Tonopah Hasbrouck Mine

Mineral Commodity: Au, Ag
Type of Deposit: Fissure vein; disseminated Au

Ownership: Cordex Exploration

Development: Underground workings (adit) on vein deposit (1920's?); rotary drilling on the disseminated deposit (late 1970's).

Activity at Time of Examination: None.

Geology: Fine-grained quartz veins with free gold, pyrite and silver sulfides? cut the volcaniclastic and pyroclastic? beds of the Siebert Fm. Hydrothermal solutions also produced a disseminated, fine-grained-gold deposit in the adjacent and overlying beds. The rocks are strongly silicified in and around the disseminated deposit, and adularia is present in the veins. Detrital biotite in the volcaniclastic rocks is converted to sercrite (?). Chalcedonic spring sinter is present in the talus and reportedly (H.F. Bonham, oral communication) present in the Siebert Fm. as a 10m thick bed near the top of Hasbrouck Mt., on the east face. Hydrothermal breccias are common in exposures on the drill roads, and are filled with fine-grained silica in lower exposures, but open (with drusy quartz) higher in the section. The open fractures contain cemented rock fragments and "fluted" ridges and valleys (1-2 cm) in the silica wall coating. These corrugations rake 90° in the open fractures observed, and are believed to be due to gas (steam) streaming. There also appear to be fragments of sinter (epiclastic?) in bedded volcaniclastic sandstone. The above features suggest a shallow hydrothermal system which vented to the surface, and which had explosive hydrothermal activity.

The deposit is further described in NBMG Bull. 92 & 96, geochemical data are reported in Bull. 96. The age of the adularia from the deposit is approximately 16.4 m.y.

Remarks: Photo G821-17, drill roads on the west side of Hasbrouck Mountain.

References: See NBMG Bull. 92 & 96.

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Examining: 26 Mar 82