

man of the AAPG research committee symposium. Ralph Edwards, Champlin Oil & Refining Co., Oklahoma City, is field trip chairman.

The SEPM technical program chairman is George A. Sanderson, Jr., Pan American Petroleum Corp., Tulsa. Under his direction, general papers will be as-

sembled and, in addition, there will be a session on "Fossil Populations—Their Relation to Stratigraphy and Sedimentary Environments." Charles Mankin, Director of the Oklahoma Geological Survey, Norman, is preparing the Society's research symposium on "Environmental Aspects of Clay Minerals."

ENFORCEMENT OF AAPG CODE OF ETHICS

AAPG President Michel T. Halbouty announces for interested members that, contrary to reports in some quarters, the Association has on several occasions taken a firm stand in ethics matters. Ethics procedures have been instigated recently at the request of members in at least 6 cases and, in each, the accused tendered his resignation before the hearings were completed, thus terminating the procedures, as provided by the Association's bylaws.

The initiation of ethics procedures requires testimony by an active member, precluding the consideration of serious charges on the basis of rumor as a protec-

tion for the professional and personal reputations of members. One of the primary obligations of Association membership is acceptance of responsibility for the enforcement of the Code of Ethics. Members are reminded that an opportunity to exercise a part of this obligation is given monthly with the publication in the *Bulletin* of membership and certification applications. Every member should, as a matter of habit, carefully scrutinize these lists and communicate to the Executive Committee or the Board of Certification any factual information—not rumors—pertaining to the applications.

PETROLEUM EXPLORATION SOCIETY OF LIBYA EXPLORATION COMPUTING SYMPOSIUM

An Exploration Computing Symposium, organized by the Petroleum Exploration Society of Libya, was held in Tripoli, Libya, November 28-30, 1966. Approximately 200 society members and guests attended. Six of the 10 papers presented were by speakers who travelled to Libya specifically for the symposium. Angus Campbell, president of the Society, outlined the purpose of the three-morning program as both educational and technical. By providing an introduction to computing and a medium for exchange of information, the symposium benefitted both service and oil companies operating in Libya. Fred J. Wagner, chairman of the Exploration Computing Symposium, introduced the program which consisted of three parts: basic computing concepts, geological applications, and geophysical applications.

ABSTRACTS

(In order of presentation)

DAROLD WILSON, World Trade Corporation
(IBM), Tripoli, Libya

BASIC COMPUTING CONCEPTS

Basic computer concepts were presented, and these included the evolution of computers, numbering systems and data representation, stored program concepts, programming languages, operating systems, graphics, and the planning of computer applications. Films on "The Information Machine" and the "IBM 360 System" were shown.

F. J. WAGNER, Esso Standard Libya Inc., Tripoli, Libya

INTRODUCTION TO GEOLOGICAL COMPUTING

Methods, problems, and costs of exploration-data recording, computing, and display were discussed. Computer systems permit explorationists to retrieve data quickly and to apply statistical techniques for relating critical variables to hydrocarbon occurrence. Explora-

tion data processing has two approaches: the *project approach* which applies computing techniques only to specific problems; and the *systems approach* in which all problems with the same or related data are considered within a data-retrieval system.

W. A. READ, Institute of Geological Sciences, Edinburgh, Scotland

SOME GEOLOGICAL APPLICATIONS OF TREND-SURFACE ANALYSIS

Trend surfaces are represented generally by power-series polynomials, fitted by the least-squares method to areal geological data. The technique allows the regional component, represented by the trend surface, to be separated from the local components or residuals. Trend surfaces may be used to predict depths to stratigraphic horizons and to extrapolate data from known to unknown areas. Mapping of residuals can delimit structural irregularities that may have functioned as oil traps.

J. P. HEA AND C. D. CONLEY, Oasis Oil Company, Tripoli, Libya

COMPUTER USAGES IN RECORDING, STORAGE, AND ANALYSIS OF GEOLOGICAL DATA

A standard form for logging lithologic characteristics, porosity, and hydrocarbon shows exemplifies *systematic data-gathering*. This detailed form, used in both desert well-site and laboratory sample descriptions, enables the computer to produce a wide variety of geological maps from data stored on magnetic tapes or disks.

Analysis programs include lithofacies (percentage, constituent, and summary) maps, vertical variability maps, trend-surface analysis, information (entropy) maps, and contouring routines. Data evaluation includes factor and discriminant analysis as well as the more common statistical tests. Economic analysis includes the use of probability and binomial distribu-