ABSTRACTS OF BILOXI MEETING, OCTOBER 24–25

1. HISTORICAL NOTES ON THE GEOLOGY OF MISSISSIPPI, Urban B. Hughes, consulting geologist, Laurel, Mississippi.

Brief summary of the more important historical events in the geology of Mississippi.

2. STRATIGRAPHY AND PETROLEUM GEOLOGY OF BLACK WARRIOR BASIN, MISSISSIPPI AND ALABAMA, F. F. Mellen, Mellen and Monsour, Jackson, Mississippi.

A great triangular area of approximately 35,000 square miles of normal Paleozoic sediments occupies a large portion of northern Mississippi and northwestern Alabama. The Black Warrior Basin, as its extension is herein proposed, is bounded on the east by the southwesterly plunging Appalachian folds; on the south and southwest by the southeasterly plunging Ouachita mountain system; and on the north by the high Ordovician areas in central and western Tennessee. A soft cover of Mesozoic and Tertiary sediments ranges from a feather edge at the Paleozoic outcrop in the northeastern part of the area to around 6,000 feet in central Mississippi. Several hundred test wells have penetrated Paleozoic sediments ranging in age from Cambro-Ordovician to Pennsylvanian. A combined total thickness of sediments penetrated by these wells is about 12,000 feet. Other than a test well in Webster County, Mississippi, which questionably encountered acidic igneous rock, no igneous or metamorphic rocks have been found in the basin. In the Ouachita boundary area south and southwest of the basin, basaltic intrusions of probable Mesozoic age are common in more or less metamorphosed sediments of Paleozoic age. Commercial gas production from Silurian, Mississippian and Pennsylvanian rocks has been insignificant; but the numerous shows of gas and oil, combined with many sharp unconformities and marked lateral lithologic changes, together with many known faults and anticlinal structures, make the Black Warrior Basin one of the large remaining undeveloped potential oil- and gas-producing provinces of the North American continent.

3. SURFACE OCCURRENCE OF CRETACEOUS BEDS IN THE SOUTHEASTERN STATES, Watson H. Monroe, Geological Survey, U. S. Department of the Interior, Washington, D. C.

The Cretaceous sedimentary rocks of the eastern Gulf region crop out in a crescentic band around the southwestern end of the plunging Appalachian Highlands in a belt 500 miles long and up to 75 miles wide. Their maximum thickness at the outcrop is estimated to be about 2,100 feet.

The oldest beds of the eastern Gulf Coastal Plain, the Vick formation, crop out in a small area in central Alabama. The age of the Vick is uncertain, being post-Paleozoic and pre-Tuscaloosa. It is probably Jurassic or Lower Cretaceous.

Above the Vick formation the Upper Cretaceous formations can be correlated fairly closely with the Texas section, the sequence being divisible into several groups of related formations.

The formations equivalent to the Woodbine of Texas include the Cottondale, Eoline, and possibly the Coker formation, the three lower formations of the Tuscaloosa group. These crop out in an arc extending from Marion County in northwestern Alabama to the Coosa River Valley in east-central Alabama.

The formations equivalent to the Eagle Ford formation are the Gordo formation at the top of the Tuscaloosa group and the McShan formation, formerly considered the lower part of the Eutaw formation. These extend from the Tennessee River Valley on the north into Georgia on the east.

The Austin equivalents include the restricted Eutaw formation and the basal formations of the Selma group, the Mooreville chalk and its sandy equivalents, the lower part of the Coffee sand in northeastern Mississippi and southern Tennessee and the Blufftown formation in eastern Alabama and western Georgia.