

the sections are on the south flank of the Uinta Mountains, where 123 measurements were taken. A total of 52 measurements was made at two sections on the north flank of the Uinta Mountains. Linear asymmetrical ripple marks were used exclusively because of their abundance at each section.

Analysis of the paleocurrent data indicates three major current directions during deposition of the Moenkopi: northwest, southeast, and southwest. These are interpreted as representing wave-drift, rip, and longshore currents moving on and along a generally northeast-southwest-trending shoreline that bordered a shallow marine shelf during the Early Triassic.

When the paleocurrent data of the north and south flanks of the Uinta Mountains are considered separately, the average northeast-southwest-trending shoreline of the south flank is interpreted to shift to a north-south trend on the north flank. This gradual shifting of the shoreline trend probably continued into Wyoming where Picard and High found a northwest-southeast trend in the Moenkopi equivalent (Red Peak Formation) in west-central Wyoming. The interpreted shoreline trend parallels the isopach trend of the Moenkopi Formation in northeastern Utah.

Interpretation of shoreline trends leads to the evaluation of the depositional environments, current directions, and paleogeography during the time of deposition. Economic interest in shoreline trend interpretation is high and will continue to be so in the future because of oil and gas exploration efforts.

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#### STRATIGRAPHIC MODEL FOR DISTRIBUTARY CHANNELS, "J" AND MUDDY SANDSTONES, ROCKY MOUNTAIN REGION

No abstract available.

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#### LITHOFACIES VARIATIONS IN GREEN RIVER FORMATION, WYOMING

The Green River Formation of Wyoming is a thick lens of sedimentary rocks which was deposited in a large playa-like complex. These sediments accumulated in three major depositional environments: (1) marginal (siliciclastic sandstone and siltstone); (2) mudflat (marlstone); and (3) lacustrine (oil shale, trona, fossiliferous limestone). In general, the basinward transition of lithofacies is from coarse-grained, cross-bedded, channel sandstones at the basin margins to algal and oolitic limestones to clastic and algal dolomitic marlstones and finally to oil shale and trona at the center of the basin. The lateral intertonguing of these lithofacies and the repetition of large- and small-scale lithologic cycles provide a basis for the reconstruction of the physical, chemical, and biologic evolution of Eocene Lake Gosiute.

Thin, but extensive, algal marlstone units reflect the basinward migration of Lake Gosiute's shoreline during periods of increased aridity. Widespread fossiliferous limestones suggest transgressive shoreline conditions. The occurrence of thin, extensive tuff beds

establishes time-stratigraphic relations among the lithofacies. The correct interpretation of lithofacies changes in a closed basin can be an important tool for locating deposits of rich oil shale, trona, and perhaps oil- and gas-bearing channel sandstone reservoirs similar to those now being developed in the Uinta basin.

#### CALL FOR PAPERS AAPG 60TH ANNUAL MEETING APRIL 7-9, 1975, DALLAS

Papers are being solicited for the AAPG-SEPM Annual Meeting April 7-9, 1975, in Dallas, Texas. Any member of the AAPG or SEPM, or any other person sponsored by a member may submit a title and abstract for consideration by the Program Committee.

By the time of the Annual Meeting, the energy "crisis" will have been with us for almost two years. How well will we have met this crisis? What are the prospects to alleviate it in the future? The 1975 meeting will review the status of our energy requirements, the political and socio-economic problems, and the technical aspects of meeting our needs. Whereas the broad field of petroleum exploration and production is to be discussed, emphasis will be placed on problems concerned with making the United States more self-sufficient in meeting our energy needs. In keeping with this goal, papers are to be presented on (1) new and immature potential areas in the United States, (2) the search for pools smaller than the giants, (3) the potential of secondary and tertiary recovery, and (4) other sources of energy.

The SEPM Technical Program will include both special and general sessions on mineralogy, petrology, paleontology, stratigraphy, sedimentology, geochemistry, and deep-water carbonates.

"Frontiers of Exploration" is the general theme of the Convention, but papers on any subject will be considered. Please send tentative titles and write for abstract forms before August 1, 1974. Address requests for information to the appropriate program chairman: Henry C. Nelson, AAPG technical program chairman, Mobil Research and Development Corporation, Field Research Laboratory, P. O. Box 900, Dallas, Texas 75221; Charles F. Dodge, III, SEPM technical program chairman, Department of Geology, University of Texas at Arlington, Arlington, Texas 76010.

#### CONTRIBUTIONS TO AAPG FOUNDATION FOR MONTH OF DECEMBER, 1973

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