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Item 1

GRANITE DISTRICT

The Granite or Steptoe district is located on the east slope of the northern Egan Range approximately twenty-five miles northwest of Ely. Most of the old workings in the district occupy the canyons north of the site of the old Steptoe post office.

The east flank of the Egan Range near Steptoe is complexly faulted and folded. A north-striking, west-dipping sequence of Precambrian through Pennsylvanian quartzites, limestones, siltstones, and shales is disrupted by dominant northeast-striking thrust faults and northwest to west-striking tear and high-angle faults. Some folding of the sediments along north-trending axes is evident.

In the northern part of the district, a pluton of granitic to quartz monzonitic composition intrudes the Paleozoic section. This pluton covers a surface area of about ten square miles and has been dated at 36.2 m.y. (Armstrong, 1970). North-northeast striking, porphyritic dikes and quartz veins, probably related to the pluton, occur throughout the district and, in places, intrude up through the upper plates of the thrust sheets.

Steady mining in the district between 1869 and 1960 resulted in a total production of 7,070 short tons of gold and lead-silver ore containing small amounts of copper and zinc. In 1954, a little tungsten ore was produced at the Valley View mine from faulted Cambrian limestones near the pluton. In 1965, an unsuccessful attempt was made to locate steam beneath the Monte Neva hot springs located northeast of the district.

The mines in the central part of the district are located on north to

See also 83-2 for geochemical results.

J. Tingley + J. Bentz (1982) Mineral Res. of Egan Resource Area: NBMG OFR ~~82-9~~ 83-1

northeast-striking, gold-bearing quartz veins which average about one-half to one inch in width and reach thicknesses of a foot or more. The veins reportedly carry free gold, although none was observed. Most of the veins are emplaced along bedding in the Prospect Mountain quartzite or between the contact of quartzites and shales. They often occupy shear zones which parallel the bedding and, as a result, are brecciated and iron stained. The quartz is typically massive, milky-white in color, and contains oxidized pyrite, and manganese oxides. In some cases, weathered porphyry dikes outcrop near the vein occurrences. At the time of our examination, Noranda was actively sampling and mapping these deposits on their NEWK claim block south of the Stinson mine.

In the northern and southern parts of the district, lead-silver replacement deposits lie along shear zones in Cambrian limestones adjacent to the pluton or porphyry dikes. The largest and best developed deposit of this type is at the Cuba mine where galena occurs in coarse, crystalline calcite veins and pods. The calcite replaces limestone above and below a northeast-striking fault zone. The zone is marked by recrystallization and fracturing of the wall rock. In addition to galena, samples of limestone breccia from the mine dump contain iron, manganese, and copper oxides and anglesite. The area surrounding the mine was recently flagged and staked by Noranda.

Analysis of sample 873 from the northern part of the district showed high lead and tin values, in addition to anomalous molybdenum.

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