

Mineral Survey Be- gun In Grant County

Sheridan Headlight
Grant Co. 8/18/38.
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George A. Leiper, county supervisor, with a crew of men has begun a survey of Grant county to determine the location and extent of minerals, construction material and other accessible natural resources including the location of the state water tables; the available quantities of mineral deposits; their adaptability to commercial uses; and the preparation and publication of the compiled findings. This includes laboratory testing and analyses of the various materials.

This is a State WPA project and is being sponsored in Grant county by County Judge E. H. DuVall. The State program is headed by Dr. Geo. C. Branner, State Geologist, with R. C. Beckstrom as State Supervisor.

The location and classification of all of the mineral resources of this state and compilation of that information for public use will be of great and permanent value to the state and nation. This will lead to the development of new industries, the location of strategic and deficient minerals necessary to national defense. It would assist greatly in reducing present and future construction costs of all types of road building.

Mr. Leiper asks the cooperation of all the citizens of the county in making this survey, which in turn will be of value to all the citizens. He states that there is now an immediate need for concrete gravel and sand, and that he hopes to locate a supply in Grant county.

FOSSIL OYSTER BEDS IN ARK.

On U. S. Highway No. 70 approximately 44 miles west of Memphis and 83 miles east of Little Rock a concrete bridge crosses Crow Creek, which is described as "a short, unimportant stream of St. Francis County." Across that bridge an average of 2,000 automobiles speed every day, their occupants unconscious of the fact that that unimportant stream below is a graveyard of antiquity. The stream bed and the banks contain the remains of an oyster bed of millions of years ago.

In September, 1938, while on a tour of the South, Dr. Gilbert D. Harris and Mr. and Mrs. E. Lawrence Palmer, paleontologists from Cornell University, visited the area and estimated the deposit as being millions of years old. They took various specimens home with them for further study. (The science of Paleontology has to do with the study of the remains of plant and animal life from past geological periods.)

Ever since the Gulf of Mexico receded from this part of the continent these oyster beds contained untold millions of fossil shells have been lying there, three and one-half miles east of Forest City and plainly visible from the bridge.

Exposed for a mile or more at this particular point on Crow Creek the oyster bed is a part of an im-

shells laid down in a horizontal bed. The exposed banks of the stream disclose masses of shell firmly embedded in a bluish-gray clay in which glisten tiny particles of mother-of-pearl. Stretches of sandy beach along the water's edge are strewn with broken shells and occasionally found measuring four inches across the hinge and twelve inches in length. From exposure to the atmosphere and elements most of the shells have become brittle and crumble at the touch or pull apart like wet paper. Oyster shells taken from the Atlantic Coast today between Long Island Sound and Florida are very similar in appearance to these shells which contained living organisms millions of years ago.

The shell deposit at Crow Creek has a thickness of five feet and extends for considerable distance back into the bank. A similar deposit was reported found at a depth of 250 feet in a well dug at Forest City.

Whence came the oyster beds in Eastern Arkansas?

There was a time, millions of years ago when a part of the Gulf of Mexico extended inland as far north as Cairo, Illinois. That this period lasted for millions of years is indicated by the thickness of the clay which was deposited as sediment on the bottom of the Sea.

Fresh water streams from the flowed into this embayment, which covered all the land now known as the Gulf Coastal Plain in which are now included Florida, Mississippi, Louisiana, the southern half of Georgia and Alabama, Eastern Arkansas and parts of Texas and Oklahoma. As the Gulf waters receded southward, the clay beds were exposed and became dry land, and the hardened sediment contained the remains of various forms of marine life.

The withdrawal of the Sea occupied an immense period of time and the land drainage from the North extended slowly, as the Sea withdrew. Eventually the drainage, principally the Mississippi and Ohio Rivers, carved out the soft coastal plains land and left Crowley's Ridge as an erosional remnant.

During the Glacial epoch either fresh water borne debris from the glaciers, or wind borne debris covered Eastern Arkansas with the so-called loess which caps Crowley's Ridge. All but the Ridge capping was removed by south flowing drainage.

