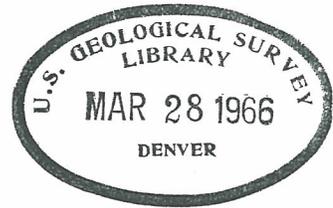


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Mines and Mineral Resources of

TRINITY COUNTY

California

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California Division of Mines and Geology

COUNTY REPORT 4

California Division of Mines and Geology

San Francisco, 1965

With sections on Limestone, by Q. A. Aune; Phosphate, by P. A. Lydon; Rock Products, by H. B. Goldman; and an Introduction to the sections on Asbestos, Barite, Chromite, Copper, Manganese, and Quicksilver, by Fenelon F. Davis

Mines and mineral resources

The total value of mineral commodities produced in Trinity County from 1880 to 1962 inclusive and recorded in the accompanying table amounts to \$59,426,238. There is no record of the production of gold or silver from 1848 to 1880, but it must have amounted to several million dollars for some of the early placers were very rich. The value of the quicksilver produced prior to 1880 has been estimated at \$458,381. Gold, quicksilver, silver, and platinum have been the principal minerals mined, but commercial production has been recorded for fifteen mineral commodities to date.

ASBESTOS

"Asbestos" is a term applied to several naturally occurring fibrous minerals. Two principal mineral varieties are recognized, chrysotile asbestos and amphibole asbestos. Chrysotile is the most important mineral commercially and its silky, flexible, tough, pale green fibers can be separated into a white fluffy mass. Chrysotile usually occurs as short, thin, discontinuous, cross-fiber veinlets which branch, pinch out and form rectangular stockworks enclosing barren rock. Chrysotile veinlets are found in all serpentine masses but usually not in quantities sufficient to constitute ore bodies.

All asbestos minerals other than chrysotile are members of the amphibole group. Tremolite is the most common mineral and has long coarse, weak, whitish fibers which can usually be easily bent or broken by the fingers. Tremolite occurs as slip fiber veins in shear zones and most of the commercial deposits are found in serpentine.

Ultramafic rocks such as peridotite and dunite, altered to serpentine, are abundant in Trinity County. A look at the geologic map shows two belts of these rocks trending northwestward through the central part of the county and an intense concentration of them in the northeast corner.

Chrysotile asbestos was mined in 1930 from serpentine at the Jones Brothers deposit in sec. 7, T. 37 N., R. 7 W., M.D., about a mile north of Carrville. Averill (1941, p. 16) reported that the fiber varied in length from a quarter of an inch to two inches with an average of three-quarters of an inch. Deposits of amphibole have been found in several localities and production was reported from the Eldenlou Group in the Altoona district.

Although total production of asbestos in Trinity County has been small the serpentine areas remaining to be explored are so extensive that the potential for new discoveries is very good.

Eldenlou Group. Location: sec. 19, T. 38 N., R. 6 W., M.D., about 3 miles west of the Altoona quicksilver mine. Ownership: G. R. Swenson and wife of Castella, California, and A. J. Nelson and wife of Mount Shasta, California.

Five claims were located on which tremolite occurs in fissures and lenses in serpentine. The claims have been prospected by shallow pits which expose lenses of tremolite 7 to 30 inches wide. In July 1944 about a ton of material was mined from the various exposures and the fiber recovered by washing through a short sluice box. The fiber was sacked and shipped to Baltimore, Maryland, where it was used in the manufacture of acid-type filters. There has been no production recorded since 1944.

Jones Brothers Mine. Location: sec. 7, T. 37 N., R. 7 W., M.D., 1 mile north of Carrville and a quarter of a mile west of the Coffee Creek bridge. Ownership: Southern Pacific Company, 65 Market Street, San Francisco.

The property is in the southeastern portion of a large serpentine body, the eastern edge of which is in contact with gabbro. Green chrysotile asbestos occurs in irregular fractures in dark green, greasy appearing serpentine. Fiber length of the mined asbestos ranged from a quarter of an inch to 2 inches, and averaged three-quarters of an inch. There was little fiber visible on the property in 1956.

Two claims, the Chrysotile and Chrysotile No. 1, were worked under lease in 1930 by the Jones Brothers Asbestos Supply Company. Five men hand-cobbed the asbestos from rock taken from an 8- by 20-foot open cut seven feet deep. Two tons of asbestos were shipped during the operation, and, in 1930, five tons of sacked fiber were stockpiled on the property. A 100-foot adit driven just below the open cut showed nothing but serpentine. The property was idle prior to 1941, and has not been worked since.

Red Mountain Claims (Virginia Bruce Nos. 1 to 13). Location: sec. 33, T. 26 N., R. 12 W., and sec. 5, T. 26 N., R. 12 W., M.D., two miles north of the Travis Ranch and about 12 miles southeast of Hoaglin Station. Ownership: B. L. Coddling and G. L. Carrico, c/o Bar Z Ranch, Covelo, California.

Asbestos occurs in a sill-like extension of an intrusive mass of ultrabasic rock the composition of which includes dunite, peridotite, and pyroxenite. Dunite and peridotite are largely altered to serpentine.