

Mineral Survey In Dallas County Is WPA Project

Weekly News, Fordyce
March 1938
Work To Start at Once Under
Supervision of W. M. Tucker
of Little Rock

A crew of 15 under the supervision of W. M. Tucker, will begin a mineral survey of Dallas county at once, according to Mr. Tucker, who arrived here this week to begin work on this WPA project, which is to be carried on in 31 Arkansas counties, and which will eventually expand to cover 44 counties of the state.

The survey is to be carried out under the direction of the Arkansas Geological Department, with Robert C. Beckstrom as state director. Mr. Beckstrom has recently completed a similar survey in Oklahoma, which experience will aid him in his work in this state.

Mr. Tucker said yesterday that it is definitely known that there are clay deposits in Dallas county, and that the survey will reveal whether they exist in paying quantities or not.

The object of the survey is to "locate, measure, estimate, describe, test and map the accessible resources of the state, such as construction materials, minerals and water tables for use in determining their adaptability for economic use."

It was estimated by Mr. Tucker that the work in Dallas county, which will be carried on by sections, will require from three to nine months to complete. Mr. Tucker spent several months in Fordyce last year as engineer during the construction of highway 167.

Manufacture Of Pottery Once Flourished Here

Fordyce Weekly News
3-10-38 Dallas Co.
Many Plants Operated Near
Princeton, History of This
Modern Industry Shows.

The beginning of the mineral survey in Dallas county, which began last week under the supervision of W. M. Tucker, and which is a WPA project, brings out the historical fact that in years past pottery plants were successfully operated in this county. Delving in this "ancient" history, one finds that Dallas county boasted a pottery industry that continued to operate for several years, proving that there are valuable clay deposits to be found here.

The first pottery plant to be set up in Dallas county was operated by Joseph and Nathaniel Bird in 1843 in the northern part of the county. In 1884 James Bird, brother of Joseph and Nathaniel, set up a pottery just over the line in Grant county. He had burned only a few kilns when he sold out and the business was discontinued.

William Bird, another member of the same family, established a pottery in 1843 about 15 miles north of Princeton, which he operated until 1851 or 1852. He then moved his shop to a point four or five miles north and west of Princeton. In 1861 he sold his plant to John W. Welch, who continued the business at

the same place. His products consisted of jugs, jars, churns and crocks, which found a ready market at Pine Bluff, Camden, Warren, Monticello, Eldorado, Magnolia and other places.

Bird had the reputation of making very fine, durable ware, while Welch-made ware was hard, close-bodied and thin.

Nathaniel Culberson worked a while with Welch, and then entered business for himself, operating a pottery three miles northeast of Princeton from 1858 until 1865. His ware was thick and porous.

In 1859 or 1860, a foreigner entered the pottery field and established a plant about three-fourths of a mile north of Culberson's plant, which he operated for about three years. Beside ordinary crockery he manufactured flower pots with vines and flowers in relief on the sides.

In 1870 LaFayette Glass, after learning the pottery trade under Welch, set up a plant approximately four miles west of Princeton. He operated there for a year and then moved to Saline county, and was the pioneer potter of Benton.

Between 1874 and 1876 E. A. Munn, a brother-in-law of Welch, ran a pottery about two miles northwest of the Welch pottery. After two years he left there and moved to Malvern. His product was a fine, hard and close-bodied ware.

Shortly after this it was found by Dallas county potters that they could not compete successfully with potteries located on railroads, and where equally as good clay was available, so the Dallas county pottery industry faded out of the picture. The extent to which Dallas county clay has been used has been outlined in the above historical sketch, and from which it will be seen that the future of the industry in the county depends upon transportation facilities from plant to market.

One of the purposes of the mineral survey now being conducted is to determine the extent of the clay deposits in the county, and their accessibility to market by modern transportation methods.

After the survey is completed this data will be available at the office of the Arkansas State Geological Survey in Little Rock.

DALLAS COUNTY MINERAL SURVEY TO PROVE CLAY RESOURCES "The Advocate" 3-10-38 Dallas Co.

The Advocate has long publicized the need for a technical geological survey of the mineral resources of counties in the vicinity of Fordyce and more especially the clay deposits of Dallas county, and now it appears that this publicity is about to bring tangible results.

W. M. Tucker, appointed as Dallas County Supervisor arrived in Fordyce last week and will be in charge of the Geological Survey of this county. About 15 WPA workers will be employed on the project here.

A state-wide mineral survey was started on March 1 by the WPA sponsored by the Arkansas Geological Survey. Robert C. Beckstrom is state supervisor and R. E. Vandruff, assistant. Both are recognized geologists of wide experience. Mr. Beckstrom came to this state after completing a similar survey in Oklahoma and Mr. Vandruff has had 35 years structural and oil geological experience. W. M. Tucker is Dallas County Supervisor. Mr. Tucker was located in Fordyce nine months last year as one of the engineers on the Fordyce-Sheridan paving project.

From 1843 to about 1860 there were several potteries in operation in Dallas county. They were discontinued due to lack of transportation facilities and not because of quality or quantity of suitable clays.

