3010 0012

Washoe Co. -general

NW-30-21
Ti, Sb, Cu

Item 50
(2 of 18)

Mining District: MILLER PROSPECT, REDELIUS PROSPECT, MILLER-HESS PROSPECT, CHOATES MINE, SUNSET PROSPECT UNNAMED COPPER PROSPECT
(Titanium, Antimony, Copper)

T. 22 N., R. 19-20 E.
Washoe County, Nevada
USGS Dogskin Mountain 15-min. quadrangle (1957), Sutcliffe 15-min. quadrangle (1957) and Spanish Springs Valley 15-min. quadrangle (1957)

GENERAL BACKGROUND

Although the three commodities occur in the same general area, to facilitate discussion they will be treated separately.

I. Miller, Redelius, and Miller-Hess Prospects

The Miller Prospect is located in the NW¼ of section 29, T. 22 N., R. 20 E., on the east slope of Hungry Mountain. The Redelius Prospect is located in sections 21 and 22 of the same township and range, on the east side of Hungry Valley. The Miller-Hess Prospect is located in NE¼ of section 26, T. 22 N., R. 19 E., on the western slope of Hungry Mountain. All three prospects explore the lode occurrence of titanium minerals. There has been no apparent production from any of the prospects.

GEOLOGICAL AND TECHNICAL DATA

Disseminated rutile reportedly occurs in aplite and pegmatite dikes, in quartz veins, and along fault zones in granodiorite and aplite. Small lenses of rutile, associated with talc and muscovite, also occur within the fault zones (1).

Select samples from the Redelius prospect assayed up to 30 percent TiO_2, but the average grade of the deposit is less than 1 percent TiO_2. At the Miller Prospect, aplite dikes contain about 0.05 percent TiO_2 and quartz veins and pegmatites contain up to 3.0 percent TiO_2 (1). The mode of titanium occurrance at the Miller-Hess Prospect is presumably the same as the other prospects.

POTENTIAL FOR DEVELOPMENT

Producing titanium properties in the United State are of two types. One type extracts titanium minerals from hard rock deposits, the other recovers titanium minerals from beach-sand deposits. Both utilize

Bennett, Jan. 1973

low-cost mining (open-pit) techniques. The beneficiation of titanium-bearing material ranges from complex (hard rock) to simple (beach sands); generally relatively high values are required to support an economic operation in each case. Many hard rock deposits are known in California, Colorado, New York, Virginia and Wyoming but only one (in New York) is being worked. Beach sand deposits occur along the south-eastern Atlantic seaboard and a number are being exploited in Georgia, Florida, and New Jersey. Since the titanium prospects in area NW-30-21 are of limited extent and very low grade, it is extremely unlikely that they will ever represent an economic source of titanium.

COMPANIES AND CLAIMANTS ACTIVE IN AREA

The following claimants have been identified in the area:

1. MILLER'S TITANIUM Group C.C. Miller, et.al. (13 lode claims, Millsite)	2. ROSE Group Denny Hill (3 lode claims)	4. ---------- R.A. Nash 3701 Mill, Reno (Millsite)

II. Choates Mine, Sunset Prospect

The Choates Mine and Sunset Prospect are located in sections 7 and 18, T. 21 N., R. 21 E., immediately north of Sugarloaf Peak. Between 1940 and 1942, 57 tons of ore containing 52 to 62.5 percent antimony were produced from the Choates Mine. The properties were not examined by the writers during this investigation.

GEOLOGICAL AND TECHNICAL DATA

The Choates and Sunset properties are located on quartz veins in granodiorite of Cretaceous(?) age. The quartz veins are 1 to 3 inches wide and contain stibnite, antimony oxides, and pyrite. The stibnite occurs as pods up to 4 inches long, streaks, and as isolated crystals within the quartz (3). A geologic map of the Choates Mine is included as an attachment.

POTENTIAL FOR DEVELOPMENT

Antimony is a stragetic material of considerable importance in various military applications. The United States is heavily dependant on foreign imports for domestic consumption.

Bennett, Jan. 1973

Since the antimony at these properties is in quartz veins that necessitate high-cost underground mining and hand sorting, little if any production will probably occur unless there is a period of very high prices or a national emergency. Future mining operations, if any, will probably be from underground workings. The possibility for other occurrances, perhaps ameiable to low-cost mining methods, is not known.

COMPANIES AND CLAIMANTS ACTIVE IN AREA

The following claimant was identified in the area:

1. SUNSET Group
   P. S. Evans
   (4 lode claims)

III. Unnamed Copper Prospect

A copper prospect is located in section 24, T. 22 N., R. 19 E. This prospect was not examined by the writers, and there has been apparently no production.

GEOLOGICAL AND TECHNICAL DATA

In the copper prospect in section 24, mineralization is reportedly confined to small quartz veins and fracture zones in granitic rock. Only secondary copper minerals are present at the prospect in section 24 (2).

