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DON DALE DISTRICT

Item 10

LOCATION

The Don Dale district is located on the north end of the Groom range, and generally includes the area southwest of Coyote Summit, extending between State Route 375 and the Test Site boundary. Most of the mines and prospects are in the southern portion of T4S, R55E.

HISTORY

No information is available on the earlest discoveries in this area. The Andies mercury property was discovered in 1919 by C. A. Anderson, but he apparently did not return to locate the property until 1955 (Melbye, 1956). The Don Dale district was organized about 1945, indicating some activity was underway at that time. Tschanz and Pampeyan, 1970, report that 200 tons of silver-lead-copper ore were shipped from the Don Dale mine. Two flasks of mercury were produced from the Andies mine in 1956 (Melbye, 1956). Other than assessment work, very little activity has taken place in the district since the 1950's.

GEOLOGIC SETTING

The northern end of the Groom Range is composed of Cambrian and Ordovician rocks intruded by many granitic dikes and small stocks. The lower flanks of the range are covered by volcanic rocks which are cut by andesite porphyry dikes (Tschanz and Pampeyan, 1970). The volcanic rocks on the west flank of the range are intruded by masses of rhyolite that may be the same age as the intensely altered rhyolite tuffs that crop out near the Andies mine on the east flank of the range. Ekren, et al, 1977, infer that the volcanics on the north end of the Groom Range may have originated in the Bald Mountain caldera, located in the central part of the range about 7 miles to the south of the Don Dale district.

ORE DEPOSITS

Two very different types of mineral occurrences have been developed in the Don Dale district. The Don Dale mine follows a quartz vein that cuts shaley limestone and quartzite. The vein follows and is probably related to a quartz porphyry contact. Mineralization appears to occur mainly in the intrusive rock but some fine-grained sulfides were seen in vein material and in quartzite. Ore minerals consist of pyrite, chalcopyrite, galena, tetrahedrite, and copper carbonates.

At the Andies mine, cinnabar ocurs as scattered crystals, thin veinlets, and coatings on fracture surfaces in a highly altered rhyolite tuff. Meta-cinnabar was observed in silicified-opalized rhyolite breccia in one area on the property, and a small pyrite micro-breccia was seen in another area of silicified tuff west of the old mine camp. The Andies mine occurs within an

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extensive area of argillically altered, silicified rhyolite tuffs and flows, and other mineral deposits (mercury or gold) could be found in this area.

GEOCHEMICAL RELATIONSHIPS

Samples taken in this district reported very low values. Samples from the Don Dale mine area contained some lead, zinc, and copper as would be expected. The Andies mine samples were moderate to high in barium, but appear to contain little else (mercury analyses were not made).

SELECTED REFERENCES

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Melbye, C. E., 1956, Geological Evaluation of the Andies Mercury Property, Tempiute District, Nevada: NBMG File 176, item 3.

Tschanz, C. M., and Pampeyan, E. H., 1970, Geology and Mineral Deposits of Lincoln County, Nevada: NBMG Bull. 73.