamorphosed} country rocks between successive intrusive phases ^{and xenolith} areas that might disseminate pyrrhotite averages 2 percent in the quartz diorites represent ^{boundaries} between successive intrusions. Contact metamorphism with production of biotite ^{epidote amphibole} garnet / hornfels characterizes hanging-wall and roof zones of some zones are recrystallized and granitized so contacts become transitional. the steeply inclined stocks; Footwall metamorphic halos are narrow and contain numerous dykes. In 1988, detailed mapping by company geologists ~~in~~ 1988 showed a series of small stocks separated by metamorphosed country rocks; these likely represent cupolas, ^{offshoots of a} ~~and merge into~~ larger intrusion or series of intrusions at depth.

At the south end of the property, the mineralized Hill Stock has ^{an} associated breccia zone. This zone extends ~~to~~ northward for several hundred meters from the southwest edge of the stock. It varies

from ~~50~~³⁰ m wide ~~at~~ surface to more than 100 m as it is traced downward. Fragments are sharply angular to subrounded and variably penealized.

Some areas are ~~rough~~^{vuggy} with cavities lined with quartz crystals ~~and open~~^{and open} or infilled by pyrrhotite ^{and uncommon} ^{pyrite, chalcopyrite} or carbonate?; other areas are infilled by quartz, chlorite and carbonate. Matrix comprises 25-30% of the breccia. Adjacent to the stave ^{an} poly-metallic mineralized zones with sphalerite, some chalcopyrite and gold and silver values and traces of scheelite and molybdenite.

Mineralization occurs ^{mainly} in quartz veins within the quartz diorite stocks. The veins are ^{mainly} relatively shallow dipping to the west, east and south. Those striking north and dipping east and west are interpreted by company geologists to be ⁱⁿ ~~the~~ conjugate shears ~~and~~ generated by horizontal east-west compression. Those dipping south may fill tensional openings related to this compressive event. ^{at least 3 sets of veins} ~~They~~ are evident from cross-cutting relations seen underground.

Quartz veins, bosses and stockworks with ^{blebs of} pyrrhotite are abundant in metasediments near the ~~stock~~ contacts of stocks. These are typically barren.

Quartz veins within the stock are typically mineralized with pyrrhotite and variable amounts of scheelite and free gold. Carbonate is a typical vein component.

Stocks at the north ^{Part} of the property have mineralized quartz veins but little few base metal sulphides. Stocks ~~at~~ ^{to} the south have more zinc and some copper sulphides, ~~arsenopyrite~~ ^{arsenopyrite}, scheelite, and some molybdenite; silver values tend to be higher.

Gold in the veins can be in quartz, ^{or} ~~with~~ proximal to pyrrhotite. Visible gold is common

(?) and the ore is free milling. Gold tellurides are reported from the Portal stock

Quartz veins, ^{seen cutting} the quartz diorite in the underground workings have little or no contact alteration halo. The veins locally have pyrrhotite concentrated at their borders. Many have ^{several} patterns of pyrrhotite with or without ^{carbonate and} scheelite that give the veins an irregularly banded appearance.

Mineralized veins formed along the borders of some ^{the same dykes are} dykes but cut and offset along other veins. Generally, gently dipping veins ~~cut~~ offset ~~also~~ steeply dipping veins.

Mineralized veins are dominantly near the ~~upper~~ ^{edges} contacts of the stocks in amphibole quartz diorites. Deeper, and away from the contacts the rock also contains biotite and veins are uncommon. Compey geologists have concluded that ^{the} veins formed in ^{the} brittle, crystallized carapace of the stock above hot, semi-crystalline rare zones. Hydrothermal fluids carrying precious metals are apparently derived from the stock or more likely a larger magma underlying the stocks ~~and~~ and migrated ^{and deposited in} into relatively flat-lying shear and tension fractures ^{along} ~~and~~ the borders and roof ^{zones} of the stocks. Sulphide partings and horsetail tension fractures along some veins suggest that ~~they~~ ^{some} formed while shearing was in progress; others are clearly younger and offset older veins. ~~Probably~~



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AEROMAG
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