POTENTIAL FOR DEVELOPMENT

The unnamed copper prospect is probably economically submarginal, both in grade and extent. Old workings at the unnamed copper prospect consist of numerous prospect pits, several shafts, and adits.

COMPANIES AND CLAIMANTS ACTIVE IN AREA

The following claimants have been identified in the area:

1. COPPER RIDGE Group
   Lee Smith
   960 Wilkinson, Reno
   Dec. 1967
   (6 lode claims)

2. LORELIE Group
   Fred Voss, et.al.
   960 Wilkinson, Reno
   Apr. 1963, Mar. 1968
   (2 lode claims)

Bennett, Jan. 1973

1. Beal: Investigation of Titanium Occurrences in Nevada; Nev. Bur. Mines Rpt. 3, 1963.

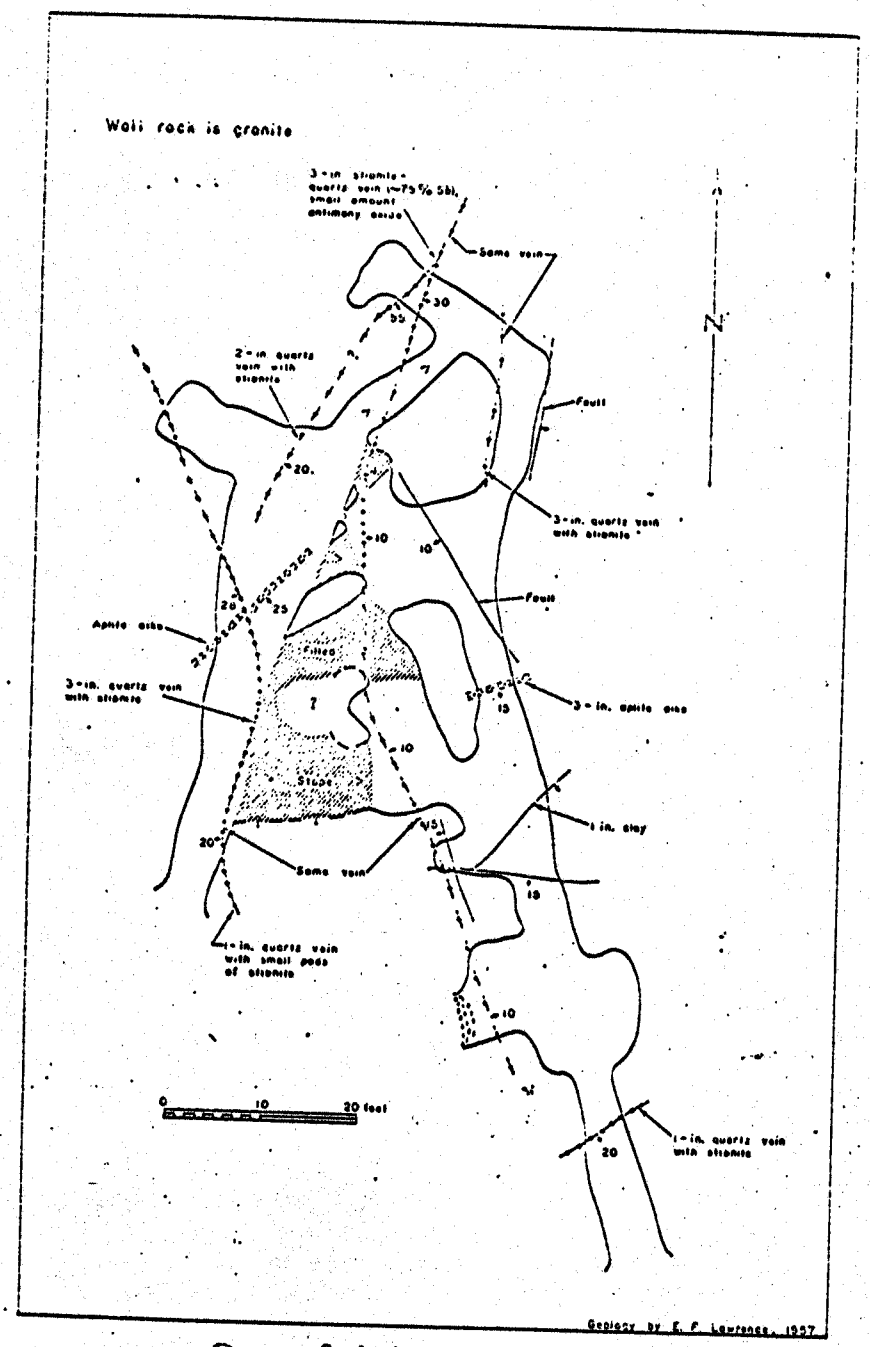
2. Bonham and Papke: Geology and Mineral Resources of Washoe and Storey Counties, Nevada; Nev. Bur. Mines Bull. 70, 1969. (Includes Geologic Map of Resource Area)

