**Natural Resources Map Locator:**

**Rivers:** **Find and highlight in blue the river paths**

* ![C:\Documents and Settings\amym\Local Settings\Temporary Internet Files\Content.IE5\ROQ0CVW2\MPj04075390000[1].jpg]()Buffalo River – first national river in the United States
* Mississippi River – located along the eastern border of the state
* White River
* Arkansas River – largest river in the state
* Saline River
* St. Francis River
* Cache River
* Mulberry River
* Ouachita River - first manmade dam in Arkansas built across it in 1924

**Lakes: Circle with a blue highlighter**

* Beaver Lake (1966) – formed by White River
* Table Rock Lake
* Norfork Lake
* Greers Ferry Lake – dedicated to President John F. Kennedy
* Lake Ouachita – largest manmade lake within Arkansas
* Lake Catherine – formed by Remmel Dam and first major hydroelectric facility
* Lake Chicot – largest natural oxbow lake in 08, oxbow lake in the extreme southeast

**Other Important Natural Resources: Using red marker, draw a shovel.**

* Murfreesboro (Arkansas Diamond Mine)
* Smackover (Arkansas Museum of Natural Resources and city of Arkansas’ largest oil discovery)
* Coal Hill (Coal)
* Conway (Natural Gas)
* Bauxite – (Alcoa – aluminum production)

**Natural Resources Summary:**

The state of Arkansas has an abundance of many natural resources. In fact several natural resources are proudly displayed on the Arkansas quarter: diamonds, forests, rice, ducks and water. Did you know that the natural resources of Arkansas have helped shape its history? Water, timber, minerals, oil, natural gas, and coal are among the abundant natural resources of Arkansas, so worth a closer look.

**Water**

Water takes many forms within the state of Arkansas. There are rivers, lakes, reservoirs, creeks and springs. These provide water supplies for agriculture, industry, cities and recreation. Water is often taken for granted but is becoming increasingly scarce in some regions. It is important that we learn to appreciate and protect our water supplies.

![C:\Documents and Settings\amym\Local Settings\Temporary Internet Files\Content.IE5\1R565JQZ\MPj04389930000[1].jpg]()Arkansas has 9,000 miles of streams and rivers. Before automobiles were used in the area, the Arkansas River was the main mode of transportation. Beginning in Colorado, the Arkansas River is the longest tributary to the Mississippi-Missouri system (<http://www.arvtripeaks.com/>). Other rivers include the Buffalo, White, Kings, Saline and many more. The White River was dammed, resulting in the formation of five lakes: Beaver, Table Rock, Lake Taneycomo, Bull Shoals and Norfolk before continuing its journey across the Delta and into the Mississippi. The Mississippi River forms most of the eastern boundary of Arkansas. The Ouachita River spills out of scenic Lake Ouachita nestled in the Ouachita National Forest. Many residences and visitors participate in fishing and canoeing activities which spurred the development of industries such as Ranger Boats in Flippin, Arkansas. Arkansas Parks and Tourism as well as the Corp of Engineers manages Arkansas’ water resources. To take a look at the variety of lakes, rivers, and the activities associated with each, visit the Arkansas Parks and Tourism at <http://www.arkansas.com/lakes-rivers/>.

#### Timber

#### Arkansas forests provide a diversity of products and other important benefits including wildlife habitat, recreational opportunities, watershed protection, and aesthetic values. Statewide, there are 18,778,660 (almost 19M) acres of forest land representing 56% of the total land base. Of this, 27% is pine, 17% is mixed hardwood and pine, 39% is upland oak-hickory forests, and the remaining 16% are bottomland species including some oak, cypress, cottonwood, and elm. National Forests account for 12.4% (2.3 million acres) of Arkansas' total forested acreage. Forest resource companies own or lease 25% of the state's forest land. The forest products industry, including the pulp and paper industry, is the state's largest manufacturer and directly employed 47,400 employees in 1995 with a payroll of $1.17 billion. <http://www.arnatural.org>

**The Delta Region.** The region is best described as the alluvial plain of the Mississippi and Arkansas Rivers that extends from Missouri south to Louisiana. Although the Delta includes roughly a third of the state, only about 11 percent of the area is forested. The remaining land base has been cleared for agriculture. Bottomland hardwood (elm, ash, cottonwood, oak, gum, and cypress) account for more than 2/3's of the timberland and oak-hickory stands account for another quarter. <http://www.arnatural.org>

**The Ozark Region**. The region encompasses the Ozark Plateau and the Boston Mountains in the northwestern corner of the state. Upland oak-hickory forests are the dominant forest type in the region. Roughly 20% of the forest land is in public ownership most of which is in the Ozark National Forest. Private landowners own more than 77 percent of the remaining forest land.<http://www.arnatural.org>

**The Ouachita Region.** The Ouachita region extends west of the Delta northward to the Arkansas River and contains the eastern portion of the Ouachita Mountains. Loblolly and short-leaf pine and oak-pine forests occupy most of the forest land. Bottomland hardwood stands along the major stream and river systems comprise approximately 6% of the total forest land. The timber products industry has a long history in the Ouachitas and commercial industry still owns or leases about 22 percent of the timberland. This region is the second most important timber producing area in Arkansas.<http://www.arnatural.org>

**The Southwest Region.** The Southwest region covers the southern part of Arkansas west of the Delta. This region can be called the "wood basket" of the state because it produces almost two-thirds of the annual timber harvest. Loblolly pine and mixed oak-pine stands cover more than 60% of the forest land in the region. Bottomland hardwood and oak-hickory stands comprise the remaining portion. Forest product industries own or lease at least half of the forest land in this region. Not surprisingly, most of the pine plantations in Arkansas have also been established in the region. [http://www.arnatural.org](http://www.arnatural.org/forestry/resources.htm)

