cant scale. And his plan is in our historic tradition of development

through private enterprise. Without objection, I will direct that the text of the proposed regulations and the announcement of their publication be set forth at this point in the record of these hearings.

(The documents referred to follow:)

[From the U.S. Department of the Interior, Office of the Secretary, May 7, 1967]

PROPOSED REGULATIONS TO GOVERN OIL SHALE LEASING AND LAND EXCHANGES ANNOUNCED

Regulations which would permit a limited area of oil shale lands to be leased for research and development, and others to be exchanged, under conditions designed to protect the public interest are being proposed by the Department

"We sincerely hope that these proposed regulations, being published in the of the Interior. Federal Register, will receive the widest possible range of comment from the general public, members of Congress, industry, the scientific and educational community and the three States most directly involved," Secretary of the Interior Stewart L. Udall said. He promised careful consideration of all comments before any rules are officially adopted.

The proposed leasing rules were drafted under authority of the Mineral Leasing Act to implement Point 3 of a five-point overall program announced by Udall January 27 to promote the recovery of shale oil and associated minerals from the rich Green River Formation in Colorado, Wyoming and Utah.

Most of this land is Federally owned, and administered by the Interior De-

partment's Bureau of Land Management. The third point of the comprehensive program calls for procedures to permit the Interior Department to consider applications for provisional development leases of oil shale lands. In testimony before a committee of the Senate recently, Udall described this point as "at once the most difficult and most crucial, since it involves the first experimental and limited steps toward opening the shale reserves to actual development."

Known oil shales in the three States are estimated to contain the equivalent of approximately 70 times the nation's proved reserves of crude petroleum. In some locations they are intermingled with substantial quantities of minerals

containing sodium and sodium-aluminum compounds. No more than 30,000 acres in all would be involved in the leasing program under the newly proposed rules. About 11 million acres are classified as containing oil shale land in the three States. About 5.1 million of these acres—some 3.7 million of them Federally owned—contain "15-15" shales—that is, shales at least

15 feet thick which would yield at least 15 gallons of oil per ton.

The richest shales are believed to be in the Piceance Creek Basin of Colorado, where some 770,000 acres contain 25-gallon-per-ton shale in thicknesses of 15 feet or more. About three-fourths, or 580,000 acres, are Federally owned. Thus, 30,000 acres would represent only slightly more than 5 percent of the federally owned shale lands in this area. However, areas to be designated for leasing will be selected by the Department in order to encourage research on a variety of shale conditions, and will not be limited to the richest areas.

Development leases, the Secretary emphasized, would involve two distinct phases. The first phase—limited to 10 years—would require the contractor to expend research and development funds on relatively small acreages. The aim of the Department would be to encourage a variety of approaches leading to a technology which could support a broadly based competitive leasing program, the

The second phase, reached only when the Secretary finds research work has Secretary said. proved successful, would make available to the lessees acreages large enough to sustain a commercial operation of specified capacity for as long as mineral products are produced in paying quantities. However, under the terms of the Mineral Leasing Act of 1920, no lease may exceed 5,120 acres, and not more than one lease may be granted to any one person, association or corporation.

Leases all would expire at the end of their research periods unless the Sec-

retary of the Interior authorized commencement of the commercial production