From the insoluble-residue work done to date, there seems to be a good marker of chalky chert with siltstones disappearing about 15 feet in the porous zone.

RONALD K. DEFORD, geologist, Argo Oil Corporation, Midland: Insoluble Residues in the Whitehorse and Salado of New Mexico.

The author discussed briefly results obtained by Neil H. Wills and others by means of insoluble residues of well cuttings from the Salado salt and the upper Whitehorse dolomite. He also criticized hurried sample examination and the discarding of salt and redbed samples as unimportant.

R. L. CANNON, geologist, Cannon and Cannon, San Angelo: Section Encountered in the Krupp Wells, Hudspeth County, Texas (abstract).

The two wells being drilled by Haymon Krupp Oil and Land Company in Hudspeth County are the Briggs No. 1, located in the northeast quarter of Sec. 24, Block 73, Township 7, T & P Ry. Co. Survey, and the Thaxton No. 1, located in Sec. 34, Block 74, Township 6, T & P Ry. Co. Survey. The Briggs is now drilling below 6,206 feet. It is a projected Ordovician test. The Thaxton is temporarily shut down at a total depth of 6,402 feet.

The surface structure of the area is accounted for by thrust folding and faulting. The Malone Mountains, adjacent to which the Briggs is now drilling, clearly exhibit this structure.

The Briggs well encountered Permian rocks overthrust and resting on Upper Cretaceous shales underneath which there is a normal sequence, including a full section of Comanche (Lower Cretaceous) and Permian strata.

The Thaxton penetrated the Campagrande formation (lower Comanche) overthrust on the Buda formation. Below the fault plane there is a normal sequence including from top down, Comanche, some possible Jurassic and Permian strata.

CARY P. BUTCHER, geologist, Tide Water Associated Oil Company, Midland: Photographs of the Sacramento Mountains.

A series of slides.

FRANK E. LEWIS, consulting geologist, Midland: Position of the San Andres Group, West Texas and New Mexico (abstract).

Stereograms were made of a wide area of the South Permian basin to gain a regional perspective of the upper Permain stratigraphy. Recognized as major structural features are the Val Verde basin, Fort Lancaster platform, Blackstone arch, Cerf basin, San Simon syncline, and Halfway syncline. Structural features were controlling factors in Permian deposition and the stratigraphic phenomena of the Permian basin are related directly to lateral gradation. Surface studies and subsurface work reveal that as a result of this gradation many of the various facies are time equivalents. Unconformities are recognized as the best time markers because of the changing facies. Surface trace reveals that several hundred of Word clastics grade into the Vidrio limestone in the northeastern Glass Mountains. Consequently, the Vidrio is recognized as the upper division of the Word and the Capitan formation is restricted to the reef facies of the Gilliam to conform with its usage in the Guadalupe Mountains. It is proposed to place the base of the Word at a conglomerate about 300 feet below the present base of the formation.

In the Glass Mountains, evidence suggests the Whitehorse unconformity at the base of the Gilliam, and the unconformity at the base of the Word is believed to be equivalent to the unconformity at the base of the El Renos.

The San Andres group is believed by Lewis to be the time equivalent of the Word formation, the lower two divisions of the Delaware Mountain group, and the El Reno group, each of which is separable into upper and lower divisions over a wide area in the South Permian basin. These correlations were later supplemented by paleontologic information which shows that a preponderance of evidence is accumulating that the San Andres group should be placed in the Guadalupe series instead of the Leonard series.

R. T. Cox and N. B. WINTER, geologists, Atlantic Refining Company, Midland: Whitehorse-San Andres Contact on and adjacent to Central Basin Platform (abstract).

Two types of dolomitic limestones are recognized between the basal Grayburg sand and the Glorieta member, each representing a different type of depositional environment and separated by an unconformity. The upper beds are of Whitehorse age and the lower beds are equivalent to the San Andres formation of southeastern New Mexico. The Goldsmith formation was defined in this paper and illustrated by cross sections.

TAYLOR COLE, geologist, University Lands, Midland, and C. M. LINEHAN, geologist, Standard Oil Company of Texas, Midland: Insoluble-Residue Study of the Holt "Pay," Ector County, Texas (abstract).

The Holt "pay" was discovered in the Gulf Oil Corporation's O. B. Holt No. 1 in July, 1939, and is 950 feet below the regular North Cowden pay zone. There has been some controversy as to the age of the Holt "pay." Opinions have varied from Whitehorse to Clear Fork. It is the writers' opinion that the "pay" is middle San Andres in age and is stratigraphically 200 feet below the McKnight "pay" of Crane County and 600 feet above the Tubb "pay" of Crane County.

An interesting comparison is made of various San Andres tops from different companies and their relation with zones below the top of the San Andres are shown. It is the writers' opinion that top of the San Andres is lower than most workers are picking. Three mappable chert zones are found in the San Andres with no appreciable chert occurring above this formation.

JOHN A. BARNETT, district engineer, United States Geological Survey, Roswell, New Mexico: Producing Zones of Eddy County, New Mexico (by title).

W. T. SCHNEIDER, geologist, Honolulu Oil Corporation, Midland: Wasson Pool, Gaines and Yoakum Counties, Texas (by title).