The purpose of the present survey is to locate, measure, test and map the accessibility of all minerals, including clays in Dallas county.

Landowners are urged to cooperate with the surveyors so that Dallas county mineral resources and its clay deposits may be investigated and placed on record for future development.

STATE GEOLOGIST IN TALK ON COUNTY-WIDE SURVEY Dallas Co., 7-14-38

Dr. Geo. C. Branner, state geologist, and Robt. C. Beckstrom, chemist and state supervisor, both from Little Rock, addressed members of the Chamber of Commerce and WPA workers, employed on Dallas county geological survey, Tuesday evening at the Kilgore Hotel.

Both speakers dwelt upon the value of mapping and inventoring the resources of this county and described the thoroughness with which the project is being carried through. The efforts that are taken to obtain reliable information as to the county's clay deposits and how laboratory analysis of the various clays and a knowledge of the size of the deposits and availability will be accessible to those interested in developing our resources and increasing the county's income from the development.

Hon. Ike Murry acted as chairman and introduced the speakers. Others who made talks were O. F. Suggs, county supervisor, H. B. Benton, Everett Sadler, A. L. Carraway.

CARTHAGE Dallas Co., Aug. 1938

Hugh Nutt and C. C. Varnell had business in Fordyce Monday. Harry Ledbetter and William Key attended the show in Fordyce Saturday night.

Mr. and Mrs. Sam Whitner, Johnnie Tate and Harold Varnell attended the show at Fordyce Sunday.

H. H. Morris had business in Little Rock Monday.

O. F. Suggs, supervisor for the state mineral survey, is working Chester township with a crew of men, making a survey of mineral resources of this part of the county.

Mr. Suggs reports the finding of several beds of pottery clay. The crew will be working in this part of the county for at least 30 days. This project is being sponsored by Dr. George Branner, director of state geological survey.

Survey Reveals Valuable Clay Deposits Here

Dallas Co., 7-14-38
Object of Mineral Survey
Now In Progress Explained At
Meeting Tuesday Night.

The object of the mineral survey now being made in Dallas county, under the direction of the State Geological Department, as a WPA project, was explained at a meeting held at the Kilgore Hotel Tuesday evening by George C. Branner, state geologist, Robert C. Beckstrom, internationally known chemist, state director of the survey, and O. F. Suggs, county supervisor.

Dr. Branner spoke first and explained how the work is being carried on in 33 Arkansas counties, and why the survey is being made. He said the survey is really the taking of an inventory of what is on top of the ground, which in many instances reveals valuable deposits lying below the surface. These deposits, he said, are catalogued, tested and evaluated in permanent records in Little Rock, where industries seeking such deposits may secure much detailed information. The location of these deposits and the extent of the deposit often results in development that brings capital into the county, Mr. Branner said.

Robert C. Beckstrom, director of the program in the state, and internationally known chemist, who spent several years in geological survey work in Russia, told of the large number of deposits that have commercial value, that often lie in "our back yard," and mentioned several different kinds of clays and different uses to which they are put.

When the surveys are completed location of deposits of all kinds are listed, maps made, and much information about them is made available to industries and individuals seeking to develop new resources. Mr. Beckstrom stated that science is continually finding uses for many natural resources that have heretofore been considered useless, and that it is not at all impossible that science will discover use for natural resources that may lie "in our back yard."

Cooperation of citizens is sought by the directors of the survey, who are requested to submit samples of materials found on lands in the county. These samples are examined and tested without cost by the geological department, and records kept of their value and location.

Valuable Clay In County

Mr. Suggs reported the finding of valuable clays in the northern part of Dallas county equal in quality to the clays used in the manufacture of pottery. It will be remembered that the first pottery ever made in Arkansas was manufactured from clay deposits near Princeton, and that for several years pottery plants were operated there.

The extent of these deposits is believed to be equal to those found near Benton, and a more extensive examination will probably be made to determine the size and value of the deposit.

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MAKES REPORT ON GEOLOGICAL SURVEY

The Mineral Survey which has been in progress in Dallas County for the last nine months is a part of the Statewide WPA project being sponsored by the State Geological Survey under the direction of George C. Branner, State Geologist. Robert C. Beckstrom, who completed a similar survey in Oklahoma is the State Supervisor and R. E. Vandruff is Technical Supervisor of this Survey.

The work of locating and mapping the minerals, water and cultural features of Dallas County is under the direction of O. F. Suggs of Fordyce and is being accomplished by 19 men whose payroll totals \$1,200 each month, the greatest part of which is spent in Fordyce. The entire 679 square miles comprized in Dallas County will come under the investigation of the Survey. Of this area 239 miles have already been covered.

The workers walk over each section, making notes of all outcropping minerals and taking samples to be sent to the laboratory in Little Rock for testing and analysis. On their field sheets these workers also record the location and extent of all deposits and of all surface and ground waters, electric power lines and gas lines, railroads, highways, dams, bridges and all cultural features or man made improvements. Cultural information will be used in making corrections on county maps now in use.

The minerals located thus far in Dallas County are clays, sand, sandstone and lignite, of which the clays are first in importance.

