

HEAVY MINERAL SUITES OF THE NORTHWESTERN SHELF OF THE GULF OF MEXICO

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Bottom samples were taken from the northwestern shelf of the Gulf of Mexico from the mouth of Matagorda Bay on the west to east of Galveston Bay on the east. The sample traverses were radial to the coast and extended from shoaler than 10 fathoms to deeper than 100 fathoms. The samples were taken under a project sponsored by the Geological Society of America and the Woods Hole Oceanographic Institution. Dr. Stetson and Dr. Trask analyzed the samples, and the Massachusetts Institute of Technology and the Woods Hole Oceanographic Institution published the results in "The Sediments of the Western Gulf of Mexico." The statistical parameters, the sorting coefficient and the median, were obtained from this publication.

The heavy minerals in each sample were counted, and their percentages were calculated. The heavy minerals were divided into a high hydraulic equivalent group and a low hydraulic equivalent group. Isoleth maps were drawn for the sorting coefficient, the median of the sediments, the percentage of high hydraulic equivalent heavy minerals, and the percentage of low hydraulic equivalent heavy minerals.

The strike of the lines of the isopleth maps generally paralleled the coast indicating that the zoning of the sediments is parallel to the coast. A corollary existed between sorting and median. As the median increased, the sorting improved. The percentages of the high hydraulic equivalent group increased as the median increased, and there was a corresponding decrease in the percentages of the low hydraulic equivalent group. The conclusion drawn from this is that when the median of a sediment in the area is known an approximate prediction can be made concerning the heavy mineral components of the sample.

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