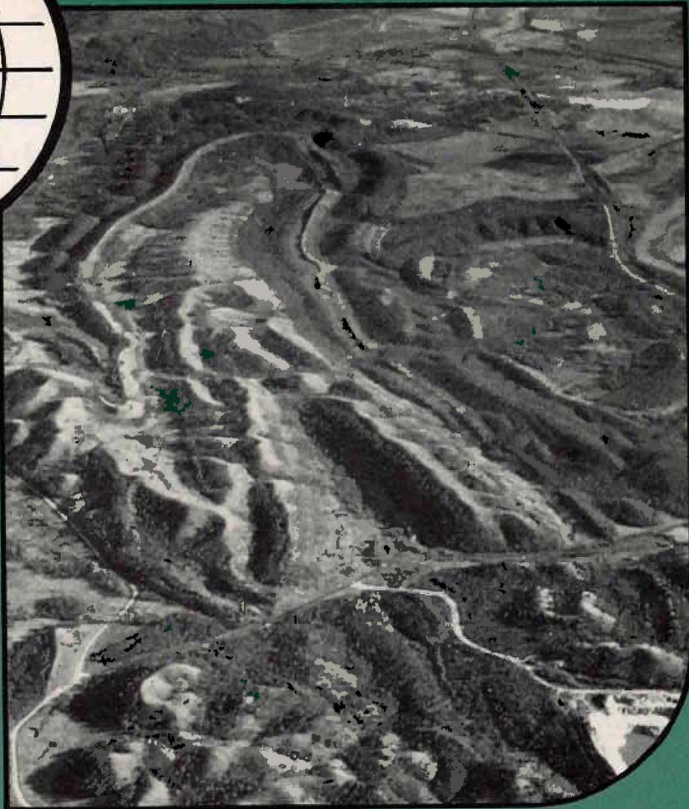
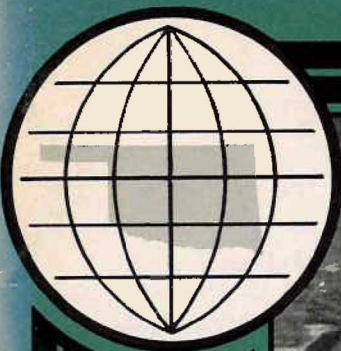


DON L. HART



# OKLAHOMA GEOLOGY NOTES

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## Cover Picture

### DOUGHERTY ANTICLINE, ARBUCKLE MOUNTAINS

The cover photograph is an aerial view of folded Paleozoic rocks, looking southeastward toward the town of Dougherty, in the north-central part of the Arbuckle Mountains in southern Oklahoma (Tps. 1 and 2 S., R. 2 E., Murray County). The major plunging fold, in the center, is the Dougherty anticline, which exposes rocks ranging from the upper Simpson Group of Middle Ordovician age to the Sycamore Limestone of Early Mississippian age. The dome structure to the right (southwest) of the anticline is variously known as Vines dome or Scotts dome; a small oil field produces along its crest.

Thousands of geology students from The University of Oklahoma and numerous other universities have taken field trips to the Arbuckle Mountains to examine textbook examples of structural geology. In fact, many professional geologists throughout the world received their early training in field methods in this area, and no doubt the photograph will call to mind fond memories of their undergraduate years.

The photograph was taken on November 25, 1973, at 4:30 p.m., at an altitude of 7,500 feet above sea level. The photographer must extend credit to the aircraft's pilot, Glenda L. Cannon, for her expert positioning of the craft, which made possible this view down the anticline's axis.

—*P. Jan Cannon*

Editorial staff: William D. Rose, Rosemary Croy, Elizabeth A. Ham

**Oklahoma Geology Notes** is published bimonthly by the Oklahoma Geological Survey. It contains short technical articles, mineral-industry and petroleum news and statistics, an annual bibliography of Oklahoma geology, reviews, and announcements of general pertinence to Oklahoma geology. Single copies, seventy-five cents; yearly subscription, \$3.00. All subscription orders should be sent to the address on the front cover.

Short articles on aspects of Oklahoma geology are welcome from contributors. A set of guidelines will be forwarded on request.

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## New Mexico Symposium on Base Metals and Fluorspar

A symposium and field trip to study base-metal and fluorspar districts in New Mexico have been planned for May 22-25 by the New Mexico Geological Society. Headquarters will be the Vagabond Motel and the New Mexico Institute of Mining and Technology, Socorro.

Following registration and the society's business meeting on Wednesday evening, May 22, sessions on Thursday and on Friday morning will cover base-metal districts of southwestern, south-central, and central New Mexico. A session on New Mexico fluorspar districts is scheduled for Friday afternoon. Spencer R. Titley of the University of Arizona will speak at the society's annual banquet on Friday evening.

On Saturday, May 25, Charles E. Chapin and several colleagues will lead a trip to the Magdalena mining district to study Paleozoic and Cenozoic stratigraphy, structural and magmatic history, hydrothermal alteration, and base-metal deposits.

For further information on the meeting, contact Dr. Chapin at the New Mexico Bureau of Mines and Mineral Resources, Campus Station, Socorro, New Mexico 87801.