Among the artifacts recovered from Indian mounds, villages and burial grounds in Eastern Arkansas have been found many articles made of shells. Early archeologists and historical writers assumed that these Indians had come from, or had visited the Gulf Coast country, bringing the shells with them. But is it unlikely that they were taken from the region adjacent to the Crow Creek fossil shell beds?

The surveying crew in St. Francis County, under Lewis Bohlinger, District Supervisor of the State Mineral Survey, investigated the fossil shell deposit, measured its extent and sent samples of the shells and the soil impregnated with shell decomposition to the State Laboratory for analysis. The amount of this deposit has been estimated by the survey at 6,833,000 cubic yards and is easily accessible, the main line of the Rock Island Railway and U. S. Highway No. 70 passing through the section.

The chemical analysis shows this shell deposit to contain calcium carbonate, magnesium carbonate, iron oxide, phosphorus pentoxide, aluminum oxide, sodium oxide, potassium oxide, and a relatively high percentage of insoluble. This composition should prove beneficial for liming the sour soil to the east and west of Crowley's Ridge.

Interest has recently been stimulated by the work of the State Mineral Survey in St. Francis county. This statewide WPA Project is sponsored by the State Geological Survey with State Geologist, George C. Branner, the Director, Robert C. Beckstrom is the State Supervisor and R. E. Vandruff is the Technical Supervisor. The State Offices of the Mineral Survey are at 117 N. Pictory Street, Little Rock, Ark.

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Fossil Oyster Beds In Crow Creek Near Forrest City, Arkansas

On U. S. Highway No. 70 approximately 44 miles west of Memphis and 83 miles east of Little Rock a concrete bridge crosses Crow creek, which is described as "a short, unimportant stream of St. Francis county." Across that bridge an average of 2000 automobiles speed every day, their occupants unconscious of the fact that that unimportant stream below is a graveyard of antiquity. The streambed and the banks contain the remains of an oyster bed of millions of years ago.

In September, 1938, while on a tour of the South, Dr. Gilbert D. Harris and Mr. and Mrs. E. Lawrence Palmer, paleontologists from Cornell University, visited the area and estimated the deposit as being millions of years old. They took various specimens home with them for further study. (The science of Paleontology has to do with the study of the remains of plant and animal life from past geological periods).

Ever since the Gulf of Mexico receded from this part of the continent these oyster beds containing untold millions of fossil shells have been lying there, three and one-half miles east of Forrest City and plainly visible from the bridge.

Exposed for a mile or more at this particular point on Crow creek the oyster bed is a part of an immense deposit of fragmentary oyster shells laid down in a horizontal bed. The exposed banks of the stream disclose masses of shell firmly embedded in a bluish-gray clay in which glisten tiny particles of mother-of-pearl. Stretches of sandy beach along the water's edge are strewn with broken

prehistoric sea shells, some of which were of remarkable size. Whole oyster shells are occasionally found, measuring four inches across the hinge and 12 inches in length. From exposure to the atmosphere and elements most of the shells have become brittle and crumble at the touch or pull apart like wet paper. Oyster shells taken from the Atlantic Coast today between Long Island Sound and Florida are very similar in appearance to these shells which contained living organisms millions of years ago.

The shell deposit at Crow creek has a thickness of five feet and extends for considerable distance back into the bank. A similar deposit was reported found at a depth of 250 feet in a well dug at Forrest City.

Whence came oyster beds in Eastern Arkansas?

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Fresh water streams from the North flowed into this embayment, which covered all the land now known as the Gulf Coastal Plain in which are now included Florida, Mississippi, Louisiana, the southern half of Georgia and Alabama, Eastern Arkansas and parts of Texas and Oklahoma. As the Gulf waters receded southward, the clay beds were exposed and became dry land, and the hardened sediment contained the remains of various forms of marine life.

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ridge as an embayment. During the Glacial epoch either fresh water borne debris from the glaciers, or wind borne debris covered Eastern Arkansas with the so-called loess which caps Crowley Ridge. All but the Ridge capping was removed by south flowing drainage.

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