characteristic of the epizone, and its effects increase as the quartz diorite is approached. The oil originated in the westerly extending Tertiary sedimentary basin and migrated into the pore and fracture spaces of the structurally higher schist. Its accumulation apparently is unaffected by the type of schist, but is governed by the degree of metamorphism, fracturing, and the control of several large faults.

7. "Examples of Electrical Logs in Fractured Rocks," R. D. FORD, Schlumberger Well Surveying Corporation, Long Beach, and MILTON E. LOY, Bakersfield.

A discussion of electrical logs in fractured rocks is of interest in this symposium because, to the geologist and engineer, not only does a fractured rock reservoir require a different interpretive technique, so also does the electric log. Inasmuch as the electrical characteristics of basement rocks, fractured shales, and cherts may all be similar, all are referred to as fractured rocks.

Slides are shown illustrating the following areas:

Santa Maria cherts	Elk Hills chert and shales
Edison schist	Newport Beach—fractured shales
Maricopa shales	Wilmington schist

These illustrations show that there is apparently very little correlation between resistivity and production. This apparent lack of correlation may be attributed to the fact that the physical characteristics controlling resistivity are not necessarily the same as those which control production.

8. "Summary Remarks Concluding the Symposium on the Occurrence and Production of Oil from Fractured Rocks in California," ROLLIN ECKIS.

9. "Summary of Geology and Exploration in Sacramento Valley," W. E. MCKITRICK, Shell Oil Company, Sacramento.

Summarizes the stratigraphy and structure of the gas fields in the Sacramento Valley, with a summary of statistics on distribution and results of exploration. Slides show location of fields, selected type logs to illustrate stratigraphy and seven regional geologic sections.

10. "Summary of Geology and Exploration in Salinas Valley," J. E. KILKENNY, Chanslor-Canfield Midway Oil Company, Los Angeles.

Intermittent unsuccessful exploration for oil has been carried on in the Salinas Valley for 50 years. A favorable sedimentary section of both source and reservoir beds has prompted a periodic renewal of wildcat drilling, the most recent of which was undertaken in 1946 and is still in progress. The general stratigraphy and structure of the basin are reviewed and some exploration statistics presented. Recent wells drilled have shown that the Vaqueros sand is less extensive than originally thought. In addition, new light has been thrown on the King City fault, revealing two periods and types of movement and indicating that B. L. Clark's fault-block theory of the origin of present-day structural features may be valid in this particular area.

11. "Oil and Gas Prospects of Washington and Oregon," HAMPTON SMITH, consulting geologist, Los Angeles.

After many years of nearly complete quiescence, scientific prospecting for oil and gas in Washington and Oregon entered a period of accelerated activity during the war, which activity will probably continue for several years.

The area of interest included several non-contiguous districts in a region 400 miles long and 100 miles wide, covering most of western Washington and Oregon. Operators have carried out extensive projects of surface mapping and seismograph work in one or more of these districts and more than 15 wildcat wells were drilled or are drilling. No commercial production has been developed but some encouraging showings of oil and gas have been reported and much of new geological information has been obtained.

A brief outline of the geology of western Washington and Oregon is presented and an attempt is made to evaluate the prospects of this territory in light of the data obtained in the current exploration cycle.

12. "Relative Cost of Finding Oil in California," GRAHAM B. MOODY, Standard Oil Company, San Francisco.

Statistics indicate that the cost of finding oil in California is not by any means a fixed quantity but fluctuates between wide limits. The variables that affect finding costs are discussed.

13. "Prospecting for Petroleum," E. DEGOLYER, A.A.P.G. distinguished lecturer, Dallas, Texas.

A critical examination of the theories of oil occurrences from the time of announcement of the anticlinal theory to the present. The outlook for prospecting in the United States is discussed and the effectiveness of current exploration procedures considered on a quantitative basis.