## Texas to Sponsor Colloquium on Environmental Geology

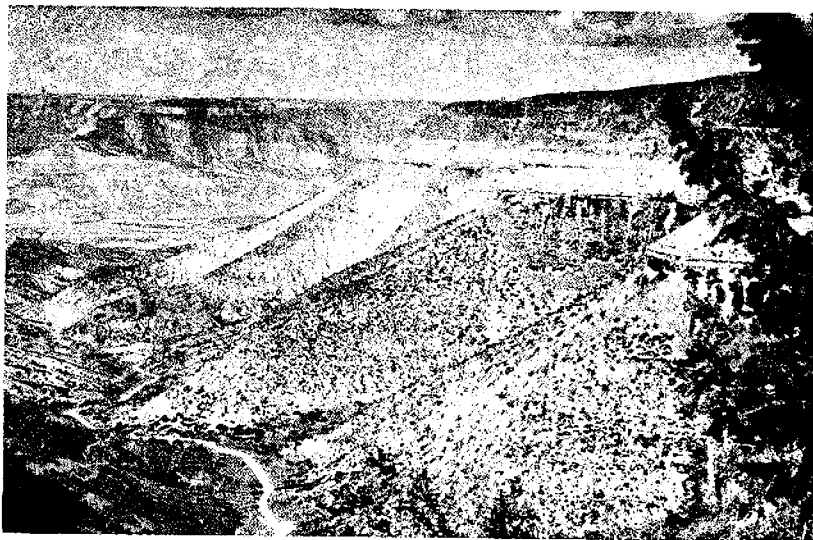
"Approaches to Environmental Geology" is the title of a colloquium and workshop to be held May 13-14 under the sponsorship of the Texas Bureau of Economic Geology. In the form of oral presentations, workshops, and a panel discussion, the 2-day meeting will be held at the Thompson Conference Center, LBJ Library Grounds, on The University of Texas campus in Austin.

Study areas range from an entire state to a small community. Examples will include results and work in progress in flat, rolling, and steep slopes; igneous-metamorphic, carbonate, and sandstone-mudstone bedrock; coastal, fluvial, eolian, and ground-water recharge processes; arid, semiarid, humid, and subtropical climates; desert, prairie, forest, and wetland floras; cities, seaports, and rural areas; and land use for forest, mining, and recreation.

The first day's sessions will focus on a geologic perspective of the environment and on comprehensive environmental analysis; the second day's sessions will cover mapping and monitoring critical environments plus environmental inventories. The meeting will conclude with a panel discussion by three officials of the Texas state government, who will explain the usability of studies on environmental geology.

Registration for the colloquium and workshop will cost \$25.00, which includes attendance at all functions as well as a bound publication of papers presented at the sessions. Because of space limitations, registration is open to a maximum of 250 participants. Further information can be obtained by writing E. G. Wermund, Bureau of Economic Geology, The University of Texas at Austin, Box X, University Station, Austin, Texas 78712.

## OU Offers Summer Energy-Fuels Field Course



Cliff exposures in Piceance basin.

Petroleum deposits, oil shales, coal, asphaltic sandstones, uranium ores, and examples of operations in stimulating production of natural gas through underground nuclear explosion—all are available for study in one relatively small area of western Colorado and eastern Utah. The area encompasses the Piceance basin, the Uinta basin, and the Uravan mineral belt. Scenic sites offering excellent exposures for study include the Colorado, Dinosaur, Black Canyon of the Gunnison, and Arches National Monuments.

This study area, which surrounds Grand Junction, Colorado, will be the locus of the Energy Fuels Field Course and Workshop sponsored by the School of Petroleum and Geological Engineering and offered July 29-August 16, 1974, by Kenneth S. Johnson, economic geologist with the Oklahoma Geological Survey and visiting assistant professor of geology and geological engineering at The University of Oklahoma.

The course, also led by Dr. Johnson in 1973, was initiated and directed from 1969 through 1972 by the late Carl A. Moore and has always proved interesting and rewarding to the participants. Much of its success derives from informal discussion and instruction by various professionals actively engaged in production.

For information concerning enrollment and expenses, contact Dr. Johnson at the Oklahoma Geological Survey, The University of Oklahoma, Norman, Oklahoma 73069 (phone 405/325-6541 or 325-3031).

## New Regional Geologists Announced by USGS

Three new regional geologists have been named to coordinate geological investigations in the western, central, and eastern United States for the U.S. Geological Survey.

Oklahoma, in the central region, will be served by Ralph L. Erickson, a native of Egan, South Dakota. Dr. Erickson joined the USGS in 1951 and has studied the "red-bed" copper deposits and uranium deposits of the Southwest as well as the geochemistry of titanium and niobium deposits of Magnet Cove, Arkansas. Dr. Erickson will direct the central region from Denver.

The other regional geologists are David L. Jones, Menlo Park, California (western region), and Eugene H. Roseboom, Jr., Reston, Virginia (eastern region).

In announcing the new posts, Richard P. Sheldon, USGS chief geologist, said that the redefined positions will permit a closer, more meaningful liaison between his office, the regional geologists, and the state geologists, thus promoting a more responsive relationship between the USGS Geologic Division and the state surveys. He explained that the regional geologists will have broad responsibilities for review and analysis of Geologic Division programs in the context of regional needs and will make recommendations relating to planning and operations in the regions directly to his office.

## New Theses Added to OU Geology Library

The following M.S. theses have been added to The University of Oklahoma Geology and Geophysics Library:

*A Geological and Engineering Study of the Mustang Pool, Canadian County, Oklahoma*, by William W. London.

*Determination of Amounts of Igneous, Metamorphic, and Sedimentary Rocks Exposed on the Earth's Land Surface*, by Richard Lewis Jones.

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