

Mineral Survey

Began Tuesday
3-13-38 Hot Spring Co.

Rex E. Moon and Louis M. Hannum arrived in Malvern Tuesday to begin a mineral survey of Hot Spring county.

These surveys, state-wide in scope, are under the supervision of the Works Progress Administration, thru sponsorship of the Arkansas Geology Survey. Floyd Sharp, State WPA administrator, said yesterday that the surveys began in 31 counties.

Headquarters for the project, one of the largest white collar projects ever undertaken by the WPA, will be at 117 Victory street, Little Rock. Purpose of the project 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."

A total of 450 workers will be employed in the 31 counties. The work will be extended to include 55 counties later, Mr. Sharp said. Total employment in all counties will be 600 with approximately 15 workers to each county.

Supervisors for the counties were selected by Mr. Sharp with the cooperation of Kenneth O. Warner, state personnel director, and Dr. George C. Branner, state geologist. A two-weeks school was conducted and persons with the highest grades were selected, Mr. Sharp said.

MINERAL SURVEY OF HOT SPRING COUNTY BEING MADE Hot Spring Co. May-1938

The State Mineral Survey, sponsored by the State Geological Department, has an office in the County Judges office in the Hot Spring County courthouse.

A complete survey is being made to locate, measure, estimate, describe, test, and map all accessible resources of the county, to determine their adaptability for economic use. The surveying crew is now operating in T3S R17W. Any person owning property in this township who is interested in having a complete survey made of their property, or anyone having knowledge of any certain metallic mineral test hole or outcrop they would like to have tested, please notify Louis M. Hannum, County Supervisor of the Survey.

Work on State Sanatorium To Start Monday

Malvern Daily Record
10/13/38

Construction on Arkansas' largest new Public Works Administration will begin Monday when dirt starts flying at Booneville on additions to the Arkansas State Sanatorium. The total estimated cost of the extensive improvements to be made at the sanatorium is \$2,320,000. The PWA allotment for the project is \$948,071.

PWA officials this week approved the awarding of contracts for construction of the first unit of the project, the main hospital building which will be five stories high and will accommodate 521 additional patients.

The general construction contract on the first unit was awarded to J. H. Leveck and Son, Little Rock, Ark., on a low bid of \$452,700, and plumbing, heating, and ventilating contract was awarded to the C. Wallace Plumbing Co., Dallas, Texas on a low bid of \$90,090.

Other units to be constructed include a new power plant with boiler rooms, laundry, ice plant, and shop; heating water sewage, and electric distribution systems; two employees dormitories; a nurses home; 12 cottages for employees; a dining hall addition to the present Commons building; a dairy building; repairs to four present structures; equipment; a new patients building; insulation and ventilation of present buildings; a new administration building; and a group of miscellaneous buildings.

The State Sanatorium is used for the treatment of patients with tuberculosis. On completion of the present project it will be one of the largest sanatoriums of its type in the south.

Water of Prime Importance To New Industries

Hot Spring Co. 4/17/39

Tests of Arkansas Water
Aid In Securing New
Industries To Locate Here

The industrial development of a region may be either materially advanced or seriously retarded because of the quantity and quality of surface and ground water supply.

Ground water conditions are influenced by the physical character of the soils and bed rocks. The two provinces into which the State of Arkansas is divided—the highland and lowland sections—are examples of different types of soil and rock formations. In the highland section the water producing horizons consist of sandstones, limestones, dolomites, shales, chert, river bottom gravel, or sand and gravel beds. In the lowland section the water bearing beds consist of silt, clay, sand and gravel, and are usually more productive than are the rocks of the highland area.

The quality of the water available for human use in any locality is of paramount importance to the well-being of its inhabitants, but because water is acceptable for domestic purposes it does not necessarily follow that it is acceptable for certain industrial uses also.

Industrialists of today investigate the water situation of potential locations for their plants. The mineral content of some water prevents its use in the manufacture of certain products because of the chemical reaction of the material to be made up. The quality of the water available is also a factor in the operation of hospitals, sanatoriums, railroads, laundries and dye houses, chemical plants, ceramic industries, to mention a few.

The popular idea that because a spring flows "sparkling cold water" necessarily means that the water is fit for human or industrial use is as erroneous as are many other popular beliefs.

Surface waters are always susceptible to bacterial pollution from surface drainage. The water from shallow wells along or near stream beds in the coastal plain of low land is sometimes rendered unsafe for drinking for this reason.

The WPA mineral survey is investigating the water wells and springs of the State as well as its commercial minerals. Samples of water for analysis are taken from all parts of every county in which the survey is being made. In order to make the necessary analysis of minerals and waters and the testing of clays, a laboratory had been constructed in Little Rock at the west end of the old penitentiary in the southwestern part of the city.

In addition to this central laboratory the mineral survey is installing field stations in many counties where a partial analysis will be made of county water samples. Tests are made for carbon dioxide (the excess presence of which causes pipe corrosion), chlorides, iron, and for hardness.

At the present time water testing stations are operating in Jonesboro, Craighead County; Mountain Home,

Stone County; Mena, Polk County; Waldron, Scott County; Marshall, Searcy County; Camden, Ouachita County; Danville, Yell County. Other counties have signified their intention of sponsoring testing stations at an early date.

The advantage of sampling the water of wells and springs and of having them tested without delay is that test for carbon dioxide should be made as soon as possible after taking the sample, or within 18 hours.

In the course of sampling the water of wells and springs the County Supervisor in charge selects representative water specimens from all parts of his county for further analysis at the Little Rock laboratory where 15 additional tests will be made. These are for total solids, alkalinity, total iron, aluminum, calcium, magnesium, sodium, potassium, manganese, sulphate, phosphate, nitrate, zinc, lead and total hardness.

The cost to the county sponsoring a water testing station is about \$50, covering the cost of equipment and chemicals. The county also provides a location for the plant at some point

convenient to the town where the County Supervisor has his headquarters. The station is under the direction of the County Supervisor, who selects a member of his crew to make the tests, the latter receiving instruction in the standard method of water testing at the laboratory in Little Rock.

The field workers make an accurate record of the exact location of each well and spring from which samples are analyzed. This record is attached to the sample until the analysis is completed, when the record of the result is attached to the field report and filed in the office of the State Geological Survey. This reference matter pertaining to the quality and quantity of the water in the different parts of the State will be a valuable addition to previous compilations on the water wells of Arkansas, the last of which "Lists of Arkansas Water Wells" was issued by George C. Branner, State Geologist, in 1937.

The new information collected will be available to the public and will be of especial value in supplying data to those who intend to use ground water for industrial use.

The State Mineral Survey is under the direction of Robert C. Beckstrom, State Supervisor, with offices at 117 N. Victory Street, Little Rock, R. E. Vandruff, Technical Supervisor, is head of the laboratory in Little Rock; he also superintends the installing of field water testing stations and gives instruction for their operation.

Hot Spring