#### Minerals

Arkansas has enough varieties of minerals to keep collectors and mineralogists busy for many years. <http://rockhoundingar.com/minerals.html>

**Minerals of Arkansas:**

* diamonds – state gem
* bromine (#1 in world)
* cement rock, shale, silica sand, syenite, clay, crushed stone, sand, gravel, dimension stone and slate
* tripoli (#3 in nation)
* gypsum (#9 in the world)
* silica stone (only producer in nation)
* novaculite (only producer in nation)
* quartz crystals – state mineral and lasca (#1 in nation) Arkansas' most famous mineral
* serpentine rock
* barite
* bauxite – state rock

Arkansas ranks second nationally in the recovery of diamonds and the only place in the world where anyone can come, pay a small fee per day, and hunt on a documented authentic diamond-bearing pipe. This is near Murfreesboro in Pike County. Diamonds were discovered here in 1906 by a local farmer-prospector. It has been estimated that over 100,000 diamonds have been recovered from the 35 acre plowed field. This site holds the record for the two largest diamonds found in North America - the Uncle Sam (40.23 carats rough) and the Star of Murfreesboro (34.25 carats rough). <http://rockhoundingar.com/minerals/diamonds.html>

**Oil**

![C:\Documents and Settings\amym\Local Settings\Temporary Internet Files\Content.IE5\SDU7EE7A\MCj04378310000[1].wmf]()Sidney (Sid) Albert Umsted, known as the “Father of the Smackover Oil Field,” drilled the first well in the Smackover (Union County) area, introducing Arkansas’ largest oil discovery. In 1925, the Smackover field produced over 77 million barrels of oil and was the largest oil field in the nation at that time. The oil industry in Arkansas, which includes exploration and the production, refinement, and distribution of petroleum-based products, exploded onto the state’s economic scene in the early 1920s, and once-local production expanded into an international business. From 1920 to 2003, more than 1.8 billion barrels of oil have been produced in Arkansas. At the peak of the boom in 1925, some 3,483 wells produced seventy-three million barrels of oil in one year. So much oil was produced that trains could not transport all the oil out of the area to refineries. In 1926, Smackover producers began storing oil in open earthen pits, causing much of this oil to be lost due to contamination from rain and spills. It also contaminated the groundwater itself. Many pools proved to have relatively limited supplies. In the early 1920s, wells often ran at full capacity, which let many of the wells run dry within five years of the boom. The Arkansas Conservation Commission issued recommendations to producers to prevent such waste, and, with several larger oil companies, filed lawsuits in the late 1920s to extend the life and productive efficiency of the oil fields.

[*http://www.encyclopediaofarkansas.net*](http://www.encyclopediaofarkansas.net)

#### Natural Gas

Natural gas was first discovered in 1887 at Fort Smith, but commercial development did not begin until 1902 when two gas wells were completed near Mansfield, Sebastian County. Gas was first discovered in southern Arkansas on April 22, 1920, when the Constantine Oil Company completed a gas well near El Dorado, Union County. During the past 45 years, at least a dozen scattered small gas fields have been discovered in Washington, Madison, and Benton Counties in northwestern Arkansas. Production has come from five formations of Late Mississippian to Middle Ordovician age. Natural gas has been recovered, commonly with oil, in the southern Arkansas oil and gas fields in Ashley, Bradley, Calhoun, Columbia, Hempstead, Lafayette, Miller, Nevada, Ouachita, and Union Counties. Drilling methods for natural gas are very similar to those for oil. <http://www.state.ar.us/agc/natural.htm> The Fayetteville Shale Play, running along the Arkansas River valley along I-40 is now producing natural gas. This is proving to be one of the largest deposits of natural gas in the United States. Recent technological developments have made it possible to locate and drill.

#### Coal

Arkansas coal has been used largely to produce steam to power electric generating plants and steam locomotives, as metallurgical coal in steel mills, to heat homes and buildings, and as a source of coal tar and other chemicals. Presently, coal from Franklin and Sebastian Counties goes into the manufacture of "charcoal" briquettes. One of the principal advantages of Arkansas coal is that it gives off little smoke when burned. Another is that its sulfur content is relatively low, compared to many coals mined in the United States and elsewhere.<http://www.state.ar.us/agc/coal.htm>

After the extension of the Little Rock and Fort Smith Railroad around 1873, coal from the Coal Hill mines in Johnson County was marketed. At the Old Spadra mine in Johnson County, a steam plant was installed in 1873. When the St. Louis and San Francisco Railway was extended south to Fort Smith in 1887, numerous mining operations began at Huntington, Hackett, Jenny Lind, Paris, Charleston, Scranton, and other localities in the Arkansas Valley, eventually resulting in extensive development. From 1880 to 1920, coal ranked first in the value of Arkansas' mineral and fuel output, but since 1922 the value of oil has exceeded that of coal. The peak year of coal mining activity in Arkansas was 1909, when annual production reached nearly 2,400,000 short tons. <http://www.state.ar.us/agc/coal.htm>

**Sources**

[www.arkansasstateparks.com](http://www.arkansasstateparks.com/)

[www.arkansas.com](http://www.arkansas.com/)

<http://www.arnatural.org/>

<http://rockhoundingar.com/minerals.html>

<http://www.encyclopediaofarkansas.net/>

<http://www.britannica.com/eb/article-9009470/Arkansas-River>

<http://www.state.ar.us/agc/natural.htm>

<http://www.state.ar.us/agc/coal.htm>