3. Lawrence: Antimony Deposits of Nevada; Nev. Bur. Mines Bull. 61, 1963.

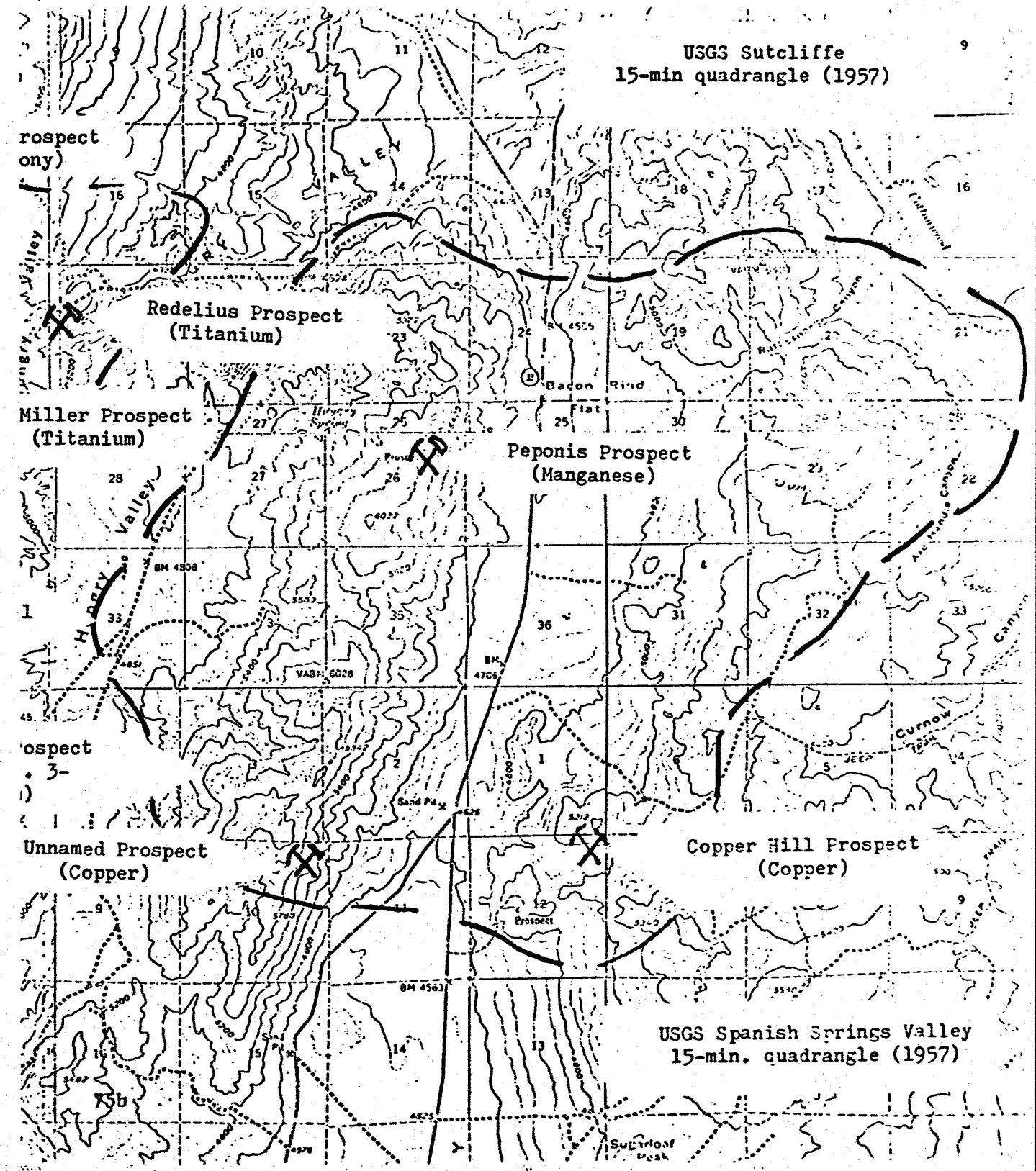
FIELD EXAMINATION

Not examined.

Bennett, Jan. 1973



Geologic map of the Choates mine, Washoe County, Nevada.


USGS Sutcliffe
15-min quadrangle (1957)
Redelius Prospect
(Titanium)
Miller Prospect
(Titanium)
Peponis Prospect
(Manganese)
Unnamed Prospect
(Copper)
Copper Hill Prospect
(Copper)
USGS Spanish Springs Valley
15-min. quadrangle (1957)
Bacon Rind Flat
Hungry Valley
Curnow Canyon
Sand Pit
Superloaf Peak

Washoe Co. - general

Item [redacted]

89

Mineral Resources Inventory and Analysis

of the

Pyramid Resource Area

Carson City District
Nevada and California

by

R. E. Bennett and H. W. Mallery

1973

~~see~~ Washoe County-general file for the complete introduction to this report (0160 0035)