The clays are principally of ball classification, adapted to the manufacture of earthenware, tiling and brick; the color is from almost white, through cream, yellow, tan and shades of brown. The Survey does not claim to have made new discoveries in this field. These clays were used before and after the War-between-the-States for making jugs, churns, crocks and similar vessels and were used in this way as late as 1890. But the Survey has determined the extent of the clay deposits, with the quality accessibility and possibilities of development and will run tests on a considerable number of clay samples from Dallas County to determine their value and utility. Clays so far found to exist in commercial quantities are located in the North Central part of the County of which Carthage is a center. At 7 miles West of Carthage, on State highway No. 9

clay is of excellent quality; stratum extends for a distance of four miles with an average depth of 15 feet and extends through four sections of land. In 50 miles of this vast clay deposit are Camden, Malvern and on, all having plants manufacturing clay products.

and gravel of a quality used to road building are present in abundance in Dallas County and with a like abundance of clay, the road making materials are found "right at home."

It is believed that a large part of Dallas County has lignite beneath the surface. A stratum two miles wide and approximately 20 miles long extends diagonally across the County from Northeast to Southwest. This "brown coal" is a resultant of decayed vegetable matter. When first taken from the ground it looks like brown clay and is easily cut with a spade. When dried and made into briquettes it produces a degree of heat equal to about one half that of bituminous coal, with the ash less than ten percent in most cases. When distilled it will produce about 25 gallons of oil from a ton of the mineral. A large station of a Texas Power and Light Company has been using powdered lignite for fuel for more than 10 years with saving of cost. The lignite of Dallas County has been used in a small way for domestic purposes, but due to the vast amount of other fuels in Arkansas it has never been commercialized.

The Rock Island Railway System and State highways Nos. 8, 9 and 48 solve the transport-

ation problem for potential development. The Arkansas Power and Electric lines extend into this section of the County and gas lines are near.

The Survey has mapped the many miles of graded road built by CCC labor during the last few years; these roads are of great benefit to the farmers in their "farm to market" program and will be shown on subsequent maps of Dallas County.

The Survey of the "Big Woods" Dallas County's great Recreational feature, is yet to be made. The State Game Refuge of 16,000 acres is within the boundaries of this forest. The many springs and streams on this preserve will be located and mapped by the Survey for the benefit of campers, tourists and visitors. The waters will be analyzed and the report made available as to their use.

The interest and enthusiasm of the people of Dallas County in the work of the Survey has been expressed in tangible form. Cooperation has come from many sources. The State Highway Department, through its District Commissioner, Hugh Benton of

Fordyce, has given valued assistance in transportation and in the use of tools. County and Municipal authorities, the Chamber of Commerce of Fordyce and the merchants of that city, Sparkman and Carthage have given financial aid toward furthering the work of the Survey.

Convenient offices were furnished by the First National Bank of Fordyce, the Benton Furniture Company of that city donating all furniture and fixtures for the offices. The Kilgore hotel is making special rates for all members of the Surveying party. The newspapers of Fordyce have been generous in the space and publicity given the work of the project, Kenneth Sager, former County Agent of the Agricultural Extension Service was helpful in supplying maps and information concerning physical features of the County. Teachers of the High school are alert to the importance of the work being done and have asked Mr. Suggs to

keep them supplied with information as the Survey work progresses. The school children of Dallas County will learn of the natural resources of their own county through the work of the Mineral Survey.

Virtually three-fourths of the timbered sections of Dallas County are owned or controlled by lumbering interests. The men connected with these industries are particularly interested in the work of the Survey and have given financial support to the project. They would learn of possibilities for further development of what lies below the surface when all timber has been cut.

The work of the Mineral Survey in Dallas County is of value in bringing to the attention of the public some natural resources of the County which should be of service in bringing new industries and adding to the population—both meaning more money.

On completing the Survey, all records will become the property of the State Geological Survey. The 1,500 samples of Dallas County clays and all other mineral samples sent in and the report of the analyst's findings concerning each, will also become the property of the State Geological Survey. From this data George C. Branner, State Geologist, will compile information to be published as county by county bulletins.

LABORATORY FOR TESTING MINERALS

Information was received by State Geological Department October 11 from Washington stating that a project for the construction of a laboratory to test and analyze state minerals has been approved by the president.

The project is sponsored by the Arkansas geological survey. The new building will furnish the geological survey with a much needed laboratory to analyze samples now collected, mapped, and classified by the State Mineral survey. Several thousand samples from sections of the state are now on hand to be tested or analyzed.

The state mineral survey is now active in 32 counties, covering 37,000 square miles and employing about 700 people. The object of this survey is to locate, map, estimate, sample, and describe each section of land to determine the surface indications of minerals. In many places bore holes are made to determine the depth and extent of deposits which do not appear on the surface. Subsurface cross-sections are being made of some districts where clay is the chief resource.

Maps are made of each covered showing the cultural development which with the mineral and water maps give detailed information for future development and improvement of any area showing promise.

Plans are now in process which will make it possible within a few days for the various counties to test the hardness and chlorides of water wells and springs. This information will be compiled in bulletin form and maps will be made showing the results of this survey.