

Adjusted net radiation intensity in counts per second at a nominal 500 foot altitude

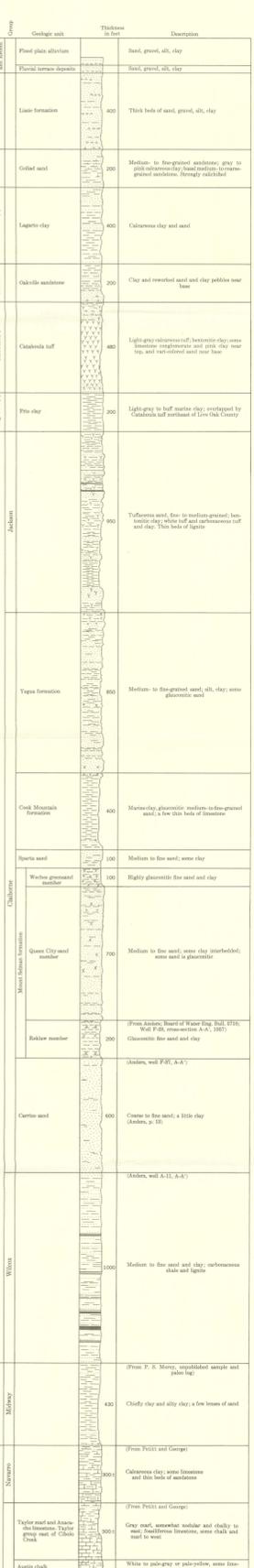


Geology in areas not otherwise designated is from Geologic Map of Texas, 1957. Unpublished aeromagnetic maps indicate unpublished data.



Scale 1:250,000
1 0 10 20 30 40 MILES

GENERALIZED STRATIGRAPHIC SECTION, CRETACEOUS TO RECENT



EXPLANATION

QUATERNARY	QUATERNARY	QUATERNARY
Q1 Fluvial terrace deposits	T1 Jackson group	T1 Jackson group
Q2 Lime formation May include small areas of recent terrace of later age	T2 Yegua formation	T2 Yegua formation
Q3 Gallad sand	T3 Cock Mountain formation	T3 Cock Mountain formation
Q4 Lagarto clay	T4 Sparta sand	T4 Sparta sand
Q5 Olivine sandstone	T5 Mount Solman formation	T5 Mount Solman formation
Q6 Catahoula tuff	T6 Wolfe group	T6 Wolfe group
Q7 Palo clay	T7 Midway group	T7 Midway group
	T8 Navarro group	T8 Navarro group
	T9 Taylor sand	T9 Taylor sand
	T10 Atascosa limestone	T10 Atascosa limestone
	T11 Austin chalk	T11 Austin chalk

LITHOLOGICAL SYMBOLS

Dark	Dark
Light	Light
Medium	Medium
Dark	Dark
Light	Light
Medium	Medium
Dark	Dark
Light	Light
Medium	Medium
Dark	Dark
Light	Light
Medium	Medium

Scale 1:250,000
1 0 10 20 30 40 MILES

INTRODUCTION
In 1956 the U. S. Geological Survey began an investigation of the relation of airborne radioactivity survey data and geologic survey data to the lithology, stratigraphy, structure, and magnetic properties of the Coastal Plain area, southeast Texas. The airborne survey, completed in June 1956, covered an area of about 14,700 square miles. The accompanying map is a preliminary compilation of the radioactivity data obtained in the central part of the area, as shown on the index map.

GENERAL GEOLOGY
The radioactivity data were compiled on a geologic map of the Coastal Plain area. The geologic map was compiled from published and unpublished data. The geologic map was compiled from published and unpublished data. The geologic map was compiled from published and unpublished data.

RADIOACTIVITY MEASUREMENTS
The radioactivity measurements were made with a portable scintillation counter. The counter was used to measure the gamma radiation from the ground. The counter was used to measure the gamma radiation from the ground.

CHARACTER OF THE GAMMA RADIATION
The gamma radiation recorded by the detector along the flight path, referred to here as the gamma count rate, consists of four components: (1) radiation emitted from the upper few feet of the earth's crust; (2) radiation emitted from particles in the atmosphere; (3) cosmic radiation; and (4) radiation from the detector itself.

COMPILED DATA
Radioactivity data were compiled from the gamma count rate. The data were compiled from the gamma count rate. The data were compiled from the gamma count rate.

INTERPRETATION OF DATA
The extent to which useful information can be extracted from the survey data depends directly on the general complexity of the outcrop pattern and the magnetic properties of the rocks. The radioactivity data were compiled from the gamma count rate.

REFERENCES
Davis, F. J., and Reiche, W. W., 1947. Interpretation of aircraft gamma-ray measurements. Nuclear Sci. and Eng., v. 2, no. 6, p. 713-727.
Eagle, D. H., 1957. A preliminary report on the stratigraphy of the radioactivity-bearing rocks of the Coastal Plain area, south-central Texas. Bureau of Econ. Geology, Univ. of Texas Dept. Geol., v. 30, no. 30.

AIRBORNE RADIOACTIVITY AND GEOLOGIC MAP OF THE COASTAL PLAIN AREA, SOUTHEAST TEXAS

By
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Scale 1:250,000
1 0 10 20 30 40 MILES