

and laboratory courses, is still the most important background for which industry looks in the selection of professional geologists.

Employment demand for geologists will exceed the supply of graduates from universities over the next three years. Already major oil companies are exceeding their normal search for geologists with five or six years of experience. It can be expected that competent, experienced geologists, who have swelled the ranks of the unemployed during the past five years, will again find their professional services needed in the near future.

October 8, 1962

Don Franks, Mid-Continent Map Company, Tulsa, Oklahoma

"How to Obtain the Maximum Information From Your Abstract Map

October 15, 1962

Frank B. Counselman, Consultant, Abilene, Texas

"Migration and Accumulation of Natural Gas"

Abstract

Natural gas is now being sought independently of petroleum because of current market conditions. It is therefore appropriate to review our exploration methods to determine whether gas may not deserve its own specialized techniques.

Associated gas reserves will continue to share in the results of oil and gas exploration and development. However, non-associated reserves, which either have never been associated with oil or have dissociated themselves from oil, appear to justify specific study.

Natural gas may originate entirely apart from oil. Significant data on methane, the principal constituent of gas, are available from coal mines, and from metal mines cutting carboniferous sediments, as regards both origin and behavior.

Gases originating concurrently with crude oil may separate by virtue of important physical and chemical differences between the two fluids. Migration need not always be over long distances; there are many examples of commercial gas fields caused by short-range segregation.

New field discoveries in unlikely reservoirs, re-study of the old carbon-ratio idea, and information obtained from the formation of artificial gas caps by underground storage, suggest that gas-finding may involve more than normal oil-finding criteria. We may need to develop new definitions of what is a source rock and what is a reservoir. Our ideas of prospective territory and our methods of prospecting can stand review. Techniques for detection and recognition of gas reserves when drilled can stand improvement. There is adequate gas still in the ground awaiting discovery to take care of our needs for the near future, if the political and economic situation gives us an incentive to find it.

October 22, 1962

B. W. Beebe, Consultant, Boulder, Colorado

"Let's Take A Good Long Look At Ourselves"

November 7, 1962

Robert S. Dietz, U. S. Navy Electronics Laboratory, San Diego, California

"Continent and Ocean Basin Evolution by Sea Floor Spreading"