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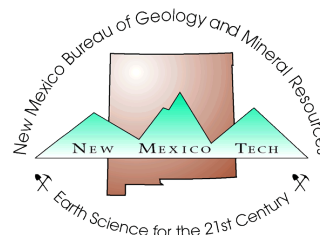
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Mining and mineral-processing operations in New Mexico comprise a vital part of the state's economic strength and stability. Before 1960, economic geologists focused their attention primarily on fuels and metallic minerals, while the geology and use of industrial rocks and minerals was generally overlooked. In the 1960's, increased awareness of the significance of such minerals and their processing was reflected by increased production figures in the state. New Mexico's entire mineral wealth is reflected in the 1977 preliminary gross production value of industrial rocks and minerals, metallic ores, and mineral fuels, which total more than \$2.8 billion.

Currently, active mining operations in New Mexico include 8 coal mines, 4 humate mines, 59 industrial rock and mineral operations, 11 metal mines, and 37 uranium mines. Sand and gravel industries are not included in these figures because of the intermittent, short-term nature of many such enterprises. The 119 mining operations provide the raw materials for 41 processing plants, including 1 humate plant, 22 industrial rock and mineral plants, 13 metal plants, and 5 uranium plants.

Coal

About 12 percent of New Mexico's surface area is underlain by coal. A sudden resurgence of interest in coal began in the 1960's with the opening of two large strip mines in the San Juan Basin. Today, the state's coal-mining industry is comprised of six mines in Colfax, McKinley, and San Juan Counties with a combined capacity of approximately 15.5 million tons per year. The largest of these operations is the Utah International, Inc. Navajo strip mine in San Juan County, with an annual capacity of approximately 7 million tons. The Carbon Coal Company strip mine (Mentmore mine) under development in western McKinley County will have an estimated capacity of about 1.2 million tons per year. Kaiser Steel Corporation is also developing the York Canyon Prospect near Vermejo Park in northern Colfax County. Other coal producers in the state include Amcoal, Incorporated and Pittsburg and Midway Coal Company in McKinley County; and Western Coal Company in San Juan County.

Humate

Lithologically, humate is a brown carbonaceous mudstone. Crushed humate is marketed as a soil conditioner, although the effects of its use have not been completely documented or determined. Some of the claimed potential benefits of humate application to soils include: increased retention of water and soluble fertilizer additives, and increased acidity.

Production of humate in the state fluctuates widely, reflecting an irregular market for the product. Of the four active humate mines in New Mexico (all located in Sandoval County), the largest is the Alpha mine operated by Alpha NOH Company, with a daily capacity of about 200 tons. The 1978 State Mine Inspector's report indicates that the Tenorio Plant in southern Sandoval County, operated by Humus Organic Products, is the only active humate-processing operation in New Mexico.

Industrial rocks and minerals

Industrial rocks and minerals includes any rocks, mineral, or other naturally occurring mineral substance of economic value, exclusive of metallic ores, mineral fuels, and gemstones. Any industry whose operations consist of extraction and processing (but not manufacturing) belongs to the industrial minerals field. As with any other product, the successful production of industrial rocks and minerals depends on the law of supply and demand. Prices may be temporarily elevated or depressed, but if a commodity is in scarce supply or in demand, prices will rise; if a commodity is abundant or of limited use, prices will fall. Availability and quality of material, production and transportation costs, and market size and location are important factors in New Mexico's mining and mineral-processing operations.

The 59 industrial rock and mineral operations in the state are mainly in the southwest, north-central, and Carlsbad areas. Industrial rocks and minerals produced in New Mexico in 1978 were valued in excess of \$227.1 million. The state ranks first in the nation in the production of perlite (548,000 tons) and potash (2.14 million tons), and continues to rank among the leading producers of pumice (475,000 tons).

Other industrial rock and mineral commodities produced in New Mexico include clay, gypsum, sand and gravel, limestone, mica, salt, stone, sulfur, calcite, and silica. A more detailed summary of New Mexico's industrial rock and mineral industry appears in the 1979 Annual Report of the New Mexico Bureau of Mines and Mineral Resources.

Metals

Of the 11 metal-producing operations currently active in the state, five are near Silver City, in Grant County. Two of these, the Chino mine (Kennecott Copper Corporation) and the Tyrone mine (Phelps Dodge Corporation) produce more than 300,000 tons of ore, leach, and waste material daily. Three companies, Kennecott Copper Corporation, Phelps Dodge Corporation, and U V Industries, also operate metal-processing plants in the Silver City area. Important products of the district include copper, gold, silver, lead, zinc, molybdenum, and iron.

The third-largest metal producer in the state is Molybdenum Corporation of America, which operates a molybdenum mine and plant near Questa, in Taos County, with a daily capacity of about 65,000 tons. C.A.C. Mining Company produces copper-gold-silver ore from the Hummingbird mine in southwestern Santa Fe County and also operates a 50 ton-per-day processing plant in Albuquerque. Alpha Minerals Processing Corporation produces and processes several metal ores near Carrizozo in Lincoln County; H. N. Larne & Sons operates a 350 ton-per-day iron mine near Capitan, in Lincoln County. Total value of metals produced in New Mexico in 1978 amounted to more than \$192.0 million.

Uranium

Thirty-two of New Mexico's 37 uranium mines are in McKinley County; six active operations are in Valencia, Sandoval, and San Juan Counties. United Nuclear and Kerr-McGee Nuclear Corporations operate uranium-processing plants in McKinley County; the Anaconda Company, SOHIO Petroleum Company, and United Nuclear-Home-stake Partners have active uranium-processing plants in Valencia County. The latest New Mexico State Mine Inspector's Report shows that in 1978 the state produced 16 million pounds of uranium valued at about \$278.4 million.

The data submitted here appears in Resource Map 9, published by NMBM&MR in 1979, a more detailed publication consisting of two maps and eight directories. □