lupe formation is folded into a large, gentle syncline, and all the rocks show a very great number of small folds.

R. A. STIRTON, University of California, Berkeley. The First Oligocene Mammalian Fauna from Northern South America.

Fossil vertebrate remains were found on the northwest limb of the San José anticline south of the Rio Tetuán and approximately 10 kilometers northeast of Chaparral, Tolima, in the upper Magdalena region, Colombia. They were discovered in a thin lense of bone breccia within a blue-gray clay member (La Cira zone) of the Gualanday (Brazalosa) series.

The type La Cira from the middle Magdalena was called upper Oligocene by A. A. Olsson as based on a fresh-water invertebrate fauna. The mammal remains from Chaparral indicate a relationship close to the Deseado lower Oligocene of Argentina.

Tentative faunal list: Chelonian, crocodilian, ground-sloth, toxodont (? *Proadinotherium*), litoptern (? *Prothesodon*), astrapothere (near *Uruguaytherium*), and ? condylarth.

JOHN C. REED, United States Geological Survey, Washington, D. C. Recent Investigations by the Geological Survey of Alaska Petroleum Possibilities.

Because of the acute national situation in regard to oil during the war, the Geological Survey initiated detailed examinations in the summer season of 1944 in a number of the areas that, on the basis of considerable reconnaissance work over nearly half a century were considered most likely to contain petroleum. In 1944 these studies were undertaken in five widely separated localities and similar investigations were continued in 1945. From them and the earlier more general examinations, three large areas are indicated as of most immediate significance. These may be designated as the Gulf of Alaska area, the Alaska Peninsula-Cook Inlet area, and northern Alaska. In each of these regions are a number of structures or other indications regarded as favorable for the possible accumulation of petroleum and that therefore seem worthy of intensive investigation.

In the Gulf of Alaska area the oil possibilities are confined to rocks of Tertiary age. Farther west in the Alaska Peninsula-Cook Inlet region, Jurassic rocks overlie a Triassic limestone that is presumed to be a possible oil source. In northern Alaska, the Navy Department is exploring the oil possibilities of Naval Petroleum Reserve No. 4 that lies in an extensive tract underlain for the most part by gently folded Cretaceous rocks. The Geological Survey is playing a part in the exploration program of the Navy Department.

Much additional information must be gathered before it is possible to estimate in quantitative terms the potential petroleum resources of Alaska. The determination of the value of these latent resources presents a challenge and the prospective returns well warrant tackling the job of determining the pertinent facts.

HORACE D. THOMAS, University of Wyoming, Laramie.
MAX L. KRUEGER, Union Oil Company of California. Late Paleozoic and Early Mesozoic Strata of the Uinta Mountains, Utah.

At the western end of the Uinta Mountains, Triassic rocks rest unconformably on the Permian Park City formation. From the base upward the Triassic rocks are (1) red Woodside shale, (2) marine Thaynes limestone, (3) Ankareh redbeds, and (4) a conglomerate and overlying sandstones and shales. The conglomerate, sandstones and shales were classed as basal Nugget sandstone, Jurassic, by Boutwell (1912), but were excluded from the Nugget (Navajo) by Heaton (1939), leaving them without a name. The Thaynes thins and tongues out eastward, and east of its edge the Woodside and the Ankareh can not be differentiated.

At the eastern end of the mountains, Woodside redbeds rest on the Pennsylvanian