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# CHERRY CREEK

The Cherry Creek district covers a large portion of the northern Egan and southern Cherry Creek Ranges in the north-central portion of White Pine County. The small town of Cherry Creek is located in the east-central part of the district, and is the only settlement. This district was the site of the first recorded mining activity in White Pine County. A gold-bearing quartz vein, the Gilligan vein, was discovered possibly as early as 1861 by soldiers traveling the Overland Stage Route between Fort Schellbourne and Fort Ruby. The discovery and early production came from veins at the mouth of Egan Canyon and the district became known as Gold Canyon, or Egan Canyon. Silver deposits were discovered to the north, north of Cherry Creek Canyon, in 1872 and a separate mining district was established there. Silver production soon exceeded the gold production from the Egan Canyon veins, and the two districts merged into one about 1905. Tungsten was discovered associated with silver ores at Cherry Creek in 1917, and moderate amounts of tungsten ore were produced through 1958.

Antimony occurs with scheelite and silver ores in the northern part of the district and in deposits west of Cherry Creek in the southwestern lobe of the southern Cherry Creek Range but there is no record of antimony production. Barite has recently been produced from one small open pit operation in this same area west of Cherry Creek.

To the north of the main Cherry Creek district, in Paris Ranch Canyon, an occurrence of bituminous coal has been prospected, but no production has been recorded.

See also 83-2 for geochemical results.

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

Rocks exposed in the Cherry Creek district range in age from Precambrian through Triassic. According to Adair (1961), the sedimentary section is about 20,000 feet thick and is composed of interbedded phyllites, quartzites, shales, limestones and dolomites. The section has been cut by three sets of faults, intruded by two plutons and numerous dikes and has been hydrothermally altered and mineralized along some faults of all three sets. The entire assemblage has been tilted to a west-dipping homocline, partly eroded, partly covered by rhyolite tuffs and flows and displaced and tilted along Basin and Range faults.

The large quartz monzonite pluton southwest of Cherry Creek, at the mouth of Egan Canyon intrudes the Paleozoic section and has been dated at 40.3 $\pm$ .4 m.y. (Hose & others, 1976). Dikes of aplite, pegmatite, quartz latite porphyry, and diabase are found along joints in both the sedimentary and plutonic rocks. Northwest of the main Cherry Creek district, on the St. Patrick claim, a porphyritic dike follows the strike of the major northeast-trending bedding fault which cuts the range at that point.

According to Adair (1961), the ore bodies in the Cherry Creek district are veins or replacement bodies along faults, and he classified them into three general types according to mineral content:

1. Gold-bearing quartz veins, principally along the northeast-striking faults, but only where the faults cut quartzite beds of the Prospect Mountain Quartzite.
2. Quartz or quartz-calcite veins or veinlike replacement deposits containing silver, lead, copper, zinc, gold, and minor tungsten.

3. Scheelite-bearing calcite or quartz-calcite pods or veinlets commonly in lens-shaped swarms near bedding faults in brecciated carbonate rocks of Cambrian age.

Gold-bearing veins occur mainly in the southern portion of the district, in an area extending from the Bull Hill and Wide West Mines near Egan Canyon, south to the Johnny and Joana properties in that portion of the Egan Range locally known as Cocomongo Mountain. Scheelite-bearing quartz veins, with some fluorite, cut the quartz monzonite outcrop west and southwest of the town of Cherry Creek.

Gold-silver-base metal deposits occur in well defined quartz veins, in quartz-calcite veins, or in irregular veinlike replacement zones in or below silicified breccia zones along bedding faults. These deposits occur mainly along three major structures which crosscut the range north and south of Cherry Creek. These structures, the Black Metal, Exchequer, and Gilligan fault zones, are each mineralized in places along their entire length. Tungsten ores are found in or adjacent to the same veins as the gold-silver-base metal ores, but are generally located in separate bodies. Tungsten ores at the Happy Mine, located at the western end of the Exchequer fault zone, occur as scheelite in irregular lens-shaped masses of mixed calcite and quartz formed along bedding in a carbonate host rock. Calcite veinlets lace the host rock, and the quartz locally contains pods of radiating stibiconite crystals. The replacement ore at this property trends more or less north-south along bedding,

but the brecciated zone of the fault trends east-northeast. The local ore control is apparently favorable host rock at a structural intersection.

At the time of examination (summer 1981), exploration and some mining development was underway at several locations within the Cherry Creek district. Large claim blocks had recently been staked covering areas south of Paris Canyon, north of Cherry Creek, and along the western part of the district in the southern part of the Cherry Creek Range. These claim blocks cover outcrops of the Joana, Pilot, and Chainman formations, including some large outcrops of jasperoid in the southern Cherry Creek Range. The claims are held by large corporations, including Amselco and Chevron, and it is assumed the objective is exploration for disseminated gold. Samples taken from prospects in the southern Cherry Creek area showed high values of arsenic, antimony, and barium.

Within the heart of the old Cherry Creek district, Goldera Resources, Inc., and Normac Exploration, were working on the Exchequer-New Century, and Mary Ann, and Motherlode prospects. They have announced plans to start a leaching operation on silver ores from their properties. To the south, at the Joana and Johnnie mines, small scale underground work had been done within the previous years, but no work was in progress at the time of our examination.

Although the specific ore controls important within the Cheery Creek district are well known from literature description and therefore may have been completely explored, it is felt there are areas within the district with good prospecting potential remaining.

Extensions of the potential major fault zones to the northeast and southwest could be prospected, especially to the northeast where the Black Metal and Exchequer faults can be projected under alluvial cover at the edge of Steptoe Valley. Regional aeromagnetic patterns reflect the Black Metal-Exchquer faults as a major NE magnetic lineation which extends beyond the limits of the Cherry Creek Range. The magnetic contours also indicate that bedrock may be present under shallow alluvial cover some distance out from the range front. The favorable lower Cambrian units could therefore be projected to intersect with the northeast extension of the regional faults. Within the district, there may be locations where prospecting should be done along some of the northwest-striking faults. An example would be the area at the head of Silver Canyon where gold-silver mineralization occurs along a fault which extends northwest from the Black Metal fault.

Other areas worthy of prospecting include the large jasperoid masses which occur in the southern Cherry Creek Range and also south of the district in the Egan Range. These areas, some of which are large enough to be shown on the country geologic map, contain barite (one is the source of the barite recently mined and shipped from the district) and traces of antimony mineralization. These could be guides to dissemination gold occurrences. The area of tungsten-fluorite mineralization in the quartz monzonite outcrop southwest of Cherry Creek also is of considerable interest.

## Selected References

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