WILLIAM V. SLITER, University of California, Los Angeles, California

LABORATORY EXPERIMENTS ON *Rosalina columbiensis* (CUSHMAN)

Various experiments have been conducted on the ecology and biological activity of *Rosalina columbiensis* (Cushman). Light produces no apparent response, except as a secondary response to the main food source utilized, diatoms. Substrate composed of sand appears less advantageous than a fine-grained substrate because of the obstacles to movement, mechanical agitation, and relatively low standing crop. Higher temperatures resulted in a faster growth rate and slightly larger chambers. The relationship of *R. columbiensis* to *Tretomphalus* was proved by the appearance of the agamontic generation possessing the final, large float chamber. These individuals occur within the life cycle of *R. columbiensis* and constitute up to 20 per cent of the total culture population. The "normal" *R. columbiensis* reproduces agamontically until conditions are available to produce the gamontic generation.

J. C. SPROULE, President, American Association of Petroleum Geologists, Calgary, Alberta

PROFESSIONAL CERTIFICATION FOR A.A.P.G.

This paper is a presentation made by the author in behalf of the A.A.P.G. executive committee. It is in effect a recommendation to the business committee and to the voting membership of the A.A.P.G. that a plan for voluntary certification be adopted by A.A.P.G. Under such a plan those eligible members who so desire could be certified by A.A.P.G. as being fully qualified professionally for registration or other recognition by State or similar established authorities.

The paper deals with the reasons for the action currently being taken and the benefits that would accrue to individual members and to the profession as a whole.

The author feels strongly that the A.A.P.G., by virtue of its constitution and code of ethics, and as the only world-wide association of professional petroleum geologists, is the group that is best qualified to certify its own members for professional service to the petroleum and related industries.

The proposed certification procedure is described.

HERBERT J. SUMMERS, University of Southern California, Los Angeles, California

RIPPLE MARKS IN MOTION

Ripple marks on sand dunes were observed by means of time-lapse motion picture photography as they moved with wind in their natural environment. When the film is projected the ripples appear to move rapidly. A wind-velocity meter was arranged to show in some of the pictures enabling instantaneous values to be read and correlated with ripple movement. Various modes of movement are shown including ripples reforming on areas which had been smoothed, ripples changing direction as wind direction changed, and wave lengths changing after the addition to an area of coarser sand.

JOHN M. SWEET, Atlantic Refining Company, Anchorage, Alaska

DEVELOPMENTS IN ALASKA IN 1963

Exploratory drilling decreased to 18 wells this year. Several of these were suspended for the winter and will presumably become active again in 1964.

The most important thing that happened in 1963 was the discovery of oil by Shell *et al.* under the waters of Cook Inlet. Tests indicate that producing capacities of at least 600 BOD are possible. This is the first real encouragement the industry has been insofar as oil is concerned since Swanson River was discovered in 1957.

The second most important thing that occurred was the high level of exploration on the Arctic slope. Five seismic crews operated during the year and a sixth was moving in at year's end. Ten operators did 29 crew-months of surface geology during the summer.

The seismograph continues to be a popular tool in the Cook Inlet where nearly 4 crew-years of work were done. This work undoubtedly will manifest itself at future lease sales and in exploratory drilling.

The Copper River basin seems to be going through a period of renewed interest by drilling, seismograph, and surface exploration. Two wells were completed and a third started. Three seismic crews were active and three operators had surface crews in the basin.

ROBERT A. TEITSWORTH, Occidental Petroleum Corporation, Bakersfield, California

GEOLOGY AND DEVELOPMENT OF LATHROP GAS FIELD, SAN JOAQUIN COUNTY, CALIFORNIA

The Lathrop gas field lies near the city of Stockton at the northern extremity of the San Joaquin basin in an area known as the Manteca arch. The Stockton fault, a large cross-valley reverse fault with a complex structural history, nearly intersects the field's northern margin. Continental Plio-Miocene sediments overlie unconformably a thick series of Upper Cretaceous clastics of mid-valley facies at Lathrop.

Natural gas is trapped primarily in sandstones of Upper Cretaceous "E" zone age as a result of anticlinal folding. Shallow drilling on the Lathrop fold dates from 1937. Discovery of gas occurred 26 years later in October, 1961, with the completion of Occidental Petroleum's "Lathrop Unit A" 1 for an initial rate of 13,550 MCFD. Nine distinct "E" zone reservoirs occur at Lathrop, separated by thin shales. The 3,700-psi zone is the most extensive reservoir, with a productive closure of 2,400 acres, up to 600 feet of relief, and gas-phase pressure continuity through 550 ft. of section.

Thirteen dual-zone and seven single-zone wells have been completed for initial flow rates of up to 42,000 MCFD per well. Individual wells penetrate up to 600 feet of net "pay." Deliveries of gas commenced in January, 1963, and averaged approximately 50,000 MCFD for 1963. Independent volumetric reserve estimates have have ranged from 578 million to more than 700 million MCF.

MARTIN VAN COUVERING, President, American Institute of Professional Geologists, Golden, Colorado

ALL ABOUT A.I.P.G.

A.I.P.G. was formed to fill an important need of all practicing, qualified, professional geologists, regardless of the nature of their employment. Respectable geologists felt a strong upsurge of resentment against the unethical practices of a small number of competent geologists and against untrained charlatans attempting to do geological work. They also felt that geological advice was not being obtained where needed, in many in-