

The origin of such sand bodies is determined only from the features of the sand and their associated rocks. These features include size, shape, distribution of the bodies; extent, character, composition of the sand grains; and whatever primary structures are available from cores and outcrop. This paper does not deal with these studies, but several broad generalizations have been made about the origin of the Gardner sand with respect to modern sand deposits.

The modern sand deposit that most nearly approximates the Gardner sand is that of an offshore bar, or some related beach feature.

Several topographic maps showing such features were included in the presentation. These maps show the sand ridges and lenticularity observed in the Gardner sand. However, they differ in one major aspect. The Gardner has a shale facies on each side which is indicative of a marshy lagunal, shallow-water environment, whereas modern offshore bars have only the marshy lagunal environment toward the land. Several incidences are noted where an offshore bar was built seaward from an old offshore bar, causing the old bar to become buried in muds. Also along the Gulf Coast line, there are evidences of a mud-sand-mud sequence being maintained seaward.

Five structure maps and seven cross sections which are based on electric log data were included. Reservoir and production data were also given.

Volcanics of the Texas Coastal Plain Deposits, by Eugene Herrin.

A review of the volcanic sediments in the rocks of Cretaceous and Tertiary age of the Texas Coastal Plain reveals a similarity in composition, and probably in origin, for many of the volcanic ash deposits. Various possible hypotheses of origin were suggested.

The work of several geologists concerning sedimentary volcanics was discussed as to the bearing of such work on the Texas deposits. A description of the bentonite beds found in the Eagle Ford shale was presented, along with the author's results of modal, petrographic, and spectro-chemical studies of these bentonite beds. These examinations showed the bentonite to be fairly pure, to contain no carbonates, small amounts of gypsum (whereas large amounts of gypsum are found in the shale), and flakes of fresh biotite. Spectrochemical analysis showed the bentonite to contain Fe, Ca, Al, Mg, and Ti, with trace-elements of rarer elements.

Possibilities for using bentonite beds as stratigraphic markers were discussed.

Major Geological Features of Northeast Texas, by Carl N. Roberts.

A Regional Description of the Woodbine Formation of Texas, by Marvin Cullum.

The Tularosa Basin, South-Central New Mexico, by William T. Reid.

Note

CYNANCHUM Grayi Shinnners, nom. nov.—*Metastelma Palmeri* S. Watson, Proc. Amer. Acad. 18: 115. 1883. (Emend. Gray ibid. 21: 396-397. 1886.) *Cynanchum Palmeri* (Wats.) Shinnners, Field & Lab. 19: 65. 1951. Not *C. Palmeri* (Wats.) Blake, Contrib. Gray Herb. 52: 83. 1917. (Based on *Pattalias Palmeri* Wats., from Sonora.)—Lloyd H. Shinnners.