
MINERAL RESOURCES

ROBERT H. DOTT, Oklahoma Geological Survey, Norman

The mineral resources of Oklahoma are shown on a map entitled "Minerals of Oklahoma", compiled by the Oklahoma Geological Survey and published in cooperation with the University of Oklahoma Research Institute and the Oklahoma Planning and Resources Board. Its purpose is to bring together information that would be pertinent in locating a prospective mineral industry—extractive or processing—in Oklahoma. This information includes data on water supplies—surface and underground—and the location of: mineral deposits; plants now engaged in extracting and processing such materials; coal, oil, and gas fields, and oil and gas pipe lines, as sources of fuel as well as raw materials; electric generating plants and transmission lines; and transportation facilities.

Mineral resources for processing industries are of two general kinds—(1) raw materials in the ground and (2) processed and semiprocessed materials or by-products of some existing industry. Even some waste products might be included. Following are listed, in alphabetical order, the minerals, as defined above, that exist in Oklahoma:

Asphaltic materials. Rock asphalt, grahamite, and impsontite.

Bentonite. More properly classified as sub-bentonite, or meta-bentonite.

Cadmium and indium. By-products of zinc smelting.

Caliche. Impure calcium carbonate, in the high plains.

Carbon black. Made from natural gas.

Carbon dioxide. By-product of one cement plant.

Chat. Crushed rock, mainly silica, by-product of milling zinc ore.

Chemicals. Plants at Tallant, Bartlesville, Tulsa, and Claremore, making a variety of products, including acids.

Clay. Several brick and tile plants, one pottery plant; brick clays in most parts of State; some refractory clays, and other clays of special types, are worthy of investigation and research.

Coal. Estimated reserve of 55 billion tons, in eastern Oklahoma, bituminous and semibituminous grade; satisfactory metallurgical coke is being made from blends in Texas.

Dolomite. Large quantities of very high grade dolomite in Arbuckle and Wichita Mountains.

Glass sand. High quality sand in Simpson group, Arbuckle Mountains.

Granite. Wichita Mountains granite supports a healthy industry; high quality of stone is recognized nationally.

Gypsum. An estimated 125 billion tons in western Oklahoma; one mill at Southard, Blaine County, makes a complete line of gypsum products.

Iron ores. Limonite in Arbuckle Mountains, being used by the cement plants at Ada, for making special cements; hematite in Reagan sandstone of Wichita Mountains, formerly used for paint pigment; titaniferous magnetite in anorthosite region of Wichita Mountains, quantity unknown.

Limestone. Large quantities in northeastern Oklahoma suitable for treating soils, making cement, etc.; high-quality stone near Marble City and Bromide, suitable for burning to lime, chemical uses, etc.

Manganese. Small quantities of oxide ores in Ouachita Mountains; oxide and carbonate near Bromide, Arbuckle Mountains.

Natural gas. Widely distributed.

Natural gasoline. Being recovered from "casinghead" gas produced in oil fields.

Petroleum. Widely distributed, most important mineral now being produced in State.

Quartz. Large deposits in veins in McCurtain County.

Sand and brine. Rock salt underlies northwest Oklahoma in thick beds; brines occur abundantly in all oil fields.

Tripoli. Produced in Ottawa County.

Volcanic ash. Numerous large deposits in northwestern Oklahoma; deposits near Muskogee, Henryetta (Dustin), Stratford, Hobart, and elsewhere.

Zinc. Seventy-five square miles in Ottawa County lead the nation in production; smelters at Blackwell, Bartlesville, and Henryetta; sulfuric-acid by-product at Bartlesville, cadmium and indium by-products at all plants. Much of ore smelted is from outside Oklahoma.

Wool rock. Samples tested by Oklahoma Geological Survey indicate suitable material in at least 14 counties; one plant at Sand Springs obtains rock from near Ninnekah, Grady County.