also yielded gold and a little silver (Graton, in Lindgren and others, 1910, p. 178).

WHITE OAKS DISTRICT

The White Oaks district has produced about seven-eighths of the gold in Lincoln County. It is about 12 miles northeast of Carrizozo in the White Oaks Mountains, which form the northern continuation of the Sierra Blanca Range. A small amount of placer gold was produced intermittently in the 1850's and 1860's in Baxter Gulch (Graton, in Lindgren and others, 1910, p. 179). The gold-bearing vein deposits were not discovered until 1879 in what is now known as the Homestake mine. The Old Abe mine was the most productive in the district and reached a depth of 1,375 feet (Jones, 1904, p. 172–173). The total production of the district through 1903 was $2,860,000 (Jones, 1904, p. 175). From 1903 to 1926 a small amount of gold was produced in most years, and through 1925 the total production was about $3 million; most of it was lode gold (Lasky and Wootton, 1933, p. 78). Only small-scale activity was reported through the 1930's, and the district was practically idle from 1941 through 1959. The total gold production of the district through 1959 was about 146,500 ounces; most of it was from lodes.

The rocks in the White Oaks district (Graton, in Lindgren and others, 1910, p. 179–180) are Cretaceous shale and post-Cretaceous fine-grained monzonite. Both are cut by lamprophyre dikes.

The ore deposits are in veins that cut the monzonite, lamprophyre dikes, and the shale. Most of the veins are narrow stringers, but where the intervening wallrock is impregnated with ore minerals, the deposits are irregular shoots. Gold, auriferous pyrite, and huebnerite are the common ore minerals. Quartz, albite, fluorite, and tourmaline are associated vein minerals.

OTERO COUNTY

Otero County, in southern New Mexico along the Texas border, is relatively poor in mineral deposits, yet a few small mines in the Jarilla district produced a total of about 16,500 ounces of gold through 1959.

JARILLA DISTRICT

The Jarilla (Orogrande) district is in the Jarilla Mountains about 50 miles north-northeast of El Paso in the southwest corner of Otero County. The first prospecting was done in 1879, but little interest was generated until turquoise was discovered about 20 years later (Jones, 1904, p. 194). Gold and copper lodes were mined on a small scale, and a little gold was recovered from dry placer operations. The most active period was 1905–18; the district was dormant from 1948 through 1959.

The Jarilla Mountains are underlain by Carboniferous limestone intruded and domed by an irregular mass of fine-grained monzonite porphyry. Near the contact, the limestone is metamorphosed to a skarn of garnet, diopside, epidote, quartz, and tremolite. The ore deposits are in fracture zones and along bedding planes in the metamorphosed limestone. Specularite and gold- and silver-bearing pyrite and chalcopyrite are the chief primary ore minerals; oxidized ore contains much limonite, malachite, and chrysocolla (Graton, in Lindgren and others, 1910, p. 185–186). The placer ground that has been worked is on the southeastern slope of the Jarilla Mountains. Most of the placer gold has been recovered with some form of dry washer. Black sand constitutes approximately 1 percent of the gravel and is reported to run about $40 per ton in gold, which is equivalent to about 40 cents in gold per ton of gravel. The black sand also carries magnetite, ilmenite, hematite, and zircon (Wells and Wootton, 1940, p. 14).

SANDOVAL COUNTY

Sandoval County, in northwestern New Mexico, is mostly west of the Rio Grande. Small amounts of gold and silver were produced from veins in the county, and copper has been produced from sandstone deposits. The gold and silver came from the Cochiti district in the foothills of the Valles Mountains, about 30 miles west of Santa Fe.

COCHITI DISTRICT

The Cochiti district was prospected in the 1870's or 1880's, but boundary disputes with Mexico dampened any early enthusiasm to locate claims. By 1889 much exploration was underway, resulting in the discovery of the Albemarle deposit in 1894. During a period of feverish activity from 1894 through 1904 more than $1 million in gold and silver was mined (Lindgren and others, 1910, p. 150). In 1905 mining ceased and was never resumed except for brief flurries in 1914–16 and 1932–40. The district was mostly idle from 1941 through 1959. The total gold production through 1959 was about 41,500 ounces.

The country rock of the Cochiti district consists of sandstone of probable Cretaceous age which has been intruded and domed by monzonite and related porphyries, also probably of Cretaceous age. Overlying these rocks is rhyolite 500 to 800 feet thick