

# An O. U. book on oil production

A PROFESSOR DESCRIBES MODERN TECHNIQUE  
USED FOR GAS AND PETROLEUM PRODUCTION

THE University of Oklahoma's reputation as a center of education in the field of petroleum and geological engineering is being raised another notch by the publication of a comprehensive book covering practically all phases of modern oil field development and production.

The book, written by Wilbur F. Cloud, '25as, '26ms, associate professor of petroleum engineering, is a forthcoming publication of the University Press.

In less than a century, American civilization has changed from one in which petroleum was merely a curious freak of nature to one in which petroleum is a vital every-day necessity. Mr. Cloud's book, *Petroleum Production*, sketches the history of the industry and goes into detail concerning actual production methods.

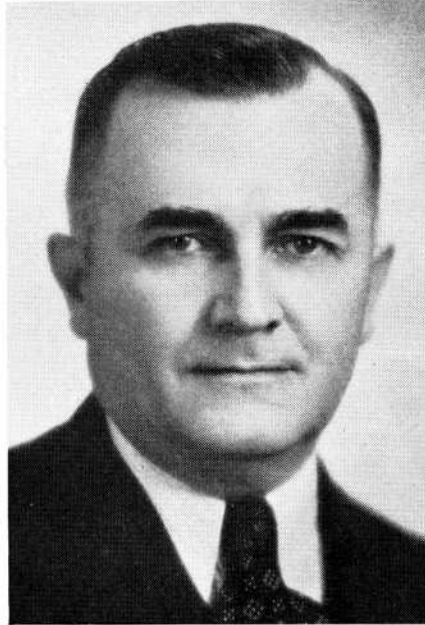
*Petroleum Production* contains enough information on legal problems to acquaint the average individual with the preliminary details of acquiring rights for oil and gas exploration.

A detailed discussion of the production of natural gas and oil is presented in the book, with special emphasis on methods of preventing waste. In addition to a comprehensive discussion of the various factors involved in the proper drilling, completion and operation of oil and gas wells, the book contains data on all phases of lease operation.

The subject matter is profusely illustrated by 280 figures and drawings. Seventy-five tables present practical engineering and production data.

An excellent bibliography is listed at the end of each chapter. Frequent reference is made to the recommended oil field practices of the American Petroleum Institute, the United States Bureau of Mines, and the Petroleum Division of the American Institute of Mining and Metallurgical Engineers. These two features amplify the usefulness of the book for the student, the petroleum engineer, or the oil company executive.

The major subjects reviewed and discussed in this volume are: legal phases of leasing and operating, the nature and characteristics of oil sands, structural geology and field development, unit operation of oil pools, oil field power and prime movers, methods of completing wells, flowing and gas-lift wells and methods of increasing their efficiency, sur-



Wilbur F. Cloud

face equipment for producing oil and gas wells, methods and problems of pumping, cleaning and reconditioning old wells, repressuring oil sands, treating emulsions, oil and gas well water problems, storage, evaporation and other problems of storage, and the reduction of physical and economic oil field waste.

Mr. Cloud has had extensive drilling and production experience in the oil fields of North Texas, Texas Panhandle, Southern Texas, and the Seminole region. He is a member of the Production Division of the American Petroleum Institute, the American Association of Petroleum Geologists, and Sigma Xi, honorary society for promotion of research in science.

He has contributed various articles to trade journals, such as the *Oil Weekly*, *Petroleum Engineer*, and the *Oil and Gas Journal*, and is co-author of Oklahoma Geological Survey Bulletin No. 43, *Oil Sands and Production Ratios*.

The publication of this book emphasizes the increasing importance of technical knowledge in oil and gas production.

For many years after the drilling of the first premeditated commercial oil well in Pennsylvania in the 1850s, the process of drilling for oil was a very crude one. This first well, which was superintended by E. L. Drake, a former railroad con-

ductor, was only 69 feet deep. But it produced about 25 barrels a day and a mad rush and wild speculation for leases resulted.

Subsequent drilling followed the trails where oil had previously been encountered in salt wells in Pennsylvania, West Virginia, Ohio, New York, Tennessee, and Kentucky. By the end of 1860 a total of 84 producing wells had been drilled, and the price had been reduced from about \$40 a barrel to 5 cents a barrel. Principal demand for oil at that time was for medicinal oil, lubricants, paraffin and lamp oil (kerosene).

Petroleum was known to exist near Chelsea, Indian Territory as early as 1889, but there was little development until 1903. The famous Glen Pool near Sapulpa was brought into production in 1906 and since that date the increase in total Oklahoma recovery has been amazing. In 1927 the state took first place in production in the United States.

With the increasing demand for petroleum occasioned by the invention of the gasoline engine, new methods of oil exploration and recovery came into use. The first American use of geophysical instruments was in Texas in 1917. The Eotvos torsion balance aided in the discovery of a salt dome in Texas in 1924. Also, about this time, micropaleontology, micromineralogy, and airplane photography lent aid in correlating formations and in structural study.

Since the advent of crude cable-tool equipment used by the Ruffner brothers in 1880, vastly improved but fundamentally similar designs have been used to drill beyond 7,500 feet.

In 1901, Captain Lucas used a single rotary rig to drill a salt dome well at Spindletop, Texas. Since that time rotary drilling has been improved until it can now be used to complete wells at a depth of 12,000 feet or more. Within the last decade both types of drilling equipment, as well as virtually all forms of production methods, equipment, and devices have been improved to keep pace with a better understanding and a more technical analysis of the operating conditions to be encountered.

*Petroleum Production* presents an up-to-date summary of the best available knowledge in this field.