Humboldt County - general

Item 35

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MATERIALS SURVEY

ANTIMONY

Compiled for the

MATERIALS OFFICE
NATIONAL SECURITY RESOURCES BOARD

by the

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with the cooperation of the

GEOLOGICAL SURVEY

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Churchill County: The Antimony King (Drumm) mine is in Bernice Canyon, on the west slope of the Clan Alpine Range northeast of Fallon. Several hundred tons of antimony was produced during World War I, as well as small quantities sporadically during the periods of high demand of the 1940's. Other deposits occurring north and south of Bernice Canyon have yielded a small production during recent years.

The Caddy prospect is in the Fairview district 4 miles northeast of Chalk Mountain, 12 miles from Frenchman's Station.

Elko County: The Reid (Blue Ribbon) mine is on the crest of the Bull Run Mountains about 5 miles south of Mountain City and 90 miles by road north of Elko. Stringers of stibnite up to 5 inches wide occur in quartz veins about 50 feet long and 8 inches to $2\frac{1}{2}$ feet wide, in granite. Three veins have been discovered; the average antimony content is about 5 percent, but the stringers contain about 30 percent. Reserves are small.

The Winnie Quartz mine is in the Gold Creek district near the Gold Creek Ranger Station about 90 miles north of Elko. Narrow veins and lenses of high-grade stibnite with minor quartz are in shale and limy shale. Production and reserves are small.

Other antimony deposits occur in northern Elko County in the general region of the Reid and Winnie Quartz mines and in particular in the Independence and Bull Run Ranges.

Elko County has some deposits of the complex type, in which antimony occurs as a minor constituent. The more productive deposits of this type are at Cornucopia, Mountain City, and Merriniac. The average antimony content, past production, and reserves of antimony are not known.

Humboldt County: The Nevada King mine is about 80 miles northwest of Winnemucca on the east flank of the Pine Forest Range in Pass Canyon. Several veins 25 to 100 feet long and 6 inches to 2 feet wide are in interbedded shale and quartzite. The average grade is less than 2 percent of antimony, but a few high-grade lenses contain up to 30 percent. Production and reserves are low.

The W. P. mine is in the Ten Mile district, about 10 miles west-southwest of Winnemucca. Stibnite and antimony oxides occur in the brecciated zone of a fault in quartzite; the fault is barren where it passes into underlying shale. High-grade stringers and irregular masses are irregularly distributed in the breccia zone, which ranges up to 6 feet wide and 40 feet long. The ore can be readily sorted to a high-grade product. Production has been 50 to 75 tons of antimony, and reserves are probably comparable in quantity.

Small quantities of antimony have been produced from the Snowdrift mine, Juniper Hills district, near Sulphur. The Pansy Lee or Case-Prout mine in the Barrett Springs district 10 miles northwest of Winnemucca contains appreciable antimony in ores that are mined primarily for lead, zinc, and copper. Concentrates produced in 1941 contained 160 tons of antimony, but the mine was closed in 1942. Total production and reserves are not known. Stibnite was abundant in a gold shoot in the old National mine, National district. Stibnite was the most abundant sulfide, but the ore also contained pyrite, chalcopyrite, arsenopyrite, sphalerite, and galena; cinnabar was found in one vein. A little antimony was found on the Bell claims near the Buckskin quicksilver mine southeast of McDermitt.

Lander County: The Cottonwood Canyon or Antimony King mine is about 8 miles southwest of Battle Mountain on the southeast slope of Antler Peak. Stibnite and antimony oxides occur in quartz veins and as stringers and irregular masses in a shear zone in chert and siliceous shale. Past production has been about 300 or 400 tons of antimony. Some of the ore can be sorted to a high-grade product, but much of the antimony has been discarded on the dumps. Several hundred tons of antimony remain as reserves, in small part as high-grade ore but mostly in material containing 3 to 5 percent antimony.

The Apex mine is in Galena Canyon, about 2 miles southwest of the Cottonwood Canyon mine. Antimony occurs in a quartz vein that is generally about 3 inches wide but locally swells to form orebodies up to 2 feet wide, 50 feet long, and 50 feet deep. Total production has been about 100 tons of antimony. Reserves are small.

The Blue Dick mine is in the Hilltop district, about 20 miles southeast of Battle Mountain. Two narrow veins of quartz, stibnite, and antimony oxides are in quartzite and chert and in sediments and volcanic agglomerates that overlie the older rocks. Production and reserves are small.

The Antimony King (Bray) mine is on the south branch of Big Creek, south of Austin. The mine produced perhaps as much as 1,000 tons of antimony between the time of its discovery in 1864 through World War I. Only a small quantity of ore has been produced from it since. The vein is more than 100 feet long and has been worked through a vertical distance of about 100 feet. The maximum width is about 3 feet, and the average is about 2 feet. Small stringers have also been found in the country rock, which is calcareous shale. In addition to quartz and antimony, the ore also contains silver and selenium; the latter element is particularly objectionable in the making of antimony oxide.

The Pine (Dry Canyon) mine is north of the Antimony King mine. Small quantities of stibnite are distributed unevenly in a silicified zone up to 30 feet wide, several hundred feet long, and at least