1370 0015

(167) Item 16

PROPERTY NAME: Delamar Mine

OTHER NAMES:

MINERAL COMMODITY(IES): Au, Ag, Cu

TYPE OF DEPOSIT: Vein, breccia filling

ACCESSIBILITY:

OWNERSHIP:

PRODUCTION: Main producer of Delamar District. $12,854,600 worth thru 1933, not including reworked tailings.

County: Lincoln

Mining District: Delamar

AMS Sheet: Caliente

Quad Sheet: Delamar 7 1/2'

Sec. 1, T 6S, R 64E

Coordinate (UTM):

North 4148300 m

East 0697400 m

Zone +11

DEVELOPMENT: Major working in district. Consists of extensive underground workings & large glory hole created in part by caving of stopes along vein structures. Large dumps below mine. Several raises & winzes surround glory hole.

ACTIVITY AT TIME OF EXAMINATION: Extensive mine dumps below glory hole have been trenched with backhoe & sampled within last few years.

GEOLOGY: The Delamar Mine is well described in Callaghan's 1937 Bull. & by Emmons, 1902. The following was taken from their descriptions. Callaghans description of the geology of the various ore shoots & mine levels is excellent (see CRIB for annoted information). According to Callaghan, there are 5 principal ore shoots. Most of the ore was localized along the Delamar or Monitor vein, which has a strike length in excess of 2,700' & an average strike of N18E, with a steep dip to the W. Cherty quartz-cemented breccia provided most of the mined ore, but high-grade values were obtained from narrow quartz veins. Several dikes are present, including two ≈ E-W-striking rhyolite porphyry dikes & a NE-striking, black mafic dike. The main vein is described as a fracture, with the ore found in the brecciated & silica-cemented quartzite adjacent to the fracture (Emmons, 1902). Emmons concludes that the "black" dike was emplaced after the intrusion of the porphyry dikes. The main rhyolite dikes cut the mineralized zone (i.e. they are post ore). Sulfide minerals found in the cherty quartz which cements the quartzite breccia are extremely fine-grained. Free visible gold is rare, except in the Hog Pen ore zone.

The glory hole was examined during our examination of the district but no attempt was made to go underground or study the mine in detail. The floor & walls of the hole are caved & old timbers protrude from the sides of the working. Medium-thick beds of Prospect Mtn. quartz outcrop on north & west sides of the glory hole. On the north side, the quartzites strike N15E & dip 45SE. The quartzites are pink, well-sorted, & contain pebbly layers & lenses. A highly altered cream-colored rhyolite porphyry dike intrudes the quartzites & extends in a N50E orientation throughout entire mid portion of the glory hole. The quartzites adjacent to this dike are epidotized & contain clots sericite, & lenses Mn & Feoxs in the matrix. In some cases, the quartzite is cut by quartz vein & shows prismatic filled vugs. The altered dike rock contrast strongly to the quartzites. The porphyry is bleached, highly argillized & pyritized. In places it must be fairly silicified (adv. argillic) because it is generally resistant to erosion. Fresh quartz & highly altered feldspar phenocrysts are the only recognizable constitutents. The matrix is completely altered altered to clays, quartz & sericite?, finely crystalline & contains specks of Feoxs throughout, presumably after pyrite. The width of the dike is variable but averages (?) 20-40'.

South of the rhyolite dike in the southeastern part of the glory hole, the quartzites are notably fractured, Fe-stained & brecciated. The bedding of the quartzites on the south is inconsistent with those on the north indicating a NE(?) or E-W structure possibly adjacent to the rhyolite dike. The southern, or footwall quartzites are notably bowed against the intrusive dike. In addition, a very dark "vein" or dike can be observed which is at right angles to the rhyolite dike & is fairly conformable with the quartzite bedding.

REFERENCES:

(CONTINUED TO NEXT PAGE).....

EXAMINER: DATE VISITED:

PROPERTY NAME: Delamar Mine (continued)

OTHER NAMES:

MINERAL COMMODITY(IES):

TYPE OF DEPOSIT:

ACCESSIBILITY:

OWNERSHIP:

PRODUCTION:

HISTORY:

County: Lincoln Item 18

Mining District:

AMS Sheet:

Quad Sheet:

Sec. _____, T _____, R _____

Coordinate (UTM):

North _____ m

East _____ m

Zone

DEVELOPMENT:

ACTIVITY AT TIME OF EXAMINATION:

GEOLOGY: This zone is marked by heavy Mn-staining & may be the black dike or gouge referred to by Callaghan. A knob of highly silicified, quartzite breccia protrudes from the wallrocks just east of the black dike.

Large dumps below the glory hole were examined for mineralization. A minor amount of dense, dark green, finely crystalline, propylitically altered diabase was found on the dump. The rock contains black hornblende crystals in a plagioclase - chlorite matrix. Rock is chloritized & shows some effects of leaching, but apparently unmineralized. The best mineralized sample (1750) consists of quartzite veined by quartz & quartzite breccia cemented with white to greenish cockscomb to sugary quartz. The quartz contains malachite, chrysocolla, bornite & very fine-grained, unoxidized pyrite & chalcopyrite. The Cuoxs are probably derived from the oxidation tetrehedrite chalcopyrite or bornite which is reportedly contained in the ore (Emmons, 1902; also see sample description for 1750).

Samples 1749 - From dumps E of glory hole.
1750 - From dumps below glory hole.

REMARKS:

REFERENCES: (1) Callaghan, 1937, Geology of the Delamar District, University of Nevada Bull., v.31, no. 5 (2) Emmons, 1902, Trans. Am, Inst. Mining Eng., V. 31, p. 658.

EXAMINER: Bentz/Smith

DATE VISITED: 9/30/83